



ehps 19

3 - 7 Sep 2019, Dubrovnik, Croatia

Conference Abstracts



European Health Psychology Society



Hrvatsko  
Psihološko  
Društvo

Croatian Psychological Association  
& its Division of Health Psychology



# Wednesday, 04 Sep

## Symposia

- 9:30 - 11:00 Intervention Mapping – progress in problem-driven health psychology
- Advancing health psychology research: Practical tools
  - Health and well-being in daily life: Novel insights from intensive longitudinal studies
  - SIBS: A cross-cultural project to prevent psychological difficulties among siblings of children with disabilities
- 11:30 - 13:00 Social inequalities and health behaviours: Implications for theory and practice in Health Psychology
- Psychological and social aspects determinants of adjustment across the trajectory of health to illness
  - Using stakeholder engagement and person-based approaches in health psychology research: the benefits and challenges
- 14:00 - 15:30 Novel perspectives on the role of knowledge in health behavior change
- Dyadic processes and health outcomes

## Oral Sessions

- 9:30 - 11:00 Multiple health behaviours and theory-based predictors
- Health issues and quality of life
  - Psychosomatic issues and psychosocial influences on pain-related care
  - Social support and well-being in different contexts
- 11:30 - 13:00 Role of interventions in managing diabetes and cardiac risk
- Parents coping with children illnesses
  - Occupational stress and well-being in health care workers.
  - Adaptation to illness: mechanisms and correlates
  - Stress reactivity and emotional regulation

14:00 - 15:30 Well-Being and quality of life in the context of chronic illness

**Roundtable:** What's practical about Health Psychology? Improving Health Psychology dissemination to practitioners

Eating behavior and weight management in the digital age

Differences between individuals, self-regulation, and risk across the life-span

The contribution of the extended family and the community to children's health

Prevention interventions

## Poster Presentations

15:30 - 17:00 1. Patient education and decision-making

2. Social factors in behavior change interventions

3. The patients' perspective: illness perceptions and representations

4. Positive psychology: The influences of positivity on health

5. Adjustment to chronic disease

6. Stress, adaptation and resilience

7. Health behaviours and theories

8. Behavior change interventions: Children and young people

9. Health behavior and Individual differences in coping and emotion regulation

10. Psychosocial factors in cancer and cardiovascular disease

11. Health behavior interventions in chronic conditions

12. Chronic illness and health care in ageing

13. Social relationships and health in the early lifespan

14. Public health interventions to promote physical activity and healthy eating.

15. eHealth interventions and chronic conditions

16. eHealth and lifestyle behaviours
17. Implementation & health services research: Innovative approaches
18. Innovative methods and tools in occupational health psychology
19. Provider communication and beliefs
20. Challenges, adversity and resilience
21. Medicines and messages
22. Methodology: developing and validating health psychology tools and measures
23. Rapid Communication: Clinical health psychology and relationships with providers

# Thursday, 05 Sep

## Symposia

9:30 - 11:00 The Multiphase Optimization Strategy (MOST): Case examples and considerations in behavioural intervention research

IAAP-Division 8: Individuals' health, behavior and coping: professionals and community-based, participatory approaches to promote individuals' health

11:30 - 13:00 Targeting automatic processes to change eating behaviour

Do we fear what harms us? New perspectives on individual and societal-related risk perceptions

Making healthy choices the easy choice: Redesigning systems and environments to promote health

14:00 - 15:30 Europe's illicit drug use challenges: are health psychological, social and policy responses fit for purpose?

Women's health issues across the lifespan: Identifying risks and opportunities for change

Advancing acceptability research: application of health psychology approaches to inform intervention development and assessment

## Oral Sessions

9:30 - 11:00 **State of the Art:** Managing addiction and chronic pain

Theory-based approaches to understanding physical activity

Managing chronic conditions with digital technologies

Conscious, intuitive and compensatory health behaviors

Health services research: Assessing implementation

Parents and family: Challenges and solutions

11:30 - 13:00 Treatment approaches in chronic illness

Individual differences in emotion regulation

Health services research: Implementation & fidelity

Digital health promotion  
clinical practice

Ageing: Understanding social and psychological diversity

14:00 - 15:30 Managing cancer and long term conditions: Role of interventions

**Roundtable:** Interdisciplinary approaches to health and sustainability  
in low- and middle-income countries

Contemporary issues in work and health

Mechanisms and outcomes of behavior change

Individual differences in stress processes

## Poster Presentations

15:30 - 17:00 1. Health-risk behaviour

2. Behavior change interventions and prevention

3. Individual differences in health perceptions

4. Living with chronic illness

5. Depression, anxiety and PTSD

6. Quality of life at transition points in life

7. Caregiving in personal and professional relationships

8. Food, eating, and weight

9. Behavior change interventions: Healthcare professionals

10. Personality differences, Identity and health

11. Clinical health psychology interventions

12. Recent perspectives on pain, adaptation and medication  
adherence

13. Social support and resilience in adolescence

14. Health issues in pregnancy and infancy and opportunities for  
intervention

15. Self-regulation and health-related behaviors

16. Implementation and health services research: Screening and  
clinical practice

17. Implementation and health services research: Children, parents and providers
18. Digital solutions and youth health
19. Occupational stress and helping professions
20. Methodology: nuanced understanding and new insights
21. Rapid Communication: Pain and chronic conditions

# Friday, 06 Sep

## Symposia

- 9:30 - 11:00 Daily health behaviour in close relationships
- 11:30 - 13:00 Measuring the content validity of psychological constructs and health outcome measures
- Tailoring digital health interventions: different strategies, different effects
- Current challenges in blood and organ donation
- 14:00 - 15:30 Increasing informed uptake of bowel cancer screening: from understanding determinants to testing interventions

## Oral Sessions

- 9:30 - 11:00 Transitions, adversity and inequalities
- State of the Art:** Expanding understandings and developing novel approaches in health psychology
- Roundtable:** Understanding non-reflective behaviour in healthcare professionals to advance implementation research
- Nudging and automaticity
- Well-being and quality of life during life transition periods
- Positive psychology: The influences of positivity on health
- 11:30 - 13:00 **State of the Art:** Caregiving in demanding times
- Communication involving health care professionals
- Health inequalities and sustainable consumption
- Roundtable:** Brief intervention programmes for chronic disease prevention: Health psychology's contribution to implementation and evaluation
- 14:00 - 15:30 Influences on risk perception, communication and understanding
- Understanding risk behaviours
- Roundtable:** The future of Health Psychology: A movement towards societal visibility, global consensus, and international mobility

Diabetes and physical activity  
Social factors and quality of life  
Interventions in clinical health care  
Physical activity, food intake and healthy sleep in families

## Poster Presentations

- 15:30 - 17:00
1. Predicting physical activity and sedentary behaviour
  2. Behavior change interventions for prevention
  3. Understanding chronic conditions and improving outcomes session
  4. Stress management and support interventions
  5. Family support during health and social challenges
  6. Psychosocial correlates of quality of life
  7. Physical and cognitive health in older age
  8. Individual differences and health of young people
  9. Coping and emotion regulation
  10. Psychosocial predictors and correlates of chronic pain adjustment
  11. Eating and activity behaviours: Interventions to address childhood obesity
  12. Structures and practices related to quality of life
  13. Adjustment to health challenges
  14. Coping with chronic illness
  15. The role of social relationships for mental and physical health
  16. Implementation and health services research: Health care professionals and relationships with patients
  17. mHealth and chronic conditions
  18. Social media, intelligent systems and health

19. Occupational health: Psycho-social and policy issues.
20. Stress and health in organizational contexts
21. Health literacy, communication and information
22. Gender and wellbeing
23. **Rapid Communication Symposium:** Understanding intervention effectiveness: analysing potential for change, improving intervention reporting, and using machine-readable decision justifications

# Saturday, 07 Sep

## Oral Presentations

9:30 - 11:00 Stress, mental health and chronic illness

Tobacco control and cancer prevention

Avoiding, detecting and managing illness

**Roundtable:** Developments in evaluating intervention fidelity: Is current guidance fit for purpose?

Personality and interoception

Psychosocial factors in adjustment to serious illness

Environmental and minimalistic interventions

## SYMPOSIUM

# Intervention Mapping – progress in problem-driven health psychology

9:30 - 11:00

Elafiti 1, Valamar Lacroma Dubrovnik

Rik Crutzen, Rob Ruiter

9:30 - 9:45

## Applying theory and evidence for identifying personal and environmental determinants

R. Crutzen<sup>1</sup>, R. Ruiter<sup>1</sup>, G. Kok<sup>1</sup>

<sup>1</sup>Maastricht University, Netherlands

**Background:** Psychology is not only a basic behavioural science but also an applied discipline that is used to solve societal problems. In a problem-driven context, the search for existing literature, the correct application of appropriate theories, and the collection of additional research data are basic tools essential for the systematic development of any intervention.

**Methods:** Core Processes are presented in order to provide empirical and theoretical guidance to planners, thereby focusing on identification of personal and environmental determinants of (health) behaviour related to a target problem.

**Findings:** Processes involved in answering planning questions (e.g., why do people engage in behaviour X?) using empirical data and theory can be complex and time-consuming. This is crucial, however, to prevent incomplete understanding of the problem and attempts to solve the problem based on faulty premises/assumptions. Specific emphasis is put on applying the Confidence Interval-Based Estimation of Relevance (CIBER) to justify selection of determinants and the implications this has regarding selection of behaviour change

**Methods:**

**Discussion:** Using Core Processes minimizes the likelihood of incomplete understanding and selecting ineffective solutions. Core Processes can be used in different phases/steps of intervention planning and within different planning frameworks.

9:45 - 10:00

## Applying theory and evidence for designing effective behaviour change methods

R. Ruiter<sup>1</sup>, R. Crutzen<sup>1</sup>, G. Kok<sup>1</sup>

<sup>1</sup>Maastricht University, Netherlands

**Background:** Psychology is not only a basic behavioural science but also an applied discipline that is used to solve societal problems. In a problem-driven context, the correct application of theoretical methods of change is a basic tool for the systematic development of any intervention. Knowledge of the theoretical conditions explaining the effectiveness of the selected change methods is essential to build effective interventions components.

**Methods:** Core Processes are presented in order to provide empirical and theoretical guidance to planners, thereby focusing on selecting the most appropriate theoretical methods of change to address personal determinants of behaviour change and promote supportive environmental conditions. Specific emphasis is put on translating theoretical methods of change into practical applications by adhering to the parameters for effectiveness of the selected change Methods:

**Findings:** Translating theoretical methods of change into practical applications for use in interventions is complex. It is essential to identify the conditions under which a change method is effective. Methods of change can be identified at the individual level, but also at higher social-ecological levels including the inter-individual, organisational, community, and societal level to change environmental conditions, including methods for program implementation.

**Discussion:** Effective programme planning cannot happen without having behavioural expertise on board. Knowledge of the theory underlying change is essential in selecting appropriate methods to address the identified determinants and the translation of these methods into effective applications.

10:15 - 10:30

## Using Intervention Mapping to co-create with stakeholders an intervention to facilitate return-to-work after breast cancer

G. Broc<sup>1,2</sup>, J. Carretier<sup>1,3</sup>, S. Rouat<sup>4,5</sup>, M. Lamort-Bouche<sup>1,6</sup>, L. Guittard<sup>1,3</sup>, B. Fervers<sup>1,7</sup>, J. Peron<sup>1,8</sup>, L. Letrilliat<sup>1,9</sup>, P. Sarnin<sup>4,5</sup>, J. Fassier<sup>1,10</sup>

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<sup>10</sup>Hospices Civils de Lyon / UMRESTTE, France

**Background:** Returning to work after breast cancer contributes to physical and psychological recovery. The objective of this project is to develop an intervention to facilitate return to work after breast cancer, in close collaboration with the stakeholders involved (patients and associations, workplaces, health professionals and organizations, and institutional partners).

**Methods:** The Intervention Mapping protocol was followed to (step 1) gather an advisory committee and develop the logic model of the problem (12 focus groups and 48 individual semi-structured interviews), (step 2) write matrices with change objectives and their determinants, (step 3) choose theories and methods of change of individuals and the environment, and (step 4) develop the program plan.

**Results:** (step 1) a charter was developed to structure the partnership between researchers and stakeholders; the logic model synthesized a shared vision of the problem; (2) the change objectives were prioritized with the advisory committee ; (3) the theories and methods of change were selected to achieve the maximum number of change objectives; (4) the program plan was developed with tools to mobilize change methods/theories. A "return-to-work passport» was developed to help women identify and communicate their needs to actors of their environment. Guides with decision trees and resources were developed for general practitioners, occupational physicians, and workplace actors.

**Discussion:** The co-construction of the intervention is expected to increase its relevance, acceptability, effectiveness and sustainability. This will not be confirmed until the last two stages of the Intervention Mapping protocol including implementation and evaluation of the intervention.

10:30 - 10:45

## Developing and evaluating a leaflet to promote health behaviour-change using Intervention Mapping

C. Abraham<sup>1</sup>, A.J. Lake<sup>2,3</sup>, J.L. Browne<sup>2,3</sup>, G. Rees<sup>4,5</sup>, J. Speight<sup>2,3</sup>

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<sup>5</sup>Department of Ophthalmology, University of Melbourne, Parkville, VIC, Australia, Australia

**Background:** Content analyses of health promotion leaflets show that they often fail to target cognition change most strongly associated with health-promoting behaviour. Intervention Mapping provides an approach to ensuring that persuasive text (whether in leaflets or web-pages) optimises cognition and behaviour change.

**Methods:** A mixed-methods approach was employed to develop a leaflet to promote retinal screening among young adults with type 2 diabetes (aged 18-39 years) who are at high risk of vision loss from diabetic retinopathy. A literature review and a needs assessment, involving interviews and an online survey, were conducted. Audience-relevant knowledge and cognition targets were identified and mapped to persuasive messaging which was embedded in an engaging print-based leaflet. A pragmatic randomized controlled trial was conducted to test the effectiveness of the bespoke, evidence-based resource.

**Findings:** The literature review highlighted the importance of cognition targets as well as knowledge enhancement. The mixed methods study highlighted salient motivational factors impacting retinal screening guiding tailored, psycho-educational messaging. Trial results indicated that the leaflet increased awareness of retinal screening, an important behavioural enabler. However, power of the trial to assess behavioural impact was curtailed due to low recruitment, high attrition and higher than expected baseline retinal screening.

**Discussion:** This study illustrates the utility of Intervention Mapping during behaviour-change intervention development and highlights the importance of a flexible, tailored approach to intervention development. The study process also raised questions about streamlining the Intervention Mapping development process in healthcare settings.

## SYMPOSIUM

# Advancing health psychology research: Practical tools

9:30 - 11:00

Elafiti 2, Valamar Lacroma Dubrovnik

Marie Johnston

9:30 - 9:45

## The Theory and Techniques Tool: linking behaviour change techniques with their mechanisms of action

S. Michie<sup>1</sup>, R. Carey<sup>1</sup>, L. Connell<sup>2</sup>, M. Johnston<sup>3</sup>, M. de Bruin<sup>3</sup>, A. Rothman<sup>4</sup>, H. Groarke<sup>1</sup>, M. Kelly<sup>5</sup>

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<sup>4</sup>University of Minnesota, United States

<sup>5</sup>University of Cambridge, United Kingdom

**Background:** In the Theory and Techniques project, 92 links and 465 non-links between behaviour change techniques (BCTs) and their mechanisms of action (MoAs) were identified from (i) published reports of behaviour change interventions and (ii) an expert consensus exercise. These need to be systematically tested empirically. The efficiency of this will be maximised by supporting collaboration between researchers and building evidence cumulatively. This is being enabled by a tool to enable researchers and intervention developers to, for each BCT-MoA link, (i) access data about strength of link, (ii) share resources relating to the link, (iii) comment on, ask questions and engage in discussions about links, and (iv) contribute suggestions for collaborative research.

**Methods:** In collaboration with the Human Behaviour-Change Project and a web design company, a matrix with colour indicating type of link and data showing its strength was constructed. The strength was determined by the triangulation of data from the literature synthesis and expert consensus studies. An online, interactive tool for its use was developed.

**Findings:** The tool is a searchable, interactive matrix of 74 BCTs and 26 MoAs resulting in 1924 cells, with type of link represented by different colours. Clicking on a cell displays the study data for each link. Within the tool, there is a user forum where users can share articles, datasets, presentations, media and other relevant resources relevant to the links.

**Discussion:** The BCT-MoA tool has the potential to support intervention designers, researchers and theorists in the development and evaluation of theory-based interventions.

9:45 - 10:00

## The Addiction Paper Authoring Tool (PAT): an online tool for reporting research studies

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<sup>1</sup>University College London, United Kingdom

<sup>2</sup>Independent Consultant, United Kingdom

<sup>3</sup>University of Cambridge, United Kingdom

**Background:** Progress in health psychology is hampered by inadequate reporting of study methods and findings. The journal, *Addiction*, has commissioned a project to improve the situation by providing an online tool to facilitate research study reporting.

**Methods:** The first phase of Addiction PAT is focused on reporting of 2-arm randomised controlled trials. A comprehensive list of the types of information required to be reported was generated from 1) relevant reporting guidelines, 2) other tools and checklists, 3) content analysis of high quality RCT reports in major journals, 4) the Behaviour Change Intervention Ontology (BCIO). Where possible, sets of terms and definitions were created to guide users when providing the information. This information was used to start building an 'addiction ontology' to provide a framework for storing information about studies and study findings. A version of the ontology was used to describe a complex RCT as a test case to establish the feasibility of using it to capture key study information.

**Findings:** A test version of Addiction PAT is available consisting of 36 modules, one for each type of information that needs to be entered, including modules for building research questions, all aspects of methods, the baseline characteristics table and results tables. The tool generates the first draft of a paper from the information provided and stores the information in a structured database that can be published alongside the paper.

**Discussion:** Addiction PAT could significantly the process of reporting studies in the field and create a searchable database for evidence synthesis.

10:15 - 10:30

## Validated measures of mediators of behaviour change: The Science of Behaviour Change Measures Repository

T. Cornelius<sup>1</sup>, J. Birk<sup>1</sup>, D. Edmondson<sup>1</sup>, J. Sumner<sup>1</sup>, L. Derby<sup>1</sup>, K. Davidson<sup>2</sup>

<sup>1</sup>Columbia University Irving Medical Center, United States

<sup>2</sup>Northwell Health, United States

**Background:** The NIH Common Fund's Science of Behavior Change (SOBC) Program promotes a common methodology for studying mechanisms of behaviour change. A standardized method—and standardized measurement—promotes a unified science to advance the field to create more effective behavioural interventions.

**Methods:** One tool currently available to researchers interested in applying the experimental medicine approach is the SOBC Measures Repository (<https://scienceofbehaviorchange.org/measures/>).

**Findings:** The SOBC Measures Repository launched in September 2017, and allows researchers to access and download a variety of assays to use in their own research. There are currently 113 measures available, categorized under three domains: stress reactivity and stress resilience, self-regulation, and interpersonal & social processes. Measures can be filtered by type (e.g., self-report, task), time to complete, age of participant, and other variables. Measures can be proposed to be added and so continue to be uploaded. Furthermore, whether the measure captures a “validated mechanism of change” (i.e., whether a mechanism can be influenced, whether changing the mechanism elicits behaviour change) is documented on the website as it progresses through the stages of the experimental medicine approach.

**Discussion:** SOBC brings together researchers to create a unified science testing mechanisms of behaviour change. The measures repository is a practical tool that facilitates standardization of measurement to create a cumulative science and allows for an examination of hypothesized mechanisms of change across a range of populations and behavioural outcomes. Use of the measures repository to test mechanisms of change thus contributes to the development of more effective and generalizable interventions.

10:30 - 10:45

## Open Science and Health Psychology: towards promoting better research reproducibility, openness and collaboration

D. O'Connor<sup>1</sup>

<sup>1</sup>University of Leeds, United Kingdom

**Background:** Science, and not just psychology, is undergoing a renaissance. It is an exciting time for our discipline, and it is great that psychology has been leading the way. It also represents a real opportunity for health psychology research to improve reproducibility, openness and collaboration. This talk will provide an overview of how (health) psychological science can be improved. The context is prompted by Nosek et al's (2015) Science paper and the recent findings from the large scale Many Labs 2 project that only 14 of 28 classic and contemporary studies replicated and failures to replicate were not attributed to sample diversity. However, in contrast, a promising new paper has been published showing that nine key findings from cognitive psychology have passed a stringent test of replicability.

**Discussion:** Taken together, these findings have substantial implications for how we do health psychological research and how we publish our research as well for how scientific methods are taught to future generations. This talk will also discuss potential solutions offered by the Open Science Framework as well as provide an overview of recent developments in pre-registration, registered reports, data sharing recommendations and the implications for publishing and open peer review.

## SYMPOSIUM

# Health and well-being in daily life: Novel insights from intensive longitudinal studies

9:30 - 11:00

Olipa 4, Valamar Collection Dubrovnik President

Jennifer Inauen

9:30 - 9:45

## Digital generation: How does daily smartphone use affect exhaustion?

K. Schenkel<sup>1</sup>, T. Radtke<sup>1</sup>, U. Scholz<sup>1</sup>

<sup>1</sup>University of Zurich, Switzerland

**Background:** An increasing amount of people uses mobile applications to check news and social media channels. Prior studies indicated that social media applications (SMA) and news applications (NA) are related to higher stress level. However, results are ambiguous with regard to the direction of this relationship. One reason might be that most research relied on cross-sectional data and self-reported smartphone use. Therefore, the aim of the present study was to examine the link between objectively measured daily SMA use, NA use and self-reported exhaustion with an intensive longitudinal Design:

**Methods:** 144 participants (Mage = 34.7, SD = 10.8) reported their exhaustion in the evening during seven consecutive days. Additionally, a smartphone application monitored the daily minutes of SMA and NA use.

**Findings:** Multilevel analyses revealed that daily SMA use was unrelated to the evening exhaustion at the between-subjects level. However, results at the within-subject level indicated, that on days with higher than usual SMA use, participants reported less exhaustion. Regarding the NA use, analyses showed no association with exhaustion at the between- or the within-subject level.

**Discussion:** Potentially, these results could corroborate the buffer hypothesis as the use of SMA could be interpreted as social support helping to buffer exhaustion. As these are same-day analyses in an observational study, however, causal inferences are not possible. Future research should consider the relationship between SMA use with additional markers for exhaustion (e.g., cortisol). Overall, the present study contributes to the extant literature by taking an objective measurement and intra-individual differences into account.

9:45 - 10:00

## Acute Physical Activity is Associated with Lower Subsequent Cortisol Levels in Older Adults

C. Hoppmann<sup>1</sup>, T. Pauly<sup>1</sup>, V. Michalowski<sup>2</sup>, U. Nater<sup>3</sup>, D. Gerstorff<sup>4</sup>, K. Madden<sup>2</sup>, M. Ashe<sup>1</sup>

<sup>1</sup>University of British Columbia, Canada

<sup>2</sup>UBC, Canada

<sup>3</sup>Wien, Austria

<sup>4</sup>Humboldt, Germany

**Background:** Laboratory studies have demonstrated that individuals show reduced cortisol responses to psychosocial stress following a bout of acute exercise. The present study expands these findings and takes them out of the lab by investigating whether physical activity buffers associations between momentary negative affect and salivary cortisol in older adults while they engage in their everyday routines.

**Methods:** Over 7 consecutive days, 162 older adults aged 60 to 87 years (M age = 72 years; 50% women; 57% Caucasian) reported their current affect and provided salivary cortisol samples 4 times per day. Participants also wore hip mounted accelerometers during this period to objectively record physical activity. Data were analyzed using multilevel models, controlling for cortisol's diurnal rhythm and pertinent individual difference variables (e.g., age, gender, body mass index, person-average negative affect).

**Findings:** Elevated momentary negative affect was associated with higher concurrent cortisol levels. Number of steps taken during the previous hour did not moderate negative affect-cortisol couplings. However, there was a significant main effect for number of steps taken in the prior hour on cortisol levels. Walking an additional 1000 steps during the previous hour was associated with a reduction in cortisol levels (midday) of about 0.31 nmol/L ( $b = 0.05$ ,  $p < .001$ ).

**Discussion:** Findings underpin that physical activity modulates older adults' neuroendocrine activity in everyday life. Physical activity may help counteract age-associated dysfunction of the hypothalamic-pituitary-adrenal axis.

10:00 - 10:15

## Investigating Personal and Social Barriers to Daily Medication Adherence among Adolescents with Asthma

P. Rackow<sup>1</sup>, L. Rau<sup>1</sup>, E. Monaghan<sup>2</sup>, D. Powell<sup>2</sup>, G. Stadler<sup>2</sup>

<sup>1</sup>University of Stirling, United Kingdom

<sup>2</sup>University of Aberdeen, United Kingdom

**Objectives:** This study piloted the use of Ecological Momentary Assessment (EMA) to gather data on medication adherence and determinants from adolescents who take daily asthma medication. As determinants, we investigated self-efficacy and social support because both had been identified as being relevant in previous research.

**Design:** Participants aged 16 to 24 (N = 28; Mage = 21.59, SD = 2.45) completed 10 consecutive days of EMA, with twice daily questionnaires. EMA assessed self-efficacy and social support as well as symptom perception, asthma control, and participants' medication adherence as indicated by their self-reported inhaler use.

**Methods:** Completion rates of the daily questionnaires were analysed and between and within-person variation in social support and self-efficacy were statistically and visually observed. Binomial generalised linear mixed models independently tested the relations of social support and self-efficacy to same day medication adherence.

**Results:** Adolescents who have higher between-person levels of self-efficacy report better medication adherence in comparison to adolescents who have lower between-person levels of self-efficacy ( $b=1.07$ ,  $SE=0.43$ ,  $p=.01$ ). No effects were found at the within-person level. No effect of social support on medication adherence was found.

**Conclusion:** The use of momentary assessment is feasible to detect patterns in asthma medication adherence among adolescents. However, neither self-efficacy nor social support seem to be relevant for daily medication adherence. Therefore, future studies might want to test a different set of determinants. Moreover, future studies should incorporate electronic monitoring of inhaler use to objectively measure medication adherence.

10:15 - 10:30

## Transfer effects of a couple-based physical activity intervention in daily life

C. Berli<sup>1</sup>, U. Scholz<sup>1</sup>

<sup>1</sup>University of Zurich, Switzerland

**Background:** A rising number of dyadic interventions exist, involving the romantic partner in efforts to regulate a target person's health behavior. Less is known on the benefits for partners in terms of their own behavior, and potential mediating mechanisms. This study examined the transfer effects of a couple-based action control intervention on partners' daily levels of physical activity and social support.

**Methods:** 121 overweight target persons and their heterosexual partners were randomly allocated to an intervention (n = 60; information + text messages) or a control group (n = 61; information only). Partners' daily adherence to physical activity recommendations was assessed via accelerometers during an intervention, post-intervention and six months follow-up period (two weeks each). Moreover, partners reported on social support provided to and received from the target person in end-of-day diaries.

**Findings:** At the end of the intervention period, partners in the intervention group showed a higher daily adherence to physical activity recommendations compared to partners of the control group. This effect was particularly pronounced for partners who were actively involved in the intervention (dyadic version of the intervention). The same pattern was found for provided and received social support. The effects washed out during the post-intervention period. At follow-up, no intervention effect on partner's daily physical activity adherence emerged.

**Discussion:** Findings suggest initial benefits for partners from participating in a dyadic intervention. Transfer effects seem to be dependent on degree of active partner involvement, and may be explained by support being reciprocated between partners.

10:30 - 10:45

## Within-person effects of goal setting: A micro-randomized trial to reduce sugar-sweetened beverage consumption

J. Inauen<sup>1</sup>, U. Scholz<sup>2</sup>, N. Bolger<sup>3</sup>

<sup>1</sup>University of Bern, Switzerland

<sup>2</sup>University of Zurich, Switzerland

<sup>3</sup>Columbia University, United States

**Background:** Although health behavior change is a within-person process, it has been studied predominantly using between-person Methods: As a result, we know little about how much behavior change we can expect from interventions at the individual level. In this study, we provide a within-person experimental test of a standard behavior change technique, goal setting.

**Method:** In this micro-randomized trial (N = 140, 28 days), participants reported their sugar-sweetened beverage consumption and related cognitions twice daily. Sequences of goal days and non-goal days were randomized within participants. On goal days, participants were prompted to set a goal to reduce their sugar-sweetened beverage consumption.

**Findings:** Linear mixed models indicated a main effect of goal setting within persons. On goal days, persons consumed on average 25 ml less sugar-sweetened beverages than on non-goal days (SE = 12, p = 0.039), when they consumed 340 ml (SE = 24). No carryover effects were observed. There was substantial heterogeneity in treatment effects, indicating that the within-person effect of goal setting ranged from a decrease of -145 ml to an increase of 95 ml in daily sugar-sweetened beverage consumption.

**Discussion:** For the first time, our study showed the within-person effect of goal setting in a fully powered micro-randomized trial. Consistent with between-person studies, the effect of goal setting was small, but significant, confirming this to be a potential technique to promote health behavior. Our investigation did not show any carryover of the goal-setting intervention to non-goal days, indicating the suitability of goal setting for within-person trials.

## SYMPOSIUM

# SIBS: A cross-cultural project to prevent psychological difficulties among siblings of children with disabilities

9:30 - 11:00

Karaka, Valamar Argosy

Torun M. Vatne

9:30 - 9:45

## The development of a parent-child intervention for siblings of children with chronic disorders

T.M. Vatne<sup>1</sup>, K. Fjermestad<sup>2</sup>, Y. Haukeland<sup>2</sup>, S. Mossige<sup>2</sup>

<sup>1</sup>Frambu, Norway

<sup>2</sup>Department of Psychology, University of Oslo, Norway

**Background:** Despite the documented elevated risk for psychological maladjustment among siblings of children with chronic disorders, few preventive interventions are provided. Occasionally, support groups are provided, but the interventions are not evidence based and are often led by personnel with little or no formal education in leading child groups. The presented project aimed to develop a knowledge -based group intervention for siblings and parents of children with a chronic disorder (SIBS).

**Methods:** SIBS were developed in a five-stage process; (1) reviewing literature about siblings of children with chronic disorders, (2) reviewing research on sibling interventions, (3) an exploratory qualitative study with 56 siblings aged 8-16 years, (4) six expert workshops and (5) pilot testing of SIBS with 99 families. SIBS were next evaluated in an open trial with a pretest-posttest Design:

**Results:** The development process resulted in a five session intervention with the aim of increasing quality of the parent-sibling communication. SIBS comprises three modules: (1) Introduction module with information and relationship building. (2) Knowledge module about siblings' need for knowledge about the disorder. (3) Emotion module about the challenges experienced by siblings. The intervention comprises parallel separate parent-child groups and joint parent- child sessions. A descriptive manual for group leaders, standardized tutoring videos, folders for siblings/ parents and evaluation forms were developed.

**Discussion:** We have developed a knowledge based intervention with the potential to prevent psychological maladjustment in a vulnerable group of children. The intervention received positive evaluations from children and parents involved in the developmental process.

10:00 - 10:15

## The effect of SIBS on psychological wellbeing of siblings: Open trial and a planned RCT

K. Fjermestad<sup>1,2</sup>, Y. Haukeland<sup>1</sup>, W. Silverman<sup>3</sup>, S. Mossige<sup>1</sup>, T.M. Vatne<sup>4</sup>

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<sup>3</sup>Yale University, United States

<sup>4</sup>Frambu, Norway

Siblings of children with disabilities are at risk of mental health problems due to multiple burdens. No evidence-based interventions for siblings exist. We developed SIBS, a parent – child intervention aiming to improve parent - sibling communication, sibling mental health and sibling disability knowledge. We evaluated SIBS in an open pretest-posttest trial, in the process of planning a randomized controlled trial (RCT). The sample was 99 siblings aged 8-16 years (M = 11.5; 54.5% girls) of children with different chronic disorders, and their parents. Twenty-two support groups were conducted, and outcome measures were assessed at baseline and three and six months after the intervention. User satisfaction was measured. All group sessions were video recorded and manual fidelity assessed. Longitudinal data was analysed through growth curve modelling and showed parent - sibling communication, sibling mental health and sibling disability knowledge improved from baseline to six months follow-up. Siblings and parents reported high user satisfaction. SIBS will now be examined in a RCT. The control condition is 12-week waitlist. The planned sample size is 288 siblings + 288 parents in groups of 6 across 10 sites. Inclusion criteria are 1) Being the sibling of a child aged 0 to 18 years diagnosed with a ND enrolled in specialist services; 2) Age 8-16 years; 3) A parent able to attend. The intervention comprises 5 sessions delivered over 2 days. Main outcomes are parent - sibling communication, sibling mental health and sibling disability knowledge.

10:15 - 10:30

## Developing and implementing an e-learning course for providers of SIBS

C. Hals<sup>1</sup>, K. Fjermestad<sup>2</sup>, T.M. Vatne<sup>3</sup>, Y. Haukeland<sup>4</sup>

<sup>1</sup>Frambu Resource Centre for Rare Disorders, Norway

<sup>2</sup>University of Oslo, Norway

<sup>3</sup>Frambu, Norway

<sup>4</sup>Department of Psychology at University of Oslo, Norway

**Background:** A group intervention for siblings and parents of children with chronic disorders (SIBS) was developed in 2012 and shown to have promising effects on sibling well-being in an open trial. For a planned RCT a learning package is needed. The aim of this project was to develop an e-learning course for group leaders in the SIBS intervention.

**Method:** The developmental process consisted of; 1) Five workshops to inform content of the e-learning course. Participants were experienced child-group leaders, siblings and parents of children with chronic disorders, and researchers; 2) Development of practical animations, illustrations, and videos for the e-learning course; and 3) implementation of the e-learning course through an established open access online learning platform ([www.sjelden.no](http://www.sjelden.no)).

**Results:** An e-learning course consisting of five modules were launched in June 2018. The course takes approximately 60minutes to complete and addresses the rationale for, the structure of, the roles of leaders in, and the techniques used in SIBS. The course also addresses difficult situations that may arise during implementation. By February 2019 40 future group leaders of SIBS have completed the course.

**Discussion:** SIBS has the potential to prevent psychological maladjustment in a vulnerable group of children. It is important to properly educate practitioners for future implementation of SIBS and to conduct a randomized controlled trial. Combination of the e-learning course and a practical course will potentially maximize learning outcome of future group leaders.

10:30 - 10:45

## Intervention for parents and siblings of children with neurodevelopmental disorders: An open trial in Cambodia

P. Pat<sup>1</sup>, T.M. Vatne<sup>2</sup>, K. Fjermestad<sup>3,4</sup>

<sup>1</sup>CCAMH Chey Chumneas Referral Hospital, Cambodia

<sup>2</sup>Frambu, Norway

<sup>3</sup>University of Oslo, Norway

<sup>4</sup>Frambu resource centre for rare disorders, Norway

**Background:** There is little formal support for families of children with neurodevelopmental disorders (CND) in Cambodia. The main burden of care for CND falls on the immediate family. We evaluated a support intervention for parents and siblings of CND with promising evidence from Europe in Cambodia. **Methods:** We conducted an open trial of joint parent-sibling intervention for parents and siblings of CND, the SIBS intervention at Chey Chumneas Referral Hospital in Cambodia. Participants were 56 caregivers and 52 siblings of CND (e.g., autism, Down syndrome, learning disability). Siblings (44% girls) had a mean age of 12.7 years (SD = 2.7, range 8-21). Caregivers were mothers (65%), fathers (24%), grandparents (10 %) or others (1%). Sibling mental health was measured with the Strengths and Difficulties Questionnaire. Caregiver mental health was measured with the Depression Anxiety Stress Scale. Family communication was measured with the Parent Child Communication Scale. All measures were completed at baseline and 4 months follow-up. Participant satisfaction was measured at post-intervention.

**Results:** At baseline, sibling mental health was poorer than available Asian norms. Caregiver-rated mental health was moderate to severe in terms of clinical severity. Family communication was rated considerably lower than available Western norms. Participant satisfaction with the intervention was high. Symptoms were significantly reduced from baseline to 4-month follow-up, with small effects. Only 72% of participants completed follow-up measures.

**Conclusions:** This study provided initial support for the SIBS intervention in Cambodia. Adaptions to the manual are needed to improve effects, and to retain participant for follow-up measurements.

## SYMPOSIUM

# Social inequalities and health behaviours: Implications for theory and practice in Health Psychology

11:30 - 13:00

Elafiti 1, Valamar Lacroma Dubrovnik

Jutta Mata, Benjamin Schüz

11:30 - 11:45

## Social inequality, behavioural determinants and health behaviour – indirect or moderating effects? A systematic review

L.K. Hilz<sup>1</sup>, M. Conner<sup>2</sup>, B. Schüz<sup>3</sup>

<sup>1</sup>University of Bremen, Institute for Public Health and Nursing Research, Bremen, Germany

<sup>2</sup>University of Leeds, United Kingdom

<sup>3</sup>Universität Bremen, Germany

**Background:** Socioeconomic differences in health behaviours have been discussed as key mechanisms underlying health inequalities. However, little is known about proximal determinants of these behavioural differences. This review explores whether health behaviour determinants (particularly those outlined in the Theoretical Domains Framework; TDF) can explain inequality in health behaviours. Theoretically, both indirect (inequality – determinants – health behaviour) and moderated effects (determinants\*inequality - behaviour) are plausible, but to date there is no review summarising the evidence base on these pathways.

**Methods:** Seven relevant databases were searched systematically for observational quantitative studies examining the indirect or moderating effects of inequality in the relationship between determinants of health behaviour and health behaviour. Health behaviour determinants were operationalized according to the TDF, and indicators of inequality were operationalized following the PROGRESS-Plus framework. Estimates of indirect effects (inequality-determinants-behaviour) and estimates of interaction effects (inequality as a moderator of determinant-behaviour associations) will be extracted, and quantitative meta-analysis will be performed if a sufficient number of estimates can be obtained.

**Findings:** Database search identified 13484 records. After duplicate removal, 9277 records were considered for title and abstract screening. Currently, 4081 articles have been screened and 46 records have been included for full text analysis. The Systematic Review is expected to be completed in summer 2019.

**Discussion:** This review will summarise the state of the evidence regarding the role of social inequality in understanding engagement in health behaviours through determinants of health behaviours, thus providing a basis for theory development, theory refinement and the development of equity-focused interventions.

11:45 - 12:00

## Social Cognitive Mediators of Socioeconomic and Demographic Correlates of Health Behavior

K. Hamilton<sup>1,2</sup>, M. Hagger<sup>2,3</sup>

<sup>1</sup>Griffith University, Australia

<sup>2</sup>Curtin University, Australia

<sup>3</sup>University of Jyväskylä, Finland

**Background:** Significantly lower participation in health behaviors in low socioeconomic (SES) groups and underserved populations has been observed. These health disparities may be due to low motivation caused by perceived lack of resources, knowledge, or access to facilities, and beliefs in lack of societal support and healthcare access that undermine self-efficacy and raise perceived costs of participation. The present study tested whether effects of SES indicators and demographic variables on health behavior participation were mediated by social cognition constructs from the theory of planned behavior (TPB). Theory variables were expected to mediate effects of SES and demographic variables on health behaviors.

**Methods:** Hypotheses were tested in 13 datasets from a program of research in Australia comprised of diverse samples (N=3672) and health behaviors (exercise, dental hygiene, alcohol consumption, sun safety, water safety). Participants self-reported their household income, highest education level, gender, and age, and completed measures of social cognitive variables and intentions from the TPB, with follow-up measures of behavior in 8 datasets. Data were analyzed by single-sample and meta-analytic structural equation modeling.

**Findings:** Structural equation models supported predictions of the TPB, but there was little evidence of direct and mediated effects of SES and demographic variables on intentions and behavior. Meta-analysis corroborated the pattern of effects across samples.

**Discussion:** While previous research has indicated disparities in health behavior participation, current research suggested small-to-medium sized effects of social cognition constructs on health behaviors, while direct and indirect effects of SES and demographic variables were much smaller and trivial by comparison.

12:00 - 12:15

## Individual and area socioeconomic status, intentions, and smoking initiation

M. Conner<sup>1</sup>

<sup>1</sup>University of Leeds, United Kingdom

**Background:** Studies have shown individual and area level measures of socioeconomic status (SES) to moderate the impact of health cognitions on behaviour. However, no previous study has examined the joint effects of individual and area level measures of SES on health cognition-behaviour relationships.

**Method:** Data were from 973 adolescents (aged 12-13 years at baseline) as the control arm of a cluster randomised controlled trial. Self-report measures of smoking intentions and individual SES (family affluence), along with school level SES (percentage receiving free school meals) were assessed and used to predict ever smoked cigarettes at 36-month follow-up.

**Results:** Intentions (to not smoke) were significant negative predictors of ever smoked cigarettes at follow-up. Family affluence significantly moderated the relationship between intentions and ever smoking, while school level SES did not. There was also a significant 3-way interaction between intention, family affluence and school SES on ever smoked cigarettes. Simple slopes analyses showed that in high SES schools intentions were both significant negative predictors of ever smoking in both more and less affluent groups; in contrast in low SES schools intentions were only significant predictors of smoking in the low family affluence group. The latter finding was particularly attributable to those with low family affluence and a low intention not to smoke being more likely to go on to start smoking.

**Conclusions:** This is one of the first studies to show that both individual and area level SES can have impacts on health cognition-behaviour relationships.

12:15 - 12:30

## Socio-economic differences in food choice: Representative surveys of nine European countries

J. Mata<sup>1</sup>, R. Frank<sup>2</sup>, B. Schuez<sup>3</sup>

<sup>1</sup>University of Mannheim, Germany

<sup>2</sup>Gesellschaft fuer Konsumforschung, Germany

<sup>3</sup>University of Bremen, Germany

**Background:** Health differences due to socio-economic status are well-known. For example, the proportion of obesity in people with low socio-economic status in many European countries is about twice as high as in people with high socio-economic status. Less is known about the role of health behaviors for such disparities. This presentation will address this question by examining differences in attitudes towards eating as well as eating behavior by socio-economic status.

**Method:** Using representative data from nine European countries (Austria, France, Germany, Italy, Netherlands, Poland, Russia, Spain, UK) based on 10,226 face-to-face interviews, we analyze the relation between eating-related attitudes and behavior with different levels of education, income, age, and gender.

**Findings:** Across all countries, people with a higher education also reported eating less meat, more fish and milk products, and watching their weight more closely. The relation between education and animal product consumption was mediated by eating-related attitudes (all p-values <.01). Relations between income level and eating-related attitudes and behaviors showed a high variability between countries. Across all countries, women watched their eating and weight more closely; there were few age differences for eating-related attitudes and behaviors.

**Discussion:** This is one of the first studies to test socio-economic differences in eating-related attitudes and behaviors comparing large, representative data sets from several European countries. The findings emphasize the necessity to consider socio-economic status in health psychology theories on determinants of health behavior and the role of health behaviors themselves to better understand and intervene on health inequalities.

12:30 - 12:45

## Nudge, nudge, wink, wink – Equity effects of dietary nudging interventions

B. Schüz<sup>1</sup>, L.K. Hilz<sup>2</sup>, J. Mata<sup>3</sup>

<sup>1</sup>Universität Bremen, Germany

<sup>2</sup>University of Bremen, Institute for Public Health and Nursing Research, Bremen, Germany

<sup>3</sup>University of Mannheim, Germany

**Background:** ‚Nudging‘ interventions imply that subtle changes in environments relevant for behaviour change increase the likelihood that individuals make behavioural choices in a desired direction. In the health domain, applications concentrate on food choices. The assumed working mechanisms include cognitive heuristics, i.e., the environment provides salient cues that trigger heuristics, which circumvent more cumbersome deliberative decision processes and require only little cognitive resources. This has led to the suggestion that nudging interventions might be particularly useful to reduce health inequity as they might particularly benefit participants from lower socioeconomic backgrounds. However, this assumption remains untested to date.

**Method:** Secondary analysis of data from a published recent systematic review and meta-analysis of dietary field experiments (Cadario & Chandon, 2018; k = 299; n = 90 studies). Study authors were contacted for primary data. A coding scheme to compare socioeconomic differences across samples from different countries was developed.

**Findings:** Only few studies in the review published effects sizes stratified by socioeconomic indicators (k = 3). Published effect sizes stratified by socioeconomic status suggest larger effects in samples with better education or no differences by education. Preliminary results from re-analyzing primary data suggest heterogeneous effects of nudging according to socioeconomic status.

**Discussion:** Published effect sizes suggest equity effects of nudging interventions, i.e., such interventions might work better in individuals with higher educational attainment, which in turn would not reduce health inequities. Current analyses explore whether this pattern replicates across primary studies. Stable equity effects would have considerable implications for public health practice.

## SYMPOSIUM

# Psychological and social aspects determinants of adjustment across the trajectory of health to illness

11:30 - 13:00

Elafiti 2, Valamar Lacroma Dubrovnik

Tracey Revenson

11:30 - 11:45

## Self-regulatory Mechanisms for Health Behavior Change in Cardiovascular Prevention and Management: A Meta-review

J. Suls<sup>1</sup>, K. Davidson<sup>2</sup>

<sup>1</sup>National Cancer Institute, United States

<sup>2</sup>Feinstein Institute, Northwell, United States

**Background:** The objective is to report findings from meta-analyses of self-regulatory behavior change in health behavior interventions aimed at preventing cardiovascular disease.

**Method:** Multiple electronic databases were searched and the protocol was registered in Prospero. Meta-analyses were eligible if they: (1) included a health behavior intervention focused on cardiovascular prevention;(2) a health behaviour outcome; (3) quantitatively assessed self-regulation; and (4) were published between 2006 and August 2017. Self-regulation was defined as emotion regulation, cognitive regulation and self-related processing. The population of interest was general public or non-institutionalized individuals. Multiple comparator conditions were eligible for inclusion. AMSTAR 2 rating assessed quality of the meta-analysis.

**Findings:** Seven meta-analyses met our inclusion and search criteria and they included 257 studies with 71,172 participants—with one review missing participant number. Proportion of AMSTAR 2 items present ranged from 0.38 – 0.89. Three reviews focused on cardiovascular patients; two focused on hypertensive patients; one focused on overweight and obese patients, and one included the general population. Interventions ranged from self-monitoring only to broader behavior change to broad/complex behavioral interventions.

**Discussion:** Meta-analyses examined self-regulation in ways not easily compared across reviews; one contrasted interventions containing high- or low- in self-regulation components, whereas others tested moderators of self-monitoring effectiveness or meta-regressions in producing changes for cardiovascular prevention outcomes. Determining which self-regulatory BCTs are effective, under which circumstances, and for whom, will contribute to identifying where further research is required, and where sufficient evidence exists to move to health behavior change implementation to prevent cardiovascular disease and its consequences.

11:45 - 12:00

## Cultivation or enabling? Daily relations between self-efficacy and received support in couples becoming physically active

P. Schwaninger<sup>1</sup>, C. Berli<sup>1</sup>, J. Lüscher<sup>1</sup>, U. Scholz<sup>1</sup>

<sup>1</sup>University of Zurich, Switzerland

**Background:** Engaging in regular physical activity is challenging. Theories and empirical findings emphasize social support and self-efficacy as important variables for health behaviour change. Two competing hypotheses describe the bidirectional character of these two constructs: The cultivation hypothesis assumes that self-efficacy facilitates social support resources, whereas the enabling hypothesis assumes that social support fosters self-efficacy. Recent studies showed evidence for both predictive directions. The aim of this study is to investigate these hypotheses at a daily level in couples intending to increase their physical activity.

**Methods:** 97 overweight heterosexual couples intending to increase their physical activity participated in this dyadic intensive longitudinal study. Both partners independently reported on activity-specific self-efficacy and the receipt of activity-specific social support from their partner in smartphone-based end-of-day diaries across 14 consecutive days. To investigate the reciprocal effects of received social support and self-efficacy on same and next day, prospective lagged models were applied.

**Findings:** Multilevel analyses indicated that for both men and women higher-than-average levels of self-efficacy on a given day predicted higher received support the next day. We found no effect of higher-than-average levels of received support on a given day on self-efficacy the next day.

**Discussion:** Within-person findings provide support for the cultivation hypothesis, so that higher levels of self-efficacy on a given day predicted higher received support the next day. This is the first study to provide insights into the association between daily self-efficacy and received support using a dyadic intensive longitudinal approach.

12:00 - 12:15

## Social support in couples with left ventricular assist device (LVAD) implantation

T. Zimmermann<sup>1</sup>, F. Jünemann<sup>1</sup>, C. Bara<sup>1</sup>

<sup>1</sup>Hannover Medical School, Germany

Left Ventricular Assist Device (LVAD) implantation may have significant psychological impact on both, patients and their partners. Couples experience psychological distress and a higher risk for anxiety, depression and lower quality of life (HrQoL). The current study investigates HrQoL and social support in N = 39 male patients and their female spouses before and after LVAD-implantation. Moreover, impact factors of patient and spouse on HrQoL and social support were examined. Preliminary results showed that patients rated their physical and mental HrQoL before the implantation significantly lower than their partners. After the implantation, mental HrQoL increases for patients while partners mental and physical HrQoL decreases below the average of the general population. Time since implantation seems not to impact HrQoL. Patients and partners differ in terms of their HrQoL but not in social support or dyadic coping. In addition, LVAD implantation seems to impact HrQoL of patients and partners in a different way. In this ongoing study, other impact factors will be analyzed and presented at the conference.

12:15 - 12:30

## Intrusive thoughts and distress among newly diagnosed prostate cancer patients: Buffering effects of emotional expression

H. Valdimarsdottir<sup>1</sup>, S. Zakowski<sup>2</sup>, V. Eiríksdóttir<sup>1</sup>, S. Ágústsdóttir<sup>3</sup>

<sup>1</sup>Reykjavik University, Iceland

<sup>2</sup>Illinois School of Professional Psychology, United States

<sup>3</sup>Miðstöð Sálfræðinga, Iceland

According to the social-cognitive processing model, intrusive thoughts are common among individuals experiencing a cancer diagnosis. Although intrusive thoughts are important for cognitive processing of illness, they can lead to general distress, particularly among individuals who perceive social constraints in expressing their cancer-related concerns. The present study examined if the impact of home-based expressive writing intervention (EWI) that encourages emotional expression could buffer the negative effects of intrusive thought on distress.

Newly diagnosed prostate cancer patient (N=75) were randomized to groups writing expressively (with more emotion) or those who wrote more factually. Intrusive thoughts about cancer were assessed at baseline with the IES; Anxiety and depression were assessed with the HADS at baseline and at 3 and 6 months post-intervention.

General linear models, controlling for baseline distress, revealed that the interaction between the type of writing, and baseline level of intrusive thoughts significantly affect general distress ( $F=4.44$ ,  $p=.013$ ). The interaction revealed that individuals who wrote factually (non-emotionally) with high levels of intrusive thoughts at baseline experienced higher levels of general distress than the emotional writing group at both follow-up assessments. Individuals who wrote expressively and had high levels of intrusive thoughts did not differ in general distress from those who wrote expressively but had low levels of intrusive thoughts, or from those who wrote factually (irrespective of their level of intrusive thoughts).

Emotional expression of cancer-related issues, even though writing, appears to enhance adjustment. This suggests the importance of early interventions allowing emotional expression of negative thoughts and feelings

12:30 - 12:45

## Intolerance of Uncertainty and Emotional Distress among Advanced Cancer Patients: The Mediating Role of Experiential Avoidance

A. Panjwani<sup>1,2</sup>, T. Revenson<sup>1,2</sup>, A. Applebaum<sup>3</sup>, B. Rosenfeld<sup>3,4</sup>

<sup>1</sup>The Graduate Center, City University of New York, United States

<sup>2</sup>Hunter College, United States

<sup>3</sup>Memorial Sloan Kettering Cancer Center, United States

<sup>4</sup>Fordham University, United States

**Background:** Living with advanced cancer involves confronting negative future experiences and situational uncertainty. Previous research has established a positive relationship between intolerance of uncertainty (IU)—the ability to tolerate the possibility of future negative events—and emotional distress among cancer patients. One mechanism explaining this association may be experiential avoidance (EA), which refers to attempts to avoid unpleasant internal experiences, such as thoughts, feelings, images, and sensations, and has been linked to IU. Consequently, we examined whether EA mediates the IU-distress relationship.

**Methods:** In this cross-sectional study, 108 advanced cancer patients (M<sub>age</sub>=63, SD=11; 53% women) completed self-report scales of IU (Intolerance of Uncertainty Scale), EA (Brief Experiential Avoidance Questionnaire), and emotional distress (Hospital Anxiety and Depression Scale). Two mediation models, for anxious and depressive symptoms, were tested.

**Results:** There were direct effects of IU for both anxious and depressive symptoms in the mediation models. The indirect effect of IU through EA was significant for both anxiety (standardized point estimate = .11, SE = .04; 95% CI: .02, .20) and depressive symptoms (standardized point estimate=.09; 95% CI:.01, .08), with the models accounting for 21% and 19% of the variance, respectively.

**Discussion:** Advanced cancer patients who are highly intolerant of uncertainty may engage in experiential avoidance, which can have ‘rebound’ effects. That is, attempts to inhibit or avoid difficult internal experiences may paradoxically increase distress. While further longitudinal research is warranted, findings suggests that experiential avoidance may be a target for psychological interventions designed to reduce distress among individuals with advanced cancers.

## SYMPOSIUM

# Using stakeholder engagement and person-based approaches in health psychology research: the benefits and challenges

11:30 - 13:00

Olipa 4, Valamar Collection Dubrovnik President

Jenny McSharry

11:30 - 11:45

## The Person-Based development of the 'Active Brains' digital behaviour change intervention for reducing cognitive decline

R. Essery<sup>1</sup>, K. Smith<sup>1</sup>, S. Pollet<sup>1</sup>, J. Denison-Day<sup>1</sup>, J. Slodkowska-Barabasz<sup>1</sup>, F. Mowbray<sup>1</sup>, E. Grey<sup>2</sup>, M. Western<sup>2</sup>, L. Yardley<sup>1,3</sup>, P. Little<sup>1</sup>

<sup>1</sup>University of Southampton, United Kingdom

<sup>2</sup>University of Bath, United Kingdom

<sup>3</sup>University of Bristol, United Kingdom

**Background:** Cognitive decline affects 10-20% of over 60s, with 5-10% of cases likely to progress to dementia annually. Physical activity, cognitive exercise and healthy eating can slow cognitive decline, but traditional programmes require considerable resource. This project is developing a digital behaviour change intervention to reduce cognitive decline amongst 60-85 year-olds, culminating in a 5-year trial of its effectiveness in preventing or delaying dementia onset amongst 20,000 people.

**Methods:** A Person-Based Approach was employed, alongside theoretical and empirical understandings of relevant behaviours, to develop intervention content suited to intended users. This involved developing 'guiding principles' and conducting 62 qualitative interviews with adults aged 60-85 to gain feedback on iterative drafts of the intervention content. Feedback was systematically coded to identify and prioritise amendments. Patient and Public Involvement (PPI) representatives in the research team reviewed the feedback and its coding, and contributed their own perspectives.

**Findings:** Participants reported that the 'Active Brains' intervention offered structure and guidance in making behavioural changes. They enjoyed the novelty of features such as brain training games and strength and balance training. Some felt that greater emphasis should be placed on social aspects of healthy behaviours and wanted more explicit advice about staying motivated.

**Discussion:** Amendments to the Active Brains intervention were closely guided by these findings, for example, adding specific advice about including others in physical activity and how best to achieve this. We consider the benefits and challenges of the approach taken to developing Active Brains and outline the next steps for the project.

11:45 - 12:00

## Using stakeholder consultation to inform the development and implementation of person-based behaviour change interventions

K. Sivyer<sup>1</sup>, M. Santillo<sup>1</sup>, A. Krusche<sup>1</sup>, F. Mowbray<sup>1</sup>, N. Jones<sup>2</sup>, T. Peto<sup>2,3</sup>, S. Walker<sup>3,4</sup>, M. Llewelyn<sup>5</sup>, L. Yardley<sup>1,6</sup>

<sup>1</sup>University of Southampton, United Kingdom

<sup>2</sup>Oxford University Hospitals NHS Foundation Trust, United Kingdom

<sup>3</sup>University of Oxford, United Kingdom

<sup>4</sup>Oxford NIHR Biomedical Centre, United Kingdom

<sup>5</sup>University of Sussex, United Kingdom

<sup>6</sup>University of Bristol, United Kingdom

**Background:** Stakeholder consultation is a recommended method for maximising interventions' acceptability and feasibility. However, there are few explicit examples of how this can be done. This talk describes how stakeholder consultation was used in the development of ARK (Antibiotic Review Kit), a complex behavioural intervention to support hospital staff "review and revise" to stop unnecessary antibiotics earlier.

**Methods:** ARK was developed using a novel application of the Person-Based Approach. Iterative stakeholder consultation was used to get early feedback on intervention plans and draft materials. This was complemented by think-aloud interviews with hospital staff. Feedback from the interviews was tabulated to inform what changes could be made. These were discussed by the research team to agree modifications.

**Findings:** Stakeholder consultation and the qualitative interviews identified different crucial issues relevant to intervention development. A key barrier identified by stakeholders was uncertainty around why antibiotics had originally been prescribed, making them reluctant to stop antibiotics in case they had missed something. In contrast, participants in the think-aloud interviews required more convincing messages about stopping antibiotics early, requesting more information about the evidence for shorter courses of antibiotics.

**Discussion:** Stakeholder consultation provided a valuable means of rapidly incorporating target users' feedback into the intervention development. However, there were some limitations; namely, its unsystematic nature and under-representation of a wider range of staff views. This was addressed by qualitative research, which provided complementary insights that further informed the intervention's development. ARK is now being tested in a cluster-randomised stepped-wedge trial of 36 hospitals.

12:00 - 12:15

## Using the person-based approach to implement and disseminate behaviour change interventions

K. Morton<sup>1</sup>, K. Bradbury<sup>1</sup>, R. Band<sup>1</sup>, L. Dennison<sup>1</sup>, R. McManus<sup>2</sup>, P. Little<sup>1</sup>, L. Yardley<sup>1,3</sup>

<sup>1</sup>University of Southampton, United Kingdom

<sup>2</sup>University of Oxford, United Kingdom

<sup>3</sup>University of Bristol, United Kingdom

**Background:** This talk will demonstrate how the person-based approach can be used in the implementation and dissemination of behaviour change interventions. An in-depth process evaluation aimed to understand patients' and healthcare professionals' (HCPs') experiences of using an online intervention for managing high blood pressure, including self-monitoring and planned medication changes when readings were above-target. A public engagement event aimed to share the research findings and discuss next steps for dissemination.

**Methods:** Two nested process studies were conducted within a randomised controlled trial using qualitative and quantitative Methods: 27 HCPs and 35 patients took part in semi-structured interviews, analysed using thematic analysis. Usage data from the online intervention indicating adherence to target behaviours were captured from 125 HCPs. An interactive dissemination workshop was organised with a range of stakeholders, including patients, HCPs, policy makers, and patient and public involvement representatives.

**Findings:** Patients perceived benefits and burdens from using the online intervention, including reassurance about their health and worry about medication. Perceptions appeared to be influenced by illness and treatment beliefs, indicating how intervention feedback and training could be optimised to address concerns. HCPs valued the concept of the intervention but some concerns arose about changing medication when readings were above-target, and 53% of recommendations were adhered to. The workshop activities ensured that important stakeholders were involved in discussing and interpreting the findings.

**Discussion:** Our approach to working with both trial participants and key stakeholders helped to ensure that behavioural challenges could be addressed and relevant priorities identified for optimising the intervention.

12:15 - 12:30

## Patient engagement in Community-based Primary Care : participatory action research for developing a collaborative model

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**Background:** We sought to design and assess the feasibility of a collaborative model of patient engagement in community-based primary healthcare (CBPHC) focused on quality improvement (QI) and patient-oriented research.

**Methods:** We designed a model of council engaging patients/caregivers, clinicians and managers in two CBPHC in Quebec City (Canada) using a participatory action research. Councils' meetings were facilitated by two patient-experts supporting participants to identify QI and research needs, prioritized them and plan actions accordingly. Feasibility was assessed through non-participant observation, audio-recording, self-administered questionnaires and a focus group on participants' perceptions and motivation to engage in the councils. We conducted descriptive and thematic analysis.

**Findings:** Between December 2017 and June 2018, each council included 11 patients (64% women, mean age $\pm$ SD 54 $\pm$ 15 years), a manager and a nurse, and met 6 times as initially planned. Each council identified over  $\geq$ 35 topics and prioritized: 1) information to new patients, 2) promotion of prevention programs, 3) appointments services and 4) patients' sense of belonging to CBPHC. Each council planned actions addressing those topics and 67% of councils' members perceived an impact of the council at the CBPHC level. Median satisfaction level was 8 on a 0 (not satisfied)-10 (highly satisfied) scale. Motivation to participate were to improve quality of care and services, and patient experience. Main limitation was time constraints. Attendance of the clinic manager and facilitation by patient-expert were identified as major strengths.

**Conclusions:** A collaborative model of councils involving all stakeholders in CBPHC focused on QI and research projects is feasible.

12:30 - 12:45

## Support to autonomy of people living with HIV : community-based approach in a multicultural context

A. Petit<sup>1</sup>, N. Kalampalikis<sup>1</sup>, M. Préau<sup>1</sup>

<sup>1</sup>University of Lyon 2 / GRePS, France

French Guiana is the second French department most affected by HIV/AIDS with a prevalence rate of nearly 2% (CNS, 2018), characterizing the phenomenon as an epidemic in a specific cultural context. This territory faces difficulties of care of persons infected, in particular because of a geographical, historic and social context which are obstacles to access to health care for populations (Carde, 2009). It is a territory where HIV/AIDS stigmatization is widespread among the cultural communities concerned, each with its own codes, norms and cultural knowledge about the disease. To address these challenges, the French association "Association Aides" moved to West Guyana in 2017 to set up community support aimed at empowering people living with HIV.

Our study in social psychology intends to question the support of autonomy in a community-based approach (Demange, Henry & Préau, 2012). Social representations of HIV/AIDS (Jodelet, 2015) by these different cultural communities in French health care system are questioned, as well as the meaning of disease and issues associated with autonomy.

Our presentation will aim to present both the implementation of the community-based approach in the French territory as well as the first results from interviews with health and associative professionals of the support (n = 30).

The results have shown French Guiana is a difficult context to put in place a community-based research. In this context, autonomy appears as a notion thought out and understood in a Western health vision, that it will be necessary to deconstruct to understand the tensions associated with it.

## SYMPOSIUM

# Novel perspectives on the role of knowledge in health behavior change

14:00 - 15:30

Elafiti 1, Valamar Lacroma Dubrovnik

Marieke Adriaanse

14:00 - 14:15

## Make calories motivating: Attaching affect to information about food energy density.

P. Sheeran<sup>1</sup>, C. Abraham<sup>2</sup>, A. Avishai<sup>1</sup>, K. Jones<sup>1</sup>, M. Villegas<sup>1</sup>, C. Wright<sup>1</sup>

<sup>1</sup>University of North Carolina at Chapel Hill, United States

<sup>2</sup>University of Melbourne, Australia

**Background:** Contemporary goal theories suggest that calorie information needs to be tagged by affect to motivate behavior change. In three studies, we tested whether transforming calories into a more affect-laden currency (walking times) changes dietary cognitions, motivation, and behavior.

**Methods:** In Study 1, participants (N = 430) estimated the energy density in 30 food items using calories or walking times and received feedback, or not. In a surprise recall task, participants estimated the energy in the same 30 items. In Study 2, participants (N = 229) received calorie, walking time, or no feedback on salad and snack items and then completed measures of explicit motivation (weight control goals) and implicit motivation (approach/avoidance associations). Study 3 was a field test of calorie information, walking time information, and no information in an independent coffee shop. Purchases of cakes and cookies were observed over 15 days in an ABCA Design:

**Findings:** Relatively to no feedback, calorie feedback led to less underestimation of high-energy items (-386 vs. -148 kcal) whereas walking time estimates were just as accurate without feedback (-143 kcal) and even more accurate with feedback (-91 kcal). Walking time feedback led to increased implicit (-.37 vs. -.27) and explicit motivation (4.41 vs. 4.00) compared to the other conditions. In Study 3, walking time feedback reduced the energy density in purchases relative to the other conditions (1650 vs. 1954 kcal).

**Discussion:** Attaching affect to calorie information improves memory, motivation, and purchase behavior.

14:15 - 14:30

## Mapping how our experiences with behavior shape behavioral decisions

A. Rothman<sup>1</sup>, M. Panos<sup>2</sup>, E. Standen<sup>1</sup>

<sup>1</sup>University of Minnesota, United States

<sup>2</sup>Facebook, United States

Most health behaviors involve a series of behavioral decisions, which are shaped by experiences afforded by the behavior. Thus, there is an emerging need to understand the rich set of experiences associated with engaging in lifestyle behaviors such as eating and exercise and the effects they have on future behavior both within and across behavioral domains. This talk examines research on two complementary aspects of this phenomena. First, an experiment (N=191) examined whether the experiences people take from a standardized morning exercise task (i.e., biking for 30 minutes) affected eating behavior over the rest of the day. Engaging in exercise was shown to have a significant indirect effect on fruit and vegetable consumption by increasing people's commitment to health goals, perceived self-regulatory resources, and general health self-efficacy ( $p$ 's < .05). These findings illustrate how the experiences afforded within one behavioral domain can affect decisions in another, related domain. Second, people are actively utilizing technology to track aspects of these lifestyle behaviors (e.g., steps walked; calories consumed). We are exploring the premise that the act of tracking may elicit experiences that could affect people's behavior. An initial descriptive study of people (N=134) who tracked their eating behavior over ten days with a smartphone app revealed that tracking elicited both favorable (e.g., in-control) and unfavorable (e.g., annoyed) responses; with the favorable responses slightly stronger. Future research will examine the effect these tracking experiences have on behavior, both within and across behavioral domains, and its implications for optimizing the design of these tools.

14:30 - 14:45

## Understanding the snowball effect of self-regulation failure

P. ten Broeke<sup>1</sup>, M. Adriaanse<sup>2</sup>

<sup>1</sup>Radboud University Nijmegen, Netherlands

<sup>2</sup>Utrecht University, Netherlands

**Background:** A single instance of self-regulation failure is in itself often trivial to long-term goal pursuit. However, when individuals have limited knowledge about the causes of these instances of failure they may misattribute failure to erroneous causes. We hypothesized that these attributions can be the start of a so-called snowball effect of failure which can be very detrimental to long term goal pursuit.

**Methods:** We designed 4 studies to investigate whether failure indeed has the potential to snowball into subsequent failure and to understand the psychological mechanisms underlying this effect. In Study 1 (N = 238) and 2 (N = 236) we manipulated failure versus success in hypothetical situations and female participants estimated the likelihood of subsequent failure. In Study 3 (N = 218) and 4 (N = 158), female dieters retrospectively reported their responses to a recent incident of failure or success and then registered their subsequent dieting behavior for the next four days.

**Findings:** The findings across all studies consistently confirmed that failure increased the likelihood of subsequent failure ( $F$ 's > 4.84,  $ps$  < .029) and this was most consistently driven by decreases in self-efficacy. Moreover, the large majority of participants reported internal attributions for failure.

**Discussion:** This research demonstrates the relevance of investigating people's responses to failure and puts forward self-efficacy as promising target mechanism to help people regulate responses to failure. Furthermore, findings suggest that guiding people to focus on the external causes of failure could potentially reduce the chance of failure snowballing into subsequent failure.

14:45 - 15:00

## Why giving in to temptations is not necessarily self-regulation failure

F. Kroese<sup>1</sup>, M. Adriaanse<sup>1</sup>

<sup>1</sup>Utrecht University, Netherlands

**Background:** Self-regulation research and interventions often adopt a 'zero-tolerance approach', where giving in to temptation is equated with self-regulation failure. Expecting people to resist all temptations is not only unrealistic but also seems at odds with what we know about successful self-regulation: in the long run, giving in to temptations from time to time may actually help people to maintain goal striving and achieve their personal goals. Two studies set out to test how a more flexible vs. strict approach to dealing with temptations affects goal achievement in the domain of healthy eating.

**Methods:** 147 participants were assigned to a 'flexible mindset' or control condition. Participants in the flexible mindset condition were taught strategies to think of temptation enactment as trivial and made plans to continue their goal striving as usual after initial indulgence. Participants in the control condition received no such instructions. Temptation enactment (daily frequency of diet violations) and self-regulation success were assessed over a period of 5 days.

**Findings:** An ANOVA revealed a significant effect of condition on temptation enactment,  $F(2, 607) = 5.94$ ,  $p < .001$ , suggesting that a flexible mindset lead to fewer instances of indulgence. This effect was most pronounced on Weekend days.

**Discussion:** The current studies support the idea that thinking less badly about temptations may support goal pursuit over a (slightly) longer period of time. One important implication is that we need to focus much more on patterns rather than single instances of behavior.

15:00 - 15:15

## When failure is justified: Giving in to food temptation may contribute to self-regulation success

D. de Ridder<sup>1</sup>, S. Prinsen<sup>1</sup>, C. Evers<sup>1</sup>, S. Dohle<sup>2</sup>, W. Hofmann<sup>2</sup>

<sup>1</sup>Utrecht University, Netherlands

<sup>2</sup>University Cologne, Germany

**Background:** Giving in to food temptations when on a diet is typically labelled as self-regulation failure. The objective of the present research is to test under which conditions temporarily abandoning one's diet promotes versus threatens successful striving for weight control (functional vs dysfunctional justification).

**Methods:** In Study 1 (N = 194), a pool of items reflecting functional (e.g., "For me a balanced diet also includes some bad foods in moderation") and dysfunctional justification (e.g., "When I feel negative, I just eat what I want") was determined. In Study 2 (N = 147), this initial classification was tested by examining the association with (un)successful dietary regulation. In Study 3 (N = 54), it was tested whether (dys)functional justification predicted unhealthy snack intake with a snack diary.

**Findings:** The two component structure of justification was confirmed by principal axis factor analyses and correlations with indices of (un)successful dietary regulation (e.g., diet importance, diet motivation, BMI) (Studies 1 and 2). Results from Study 3 showed that functional justification predicted lower snack intake ( $\beta$  -.26) as compared with dysfunctional justification ( $\beta$  .33).

**Discussion:** Whereas many self-regulation theories take an 'all-or-nothing' approach by presenting occasional failure as a predictor of complete fiasco, our findings demonstrate that having a good reason for temporarily abandoning one's diet goal may actually contribute to self-regulation success. This novel view holds important implications for interventions aimed at the promotion of healthy diet: whereas total control over one's diet is both impossible and undesirable, balancing may be a more fruitful approach.

## SYMPOSIUM

# Dyadic processes and health outcomes

14:00 - 15:30

Elafiti 2, Valamar Lacroma Dubrovnik

Aleksandra Luszczynska

14:00 - 14:15

## Couples Coping with Rheumatoid Arthritis: Is Support in the Eye of the Beholder?

A. DeLongis<sup>1</sup>, D. Levere<sup>1</sup>, D. Wernicke<sup>1</sup>, J. Edaile<sup>1,2</sup>, A. Lehman<sup>3</sup>

<sup>1</sup>University of British Columbia, Canada

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<sup>3</sup>Janssen, Pharmaceutical Companies of Johnson and Johnson, Canada

**Background:** Theory and research on invisible support suggests beneficial effects of support are greatest when the support recipient is unaware of support provision, while models of perceived support argue that perceiving support is most important. The present study examines the relationship of couple concordance vs. discordance regarding inter-spousal support perception with relationship satisfaction, positive affect, depression and disease outcomes among persons living with rheumatoid arthritis (RA). **Methods:** Both members of 208 couples independently completed standardized questionnaires that assessed the perceptions of each regarding social support received by the person diagnosed with RA and support provided by the spouse. Couples were followed up one year later.

**Findings:** Results obtained with hierarchical linear regression models suggested that higher perceived spousal support by the person with RA was associated with significantly better outcomes. In the absence of the person with RA perceiving spousal support, the beneficial effects were diminished. For developing knowledge-based interventions for patients with chronic debilitating pain conditions such as RA, we need to know whether the beneficial effects of social support are due to the support recipient's positive perception of support received, to the received support itself, or both. Given these findings, interventions are supported that focus on including both members of the couple sharing their concerns and needs for support, as well as transparent offers of support, to the chronically ill spouse.

**Discussion:** Findings suggest that the context of chronic degenerative illness may be one in which concordance in perceptions of support offered and given are key to success.

14:15 - 14:30

## The interplay between children's daily media consumption, sleep and alertness: A dyadic intensive longitudinal study

J. Lüscher<sup>1</sup>, T. Radtke<sup>1</sup>, U. Scholz<sup>1</sup>

<sup>1</sup>University of Zurich, Switzerland

**Background:** Children regularly use electronic media, such as smartphones. Several cross-sectional studies showed that media use is negatively associated with sleep. However, children's media consumption has not been investigated in daily life, from a dyadic perspective (children's self-perspective and their mother's perspective), and for different media types separately. Therefore, this study aimed to examine the association between children's daily media consumption, sleep duration and alertness reported by the children themselves and their mothers.

**Methods:** 105 mother-child dyads (child: Mage = 11.7, SDage = .85; mother: Mage = 43.8, SDage = 4.46) participated. Children and mothers reported in daily diaries for 14 days children's daily media consumption in the evening for different media types, sleep and alertness.

**Findings:** Multilevel analyses revealed that at the between- and within-person level media consumption in the evening was negatively associated with sleep duration (self- and mothers' report). No associations were found for media consumption in the evening and alertness. The comparison of children's and mother's reports illustrated that there were significant differences. Mothers reported less media consumption in the evening, higher sleep duration and alertness of their children than the children themselves. Moreover, different media types displayed differed in effect sizes of associations with sleep duration, but not with alertness.

**Discussion:** It is important to investigate children's media use on a daily basis, from a dyadic perspective and for different media types separately. Future interventions should strengthen children's media use competencies and parent's competencies regarding the monitoring of their children's media consumption, especially in the evening.

14:30 - 14:45

## Work-family interaction and well-being. The mediating role of dyadic coping and marital quality

M.N. Turliuc<sup>1</sup>, D. Buliga<sup>2</sup>, O. Candel<sup>1</sup>

<sup>1</sup>Alexandru Ioan Cuza University, Romania

<sup>2</sup>Tribunalul Iași, Romania

**Background:** Relying on the interpersonal transfer model proposed by Westman (2006), the purpose of the present study is twofold: a) the dyadic analysis of the relationship between work-family/family-work conflict and well-being through the mediating role of dyadic coping and b) the analysis of the relationship between work-family/family-work positive interactions and well-being through marital quality.

**Methods:** The participants were 80 married couples, with both partners employed. The direct actor and partner effects of work-family conflict/positive interactions on well-being, as well as the indirect effects through the dyadic coping and marital quality were tested. Analyses are made by using the Actor-Partner Interdependence Model and its extension for mediation (APIMeM).

**Findings:** The results show the partner effects of work-family conflict on well-being. Also, the dyadic coping strategies mediate the relationship between the strain-based family-work conflict and psychological well-being. Moreover, the work-family/family-work compensation and transfer of competencies, as distinct types of positive interactions, significantly predict well-being; marital quality is a mediator in these relationships.

**Discussion:** The theoretical and practical implications of dyadic analyses are discussed and their implication for health psychology and therapy.

**Keywords:** work-family interaction; dyadic coping; marital quality; well-being; dyadic analysis

14:45 - 15:00

## Provision of health-related negative social control in couples: The role of beliefs and wishes

U. Scholz<sup>1</sup>, C. Berli<sup>1</sup>, J. Lüscher<sup>1</sup>

<sup>1</sup>University of Zurich, Switzerland

**Background:** People try to influence and regulate other people's health behaviours by means of social control. Negative control, e.g., using pressure and inducing guilt, has been found to be ineffective in promoting behaviour change. Instead it seems to induce several negative side effects in the recipient. The focus of social control research is usually on the recipients' side. This work aims at shedding light on the provider's perspective.

**Methods:** Two studies with romantic couples (study A with 85 dual-smoker couples quitting jointly during the study; study B with 120 couples with overweight /obesity, and one target partner trying to increase their physical activity) assessed daily provision of negative social control. Predictors were daily beliefs that control provision was helpful, the wish for the other partner to change, own and the other's behaviour, own positive and negative affect, relationship quality and own provision of positive control, and social support.

**Findings:** Across both studies, higher provision of negative social control was primarily related to higher than usual beliefs that control was helpful for the partner and higher than usual own wishes for the partner to change. The effect of beliefs emerged over and above the target partner's reported helpfulness of the control attempts.

**Discussion:** Overall, the provision of negative control is mainly driven by daily beliefs on its helpfulness, and daily wishes for the partner to change independent of the target persons' reports. Predictive patterns showed a high consistency across the two behaviours, and across the different partner constellations.

ORAL

Multiple health behaviours and theory-  
based predictors

9:30 - 11:00

Elafiti 3, Valamar Lacroma Dubrovnik

Paul Norman

9:30 - 9:45

## Investigating the mediators underlying descriptive norm effects: the case of hand-hygiene

L.S. Moussaoui<sup>1</sup>, K.M. White<sup>2</sup>, O. Desrichard<sup>1</sup>, N. Baehler<sup>1</sup>

<sup>1</sup>Geneva University, Switzerland

<sup>2</sup>Queensland University of Technology, Australia

**Background:** Understanding of how descriptive norm influences behaviour is still lacking. For collective health goals, such as preventing the spread of contagious viruses, we examined outcome expectancy (OE) as a mediator of the descriptive norm-behaviour link. We tested this hypothesis for the health promoting behaviour of washing hands/using a sanitizer after coughing or sneezing.

**Methods:** Study 1 (N=359) and 2 (N=294) manipulated norm level (low/high/very-high) and norm type (descriptive/injunctive) in feedback to participants about the percentage of others doing or approving hand hygiene. DVs were intention to practice hand hygiene and OE. Study 3 (N=134) manipulated OE crossed with two levels of descriptive norm (low/high).

**Findings:** As predicted, Studies 1 and 2 showed a significant positive main effect of norm level on intention (S1:  $\eta^2p=.053$ , S2:  $\eta^2p=.030$ ). Contrary to our expectations, we obtained a main effect of norm level on OE in both descriptive and injunctive norms condition, rather than only in the descriptive norm condition. The expected interaction between norm level and norm type on OE was not significant. As hypothesized, OE significantly predicted intention (S1:  $\eta^2p=.200$ , S2:  $\eta^2p=.135$ ). In Study 3, the effect of descriptive norm level was (marginally significantly) reversed in the presence of a threshold ( $\eta^2p=.025$ ). Norm level significantly interacted with threshold on OE ( $\eta^2p=.041$ ), and when OE is also a predictor, the initial interaction became non-significant.

**Discussion:** Perception of an individual action's impact is an important determinant of health promoting behaviours like hand hygiene which should be taken into account by campaigns encouraging collective action.

9:45 - 10:00

## How self-efficacy and social support are chain when predicting physical activity in adults?

A. Banik<sup>1</sup>, K. Zarychta<sup>1</sup>, M. Boberska<sup>1</sup>, M. Kruk<sup>1</sup>, K. Horodyska<sup>1</sup>, E. Kulis<sup>1</sup>, Z. Szczuka<sup>1</sup>, A. Luszczynska<sup>1</sup>

<sup>1</sup>SWPS University of Social Sciences and Humanities, Poland

**Background:** The vast majority of research investigating the effects of self-efficacy and social support on physical activity (PA) does not clarify what comes first, self-efficacy or social support? It is crucial to establish if these factors are chained in a specific way, with either enabling function of social support (enabling hypothesis: social support prompts self-efficacy) or cultivation function of self-efficacy (cultivating hypothesis: self-efficacy prompts social support).

**Methods:** Data were collected among adult participants (N = 480 at T1; mean age = 46.21, SD = 16.54, 67% of women) at the baseline (T1), 2-month follow-up (T2), and 6-month follow-up (T3). Participants self-reported PA self-efficacy, social support for PA, and their moderate-to-vigorous physical activity (MVPA). Mediation analyses with two sequential mediators (with either self-efficacy or social support and MVPA at T2 as mediators) were applied to test the hypothesized associations.

**Findings:** The analyses confirmed the enabling hypothesis: adults who reported higher levels of social support for PA at T1 self-reported higher self-efficacy for PA at T2, and higher levels of MVPA at T2 and T3. The results yielded no support for the cultivation hypothesis.

**Discussion:** This study offers an insight into the order in which modifiable psycho-social variables operate when predicting MVPA among adults. Received social support for PA is likely to prompt beliefs about one's ability to be physically active, which in turn may predict higher levels of MVPA.

10:00 - 10:15

## Behaviour theory-based predictors of organ donation registration: A systematic review

J. Bonnell<sup>1</sup>, J. Brehaut<sup>2</sup>, J. Grimshaw<sup>2</sup>, R. Fakhraei<sup>1</sup>, J. Pesseau<sup>2</sup>

<sup>1</sup>University of Ottawa, Canada

<sup>2</sup>Ottawa Hospital Research Institute, Canada

**Background:** Organ donation registration (ODR) ensures clarification of one's wishes upon death, making it easier for next-of-kin to make donation decisions. While support for registration is high in many countries operating donation registries, actual registration rates are considerably lower. We aimed to systematically review the literature to identify which theories of behaviour and which constructs account for variability in ODR intention and behaviour.

**Methods:** PsycINFO, MEDLINE, EMBASE, CINAHL, and ERIC were searched for studies published up to September 2018. We included studies using questionnaires to assess constructs from a theory of behaviour and that used responses to test associations with intention and/or behaviour. Theoretical construct correlations and R<sup>2</sup> scores from regression were meta-analyzed for intention and behaviour.

**Findings:** Of the 1999 identified, 29 studies met eligibility criteria. Fifteen different theories of behaviour were tested across studies. Of 22 studies that could be meta-analyzed, constructs accounted for 50% of the variability in intention and 20% in behaviour. The theory of planned behaviour, prototype-willingness model, and theory of reasoned action were represented most often across behaviour and intention. Constructs such as attitude (0.46), subjective norms (0.57), and perceived behavioural control (0.47) were most strongly bivariate with intention, while intention (0.77) and bodily integrity (-0.33) were most strongly associated with behaviour.

**Discussion:** An array of theories has been applied to understand ODR intention and behaviour, though most predict intention only, or assess registration behaviour cross-sectionally, rather than prospectively. Identifying modifiable theory-based constructs associated with ODR may help to inform interventions to increase registration.

10:15 - 10:30

## Taking it a step further – effects of cross health behaviour beliefs

E. Ivanova<sup>1</sup>

<sup>1</sup>Sofia University "St. Kliment Ohridski", Bulgaria

The present research based partially on the Health Action Process Approach is aimed at examining the relationships between psychological constructs referring to two behaviours – healthy eating (HE) and physical activity (PA) – by creating separate models combining beliefs and cognitions for both behaviours. The study was carried out with 210 participants (M=22.8 years). Self-report questionnaires adapted from previous research measuring self-efficacy, outcome expectancies, transfer cognitions, intention, and planning were applied in two versions for each health behaviour. The two models tested in AMOS with SEM included self-efficacy, outcome expectancies, and transfer cognitions regarding one of the behaviours as predictors for intentions (mediator) and planning (outcome variable) for the other behaviour. In the first model self-efficacy for HE and transfer cognitions had significant direct effects on intention for PA and significant direct and indirect effects on planning PA. Nevertheless, the model did not fit the data well. In the second model, transfer cognitions had significant direct and indirect effects on planning HE, while self-efficacy for PA had a direct effect and outcome expectancies for PA – an indirect one. The model explained 48% of the variance in planning HE and was a good fit. Consequently, cognitions and beliefs about the ability to be physically active were associated with intentions and plans to also eat healthily, while the opposite was not necessarily true. The findings underline the importance of multiple health behaviour change and suggest that motivational elements and transfer cognitions regarding exercise may be beneficial in planning healthy eating.

10:30 - 10:45

## Network centrality among health behaviours: A new modelling framework and proof of concept

G. Nudelman<sup>1</sup>, Y. Kalish<sup>2</sup>, S. Shiloh<sup>2</sup>

<sup>1</sup>The Academic College of Tel Aviv-Yaffo, Israel

<sup>2</sup>Tel Aviv University, Israel

**Background:** Behavioural risk factors are the foremost causes of disability and premature mortality. The decision to engage in them and subsequent implementation of this decision are psychologically driven. Consequently, the current study presents a new perspective for understanding the interrelations among health behaviours by conceptualizing them as evaluative reactions in a psychological network. In addition, differences in centrality of specific behaviours were expected as a function of socioeconomic status and gender.

**Methods:** A representative sample (n = 374) reported the performance of 37 health behaviours. The data were analysed as a weighted network with the aim of identifying 'central' nodes, which are behaviours that are likely to co-occur with others.

**Findings:** In line with conservation of resources theory, behaviours related to basic physiological needs (nutrition and sleep) were the most central among the network of health behaviour. In addition, sleep hygiene, eating meals regularly, and periodic medical examinations were more central among high- compared to low- socioeconomic status participants, and behaviours related to supportive social relationships and sun protection were more central among women compared to men.

**Discussion:** The network approach has identified core health behaviours with potentially high impact on other healthy lifestyle behaviours, stressing the need to consider connectivity among multiple health behaviours in future research and health intervention programs.

10:45 - 11:00

## An ontology-based modelling system for representing behaviour theories

N. Anderson<sup>1,2</sup>, J. Hale<sup>1</sup>, S. Zink<sup>1</sup>, L. Connell Bohlen<sup>1,3</sup>, C. Lefevre<sup>4</sup>, R. West<sup>1</sup>, S. Michie<sup>1</sup>

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<sup>4</sup>UCL, United Kingdom

**Background:** Previous research demonstrated that theories of behaviour vary significantly in terms of conceptualization, constructs, and relationship between constructs. In order for theories to be efficiently compared, searched, tested, integrated and used, a formal computable system is required for representing theories. This study aimed to develop an ontology-based modelling system ‘OBMS’ for theories of behaviour.

**Method:** The OBMS involved identification, labelling and definition of constructs and relationships between constructs for 75 theories of behaviour. Representations of theory propositions and construct definitions were sent to theory authors/experts for comment, and subsequently amended as required. This process shall be illustrated using ‘Control Theory’.

**Findings:** 75 theory representations were developed by the research team and sent to their corresponding authors/experts for feedback. The response rate from authors/experts was 72.00% (N=54), with general agreement that the method for specifying theories could capture their key features. 50.67% (n=38) agreed with the proposed theory representation, either on first review or after minor amendments. A further 21.33% (n=16) were agreed following more extensive amendments and discussion, and 28.00% (n=21) were finalized following no response being received from authors/experts.

**Discussion:** The OBMS provided an effective method for precise and systematic specification of a range of behaviour theories, enabling comparisons between the main components and relationships between components. The next stage shall focus on developing a computational database of theories represented using the OBMS that may be searched for construct labels, relationships and definitions. This database shall be aimed at allowing researchers to test and develop theory propositions.

ORAL

# Health issues and quality of life

9:30 - 11:00

Olipa 1, Valamar Collection Dubrovnik President

Maria Emilia Areias

9:30 - 9:45

## Optimism, Cancer Patients' Depressive Symptoms, and Quality of Life: Mediating Role of Cancer Related Self-efficacy

İ. Akıncı<sup>1,2</sup>, C. Akyüz<sup>2</sup>, Ö. Bozo<sup>2</sup>

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<sup>2</sup>Middle East Technical University, Turkey

It was well established that optimistic attitudes in cancer patients predict better psychological and physical adjustment to the illness both during and after the treatment (Mazanec, Daly, Douglas, & Lipson, 2010; Bozo, Gündoğdu, & Büyükaşık-Çolak, 2009). Previous studies indicated that optimism is indirectly associated with cancer patients' quality of life (QOL) through coping styles and appraisals used by the patients (Schou, Ekeberg, & Ruland, 2005). To understand whether there are other psychological mechanisms underlying the relation of optimism with quality of life and depressive symptoms of cancer patients, the current study aimed to investigate the mediator role of cancer related self-efficacy. One hundred and twenty cancer patients participated in the study and Life Orientations Test-Revised, Cancer Behavior Inventory, Beck Depression Inventory, and Multidimensional Quality of Life Scale–Cancer were administered to them. Results revealed that of the four self-efficacy domains, only the one related to maintaining activity and independence mediated the optimism-QOL and optimism-depression relations. These findings highlighted the importance of patients' beliefs in their ability to sustain their daily activities for having better physical and psychological well-being.

9:45 - 10:00

## Clinical variables that mediate the impact of congenital heart disease in quality of life

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**Background:** 80% of patients with congenital heart disease (CHD) survive to adulthood. That generates interest in the study of quality of life (QoL). Our purpose was to examine the role of selected clinical variables in mediating the impact of illness in QoL.

**Methods:** Assessment measures were obtained on a single occasion. Clinical data were collected retrospectively using each patient's clinical record.

393 CHD patients (219 males, 125 cyanotic, 93 severe) aged from 13 to 30 years old (mean=16,15±3,02).

Patient's clinical record data included diagnosis, severity, category of CHD and surgical interventions. Semi-structured interview collected personal and demographic data. WHOQOL-Bref assessed QoL.

**Findings:** 8 Mediator models were analyzed using bootstrapping Methods: First 4 models, type of CHD (cyanotic/acyanotic) showed a significant relationship with the NSI (B=-,8184, SE=1,742, p<0,001). Models 5 to 8, severity of CHD (severe/moderate/mild) also showed a significant relationship with NSI (B=-,6870, SE=1,617, p<0,001).

NSI was negatively related to perceived QoL in all models, except model 4.

Also NSI showed to be a mediator, having indirect effect, decreasing the perception of physical (PHD), psychological (PSD), social relationships (SRD) and global (GD) domains of QoL: PHD: 1,3572; Confidence Interval (CI):0,5627-2,6610; PSD: 1,1471; CI: 1,798-2,2716 and SRD: 1,6543; CI: 0,5492-3,0263. PHD: 0,8969; CI:0,1927-2,0000; PSD: 0,9396; CI:0,2007-1,8950; SRD: 1,5500 CI:0,6060-2,9030 and GD: 1,0183; CI:0,2082-2,1698.

**Discussion:** These findings suggest that when CHD patients have more surgical interventions, it increases the risk that more negative outcomes in perception of QoL might ensue. These mediation models provide an understanding to potential interventions of health psychologists.

10:00 - 10:15

## Meaning in Life and Therapeutic Adherence as Determinants of Quality of Life in HIV Patients

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<sup>3</sup>Centre of Psychology of University of Porto, Portugal

**Background:** The main goal of this research was to study the variables associated with a positive adaptation to an HIV infection, aiming at understanding how therapeutic adherence, meaning in life (ML) and marital satisfaction interfere with Quality of Life.

**Methods:** The subjects studied were 42 seropositive adults under antiretroviral therapy. Data was collected in a hospital setting, through: a sociodemographic and clinical questionnaire; CEAT-HIV; Meaning of Life Scale - ML Scale; Marital Life Areas Satisfaction Evaluation Scale and WHOQOL-Bref.

**Findings:** We found positive correlations between quality of life and the variables of therapeutic adherence, ML and marital satisfaction. The regression models for the domains of Quality of Life included therapeutic adherence and ML as significant predictors, explaining: 34% in Physical ( $R^2_{Aj}=.34$ ,  $F(2,33)=9.32$ ,  $p=0,001$ ); 63% in Psychological ( $R^2_{Aj}=.63$ ,  $F(2,33)=29.00$ ,  $p<0,001$ ); 35% in Social Relationships ( $R^2_{Aj}=.35$ ,  $F(2,33)=9.83$ ,  $p<0,001$ ) and 33% in Environment ( $R^2_{Aj}=.33$ ,  $F(2,33)=9.28$ ,  $p=0,001$ ). However, ML was the only variable with a significant contribution to the respective models: Physical ( $\beta=.550$ ,  $p=0,01$ ); Psychological ( $\beta=.728$ ,  $p<0,001$ ); Social Relationships ( $\beta=.532$ ,  $p=0,001$ ) and Environment ( $\beta=.533$ ,  $p=0,001$ ).

**Discussion:** These results reinforce the influence of therapeutic adherence and meaning in life for the perception of quality of life in HIV infection. For those who maintained a satisfying marital relationship, the domain of social relations was even improved. Thus, it is suggested that any psychological intervention conducted in this context must enhance the important role of these variables.

10:15 - 10:30

## Sexual health and quality of life among lung cancer survivors

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**Background:** While the sexual health impacts of genitourinary, gynecologic, and breast cancers and their treatments have received research attention, these impacts have not been well studied in other cancers. This study, therefore, aimed to examine associations between sexual health and quality of life (QOL) factors in a cohort of lung cancer patients across cancer stages.

**Methods:** Adult lung cancer patients (242 male, 282 female) were recruited during their first appointment at an academic medical center and completed surveys assessing sociodemographic variables, sexual health (sexual interest and intercourse difficulty/discomfort), Karnofsky Performance Status, and multiple QOL scales. Wilcoxon and chi-square tests examined the associations among sexual health and QOL measures.

**Findings:** 82.8% of men were married, 83.1% smokers, and mean age was 69.8 ( $\pm 9.7$ ). 63.3% of women were married, 74.1% smokers, and mean age was 66.5 ( $\pm 10.9$ ). Those reporting low sexual interest in the past month (52.8% of men, 68.2% of women) were older ( $p < 0.05$ ), reported less social activity ( $p \leq 0.001$ ), and had worse performance status ( $p < 0.02$ ), physical well-being ( $p \leq 0.001$ ), fatigue ( $p < 0.05$ ), and overall QOL ( $p \leq 0.001$ ). Additionally, women reporting low sexual interest endorsed poorer emotional ( $p < 0.005$ ) and mental ( $p < 0.01$ ) well-being, and women reporting intercourse difficulty/discomfort endorsed poorer emotional ( $p < 0.05$ ) and spiritual ( $p < 0.05$ ) well-being.

**Discussion:** Assessment of sexual health, as recommended by National Comprehensive Cancer Network guidelines, is important for whole-person care in lung cancer, especially given its association with performance status and QOL.

10:30 - 10:45

## Predictors of health-related quality of life in patients with end-stage kidney disease in haemodialysis treatment.

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<sup>2</sup>Fundación Renal Íñigo Álvarez de Toledo (FRIAT), Spain

**Background:** The present study aims to explore the degree to which anxiety, depression, and socioeconomic and medical variables contributed to the prediction of health-related quality of life (HRQoL) in patients with end-stage kidney disease (ESKD).

**Methods:** Participants of this cross-sectional study were 302 patients with ESKD receiving haemodialysis treatment in three different clinics. They were assessed: 1) HRQoL (Shorter Form Health Survey Questionnaire, which includes two dimensions: physical and mental); 2) Anxiety and depression (Goldberg Anxiety and Depression Scale); 3) Sociodemographic data (age, gender, economic incomes, etc.) and 4) Medical data (diagnosis, months in dialysis, physical activity, comorbidity, etc.). Correlational analyses, means comparisons and a path analysis with latent variables (PALV) were conducted.

**Findings:** Age was the only sociodemographic variable related to physical HRQoL ( $r=-.122$ ;  $p=.034$ ). Comorbidity was the only medical variable associated to physical HRQoL ( $r=-0.206$ ;  $p<.05$ ). The degree to which the patient does regular physical activity is related to physical ( $r=.21$ ;  $p<.01$ ) and mental ( $r=.12$ ;  $p<.05$ ) HRQoL. Anxiety and depression were both significantly and inversely correlated to HRQoL. The PALV showed that 42% of the variance in HRQoL could be explained by the variables assessed ( $\chi^2/df=2.10$ ;  $GFI=.938$ ;  $IFI=.920$ ;  $CFI=.918$ ;  $RMSEA=.062$ ;  $SRMR=.056$ ). Depression was the strongest predictor of HRQoL ( $-.71$ ;  $p=.002$ ), followed by physical activity ( $-.19$ ;  $p=.044$ ).

**Discussion:** A high percentage of the variance in HRQoL is explained by the levels of depression and physical activity. Interventions to promote HRQoL in patients with ESKD should focus on promoting physical activity and taking care of the patient's mental health.

10:45 - 11:00

## A photovoice study: Exploring the maternal embodied experiences of women experiencing a high-risk pregnancy

M. Anthony<sup>1</sup>, M. Andipatin-Botha<sup>1</sup>

<sup>1</sup>University Western Cape, South Africa

**Background:** Extensive research has been conducted in the context of high-risk pregnancy. However, only few studies explored maternal embodiment. The aim of the presentation is to show how women's maternal embodied experiences of hypertensive disorders are constructed. The primary objectives of our study were to explore the bodily experiences of women during their high-risk pregnancies, to explore the meanings attached to the high-risk pregnant body and to unpack their emotional and psychological experiences.

**Methods:** The study was an exploratory qualitative study. The sample consisted of n=11 women from one state hospital in the Western Cape, South Africa. Photovoice and semi-structured interviews were used to collect information on the experiences of the participants. The data was analysed through thematic analysis.

**Findings:** The findings of the study highlight that the emotional experiences, the experiences of care and of support are at the foreground of the maternal embodied experience. The three major themes were (a) women's emotional responses to their high-risk pregnancies (b) the rationalisation processes used by women (c) the knowledge gap and disempowerment.

**Discussion:** This study highlights high-risk pregnancies are traumatic in and of itself. Maternal embodiment is not a linear process; it is complex in nature as it encompasses various aspects of a woman's life. Therefore, further research should explore the trauma experienced in a high-risk pregnancy and the effects thereof on women's psychological well-being.

ORAL

# Psychosomatic issues and psychosocial influences on pain-related care

9:30 - 11:00

Galijun, Valamar Argosy

Sónia Bernardes

9:30 - 9:45

## Choosing wisely: the influence of treatment choice on nocebo effects

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**Background:** People make a vast number of choices every day, including choices about medical treatments. Having a choice of treatment can enhance health outcomes, at least in part via the placebo effect. Emerging evidence indicates that choice can also reduce treatment side effects, likely via reduced nocebo effects (unpleasant side effects that are not caused by the treatment itself).

**Aims:** To understand whether choice (compared to no choice) reduces nocebo effects, and whether this is mediated by negative expectations.

**Methods:** Participants (N=71) were recruited to take part in a study ostensibly investigating the influence of beta-blocker medications (actually placebos) on pre-test anxiety, and were warned about possible side effects. Participants were randomly allocated to one of three groups: no treatment control, placebo treatment with no choice, and choice of two placebo treatments. To assess nocebo effects, physical symptoms were measured at baseline and 20-minutes after placebo administration.

**Findings:** Participants in the no-choice condition reported significantly more symptoms than the no treatment control condition ( $p = .01$ ), indicating the presence of a nocebo effect. No nocebo effect was seen in the choice condition ( $p > .49$ ). Negative treatment expectations did not differ between the choice and no-choice conditions ( $p = .93$ ).

**Discussion:** Having a choice of treatment – compared to no choice – blocked the development of nocebo effects. These findings have implications for medical care. In this study choice did not influence negative expectations. Future research should examine other possible mechanisms underlying the influence of treatment choice on nocebo effects.

9:45 - 10:00

## Associations between pain, coping and emotional states in patients treated with haemodialysis: a longitudinal study

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<sup>5</sup>Inserm U-1018 Team5, France

**Background:** Many patients treated by haemodialysis (HD) experience pain, particularly during their dialysis sessions. However, coping strategies, anxiety and depression have not been explored in relation to pain during HD sessions. The aim of this study was to evaluate HD patients' pain coping strategies, anxiety and depression and their associations with general pain and during-dialysis pain.

**Methods:** 89 patients having HD (mean age=58.4 years, 62.5% men) were recruited in 6 dialysis centres in France. They completed standard measures of pain (BPI), pain coping strategies (CSQ, CPCI), anxiety and depression (HADS) at inclusion and a short questionnaire during each HD session to assess their emotions and pain. Statistical analyses included correlations and multi-level analyses.

**Results:** 60.2% of the patients reported experiencing pain at inclusion and 40% reported pain in 1/3 of their HD sessions. Catastrophizing and guarding were associated with more overall pain (at inclusion and during HD sessions), whereas ignoring pain sensations and task persistence were associated with less pain during HD sessions. Surprisingly, patients' anxiety and depression were not associated with pain at inclusion, but were associated with pain during HD sessions, as well as emotions reported at the beginning of HD sessions.

**Discussion:** These results show some specificities regarding psychosocial factors associated with pain during HD sessions. Indeed, usual associations observed in chronic pain differ in HD. It seems especially important to be attentive to emotional states during HD sessions. Interventions focusing on coping and emotions could be proposed to patients in HD.

10:00 - 10:15

## The unmet needs of rheumatoid arthritis patients treated with biologics

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<sup>1</sup>Department of Social and Behavioural Medicine, P.J. Safarik University in Kosice, Slovakia

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<sup>3</sup>Department of Internal Medicine, Faculty of Medicine, PJ Safarik University, Kosice, Slovakia

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**Background:** Biological response modifiers are the newest class of drugs used to treat rheumatoid arthritis (RA). Increased effectiveness of pharmacological treatments in RA has led many to believe that difficult-to-treat RA is a condition of the past. Yet, there are still many RA patients who continue to have symptoms suggestive of inflammatory disease activity as well as psychological difficulties. The aim this study was to identify the most frequent symptoms and unmet needs of RA patients undergoing biological treatment.

**Methods:** The sample consisted of 183 patients (response rate 83.9%, 80.9% females, mean age 55.57±13.54 years). Data were collected within a semi-structured phone interview with a trained interviewer. Thematic analysis was used to identify themes and sub-themes relating to the experiences of RA patients' difficulties and treatment preferences.

**Findings:** Among the most prevalent symptoms in RA patients were physical problems (97.3%), pain (91.3%), fatigue (82.5%), functional disability (89.6%), and morning stiffness (73.%). Psychological problems were reported by 33.3% of RA patients; and included sadness (27.9%), depressive symptomatology 25.2%, and loneliness 7.7%. The results further show that RA patients are interested in additional interventions for RA. A total of 88% (n=161) of the RA patients expressed their interest in non-pharmacological interventions.

**Discussion:** The results show that despite positive experiences with biological treatment many RA patients have unmet self-identified clinical and psychosocial needs. For better disease management a deeper understanding of what is known about the multiple contributory factors varying for each individual patient is necessary. [Grant support: APVV-15-0719]

10:15 - 10:30

## Cognitive predictors of treatment outcomes in Chronic Fatigue Syndrome: Attentional bias, malleability and interpretation bias

A. Hughes<sup>1</sup>, T. Chalder<sup>1</sup>, R. Moss-Morris<sup>1</sup>, C. Hirsch<sup>1</sup>

<sup>1</sup>King's College London, United Kingdom

**Background:** This study investigates whether cognitive processes of attentional bias, attentional malleability and interpretation bias, predicts response to treatments for Chronic Fatigue Syndrome (CFS).

**Method:** Thirty patients with CFS who received either Cognitive Behavioural Therapy (CBT) or Graded Exercise Therapy (GET) for CFS, completed measures of fatigue and physical functioning pre- and post-treatment. Patients also completed experimental tasks to assess attentional bias towards illness-related information, (visual-probe task), attentional malleability (assessed via extent of change on attentional bias over a brief attentional bias training) and interpretation bias (recognition task), pre-treatment. Cognitive processing variables were entered as predictors in regression analyses, with post-treatment fatigue or functioning scores as the outcome variables, and pre-treatment scores as covariates. **Findings:** Fatigue and functioning significantly improved after both CBT and GET. Pre-treatment attentional bias and an increased attentional malleability predicted better functioning, but not fatigue, post-treatment. Interpretation bias did not predict either fatigue or functioning outcomes.

**Discussion:** These findings suggest both attentional biases towards CFS material, and attentional malleability, are important factors in predicting treatment outcomes in CFS. This knowledge can help us understand the cognitive characteristics of those most likely to benefit from current treatment protocols for CFS and guide further research to tailor treatments.

10:30 - 10:45

## Classism in pain care: The mediating role of perceived hardship and dehumanization

S. Bernardes<sup>1</sup>, F. Teixeira<sup>1</sup>, L. Campos<sup>1</sup>

<sup>1</sup>ISCTE-Instituto Universitário de Lisboa, Portugal

**Background:** Research on social disparities in pain care has been mainly focused on the role of race/racism and sex/sexism. Classism in pain assessment and management practices (PAMP) has been much less investigated and very little is known about its mediating mechanisms. Drawing upon social psychological models of dehumanization, this set of two studies aimed to test: (1) the effect of patient socioeconomic status (SES; a proxy of social class) on PAMP and (2) whether patient dehumanization and perceived life hardship mediated these effects.

**Method:** Two online experimental studies were conducted, with one within-subjects factor (patient SES: low vs. medium). 66 female nurses (study 1) and 113 female medical students (study 2) were presented with vignettes/pictures depicting 2 clinical cases of women with chronic low-back pain, followed by videos of the patients performing a pain inducing movement. Participants reported their perceptions of patient dehumanization, life hardship and PAMP.

**Findings:** Medical students attributed less intense pain to Low SES patients. In both samples, Low SES patient's pain was perceived as more credible and disabling. Medical students reported lower intentions of engaging in patient-centered care with the Low SES patient, whereas nurses showed the opposite pattern. Perceived life hardship accounted for the effects of SES on perceived pain disability and credibility. Dehumanization did not mediate SES effects on PAMP.

**Discussion:** Findings show pervasive effects of SES on PAMP, partially supporting the mediating role of perceived hardship but not of dehumanization. Implications for future research and health-professionals' training development are drawn.

ORAL

Social support and well-being in  
different contexts

9:30 - 11:00

Asimon, Valamar Lacroma Dubrovnik

Catrinel Craciun

9:30 - 9:45

## Self-efficacy related with emotion regulation and caregiving burden in mothers of children with heart disease

S. Yalçın<sup>1</sup>, Ö. Yalçinkaya Alkar<sup>2</sup>

<sup>1</sup>Bolu Abant İzzet Baysal University, Turkey

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This study aimed to investigate the mediation role of parenting self-efficacy in relation between cognitive emotion regulation strategies and caregiving burden in mothers of children with heart disease in the frame of the transactional stress and coping model of adjustment to chronic illness. 210 mothers were presented Zarit Burden Interview, Cognitive Emotion Regulation Questionnaire-Short Form and Perceived Parental Self-Efficacy Scale. To identify the predictors of caregiving burden, regression analysis was conducted and possible mediator roles of self-efficacy in relation between cognitive emotion regulation strategies and caregiving burden were examined with PROCESS macro analysis. Regression analysis showed that catastrophizing  $F(1, 208)=24.546$ ,  $p<.05$ ,  $R=.325$ ,  $R^2=.106$ , other-blame  $F(1, 208)= 13.155$ ,  $p<.05$ ,  $R=.244$ ,  $R^2=.059$  and parenting self-efficacy  $F(1, 208)=13.195$ ,  $p<.05$ ,  $R=.244$ ,  $R^2=.060$  significantly predicted caregiving burden ( in total,  $R=.398$ ,  $R^2=.158$ ) in mothers of children with heart disease. While catastrophizing  $\beta=.236$ ,  $p<.05$ , and other-blame  $\beta= .244$ ,  $p<.05$  increased, caregiving burden increased. While parenting self-efficacy  $\beta=-.244$ ,  $p<.05$  decreased, caregiving burden increased. Additionally, it was found that catastrophizing predicted parenting self-efficacy,  $b=-.130$ ,  $SE=.257$ ,  $p<.05$ ; parenting self-efficacy predicted caregiving burden,  $b=-.203$ ,  $SE=.084$ ,  $p<.05$ . When the role of parenting self-efficacy was controlled, predictive power of catastrophizing for caregiving burden was decreased from  $b=1.566$  to  $b=1.337$ . Accordingly, it was found that self-efficacy partially mediated the relationship between catastrophizing and caregiving burden. To decrease the negative effect of catastrophizing on caregiving burden, it is crucial to develop psychological interventions which promotes parenting self-efficacy beliefs of mothers whose children have heart disease.

9:45 - 10:00

## Psychosocial experiences in grandparents whose grandchildren suffer from severe health impairments: a systematic review

C. Priboi<sup>1</sup>, K. Roser<sup>1</sup>, L. Neves da Silva<sup>1</sup>, G. Michel<sup>1</sup>

<sup>1</sup>University of Lucerne, Switzerland

**Background:** Grandparents often are the most important source of emotional and practical support for families of children with severe health impairments. However, little is known about the psychosocial experiences of grandparents when their grandchild suffers from a severe health impairment. The aim of this systematic review was to investigate the current state of research on how a severe health condition in a grandchild psychologically affects grandparents.

**Methods:** We systematically searched the databases PubMed and PsycINFO for relevant publications and narratively synthesized the included studies.

**Findings:** The search resulted in 633 eligible publications. After screening, eight studies were included in the review. Psychological impacts on grandparents of ill grandchildren consisted in rapid adaptation to and acceptance of the situation, adjustment of the identity as grandparents and putting one's own needs in the background. Studies indicated that grandparents experienced helplessness, uncertainty, lack of control over the situation, and higher levels of stress, anxiety, depression, and anger as compared to control groups. Positive psychological effects have also been reported, i.e. personal growth, tighter family bounds and pride in how family members were coping with the situation.

**Discussion:** Our systematic review highlights the impact of a severe disease in a child on the larger family, including the grandparents. Despite positive experiences, many grandparents reported psychological problems. Information and support for this group could help families cope better with the difficult situation.

10:00 - 10:15

## Giving support to a stranger affects stress appraisal, self-focus, and perception of others' self-centeredness.

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<sup>1</sup>University of British Columbia, Canada

**Background:** This experimental study examines how engaging in prosocial behavior directed towards a stranger influences stress appraisals and perception of others and work as potential mediators for stress regulation.

**Methods:** We recruited 300 participants from Amazon MTurk and 251 attentive participants were included in our analyses ( $M_{age}=37.51$ ; 145 women). Participants were randomly assigned to one of 3 experimental groups (prosocial, proself, control). They were asked to (1) write about their current stressor (2) write a supportive message to a stranger in a vignette (prosocial condition), to themselves (proself condition), or write about their commute (control condition). Afterwards, they reported their perception of the stressor (3-item), self-focus (2-item; e.g., "I cannot stop my mind from thinking about my problem."), and their perception of others' self-centeredness/ altruism (3-item; e.g., "people are self-centered").

**Findings:** The prosocial group perceived their stress as less "serious" ( $F=5.199$ ,  $p=.006$ ) and less "significant" than the proself and control groups ( $F=6.387$ ,  $p=.001$ ). The prosocial group also reported lower self-focus ( $F=4.543$ ,  $p=.012$ ), particularly than the control group ( $p=.012$ ). This suggests a decentering effect from one's problem after engaging in prosocial behavior. The prosocial group perceived others as less self-centered and as more caring ( $F=3.135$ ,  $p=.045$ ), particularly than the control group ( $p=.047$ ). Their decreased self-focus after support-giving may have been projected to their views of others' self-centeredness.

**Discussion:** Our findings suggest two potential psychological mechanisms—stress appraisal and perception of others—which may link prosocial behavior towards someone outside of one's immediate network to enhanced stress regulation and health outcomes.

10:15 - 10:30

## The role of peers for general and diabetes-specific functioning throughout adolescence and emerging adulthood.

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<sup>4</sup>Free University Brussels, Belgium

<sup>5</sup>University of the Free State, Bloemfontein, South Africa

**Background:** Despite clear evidence that peers are of major importance for youth development, research on the role of peers for youth with type 1 diabetes (T1D) is still in its infancy. We assessed the development of both emotional peer support and extreme peer orientation (EPO) in a large sample of youth with T1D. Development of both peer variables was linked to trajectories of important general and diabetes-specific outcomes.

**Methods:** A total of 559 adolescents (14-17y) and emerging adults (18-25y) with T1D completed questionnaires at baseline, one, two, and three years later. Questionnaires tapped into support, EPO, depressive symptoms, diabetes-specific distress, and treatment adherence. HbA1c-values were obtained from patients' physicians. Multivariate latent class growth analysis was conducted to identify trajectory classes of peer support and EPO. Next, multigroup latent growth curve modelling assessed whether class membership moderated trajectories of depressive symptoms, diabetes-specific distress, treatment adherence, and glycemic control.

**Findings:** Class 1 (48%) included participants with adaptive trajectories of high support and low EPO over time. Class 2 (29%) was characterized by low support and EPO and class 3 (17%) by high support and EPO. Class 4 (6%) included participants with maladaptive trajectories of low support and high EPO. Class 1 had significantly less depressive symptoms, distress, and better treatment adherence and glycemic control over time compared to other classes. Class 4 scored significantly worse on general and diabetes-specific functioning.

**Discussion:** These findings point to the importance of a supportive peer context toward illness functioning and well-being throughout adolescence and emerging adulthood.

10:30 - 10:45

## A novel exploration of social-support needs of people with diabetes initiating a complex health technology

C. Reidy<sup>1</sup>

<sup>1</sup>University of Southampton, United Kingdom

**Background:** Few diabetes interventions come from the perspective of improving self-management through social networks, yet social networks provide a potentially powerful means of mobilising, mediating and accessing support and resources for improved health and well-being. This study aimed to establish what practical and emotional means of support are required throughout the process of adaptation of an advanced new health technology such as insulin pump therapy (IPT).

**Methods:** A longitudinal design using qualitative semi-structured interviews from baseline to 6 months on from IPT initiation. Participants were people with Type 1 diabetes initiating IPT through the National Health Service (NHS) in the UK. Interviews were analyzed using framework analysis with sequential, time-ordered matrices.

**Findings:** 16 adults took part in n=47 interviews. Key themes included the: novel technology creating increased burden on established self-management practices; importance of IPT NHS clinics particularly in early stages of adaptation; advantages of trouble-shooting with peers and; lack of relevance for particular types (or approaches) of healthcare professionals (i.e. General Practitioners).

**Discussion:** This study has captured the process of adjustment and incorporation of IPT over time and the corresponding mechanisms and sources of social support. Pump clinics represented here were praised for their unique, non-judgemental approach. Visualisation of support networks using concentric circles enabled people to consider and mobilise support and engage in new prioritised activities as their needs changed. The novelty of utilising a complex new technology can create increased illness-burden but mobilisation of personally valued flexible, non-judgemental, and tailored support can improve the process of adaptation.

10:45 - 11:00

## Developing a measure of collective efficacy in personal networks: a complement to self-efficacy

R. Band<sup>1</sup>, E. James<sup>1</sup>, D. Culliford<sup>1</sup>, A. Rogers<sup>1</sup>, I. Vassilev<sup>1</sup>

<sup>1</sup>University of Southampton, United Kingdom

**Background:** Social Cognitive Theory acknowledges that both individual and environmental factors are important determinants of behavior. Collective efficacy is positioned as an accompaniment to self-efficacy; where collective efficacy may mediate and reinforce individual efficacy beliefs about capacities and outcomes. We sought to develop a measure of perceived collective efficacy within personal social networks.

**Methods:** A mixed methods approach was used, guided by theory and with extensive input from adults with long-term conditions who completed the initial questionnaire (n=78) with test-retest assessed at 2 weeks (n=68). A second sample (n=85) completed a postal questionnaire including CENS, theoretically linked constructs (self-efficacy, social support) and health outcomes (loneliness, mental and physical health).

**Results:** Principal components analysis demonstrated a two-factor structure with 12-items selected to represent Network responsiveness (8 items, Cronbach's alpha =.896) and Access to collective efficacy (4 items, Cronbach's alpha =.773). Good test-retest reliability was established for both subscales (r = .793-.853). Network responsiveness was associated with self-efficacy (r = .342, p < .001) and social support (r = .407, p < .001) and predicted reduced loneliness. Access to collective efficacy significantly predicted better mental health; the predictive validity of the subscales improved when combined with self-efficacy.

**Conclusion:** The CENS is an acceptable and psychometrically robust measure of collective efficacy in personal social networks. Measuring collective efficacy with self-efficacy will provide useful information for researchers and policymakers interested in capacity for self-management and social determinants of behaviour change.

## ORAL

# Role of interventions in managing diabetes and cardiac risk

11:30 - 13:00

Elafiti 3, Valamar Lacroma Dubrovnik

Falko Sniehotta

11:30 - 11:45

## The Randomised Diabetes Remission Clinical Trial (DiRECT): Two-year results and process evaluation

F. Sniehotta<sup>1</sup>, L. Rehackova<sup>1</sup>, o.b.o. the DiRECT study group<sup>1</sup>

<sup>1</sup>Newcastle University, United Kingdom

**Background:** The Randomised Diabetes Remission Clinical Trial (DiRECT) tested if an intensive non-surgical weight management within primary care can achieve remission of type 2 diabetes.

**Methods:** DiRECT is an open-label, cluster-randomised trial in 49 primary UK care practices randomly assigned to provide either a weight management programme (intervention) or standard care (control). Participants were aged 20–65 years, BMI= 27–45kg/m<sup>2</sup>, diagnosed with type 2 diabetes within 6 years not receiving insulin. The intervention comprised withdrawal of antidiabetic and antihypertensive drugs, total diet replacement (825–853kcal/day formula diet for 3–5months), stepped food reintroduction (2–8weeks), and structured support for weight loss maintenance. Co-primary outcomes were weight loss of ≥15kg and remission of diabetes from baseline to 12/24 months. Mixed methods process evaluation was conducted (ISRCTN03267836).

**Findings:** At 12m, 36(24%) participants in the intervention arm achieved a weight loss ≥15kg (none in control arm) and 68(46%) achieved remission (6[4%] in the control arm). Body weight fell by 10.0kg in the intervention and 1.0kg in the control arm. At 24 months, 11.4% in the intervention (controls: 2.0%) sustained ≥15kg weight loss with 35.6% the intervention arm in remission, compared to 3.4% in the control arm. Quality of life was higher in the intervention arm at 12/24 months.

Clinical and peer support, satisfaction with weight loss, discontinuation of medication and diabetes outcomes were the main facilitators of participants' adherence and continuous motivation.

**Discussion:** Type 2 diabetes can be reversed. Opportunities for implementing and optimizing behavioural interventions to achieve remission will be highlighted.

11:45 - 12:00

## An intervention to reduce diabetes distress in couples living with T2 diabetes: theory vs. reality

E. Berry<sup>1</sup>, M. Davies<sup>2</sup>, M. Dempster<sup>3</sup>

<sup>1</sup>Queen's University Belfast, United Kingdom

<sup>2</sup>Belfast Health and Social Care Trust, United Kingdom

<sup>3</sup>Queen's University, Belfast, United Kingdom

**Background:** This study assessed the feasibility of a brief psychoeducational intervention addressing diabetes distress in individuals with Type 2 diabetes (PWT2D) and their partners.

**Design:** A feasibility study using an explanatory mixed methods design assessed the recruitment, implementation, and acceptability of the intervention.

**Methods:** PWT2D were recruited from a register of structured diabetes education attenders. Ten PWT2D and four partners attended the one-day intervention. Baseline and post-intervention surveys measured change in diabetes distress (DD), diabetes perceptions, and diabetes empowerment and telephone interviews took place 1 month post-intervention. Within-subjects t-tests and effect sizes assessed score change and Thematic analysis was conducted on the interviews. A survey was administered to non-responders to explore the low (5%) uptake.

**Findings:** There was a trend for reduced regimen-related distress post-intervention, but little change in DD overall. PWT2D diabetes empowerment ( $d=0.54$ ), treatment control perceptions ( $d=0.68$ ), and concern ( $d=0.69$ ) increased with a medium effect, and personal control increased with a large effect ( $d=0.90$ ). Partners' treatment control perceptions increased with a medium effect ( $d=0.84$ ). Themes relating to perceived benefits of the intervention included: 'awareness of how others' feel about diabetes', 'feeling in control', and 'interacting with others'. Common reasons for the low-uptake included 'intervention not needed', 'intervention too long' and 'other commitments'.

**Discussion:** Baseline DD was low, which may explain the lack of change post-intervention. Despite this, change in diabetes perceptions and empowerment and the themes reported, suggest that the intervention was beneficial—perhaps as a source of preventative support. Recruitment challenges and implications for future interventions are considered.

12:00 - 12:15

## Improving outcomes for young adults with type 1 diabetes in Ireland: refining the D1NOW intervention

E. Morrissey<sup>1</sup>, B. Casey<sup>1</sup>, D. Walsh<sup>2</sup>, S. Dineen<sup>1</sup>, M. Byrne<sup>1</sup>

<sup>1</sup>National University of Ireland, Galway, Ireland

<sup>2</sup>Athlone Institute of Technology, Ireland

**Aims:** Young adults (18-25 years) living with Type 1 Diabetes Mellitus (T1D) have been highlighted as being at risk of poor self-management and sub-optimal glycaemic control. Previous interventions have not been successful and there is a need for theory based interventions that include key stakeholder opinions. The 'D1 Now' intervention has been developed under guidance of the Medical Research Council (MRC) framework for the development of complex interventions and the Behaviour Change Wheel (BCW). 'D1 Now' has a user centre approach and integral to the research is a young adult panel (YAP). The intervention includes three intervention components namely a 1) key-worker, 2) an online interactive system and 3) an agenda setting tool for use in consultations. The aim of this work is to refine the three intervention components before feasibility testing of the entire package.

**Methods:** This was a qualitative study focused in Ireland. Focus groups and semi-structured interviews were conducted with Health Care Professionals (HCPs; physicians, nurses and dieticians) and young adults with T1D. Thematic analysis was conducted on the data.

**Results:** Three themes were generated; these included "Working together", "Individualisation" and "Fitting into the system". Specific feedback was used to modify intervention components.

**Conclusions:** Young adults with T1D and HCPs could see the benefit in the proposed intervention components. However, concerns were identified and these have been taken into account in refining the intervention. The D1 Now intervention package is now ready to be testing for feasibility as a whole.

12:15 - 12:30

## Better Sooner Than Later: The Need for iscCGM Specific Education Programs in People With Diabetes

L. Priesterroth<sup>1</sup>, D. Ehrmann<sup>2</sup>, T. Kubiak<sup>1</sup>, N. Hermanns<sup>2</sup>

<sup>1</sup>Johannes Gutenberg University Mainz, Germany

<sup>2</sup>Research Institute of the Diabetes Academy Mergentheim (FIDAM), Mergentheim, Germany

**Background:** Diabetes technology like intermittently scanned continuous glucose monitoring (iscCGM) provides people with diabetes detailed insights in their glycemic control with every sensor scan. However, the high level of information might be overwhelming and may increase diabetes-related distress. We aimed to shed light on glycemic and psychosocial correlates of iscCGM in new and experienced iscCGM users.

**Methods:** We analyzed the sample of an RCT (registered at ClinicalTrials.gov, ID: NCT03175315) evaluating the efficacy of an education program for iscCGM use (named "FLASH"). The sample included n=121 participants who already used iscCGM and n=78 participants who adopted the technology with the beginning of the evaluation study. Pearson correlation coefficients were calculated to examine the association between different parameters of glycemic control and diabetes distress. We run an ANCOVA to determine whether distress differs in naïve and experienced iscCGM users, controlling for baseline distress.

**Findings:** Diabetes distress was significantly correlated with HbA1c ( $r=0.318$ ,  $p<0.001$ ), mean glucose levels ( $r=0.399$ ,  $p<0.001$ ), time in range (70-180 mg/dl;  $r=-0.383$ ,  $p<0.001$ ) and time in hyperglycemia ( $r=0.407$ ,  $p<0.001$ ) in iscCGM-experienced users, but not in iscCGM-naïve users. At six-month follow-up, the FLASH education program led to a significant reduction in diabetes distress (1.5 vs. 1.1,  $p<0.001$ ). However, independent from group allocation, iscCGM-experienced participants had significantly higher distress levels than iscCGM-naïve participants (1.2 vs. 1.0,  $p=0.034$ ). iscCGM-experienced users who never received education showed the highest distress levels.

**Discussion:** To fully benefit from this technology, people with diabetes should participate in iscCGM-specific education programs soon after adopting the new glucose monitoring system.

12:30 - 12:45

## Comparing blood pressure reduction in exercise interventions and pharmacological interventions in people living with hypertension

C. Noone<sup>1</sup>, J. Leahy<sup>1</sup>, E. Morrissey<sup>1</sup>, J. Newell<sup>1</sup>, M. Newell<sup>1</sup>, C. Dwyer<sup>1</sup>, J. Murphy<sup>1</sup>, F. Doyle<sup>2</sup>, A. Murphy<sup>1</sup>, G. Molloy<sup>1</sup>

<sup>1</sup>NUI Galway, Ireland

<sup>4</sup>Royal College of Surgeons in Ireland, Ireland

**Background:** Common methods for controlling hypertension include prescribing anti-hypertensive medication and exercise interventions. However, evidence regarding the comparative efficacy of these approaches to treat hypertension has received limited quantitative synthesis. This analysis aims to estimate the comparative efficacy of these approaches on blood pressure (BP) reduction in people with hypertension.

**Methods:** A systematic review was conducted focusing on randomised controlled trials of exercise interventions and first-line anti-hypertensive pharmacotherapy interventions where BP reduction was the primary outcome.

Network meta-analyses were conducted to generate estimates of comparative efficacy of each intervention class in terms of reduction of systolic BP and diastolic BP.

We identified 93 RCTs consisting of 32,404 participants which compared placebo or usual care to first-line antihypertensive interventions including ACE inhibitors, calcium channel blockers, angiotensin receptor blockers, thiazide-like diuretics and exercise interventions including aerobic training and dynamic resistance training. 12 of these were exercise intervention studies consisting of 1,057 participants

**Results:** The studies formed a connected and consistent network of evidence. For both SBP and DBP, there was insufficient evidence to suggest that pharmacotherapy interventions reduced SBP to a greater extent than did the exercise interventions. Of the first-line treatments, angiotensin receptor blockers and calcium channel blockers had the highest treatment ranking again, while exercise had the second lowest treatment ranking, followed by control conditions.

**Discussion:** This systematic review with network meta-analysis identifies a considerable absence of evidence in relation to the comparative efficacy of exercise interventions and anti-hypertensive pharmacological interventions in reducing blood pressure in people with hypertension.

[Repository:<https://osf.io/wpumg/>]

12:45 - 13:00

## The effects of laughter therapy on cardiovascular risks among community-dwelling Japanese: a randomized controlled trial

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<sup>4</sup>Department of Public Health, Osaka University Graduate School of Medicine, Suita, Japan, Japan

<sup>5</sup>Fukushima Medical University School of Medicine, Japan

**Background:** There has been increasing evidence about the relationship between higher frequency of laughter and decreased risk of cardiovascular risk factors. However report using randomized controlled trial is limited. We investigate the effects of laughter therapy on cardiovascular risk factors among community-dwelling men and women using randomized controlled trial.

**Methods:** Sixty seven participants aged 40-79 with a component of metabolic syndrome were stratified by sex, age, and overweight status and randomly allocated to either a laughter therapy group (n=34) or a control group (n=33). Participants in the laughter therapy group underwent 90-min session including laughter yoga, and 10 sessions were carried out for 12 weeks from May to July in 2017. Body mass index, cognitive function and self-administrated questionnaire (lifestyle behaviors, the State-Trait Anxiety Inventory, and health-related QOL) were measured at baseline and 12 weeks follow-up.

**Results:** No significant differences in cardiovascular risk factors were observed between the two groups at baseline. After 12 weeks, body mass index ( $p<0.01$ ), State-trait Anxiety Score, ( $p<0.01$ ), mental health-related QOL ( $p<0.01$ ) were improved, and systolic/diastolic blood pressure ( $p=0.09/0.07$ ) and cognitive function ( $p=0.07$ ) were tended to be improved in the laughter therapy group. These items did not improve in the control group. Changes of the mental health-related QOL before and after the intervention were larger in the laughter therapy group compared to the control group. ( $p<0.01$ ).

**Conclusion:** 12 weeks of laughter therapy intervention improved body mass index, state-trait anxiety, mental health status, and tended to improve systolic/diastolic blood pressure, and cognitive function.

ORAL

# Parents coping with children illnesses

11:30 - 13:00

Karaka, Valamar Argosy

Helen Pattison

11:30 - 11:45

## Seeking 'normality': parents' management of photoprotection for children with a rare skin condition.

M. Morgan<sup>1</sup>, J. Walburn<sup>1</sup>, R. Anderson<sup>2</sup>, J. Weinman<sup>1</sup>, R. Sarkany<sup>3</sup>

<sup>1</sup>King's College London, United Kingdom

<sup>2</sup>University College London, United Kingdom

<sup>3</sup>Guy's and St Thomas' NHS Foundation Trust, United Kingdom

**Background:** Rigorous photoprotection, involving a high factor sunscreen, UVR protective clothing and visor to protect the face and head, is required to avoid UVR and reduce risks of lesions (including skin cancer) among children with xeroderma pigmentosum (XP), a very rare genetic skin disease. This study examined how families manage this rigorous photoprotection.

**Methods:** Qualitative study with families recruited from a national specialist centre for XP in London. Twelve of 15 eligible families participated. Dyadic approach involving discussion with both children (ages 5 to 13 years) and their parents. Interpretive thematic analysis based on a Framework approach identified the importance of 'normalisation' as a conceptual framework.

**Findings:** This was a group of highly adherent parents with shared goals of reducing UVR risks but differing approaches to achieving rigorous photoprotection. The majority corresponded with 'normalisation present', emphasising the importance of their child participating in normal activities with full photoprotection, and where necessary substituted indoor for outdoor activities. These families aimed to view themselves and be accepted as a 'normal family.' In contrast, some parents achieved photoprotection by avoidance of being outdoors. However rather than 'normalisation absent' they engaged in a 'restricted normality', influenced by practical, psychological and social factors. They had less trust in the school and others in caring for their child.

**Conclusions:** Protective and avoidant approaches both achieved high levels of photoprotection but had differing psychosocial demands. This raises issues for normalisation in chronic illness and for approaches to rigorous photoprotection that can be successfully incorporated into families' lives.

11:45 - 12:00

## Childhood diabetes mellitus: the Greek parents' experience

V. Brouskeli<sup>1</sup>, N. Zaza<sup>1</sup>

<sup>1</sup>Demokritus University of Thrace, Greece

**Background:** This study aims at presenting the Greek parents' experience of raising a child who suffers from diabetes mellitus. Specifically, it investigates both children and parents' reactions to the diagnosis, the possible routine differentiations, the supporters to their efforts, the barriers to continuing normal life and the possible "collateral benefits" of their experience.

**Methods:** Participants were 30 parents of children who suffer from diabetes mellitus and were diagnosed between 1-13 years old, all members of local Diabetes Associations. Personal semi-structured interviews were used and the data was analysed by thematic analysis. Written consent was obtained by every participant and the study was approved by the Research Ethics Committee of Democritus University of Thrace.

**Findings:** Parents focused on the denial, the panic reactions to the diagnosis and the feelings of helplessness, followed by long-term sadness. They underlined their children's first reaction of fear and denial to cooperate. They also highlighted daily routine changes required by the whole family and pointed out their disappointment by the State and the educational staff. All parents -except for one- declared that their family finally adjusted. They also stated that, through this experience, they have learned to evaluate further the meaning of life and health.

**Discussion:** Although parents alerted about the lack of support by the Government and the educational staff, they finally managed to adjust. Providing the needed support to these families could promote a quicker adjustment and activate their resilience and post-traumatic growth.

12:00 - 12:15

## Investigating the relationship between adolescents self-managing their type 1 diabetes and diabetes-specific conflict with parents

E. Tuohy<sup>1</sup>, P. Gallagher<sup>1</sup>, C. Rawdon<sup>1</sup>, M. Glacken<sup>2</sup>, N. Murphy<sup>3,4</sup>, V. Swallow<sup>5</sup>, V. Lambert<sup>1</sup>

<sup>1</sup>Dublin City University, Ireland

<sup>2</sup>Institute of Technology, Sligo, Ireland

<sup>3</sup>Temple Street Children's University Hospital, Ireland

<sup>4</sup>Mater Misericordiae University Hospital, Ireland

<sup>5</sup>University of Leeds, United Kingdom

**Background:** Adolescents living with type 1 diabetes (T1D) assume increasing levels of responsibility for management of T1D during adolescence. Our previous qualitative research indicates that adolescents find negotiation of responsibilities with parents challenging and report increased levels of parent-adolescent conflict specific to T1D management. This research aims to examine the relationship between parent-adolescent conflict specific to T1D and self-management and related constructs.

**Method:** Adolescents (n=113) aged 11-17 years completed questionnaires measuring T1D-specific conflict within the family, self-management, division of responsibility for T1D management tasks, self-efficacy for T1D management, activation levels, and T1D-specific quality of life. Adolescents were recruited via one national paediatric diabetes and endocrine unit and a national diabetes advocacy organisation.

**Findings:** Significant ( $p < .05$ ) negative correlations were observed between T1D-specific conflict with parents and performance of T1D management tasks ( $r_s = -.40$ ), T1D communication ( $r_s = -.24$ ), T1D goals ( $r_s = -.23$ ), management self-efficacy ( $r_s = -.41$ ) and activation ( $r_s = -.27$ ). No significant relationships were observed for conflict and collaboration with parents, T1D problem-solving or level of adolescent responsibility for management. Conflict was also significantly correlated with T1D-related quality of life. Specifically, significant correlations were observed between conflict and perceived negative impacts of treatment ( $r_s = .34$ ), symptoms ( $r_s = .28$ ) and parental concerns ( $r_s = .47$ ).

**Discussion:** Lower levels of T1D-specific conflict are associated with higher adolescent engagement with self-management activities, activation and management self-efficacy. These findings indicate the importance of ensuring that parents and healthcare professionals are cognisant of the potential for T1D conflict to impact negatively on adolescent independence in carrying out self-management and aspects of quality of life for adolescents.

12:15 - 12:30

## Post-traumatic growth in parents of long-term childhood cancer survivors compared to parents of the general-population

J. Baenziger<sup>1</sup>, K. Roser<sup>1</sup>, L. Mader<sup>1,2</sup>, C. Priboi<sup>1</sup>, U.M. Sansom-Daly<sup>3,4</sup>, G. Michel<sup>1</sup>, A. Ilic<sup>1</sup>

<sup>1</sup>University of Lucerne, Switzerland

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<sup>3</sup>Kids Cancer Centre, Sydney Children's Hospital Randwick, Australia

<sup>4</sup>School of Women's and Children's Health, University of New South Wales, Australia

**Background:** Post-traumatic growth (PTG) describes perceived positive changes following a traumatic event. We describe i. PTG in parents of long-term childhood cancer survivors (CCS) compared to parents of similar-aged children from the general-population (comparison-parents), and ii. its associations with socio-demographic and cancer-related characteristics.

**Methods:** We conducted a questionnaire survey among parents of long-term CCS (aged  $\leq 16$  years at diagnosis,  $\geq 20$  years at study, registered in the Swiss Childhood Cancer Registry), and in the Swiss general population. We used the PTG Inventory (PTGI) to assess five domains of PTG. We analysed data using i. descriptive statistics and ii. multilevel regression models accounting for family clustering.

**Findings:** In total, 746 parents (41.7% fathers) of 513 survivors and 411 comparison-parents (42.8% fathers) completed the PTGI. Average PTG-score was 52.3 (95%CI: 50.8-53.8) for CCS-parents and 50.4 (95%CI: 48.1-52.7) for comparison-parents ( $p=0.078$ ). CCS-parents showed higher PTG than comparison-parents in the domains 'relating to others' (18.4 vs 17.3,  $p=0.010$ ), 'spiritual change' (3.3 vs 3.0,  $p=0.038$ ) and 'appreciation of life' (9.3 vs 8.4,  $p=0.027$ ). Those with migration-background (coef=7.0,  $p=0.026$ ) and mothers (coef=9.4,  $p<0.001$ ) reported higher PTG. CCS-parents of children who were treated with stem cell transplantation (coef=11.7,  $p=0.028$ ) and who experienced cancer-related late effects (coef=4.6,  $p=0.033$ ) reported higher PTG.

**Discussion:** Mothers, minority-groups, and parents of CCS with more complications reported higher PTG. Our findings highlight that families can be resilient following serious illness. With a balanced representation of fathers and mothers, our findings help inform clinical practice and interventions, which may support parents in reframing their experiences.

12:30 - 12:45

## Mothers of teenage girls: knowledge and understanding about human papillomavirus and cervical cancer

S. Sherman<sup>1</sup>, J. Taylor<sup>2</sup>, E. Nailer<sup>1</sup>, C. Cohen<sup>3</sup>, C. Redman<sup>4</sup>

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<sup>3</sup>Jo's Cervical Cancer Trust, United Kingdom

<sup>4</sup>Royal Stoke University Hospital, United Kingdom

**Background:** Human papillomavirus (HPV), a sexually transmitted infection (STI), is implicated in 99.7% of cases of cervical cancer. There are two programmes to guard against cervical cancer: a HPV vaccination programme for girls aged 12-13 and the NHS cervical screening programme for women aged 25-64. Attendance at the latter is steadily declining and this is before the planned changes to the screening programme due in 2019. We explored knowledge and attitudes of mothers of teenage girls towards HPV and to find whether the vaccination invitation was an opportunity for mothers to be encouraged to attend screening.

**Methods:** A mixed-methods approach was used to gain breadth and depth of understanding. 138 mothers of female pupils completed questions exploring knowledge of cervical cancer, HPV and personal engagement with screening and HPV vaccination. 15 mothers took part in focus groups.

**Findings:** 92.8% reported being up-to-date with screening and 85% of those with vaccination-aged daughters accepted the vaccination. For others, lack of knowledge and fear of side-effects were concerns. Although 79.7% had heard of HPV, fewer than half (44.2%) were aware of its link with cervical cancer. Thematic analysis of the focus groups revealed two themes: Limited knowledge and uncertainty, and Trusting and unquestioning. There were mixed feelings about whether mothers should be prompted to attend screening through the vaccination invite.

**Discussion:** There were relatively low levels of knowledge about causes of cervical cancer and gaps in knowledge about HPV. More education is needed before the changes to the screening programme are rolled out.

12:45 - 13:00

## Parents' beliefs about attending and missing children's hospital appointments: an exploratory factor analysis

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<sup>2</sup>Institute of Applied Health Research, University of Birmingham, United Kingdom

<sup>3</sup>School of Health Sciences, University of Manchester, United Kingdom

**Background:** Non-attendance at paediatric outpatient appointments results in delayed diagnosis and treatment, putting children at risk of avoidable ill health, and incurring health-service costs. Links between missed appointments and clinical, socio-demographic, and access-related factors have been indicated, but little is known about parental cognitions associated with non-attendance. This study explored the factors underlying parents' beliefs about attending and missing appointments.

**Methods:** A cross-sectional survey was conducted with parents who had an upcoming scheduled appointment in a General Paediatric outpatient clinic at either a specialist children's hospital or a non-specialist hospital in the UK. The postal questionnaire included items based on the Common-sense Self-regulation Model (assessing beliefs about the child's condition), Theory of Planned Behaviour (assessing factors affecting intentions to attend) and the Necessities/Concerns model of adherence applied to appointment attendance. Data were analysed using exploratory factor analysis.

**Findings:** A 13.1% response rate (243 replies) was achieved. The exploratory factor analysis was sufficiently powered (Kaiser-Meyer-Olkin = 0.767). There were two predominant latent factors: perceived 'value' of attending for child health and parental reassurance, and 'worry' associated with attending, reflecting concerns and anticipated anxiety and frustration at appointments. The resulting two-factor solution explained 22.9% of the variance.

**Discussion:** This study demonstrates that it is possible and valuable to consider non-attendance at children's medical outpatient appointments from a psychological, rather than just a service-use perspective. The Necessities/Concerns framework proposed by Horne and Weinman, originally developed to explain beliefs about medications, should be more fully explored in relation to adherent attendance behaviours.

ORAL

Occupational stress and well-being in  
health care workers.

11:30 - 13:00

Olipa 1, Valamar Collection Dubrovnik President

Benjamin Gardner

11:30 - 11:45

## Take control - Individual and situational influences on the wellbeing of early career academics

A. Hollywood<sup>1</sup>, D. McCarthy<sup>2</sup>, C. Spencely<sup>2</sup>, N. Winstone<sup>2</sup>

<sup>1</sup>University of Reading, United Kingdom

<sup>2</sup>University of Surrey, United Kingdom

**Background:** The higher education sector is undergoing considerable changes to its working conditions. For Early Career Academics (ECAs), initial transitions into this sector can have considerable consequences for their wellbeing. The aim of this study was to explore whether individual and situational characteristics relate to wellbeing in ECAs.

**Methods:** The study involved an online survey, distributed to ECAs in two higher education establishments in England. 52 participants (31 females, 21 males) that identified themselves as ECAs, were included. Respondents were 24 to 47 years old ( $M=32.77$ ,  $SD=4.13$ ) with the majority from a social science or STEM discipline. The study measured wellbeing outcomes (stress, health, happiness, career optimism, intention to leave academia) and individual and situational work characteristics (locus of control, self-efficacy, work-life balance, job security, neuroticism, agreeableness, conscientiousness). The data were analysed using Spearman's Correlation Coefficient.

**Findings:** The results indicated the wellbeing of ECAs was higher where individuals perceive control over elements of their work environment and a perception of high job security ( $p<.01$ ). High levels of conscientiousness and high levels of neuroticism correlated to superior and inferior wellbeing, respectively ( $p<.05$ ). Also high levels of agreeableness were associated with lower levels of happiness in work ( $p<.05$ ).

**Discussion:** This study highlights the importance of individual and situational work characteristics on the wellbeing of ECAs. In order to support those at the start of their academic career, facilitating a sense of self-efficacy could promote good health and wellbeing to foster productive employment.

11:45 - 12:00

## What makes working in health care stressful? A real-time investigation of events and personal styles.

D. Johnston<sup>1</sup>, J. Allan<sup>1</sup>, M. Johnston<sup>1</sup>

<sup>1</sup>University of Aberdeen, United Kingdom

**Background:** Stress at work is associated with poor performance and healthcare outcomes, as well as likelihood of leaving. We investigated how the stress of a working day relates to the events of the day and how work is approached.

**Methods:** Over two work shifts, 152 nurses working in Scottish out-of-hours health advice call centres rated the stressfulness of every call and, the stressfulness of each day, using 1-5 rating scales. They completed theory-based measures of overcommitment to work and negative affectivity prior to the real time measures. Analysis (using Mplus) was based on fitting latent growth curves to the stress ratings for each call and modelling the relationship between these curves, overcommitment and the overall stress rating.

**Findings:** The overall stressfulness of the day was predicted by the intercept (estimated starting value) of the growth curve and not the change over the shift. Overcommitment did not reliably add to the prediction but did predict the starting value of the day. The results were largely unchanged when negative affect was included.

**Discussion:** Nurses' view of their working day as stressful are not due to a general tendency to experience negative emotions. Those overcommitted to work view events as more stressful from the start of the working day and this then predicts how the day evolves. These findings add to theorising about work stress and suggest interventions could usefully be directed at altering perceptions of work.

12:00 - 12:15

## Associations among work factors in nursing, work engagement, and health

A. Ziedelis<sup>1</sup>

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Work engagement is not only associated to motivational outcomes but employee health as well, and this effect might be reciprocal. Engaged employees are less prone to burnout (Leiter et al., 2014), more inclined to craft their work environment (Tims et al., 2014), and engage in more recovery activities after work (Sonnentag et al., 2012). On the other hand, good health enables employees to engage in their work (Bakker, 2009). The aim of this research was to evaluate and compare the prognostic effect of nurses' work engagement on later health, and the similar effect of health on latter work engagement.

133 nurses participated in a tree-wave study ( $\Delta T = 8$  months) and were asked to complete a survey, consisting of Utrechts work engagement scale (Schaufeli & Bakker, 2003), Expanded nursing stress scale (French et al., 2000), Work design questionnaire (Morgeson & Humphrey, 2006) and several other instruments, measuring positive and negative health aspects. Hierarchical regression and mediation analysis were applied.

Positive and negative health allowed predicting 3.4 and 4.7 percent of latter work engagement, after controlling for initial work engagement, but work engagement predicted health only insignificantly. However, mediation analysis revealed, that work engagement partly mediates the effect of work environment factors on health. Results show, that it is more reasonable to consider health as an antecedent of work engagement than vice versa, but work engagement might have an impact on the work environment-health relationship in nursing.

12:15 - 12:30

## Staff experiences of working with traumatised people in a Sexual Assault Referral Centre

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While rape has highest recorded level of PTSD, no European research had focused on the traumatic effect on professionals of working with victims of sexual violence. This study aimed to consider the impacts on staff of supporting people who attended a Sexual Assault Referral Centre (SARC) and to understand the coping mechanisms staff used to deal with this impact. Semi-structured interviews were conducted with 12 staff and a focus group was held with a further four staff from one SARC. The data was examined using thematic analysis, producing three themes. The first theme focused on 'Emotional impact of client facing work'. Findings indicated that staff experienced positive emotions connected to the meaningful nature of their work as well as a range of negative emotions which staff reported as being related to burnout and fatigue. The second theme related to the 'Stresses of nature and volume of work'. Participants talked about the unpredictable nature of their work being challenging. Out of hours work and working from home were noted as particular demands in this context. The final theme 'Coping strategies' was where staff reflected on what allowed them to continue in this testing line of work. Mechanisms used by staff focused on supportive friends and family outside work and a camaraderie amongst colleagues in the workplace. The value of clinical supervision as well as 'emotional numbing' over time were also noted as useful for building resilience. These findings highlight a duty-of-care by organisations such as SARCs to effectively support their staff.

12:30 - 12:45

## Burnout symptoms among Swedish psychologists: The role of personality, work characteristics, and gender

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<sup>1</sup>University of Gothenburg, Sweden

Burnout is associated with considerable health costs for both individuals and societies. Human service workers, and women, are especially affected. In contrast to much burnout research, we explored the effects of personality variables and gender in the same context as work-related variables. More specifically, in a large sample of Swedish clinical psychologists ( $n = 805$ ), we investigated relationships between work characteristics (job demands, family-work conflict) and personality (sociability and rumination/brooding), and effects of gender on burnout (exhaustion and disengagement).

Data was collected by use of a web-based survey (response-rate 29%). Data analyses included independent samples t-tests and hierarchical multiple regression analysis. Women reported higher exhaustion, but no gender differences were found for disengagement. The model explained 52% of the variance in exhaustion and 27% in disengagement (adj.  $R^2$ ).

In the full models, affective work-rumination and brooding were the strongest predictors of both exhaustion and disengagement. Relational-interdependent self-construal related to less exhaustion – and prosocialness to less disengagement. Quantitative job-demands and family-to-work conflict contributed to exhaustion. Role conflict related positively, and emotional demands negatively, to disengagement. Finally, the interaction-term between gender and relational-interdependent self-construal contributed significantly to disengagement ( $\beta = -.120$ ,  $p = .001$ ). A negative relation between relational-interdependent self-construal and disengagement was only found for men. Our results illustrate the importance of considering both personality and job characteristics for understanding occupational health. Thus, risk and health factors among specific groups of employees should be identified in order to specify interventions and supportive actions on an organizational level.

12:45 - 13:00

## Is workplace sitting perceived as sitting? Exploring mental representations of sedentary behaviour

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**Background:** Workplace sitting-reduction interventions typically assume that people recognize their sitting and are motivated to reduce it for health reasons. Drawing on Action Identification Theory, we explored whether people mentally represent the act of sitting as 'sitting'.

**Methods:** In Study 1, 225 adults completed a validated action identification measure, indicating their preference for describing workplace computer use as 'sitting down' or 'getting work done'. Results were descriptively analysed. In Study 2, 139 office workers' applicability ratings of 20 possible descriptions of desk-based action were factor-analysed. In Study 3, 149 office workers' rankings of the applicability of 10 possible descriptions of desk-based actions were analysed using Friedman's ANOVA.

**Findings:** In Study 1, 168 (75%) participants preferred to view 'using the office computer' as 'getting work done' rather than 'sitting down' ( $\chi^2 = 73.96, p < .001$ ). In Study 2, 'sitting' loaded on the same factor as other procedural activities (e.g. 'looking at the monitor'), rather than factors relating to work responsibilities (e.g. 'doing my job'), information-processing (e.g. 'organising information'), or economic activity (e.g. 'contributing to the economy'). In Study 3 sitting was less favourably ranked (mean = 6.72, median = 8) than was 'working' (mean = 3.78, median = 3) as a description of desk-based action ( $T = 1.01, p < .001$ ).

**Discussion:** People do not view seated actions as 'sitting', but rather as a procedural component of meaningful work activities. Sitting-reduction interventions should target reduced engagement in seated activities or changing the posture in which work-tasks are performed, rather than targeting sitting time directly.

ORAL

# Adaptation to illness: mechanisms and correlates

11:30 - 13:00

Galijun, Valamar Argosy

Ewa Gruszczynska

11:30 - 11:45

## From engulfment to enrichment: associations between illness representations, self-identity and psychological well-being in Mayer-Rokitansky-Küster-Hauser Syndrome

S. Carroll<sup>1</sup>, P. Thomas-Kowal<sup>2</sup>, M. Laufer<sup>2</sup>, A. Lossie<sup>3,4</sup>, R. Moss-Morris<sup>1</sup>

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<sup>2</sup>Center for Young Women's Health, Boston Children's Hospital, United States

<sup>3</sup>Global MRKH Foundation, United States

<sup>4</sup>Beautiful You MRKH Foundation, United States

**Background:** Mayer-Rokitansky-Küster-Hauser Syndrome (MRKH) is a female reproductive disorder characterised by the absence or underdevelopment of the uterus, cervix and vagina. To date, limited research has examined factors related to adjustment in MRKH. This study aimed to explore associations between illness representations, self-identity, psychological well-being and self-esteem in MRKH.

**Methods:** Questionnaires were completed by 263 participants with MRKH recruited globally from patient meetings and online forums. Associations between psychological well-being, self-esteem and measures of illness representations, self-identity, coping, positive affect and a range of demographic and clinical variables were explored in correlation and linear regression analyses.

**Results:** Younger age and shorter time since diagnosis were associated with lower psychological well-being and self-esteem. Beyond demographic and clinical variables, lower psychological well-being and self-esteem were associated with higher reported emotional representations and engulfment (defining one's identity or feeling consumed by MRKH), and lower reported illness coherence and enrichment (positive changes to self-identity because of MRKH). High arousal positive affect was associated with increased psychological well-being, while both high and low arousal positive affect were associated with better self-esteem.

**Discussion:** Findings suggest that the impact of MRKH on patient identity plays an important role in adjustment. High perceived coherence and maintenance of positive affect may play a protective role in psychological well-being and self-esteem. A 12-month follow-up study is planned to examine associations between these variables longitudinally. Baseline data suggest that early availability of psychological support would be beneficial, and interventions focused on identity and psycho-education about MRKH would be valuable.

11:45 - 12:00

## Predicting quality of life, anxiety and depression in AF patients: insights using the Common-Sense-Model framework

E. Taylor<sup>1</sup>, M. O'Neill<sup>2</sup>, L. Hughes<sup>1</sup>, R. Moss-Morris<sup>1</sup>

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**Background:** Atrial fibrillation (AF) is associated with increased stroke-risk, poor quality of life (QoL), anxiety and depression. Typically, patients undertake procedural treatments to treat the condition. There is some evidence that despite successful treatment some patients continue to have poor QoL and low mood. Using the Common-Sense-Model (CSM) as a theoretical framework, this study examined key clinical and psychological predictors of QoL, depression and anxiety at 12 months in AF patients undergoing cardioversion and catheter ablation.

**Methods:** Patients with persistent AF (N=198) completed the AF-Revised Illness Perception Questionnaire, Cognitive and Behavioural Responses to Symptoms Questionnaire (CBRQ), Patient Health Questionnaire-8, Generalized Anxiety Disorder Questionnaire, Atrial Fibrillation Effect on Quality of Life Questionnaire and EQ5D at baseline (before procedures), 3, 6 and 12 months post-procedures. Clinical data were obtained from medical records. Data was analysed using multilevel modelling.

**Findings:** Treatment success (AF-freedom) predicted AF-QoL, irrespective of procedure-type (B= 11.79, CI= -18.91, -4.67,  $p < 0.001$ ), but not depression (B= 0.88 CI= -0.78, 2.54,  $p = 0.30$ ) and anxiety (B= 1.02, CI= -0.58, 2.61,  $p = 0.21$ ). Illness perception and CBRQ clusters predicted EQ5D QoL (B= -0.18, CI=-0.32, -0.04,  $p = 0.01$ ; B= 9.80 CI= 2.91, 16.68,  $p = 0.01$ ), but not anxiety. CBRQ cluster predicted depression (B= -2.74, CI= -4.51, -0.97,  $p = 0.002$ ).

**Discussion:** Negative beliefs about AF and its symptoms and all-or-nothing and avoidance behaviours predict QoL and depression after taking into account treatment success. These beliefs and behaviours could also be targeted in future AF illness-perception based interventions with the aim of improving AF-related outcomes.

12:00 - 12:15

## Mechanisms behind asthma symptom perception and management: attentional bias, cognitive control, mood, and medication beliefs

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<sup>1</sup>University of Oxford, United Kingdom

**Background:** Prior studies have observed attentional biases towards health-threat among individuals with asthma, particularly when in a depressed mood state. Increased attention towards health-threatening information in negative mood may undermine the accuracy of symptom perception, symptom control, and reduce medication adherence.

This study investigated potential cognitive and emotional mechanisms behind attentional biases in a sample of asthma patients compared to healthy controls.

**Method:** Asthma (N = 31), and healthy (N = 71) participants completed a battery of cognitive tasks measuring attention, cognitive control, and emotion regulation, in addition to self-report measures of illness symptoms, illness cognitions, beliefs about medication, treatment adherence, stress, and mood.

**Findings:** The asthma group showed greater attentional bias towards pain stimuli than towards asthma-specific stimuli, compared to healthy controls  $F(1,100) = 5.96$ ,  $P = 0.02$ .

Biased attention in relation to health-threat information was related to impaired attentional control, increased stress, and negative mood,  $r$  values in the range of .30 - .55 with significance  $p < .05$ .

**Discussion:** Compared to the healthy controls, the asthma group showed attentional bias towards pain, but not towards asthma-specific information. The bias appears to be underpinned by impaired attentional control. The impaired cognitive processing is also related to negative mood, illness cognitions, stress, and beliefs about medication. Asthma patients may benefit from cognitive interventions that specifically address attentional control and patterns of attending to general physical and asthma-specific symptoms in relation to mood, stress responses, and treatment adherence.

12:15 - 12:30

## A qualitative comparison of high and low adherers with apparent treatment-resistant hypertension

H. Durand<sup>1</sup>, M. Casey<sup>2</sup>, L. Glynn<sup>2</sup>, P. Hayes<sup>2</sup>, A. Murphy<sup>1</sup>, G. Molloy<sup>1</sup>

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**Background:** Poor adherence is a leading cause of apparent resistance to antihypertensive treatment. Recent empirical research has investigated predictors of adherence for primary care patients who are apparently resistant to treatment; however, questions remain regarding the variability in adherence behaviour among this group. This study aimed to investigate factors that may elucidate medication adherence among patients with apparent treatment-resistant hypertension (aTRH) using qualitative methods.

**Methods:** Fourteen semi-structured interviews were conducted with patients undergoing treatment for aTRH in primary care in the West of Ireland. Patients who self-reported both high and low adherence in a previous quantitative study were purposively sampled. Data were analysed using thematic analysis. A public and patient involvement research group were active partners in developing the study protocol and interview topic guide.

**Findings:** Three major themes were identified: beliefs about treatment, habits and routine, and health and health systems. High adherers reported favourable beliefs about antihypertensive treatment that had been validated by experience with taking the treatment over time, described strong medication-taking habits and stable routines, and positive relations with their GP. Low adherers expressed less coherence in their beliefs and used less effective strategies to support their medication-taking in daily life.

**Discussion:** The current findings are consistent with qualitative studies of adherence in other chronic conditions. Results reflect the difficulty for healthcare practitioners in identifying adherent versus non-adherent patients via conversation, and highlight the importance of accurate adherence assessment. Inception studies may provide an opportunity to better understand adherence behaviour across the illness trajectory.

12:30 - 12:45

## The interpersonal impact of partner emotion regulation on chronic cardiac patients' well-being

E. Karademas<sup>1</sup>, C. Thomadakis<sup>1</sup>

<sup>1</sup>University of Crete, Greece

**Background:** Emotion regulation processes probably have a significant inter-personal effect, as the actions intended to regulate own emotions may also impact other persons' affect and behaviors. Here we examined whether chronic cardiac patients' well-being is predicted by their partners' emotion regulation strategies through both persons' affect.

**Method:** Patients with a chronic cardiovascular disease visiting two outpatient facilities and their partners were invited to participate. The final sample consisted of 104 patients (25 women; mean age 64.36 years) and their partners (mean age 60.04 years). All couples were of the opposite sex and married. Two major partner emotion regulation strategies (i.e., cognitive reappraisal, expressive suppression) were assessed at baseline; patient and partner positive and negative affect was assessed two months later; patient well-being (i.e., physical functioning, energy/fatigue, and emotional well-being) were assessed four months later.

**Findings:** Three alternative models, which were testing different type of relations between variables, were compared. According to the model that better fitted the data, partner cognitive reappraisal, but not expressive suppression, predicted patient well-being in an indirect way. Partner reappraisal was related to own positive and negative affect which, in turn, was related to patient corresponding variables. Accordingly, patient positive and negative affect was related to all of their well-being indices.

**Discussion:** It seems that partner emotion regulation has an interpersonal effect on patient well-being, with own and patient affect serving as in-sequence-mediators. This adds to our understanding of the dyadic relationships between chronic patients' and partners' self-regulation processes and may also guide relevant psychological interventions.

12:45 - 13:00

## People's behaviours in managing diabetes: a qualitative study in Indonesia

A.W. Widayanti<sup>1,2</sup>, P. Norris<sup>1</sup>, J. Green<sup>3,4</sup>, S. Heydon<sup>1</sup>

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<sup>3</sup>School of Allied Health, University of Limerick, Ireland

<sup>4</sup>Health Research Institute, University of Limerick, Ireland

**Background:** Most of the ten million people with diabetes in Indonesia experience uncontrolled blood glucose levels and diabetes-related complications. To develop an effective diabetes intervention, understanding people's perspectives is crucial. This study aimed at understanding interrelated factors that may influence people's behaviour in managing diabetes in the Indonesian context.

**Methods:** Six focus group discussions involving 45 people with diabetes were conducted in East Nusa Tenggara and West Sumatera. The discussions were recorded, transcribed verbatim in their original language, translated into English, and thematically analysed for common themes.

**Findings:** Individuals' behaviour in managing the disease was influenced by their perceptions about the disease and its treatment. Participants perceived diabetes using their own narrative explanation of diabetes causality and the expected benefits of treatment. Further, people's perceptions about the disease influenced the appeal and acceptability of treatment – including conventional and traditional medicines. Input from significant others – family members or friends with diabetes – was crucial in determining behaviour. Cultural beliefs and practices also influenced self-management behaviours of people with diabetes. People commonly saw the disease in a broader cultural context.

**Discussion:** Interventions for diabetes patients in Indonesia should focus on assisting people in understanding diabetes and the role of diabetes treatment, and providing social support from significant others and the community. Understanding people's lay models may guide health professionals to develop personalised strategies to improve outcomes. Providing support would likely improve people's self-efficacy in practising the recommended behaviour in a challenging environment.

ORAL

# Stress reactivity and emotional regulation

11:30 - 13:00

Asimon, Valamar Lacroma Dubrovnik

Torun M. Vatne

11:30 - 11:45

## Preoccupied with the body: Mild stress amplifies the relation between rumination and interoception

C. Schlinkert<sup>1</sup>, B. Herbert<sup>2</sup>, N. Baumann<sup>3</sup>, S. Koole<sup>4</sup>

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<sup>2</sup>University of Tuebingen, Germany

<sup>3</sup>University of Trier, Germany

<sup>4</sup>Vrije Universiteit Amsterdam, Netherlands

**Background:** Ruminative tendencies are in many studies linked to persistence of negative emotions and poor health. These studies focused foremost on exteroception, or how ruminators respond to external stimuli. A characteristic of ruminators is however that they are preoccupied with themselves. This begs the question how rumination is linked with interoception, or processing internal, bodily sensations. Based on classic and modern emotion theories, we suggest that ruminators are likely to be more inclined than non-ruminators to attend to their bodily sensations, especially if they experience stress.

**Methods:** Two studies manipulated stress by asking participants to plan either an aversive or a pleasant activity that they had to carry out soon. In Study 1 (N=225), participants were then asked to report their interoceptive sensibility by means of private body consciousness. In Study 2 (N=180), participants performed a heartbeat detection task to assess interoceptive accuracy subsequently to the stressor.

**Findings:** Study 1 revealed that under stress, rumination was positively associated with higher self-reported body consciousness ( $p=.002$ ). This pattern could not be explained by other body awareness scales nor individual differences in anxiety sensitivity. Study 2 showed that under stress, rumination was positively associated with more accurate heartbeat detection, especially when a task interference was present ( $p=.033$ ). No association between rumination and interoceptive sensibility or accuracy was found in the low stress conditions of both studies.

**Discussion:** These findings indicate that rumination amplifies interoception under stressful circumstances, a response that may contribute to the well-documented emotion-regulatory health problems of people with ruminative tendencies.

11:45 - 12:00

## Impact of obesity on physiological stress reactivity in adult asthma patients

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**Background:** Asthma is a common chronic disease. Obesity is a major risk factor for asthma exacerbations. Acute psychological stress may also contribute towards a greater risk of asthma exacerbation. Obesity is related to lowered cardiovascular stress reactivity, which is linked to worsened cardiac outcomes in these individuals. Thus, in individuals with asthma, obesity might influence the cardiovascular and respiratory stress reactivity, given the links between obesity and asthma at rest.

**Methods:** Thirty adult (mean age 49.5yrs  $\pm$  15.7) patients with objectively-confirmed diagnosed asthma (via Methacholine test) undertook a stress reactivity testing session. Obesity was categorised as Body Mass Index  $\geq$  30kg/m<sup>2</sup>. After a 20-minute baseline, 2 counterbalanced 6-minute stress tasks were completed (Paced Auditory Serial Addition Test [PASAT], an active stressor; International Affective Picture System [IAPS], a passive stressor). Continuous heart rate [HR] and respiratory (oxygen uptake [VO<sub>2</sub>], exhaled carbon dioxide [VCO<sub>2</sub>], respiratory exchange ratio [RER]) measures were assessed.

**Findings:** In response to the PASAT, there were significant interaction effects for HR, (F=91.22, p< .001) where elevated HR was seen in obese vs non-obese (83.0 $\pm$ 0.18 bpm vs 77.1 $\pm$ 0.17 bpm). A similar pattern was observed for the respiratory reactivity for VO<sub>2</sub> (F=66.24, p<.001) and VCO<sub>2</sub> (F=74.6, p<.001), which were elevated in the obese vs non-obese group. There was no interaction for RER (F=0.58, p=.56). There were no interactions in response to the IAPS.

**Discussion:** Our results indicate an association between obesity and respiratory responses to acute active, but not passive, stress suggesting stress and obesity may interact to trigger asthma exacerbations.

12:00 - 12:15

## Emotion regulation strategies in social stressful events: subjective, physiological and behavioural responses

P. Arriaga<sup>1</sup>, A.C. Santos<sup>2,3</sup>

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<sup>3</sup>ISCTE-Instituto Universitário de Lisboa, CIS-IUL, Portugal, Portugal

**Background:** Based on the Extended Process Model of Emotion Regulation, this study compared different regulation strategies during social stressful situations on subjective, physiological, and behavioural responses.

**Method:** Using the Trier Social Stress Test (TSST), 100 participants made a speech for a job interview and a mental arithmetic task in front of two juries. Participants were randomly assigned to use one of two emotional regulation strategies during the TSST: Combined Cognitive Reappraisal (CCR: reappraise emotional response and reappraise via perspective taking) or Suppression of Expressing Emotions (SEE). Electrocardiogram was recorded continuously to measure stress levels (Baevsky's stress index) and heart rate variability (HRV), while affective ratings (e.g., anxiety) were provided by participants before and after the TSST. Behaviour during the TSST was videotaped and coded by two independent assistants. Social anxiety trait was also measured using the Liebowitz Social Anxiety Scale.

**Findings and Discussion:** The CCR group (vs. the SEE group) showed less physiological stress, higher HRV, expressed high satisfaction with the way they regulated emotions during the TSST, even after controlling for gender, age, and social anxiety trait. There was an increase in state anxiety from baseline, although no statistically differences between groups were found on affective ratings. Based on physiological outcomes, our findings suggest that cognitive reappraisal strategies, compared to suppression of emotions, can be more appropriate for managing social stress situations.

12:15 - 12:30

## Emotion regulation difficulties are not always associated with negatives outcomes: the buffer effect of HRV

C. Fantini-Hauwel<sup>1</sup>, C. Gois<sup>1</sup>, E. Batssele<sup>1</sup>

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There is increasing evidence regarding the relationship between vagal control tone (reflected by Heart Rate Variability, HRV) and depression. HRV is actually considered as a biomarker of the strength of the emotional regulation system and has been related to self-perceived Emotion Regulation Difficulties (ERD). However, the interplay between HRV and ERD is not so clear actually. Indeed, HRV is often considered as a factor leading to worsen emotion regulation strategies even if the variance amount between them is very small. Some recent scientific result suggest that HRV may be a potential moderator between neuroticism or emotional suppression on negative outcomes. We hypothesised that HRV should also plays a moderating role between emotion regulation difficulties and depression.

97 participants were enrolled in the study and completed depression and ERD questionnaires as well as resting vagally mediated HRV that was took during a 5 minutes interval. The results shown that at high resting HRV, ERD did not influence depression scores while at low resting HRV, depression scores increased when ERD increased. Further, there was no significant indirect effect of ERD to depression through HRV questioning previous mediation effects. Our results tend to suggest that resting vagal control tone should be a buffer from negative emotions.

12:30 - 12:45

## Coping with Stress: The Contribution of Cognitive Biases to Rumination and Negative Affect

B. Zareian<sup>1</sup>, J. Wilson<sup>1</sup>, A. Tracy<sup>1</sup>, J. LeMoult<sup>1</sup>

<sup>1</sup>University of British Columbia, Canada

**Background:** Different responses to stress can impact one's health. Rumination, a prevalent response to stress, is related to worse health-related outcomes. Theories of rumination posit that cognitive control biases contribute to individual differences in rumination. While cognitive control biases have generally been linked to rumination, it is not clear which component of cognitive control – shifting, inhibiting, or updating – contributes more to rumination. In this study, we assessed all three cognitive control biases among university students and examined which cognitive control bias best predicted individual differences in rumination and negative affect after a stressful event (an exam).

**Methods:** Participants, 273 students at University of British Columbia, completed a baseline session, during which they answered questions about their mental and physical health and completed Affective Switching Task, Emotional Stroop Task and Emotional 2-Back Task. Next, we followed up with them at nine time points 48 hours after an exam, during which they answered questions about their affect and levels of rumination.

**Results:** Preliminary analysis suggests that negative shifting bias was the best predictor of rumination after the exam,  $p < .05$ . Furthermore, higher levels of rumination after the exam was associated with elevated levels of depressive symptoms 48 hours after the exam,  $p < .05$ .

**Conclusion:** Our study suggests negative shifting bias underlies individual differences in levels of rumination in response to stressful events. This finding has implications for designing interventions to help individuals with high levels of rumination use more effective coping strategies to reduce the negative impact of stress on their health.

12:45 - 13:00

## Assessment of physiological stress responses and word use in laboratory anamnesis interviews

S. Sturmbauer<sup>1</sup>, A. Schwerdtfeger<sup>2</sup>, S. Schmelzle<sup>1</sup>, N. Rohleder<sup>1</sup>

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<sup>2</sup>University of Graz, Austria

**Objective:** Medical communication can be perceived stressful. Hence the assessment of patients' word use during standardized anamnesis interviews may lead to a better understanding of patient-doctor interactions.

**Methods:** 74 participants (69% female) with a mean age of 24.8 years participated and were randomly assigned to two groups. 38 participants underwent a standardized anamnesis interview containing a foretold venipuncture, which was eventually not performed. 36 participants were assigned to the control group, which watched a documentary to ensure the resting state. Biological samples included cortisol, salivary alpha-amylase (sAA), heart rate (HR) and heart rate variability (HRV). Anamnesis interviews were transcribed and analyzed using the Linguistic Inquiry and Word Count (LIWC).

**Results:** Due to the interview, participants of the experimental group (EG) showed an increase of sAA levels ( $p < 0.05$ ), HR ( $p < 0.05$ ) as well as a decrease of HRV (rmsd:  $p < 0.05$ ). For cortisol, we did not find an increase, however participants of the EG showed a prolonged recovery period ( $p < 0.05$ ). Regarding word use, we found that higher sAA increase was associated with fewer use of discrepancy words ( $p < 0.05$ ). A higher cortisol AUC<sub>i</sub> was associated with less words per sentence and a fewer use of pronouns ( $p < 0.05$ ). Whereas cortisol AUC<sub>g</sub> was associated with more words per sentence, a higher use of pronouns and less use of positive affect words ( $p < 0.05$ ).

**Conclusions:** These results indicate, that talking about one's medical history and risk factors in detailed anamnesis interviews could induce physiological stress responses which were in turn associated with participants word use during these interviews.

ORAL

Well-Being and quality of life in the  
context of chronic illness

14:00 - 15:30

Elafiti 3, Valamar Lacroma Dubrovnik

Sam Norton

14:00 - 14:15

## Self-management burden and depression in the context of multi-morbidity

I. Mindlis<sup>1</sup>, T. Revenson<sup>2</sup>, J.P. Wisnivesky<sup>3</sup>, M.S. Wolf<sup>4</sup>, R. O'Connor<sup>4</sup>, A.D. Federman<sup>3</sup>

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**Background:** Multi-morbidity (MM), or the presence of multiple chronic illnesses, increases with age and presents greater self-management burdens (e.g., monitoring symptoms, coordinating multiple medication regimens). Depression in older adults increases with each additional chronic illness, but the cumulative approach to MM has not distinguished among illnesses requiring different degrees of self-management. We hypothesized that multiple illnesses with high self-management needs (what we term burdensome MM) might explain increased depressive symptoms.

**Methods:** Secondary analysis of a randomized controlled trial of 261 adults with asthma,  $\geq 60$  years, low income ethnic minority patients; 86% female. Burdensome MM was measured as  $\geq 2$  illnesses with high self-management requirements as identified in prior publications (diabetes, hypertension, congestive heart failure). Depressive symptoms were measured using the PROMIS SF8a (range: 8-40; scores  $>13$  indicate mild depression). Multiple regression analyses tested the relationship between burdensome MM and depressive symptoms, adjusting sociodemographic factors significant in univariate analyses.

**Findings:** One quarter of the sample (27%) had moderate-severe levels of depressive symptoms. Patients with burdensome MM had greater depressive symptoms ( $M=17.7$ ,  $SD=8.6$ ) than those not meeting criteria for burdensome MM ( $M=14.1$ ,  $SD=7.1$ ;  $p<.001$ ). Controlling for race, income and education, burdensome MM remained related to greater depressive symptoms ( $F(10, 216) = 7.63$ ,  $p = .006$ ,  $R^2 = .15$ ).

**Discussion:** For older adults with MM, greater self-management burden was associated with greater depressive symptoms. This effect was clinically meaningful (PROMIS SF8a difference  $\geq 3$ ). This suggests that integrative health teams should increase resources to those with burdensome MM to minimize mental health problems.

14:15 - 14:30

## Is coping predictor of quality of life for patients with myopathy?

A. Rohmer-Cohen<sup>1,2</sup>, M. Michèle<sup>2</sup>, N. Virginia<sup>2</sup>, Z. Sylvie<sup>2</sup>, B. Catherine<sup>1</sup>

<sup>1</sup>Université Paris Descartes, France

<sup>2</sup>Rothschild Hospital, France

**Background:** Myopathies are degenerative neuromuscular diseases affecting different muscles (legs, arm, face...). Previous studies have observed a lower quality of life (QoL) in myopathy than in control. Myopathy patients preferentially use emotion or social support focused coping. The aim of this study is to investigate the influence of coping strategies in QoL in myopathy patients.

**Method:** 59 patients with genetic adult-form myopathy were included.

They all answered the questionnaire Quality of Life of genetics neuromuscular diseases (QoL-gNMD) which gives three under-scores: Body symptom, Self-perception, Activity and Participation. Coping was evaluated with the Ways of Coping Checklist-revised which evaluate three dimensions of coping: problem-focused, emotion-focused and social support-focused.

**Results:** 60% of our population used preferentially problem-focused strategies. There is no difference between male and female, expect for the social support strategies, more used by women.

Linear regression analysis showed coping strategies are significantly predicting the QoL. The under-score "Activity and Participation" and "Self-Perception" are negatively influenced by emotion-focused coping (-.554,  $p=0.005$ ; -.474,  $p=0.014$ ) whereas problem-focused preserve this last dimension (.402,  $p=0.009$ ). "Body symptom" is not influenced by coping strategies.

**Discussion:** Results reveal the negative influence of the emotion-focused strategy on QoL. Effects are observed in psychological aspects as the self-perception, and in their capacities to go out, meet family or friends. We also observed that problem-focused strategies allow to preserve Self-Perception. This observation encourages to bring patients to use more problem-focused strategies.

14:30 - 14:45

## The psychological impact of venous thromboembolism in young women: health anxiety and PTSD

C. Harrison<sup>1</sup>, P. Bennett<sup>1</sup>

<sup>1</sup>Swansea University, United Kingdom

The study aimed to explore the psychological impact of VTE in young women, with specific focus on the misinterpretation of 'false-alarm' bodily sensations and how this can manifest as psychological problems, such as health anxiety and PTSD symptomology. The research provides insight into how individuals cope with the re-experiencing of bodily sensations similar to those at the initial VTE event, and identifies future patient requirements. Age and gender-specific factors were also explored. Eleven female participants diagnosed with VTE were individually interviewed using an eight-item semi-structured interview schedule, designed specifically for the study. Audio-recorded interviews were transcribed and analysed using thematic analysis. Six key themes were identified: (1) the VTE event, (2) experience and interpretation of bodily sensations, (3) bodily sensations contribute to psychological problems, (4) experiencing VTE at a young age, (5) Coping with VTE, and (6) staying positive and looking to the future. Findings showed that re-experiencing bodily sensations similar to those at the initial event resulted in panic, poor safety-seeking behaviours, and served to maintain anxiety. The data revealed health anxiety and PTSD symptomology to be prevalent in this population and provided support for theories of health anxiety and panic. Findings highlight a need for better aftercare advice, specifically on determining the meaning of bodily sensations, and how to cope with the re-experiencing of sensations reminiscent of those at the initial VTE event. Future research should aim to develop self-help interventions to help reduce anxiety surrounding bodily sensations in VTE patients.

14:45 - 15:00

## Systematic review and meta-synthesis of coping with retinitis pigmentosa: implications for improving quality of life

G. Garip<sup>1</sup>, A. Kamal<sup>2</sup>

<sup>1</sup>University of Derby, United Kingdom

<sup>2</sup>Birmingham City University, United Kingdom

**Background:** Retinitis pigmentosa (RP) are a group of incurable and inherited eye conditions, and the leading cause of inherited blindness in people under the age of 60. The aim of this systematic review and meta-synthesis was to establish a comprehensive overview of the experiences and coping strategies of adults living with RP, and their influence on quality of life.

**Methods:** A pre-registered search strategy was applied systematically in nine databases and 12 qualitative articles were included in the meta-synthesis.

**Findings:** Studies included were from Australia, Brazil, Ireland, Netherlands, Republic of Korea, United Kingdom, and USA. The overall sample was based on 126 people with RP (ages ranging from 18-85; at least 65 were female). Principles of meta-ethnography were used to synthesise the articles revealing five higher-level meta-themes: 1) managing identity: making sense of RP, managing autonomy and independence; 2) living with RP: practical and emotional issues; 3) experiences with healthcare professionals and other social support; 4) adaptive and maladaptive coping strategies; and 5) impact of RP on work and career. A conceptual model was developed by grouping higher-level meta-themes as intra- and inter-individual factors and how they may be implicated with coping strategies and quality of life.

**Discussion:** This was the first review to identify psychosocial influences in the relationship between coping strategies and quality of life in people with RP. Further understanding of these factors and mechanisms can help inform intervention development to support adaptive coping and positively impact quality of life in people with RP.

15:00 - 15:15

## Mental health and treatment response in rheumatoid arthritis

S. Norton<sup>1</sup>, J. Gwinnutt<sup>2</sup>, S. Verstappen<sup>2</sup>

<sup>1</sup>King's College London, United Kingdom

<sup>2</sup>University of Manchester, United Kingdom

**Background:** People with rheumatoid arthritis (RA) experience increased levels of depression and anxiety, with mental health associated with treatment response. We hypothesise that this association can partly be explained by associations with lifestyle and self-management factors.

**Methods:** The RA Medication Study (RAMS; N>2000) is a UK multi-centre observational cohort recruiting RA patients initiating methotrexate. Patient reported outcomes were recorded at baseline, 6- and 12-months. Mental health was assessed using the Hospital Anxiety and Depression Scale (HADS). Lifestyle and self-management factors recorded included treatment adherence (Compliance Questionnaire Rheumatology), physical activity, smoking, and alcohol. Good treatment response at 12-months was defined as a DAS28 score below the low disease activity cut-off with a reduction of at least 1.2units from baseline.

**Findings:** At baseline, 32% met criteria for depression and 36% anxiety. Overall, 53% achieved a good treatment response by 12-months. Respectively, depression and anxiety were associated with 35% and 45% reduced odds of achieving good treatment response. Multiple-mediation analysis indicated that 51% of the effect of depression on treatment response was accounted for by lifestyle and self-management factors, with significant effects for treatment adherence and physical activity. Only 12% of the effect of anxiety on treatment response was accounted for by lifestyle and self-management factors, with none of the factors considered significant.

**Discussion:** Mental health problems are common in RA and associated with worse outcome. Lifestyle and self-management factors, which are amenable to intervention, explain part of this association but other factors outside of the current analysis will also be important.

15:15 - 15:30

## Improving quality of life after spinal cord injury; intervention and design feasibility study

G. Thomas<sup>1</sup>, C. Limbert<sup>1</sup>, P. Hewlett<sup>1</sup>, J. Moses<sup>2</sup>

<sup>1</sup>Cardiff Metropolitan University, United Kingdom

<sup>2</sup>Cardiff & Vale University Health Board, United Kingdom

**Background:** The aim of the research was to develop and evaluate an evidence-informed intervention consisting of a peer support group (PSG) designed to enhance the quality of life (QoL) for people with a spinal cord injury (SCI). According to the literature QoL in people with SCI is low and previous research has shown that PSG can be beneficial for other vulnerable groups. There is currently no PSG in the UK.

**Method:** The study involved a RCT with 20 participants divided equally between the intervention and control groups. A mixed method design was used to evaluate the intervention, quantitative (ANOVA), qualitative (Thematic) analysis. The GHQ-12, QoLS-16, Brief-COPE-28, Lifestyle questions, completed at baseline, week 8 (end of intervention) and week 24 (follow up) were used for the quantitative evaluation. Interviews were conducted with 2 participants after the intervention.

**Results:** QoL was significantly improved in the intervention group from baseline to week 8 ( $p = .029$ ), there were no significant differences regarding forms of coping emotionally or instrumentally after the intervention ( $p = .62$ ) or general health ( $p = .39$ ).

Qualitative themes identified were: positive shared knowledge and experience, acceptance, coping with SCI and PSG structure. Meeting peers, being able to share problems, being accepted and feelings of coping were positively reported aspects of the intervention.

**Conclusion:** The findings of the study suggest that the PSG was both feasible and acceptable. Participants enjoyed attending the groups and felt they benefited from shared knowledge and experiences. QoL in the intervention group improved.

## ROUNDTABLE

# What's practical about Health Psychology? Improving Health Psychology dissemination to practitioners

14:00 - 15:30

Olipa 4, Valamar Collection Dubrovnik President

Gill ten Hoor and Dominika Kwasnicka

## What's Practical about Health Psychology? Improving Health Psychology dissemination to practitioners.

G. ten Hoor<sup>1</sup>, D. Kwasnicka<sup>2</sup>, G.Y. Peters<sup>3</sup>, R. Sanderman<sup>4</sup>, K. Knittle<sup>5</sup>, S. Potthoff<sup>6</sup>

<sup>1</sup>Maastricht University, Netherlands

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<sup>6</sup>Northumbria University, United Kingdom

**Purpose:** How can we make sure that Health Psychology research is disseminated to, and used by practitioners?

**Objectives:**

- 1) Provide an overview of the current state of Health Psychology research dissemination, adoption, and implementation to practitioners.
- 2) Present illustrative examples of how to make Health Psychology more practical.
- 3) Discuss helpful tools making our research more practical, for disseminating findings to healthcare practitioners, and for improving the real-world impact of our field.

**Rationale:** Health Psychology research findings can only have impact if they 1) demonstrate the utility of new concepts or phenomena, and 2) if that new knowledge is disseminated to, and acted upon by, individuals in real world settings. As we continue to improve the methods and rigor with which we conduct health psychology research, we should also strive to improve the extent to which our research findings affect practice.

**Summary:** During this roundtable, we will discuss how Health Psychology research can (and should) become more practical. After an interactive welcome, we will provide a clear rationale for why our research should be translated into practice. Subsequently, the current state of Health Psychology science in relation to practice will be discussed. In our last two talks, we will discuss our own motivations to make behavioral science more practical, and discuss practical implementations. The session will also include an interactive discussion and information about our Practical Health Psychology blog initiative.

## ORAL

# Eating behavior and weight management in the digital age

14:00 - 15:30

Karaka, Valamar Argosy

Deborah R Wahl

14:00 - 14:15

## Hunger, health or pleasure? Comparison of dispositional and in-the-moment assessed eating motives

D.R. Wahl<sup>1</sup>, K. Villinger<sup>1</sup>, M. Blumenschein<sup>1</sup>, L.M. König<sup>1</sup>, K. Ziesemer<sup>1</sup>, G. Sproesser<sup>1</sup>, H.T. Schupp<sup>1</sup>, B. Renner<sup>1</sup>

<sup>1</sup>University of Konstanz, Germany

**Background:** Motives underlying our daily food choices are diverse, ranging from physiological to psychological reasons. Current psychometric measures of eating motives rely on dispositional rather than idiographic approaches, neglecting their moment-to-moment variability. Therefore, the aim of the present study was to compare the eating motives of the TEMS measured by a single-time-point dispositional assessment with an in-the-moment assessment.

**Methods:** Thirty-five individuals participated in the study with a mean age of 26 (SD=5.7) years and an average BMI of 23 kg/m<sup>2</sup> (SD=5.5). In addition to a dispositional assessment, eating motives were measured in-the-moment using a mobile assessment across eight days (N=888 meals). The resulting motive profiles were compared according to different indices of profile similarity. Moreover, a visualized person x motive data matrix was developed to analyze between- and within-person data.

**Results:** Although the correspondence of dispositional and in-the-moment eating motives was good (ICCde=0.52), the majority of motives were overestimated in the dispositional assessment ( $p < .001$ ,  $d = 1.97$ ) with large differences ( $d > 0.8$ ) on the motives price, sociability, need and hunger, traditional eating, habit, and natural concerns. On the person level, inter-individual differences in intra-individual motive profiles were revealed, showing that dispositional and in-the-moment eating motives differed in dependence of the person, the motive and the situation.

**Conclusion:** Combining dispositional and in-the-moment assessments is important to target differences between why people think they eat and why they eat in-the-moment. Including inter- and intra-individual differences allows interventions to be tailored to the person and situation for intervening in critical moments that determine daily eating behavior.

14:15 - 14:30

## Do we know what we enjoy? Accuracy of forecasted eating happiness

K. Villinger<sup>1</sup>, D.R. Wahl<sup>1</sup>, L.M. König<sup>1</sup>, K. Zieseimer<sup>1</sup>, S. Butscher<sup>1</sup>, J. Müller<sup>1</sup>, H. Reiterer<sup>1</sup>, H.T. Schupp<sup>1</sup>, B. Renner<sup>1</sup>

<sup>1</sup>University of Konstanz, Germany

**Background:** Forecasting how we will react in the future is important in every area of our lives. However, people often demonstrate an 'impact bias', overestimating the intensity and duration of their future reactions. To date, most research has focused on outstanding future events to examine forecasted affective reactions. The present study examined forecasting accuracy for day-to-day repetitive experiences for which people have a wealth of past experiences, using eating happiness as an example.

**Methods:** Seventy-three participants used a smartphone-based Ecological Momentary Assessment to assess their food intake and eating happiness over 14 days. Forecasted eating happiness was compared to eating happiness experienced in the moment of consumption to examine forecasting accuracy. To provide a comprehensive assessment, inter-individual differences such as dispositional expectations towards eating ('foodiness') and intra-individual variability in the in-the-moment experience were analyzed in detail.

**Findings:** Eating happiness experienced in-the-moment showed considerable inter- and intra-individual variation, ICC=.47. Significant differences between forecasted and eating happiness in-the-moment indicate an impact bias whose magnitude was affected by dispositional expectations and the variability of the experience.

**Conclusion:** The results demonstrate that the impact bias is a general phenomenon in forecasts, while also emphasizing the importance of inter-individual differences for a detailed understanding of affective forecasting.

14:30 - 14:45

## Posting for health – A field experiment on how social media use affects healthy eating

M. Kilb<sup>1</sup>, H. Giese<sup>2</sup>, J. Mata<sup>1</sup>

<sup>1</sup>University of Mannheim, Germany

<sup>2</sup>University of Konstanz, Germany

**Background:** Communication about food in social media is highly prevalent. We examined whether social media communication influences individual's eating behavior. We further tested mechanisms, such as perceived social support, potentially underlying this relationship. This study is theoretically based on socio-ecological models and psychological-motivational theories.

**Methods:** In an intensive longitudinal smartphone study, young adults reported their Facebook use, fruit and vegetable intake (FVI), and perceived social support up to eight times per day over one week ( $n = 56$  dyads,  $N = 382$  days). Participants were recruited as dyads (target + network member). Targets' Facebook communication was manipulated between individuals: Targets either regularly posted about their own FVI, or about books and movies (BM). ANOVAs were used to test effects of the manipulation on both posts and FVI. Multilevel models were applied to test a dose-response relationship on a daily basis.

**Findings:** Targets in the FVI posting condition posted more FVI-related posts and less BM-related posts compared to the control condition ( $ps < .001$ ). Additionally, they reported both higher FVI ( $M = 3.66$  vs.  $M = 2.71$ ,  $p = .033$ ) and higher perceived social support concerning FVI ( $M = 30.79$  vs.  $M = 25.43$ ,  $p = .005$ ). Multilevel data suggested a small dose-response relationship of daily FVI posts on FVI, which, however, did not reach significance ( $ps > .05$ ).

**Discussion:** Posting about one's FVI improved self-reported FVI. Perceived social support might be one mechanism underlying this relationship. Social media could be used to promote higher FVI among young adults.

14:45 - 15:00

## Txt to lose weight: A systematic review and meta-analysis of SMS-based weight management interventions

R. Skinner<sup>1</sup>, S. Currie<sup>1</sup>, S. Dombrowski<sup>2</sup>, P. Hoddinott<sup>1</sup>, V. Gonet<sup>1</sup>

<sup>1</sup>University of Stirling, United Kingdom

<sup>2</sup>University of New Brunswick, Canada

**Background:** Obesity is one of the world's leading causes of preventable morbidity and mortality. Short Message Service (SMS)-based interventions have been used in health prevention and promotion interventions. This systematic review aims to evaluate the effectiveness SMS-based interventions for weight loss and weight loss maintenance interventions for adults who are overweight or obese.

**Methods:** Independent reviewers searched electronic databases for randomised controlled trials of weight loss or weight loss maintenance RCTs comparing SMS-based weight management interventions with control groups, published between 1990 and 2018. Studies were excluded if they delivered core intervention components through technology other than SMS. Risk of bias was assessed using the Cochrane risk of bias tool. Meta-analysis was conducted through RevMan (v 5.3) to examine the difference between intervention and control groups for weight change at intervention cessation. Subgroup analyses examined variability in intervention effects for intervention duration, SMS frequency, SMS interactivity, and theory basis.

**Findings:** Fifteen studies with 2,704 adult participants were included. For weight loss interventions, the mean differences in weight change was -2.60kg (95% confidence interval [CI] -3.46 to -1.75 kg, I<sup>2</sup>=60%) and -1.00kg (95% CI, -2.03 to 0.04kg) for weight maintenance interventions. No significant subgroup differences were found.

**Discussion:** SMS-based interventions led to significant moderate weight loss compared to control groups, but did not improve weight loss maintenance. SMS-based weight loss interventions should be considered as an effective option for weight management in adults.

15:00 - 15:15

## Objective (GIS) and subjective food environment as predictors of momentary food intake

K. Elliston<sup>1</sup>, S. Ferguson<sup>1</sup>, B. Schüz<sup>2</sup>

<sup>1</sup>University of Tasmania, Australia

<sup>2</sup>Universität Bremen, Germany

**Background:** The presence and availability of food has been shown to influence eating. Knowing the presence of food in the environment may enable mHealth apps to determine the most appropriate time to issue interventions. To date, studies on eating often rely on self-reports of environmental context, which may not be feasible for mHealth interventions. Here, we explore the feasibility of using Geographic Information System (GIS) data to predict eating behaviour in order to inform geo-fenced interventions.

**Method:** 72 participants recorded their food intake in real-time over 14 days using Ecological Momentary Assessment. Participants logged their food intake and responded to ~5 randomly-timed assessments each day. During each assessment, participants reported the number and type of food outlets nearby. Their electronic diaries simultaneously recorded their GPS coordinates. GPS data was later overlaid with a GIS map of food outlets to produce an objective count of the number of food outlets within 50m of the participant.

**Findings:** Self-reported and GIS counts of food outlets were poorly correlated ( $r = .17$ ,  $p < .001$ ). Logistic regression analyses revealed that although GIS counts significantly predict eating, they were similar to the self-reported counts (AUC-ROC self-report = 0.53, SE = 0.00 vs. AUC-ROC GIS = 0.53, SE = 0.00,  $p = .54$ ). Both counts performed worse than self-reported type of food outlet nearby (AUC-ROC = 0.56,  $p < .001$ ).

**Discussion:** Subjective food environment predicted eating better than objectively measured food environment via GIS. mHealth apps may need to consider the type of food outlets, rather than the raw number of outlets in an individual's environment.

15:15 - 15:30

## The effects of virtual compared to real eating companions on unhealthy food intake.

S. Mollen<sup>1</sup>, S. Sumter<sup>1</sup>, N. van der Laan<sup>2</sup>

<sup>1</sup>University of Amsterdam, Netherlands

<sup>2</sup>Tilburg University, Netherlands

**Background:** It is likely that in the future a part of our social interactions will take place in Virtual Reality (VR). Although previous research has shown that in some ways VR mirrors real-life interactions, this information is limited to a small set of experiences. The current pre-registered study (<https://osf.io/rfy4k>) investigates whether social models in VR, have similar effects on eating behavior, as real life models, and whether similar processes underlie their influence.

**Methods:** Female participants (N=104; Mage=20.70, SDage=1.87) were assigned to one of four conditions in a 2(type of actor: real vs. virtual) x 2(food intake: low vs. high) between-subjects experiment. Participants watched movie trailers with a confederate (i.e., supposedly another participant) who either consumed a few or many M&Ms. The confederate was either physically present or was present in VR (360° movie displayed via VR glasses). M&M consumption (in grams) was measured, along with several process measures (e.g., norm perception).

**Findings:** Preliminary findings from an ANCOVA (bootstrapped) with both factors as IVs, and M&M consumption of participants as the DV shows a main effect of food intake on participants' M&M consumption in the expected direction,  $F(1, 99)=5.22$ ;  $p=.024$ ,  $\eta^2=.05$ . While effects appeared most pronounced in the real-life condition, the interaction between both factors was non-significant ( $p=.123$ ).

**Discussion:** The current study provides evidence that our behavior is influenced by virtual others. More specifically we found that social influences on eating behavior extend beyond real life interactions. Future research should test the application of VR in promoting healthy food consumption.

## ORAL

# Differences between individuals, self-regulation, and risk across the life-span

14:00 - 15:30

Olipa 1, Valamar Collection Dubrovnik President

Kirsty Bennett

14:00 - 14:15

## Associations between food addiction and BMI: The role of self-efficacy, model learning and childhood conditioning

A. Tausch<sup>1</sup>, J. Radauer<sup>1</sup>

<sup>1</sup>SRH Fernhochschule - The Mobile University, Germany

**Background:** The relatively new concept of food addiction is used in health psychology, among others, to explain the development of obesity. Food addiction describes neurochemical brain processes leading to a rewarding function of eating. The study aimed at analyzing some individual psychosocial variables that might lead to developing food addiction. Main questions addressed were: How is food addiction associated with model learning, conditioning processes in childhood (rewarding and punishing with food), and perceived self-efficacy and how do these variables interact with food addiction in predicting body mass index (BMI)?

**Methods:** In a cross-sectional study 456 Austrian subjects aged between 18 and 92 filled in an online questionnaire assessing food addiction, perceived self-efficacy, model learning, and conditioning processes in childhood. Data were analyzed using correlation and regression analyses.

**Findings:** Perceived self-efficacy, reward, punishment, and model learning were all moderately associated with food addiction ( $r$ s from .19 to -.34,  $p$ s < .01). Food addiction was also correlated moderately with BMI ( $r = .22$ ,  $p < .01$ ). Stepwise regression analyses showed that BMI was predicted by food addiction, and additionally, by model learning and perceived self-efficacy ( $\beta$ s: .25, .23, .11) but not by reward and punishment. No significant interactions between food addiction and the other variables were found in predicting BMI.

**Discussion:** The findings show further evidence for the role of psychosocial aspects in the development of obesity. Those should be considered in prevention and therapy of obesity.

14:15 - 14:30

## From Self-Reliers to Expert-Dependents: Identifying Classes among Mobile Users Based on their Health-Related Needs

E. Smit<sup>1</sup>, N. Bol<sup>2</sup>

<sup>1</sup>University of Amsterdam/ASCoR, Netherlands

<sup>2</sup>Tilburg University, Netherlands

**Background:** Mobile health apps are seen as promising tools to support autonomous consumers in their quest for better health. However, individual differences in the need for autonomy and need for external control may impact the degree to which individuals perceive mobile health apps to be useful in their daily life.

**Methods:** Using data from a representative sample of the Dutch population (N = 1,027), we applied latent class analysis to identify subtypes among mobile users based on their need for autonomy and need for external control, and to examine differences among these subtypes.

**Findings:** We identified four subgroups: the self-reliers, confirmation-seekers, expert-dependents, and indifferents. Next to demographic differences, self-reliers and confirmation-seekers were generally more e-health literate and expressed more privacy concerns than the expert-dependents and indifferents. Moreover, compared to other subtypes, confirmation-seekers were more likely to use mobile health apps.

**Discussion:** Our findings demonstrate that subgroups of people express different degrees of health-related need for autonomy and need for external control, which should be taken into account in online and mobile health communication efforts.

14:30 - 14:45

## Left ventricular assist device (LVAD) implantation in women and men – Whose hearts recover?

L. Maukel<sup>1</sup>, G. Weidner<sup>2</sup>, J. Beyersmann<sup>3</sup>, H. Spaderna<sup>1</sup>

<sup>1</sup>Trier University, Germany

<sup>2</sup>San Francisco State University, United States

<sup>3</sup>Ulm University, Germany

**Background:** Early reports from the INTERMACS indicate that women have higher mortality risk after LVAD implantation than men. We explored gender differences in multiple clinical outcomes, considering the contribution of psychosocial patient characteristics.

**Methods:** We compared 1690 women and 6771 men who received a primary continuous-flow LVAD as Destination Therapy between 6/2006 and 12/2017. Outcomes were death, transplant, device explant due to recovery, and device replacement due to complications. Associations of gender with time until each competing outcome were evaluated using cause-specific Cox proportional hazard models, controlling for age, BMI, and medical parameters, taking into account psychosocial factors (e.g. marital status, social support, depression, history of alcohol abuse).

**Findings:** At implant, women were younger and reported less alcohol abuse, but were more likely to be non-white, unmarried, not working for income, overweight, and depressed than men. During a mean follow-up of 20.4 months, women were more likely to receive device explant due to heart function recovery [4% vs. 1.6%, HR 2.48, 95% CI (1.83-3.37),  $p < .001$ ] than men. This remained significant after controlling for covariates [HR 1.98, 95% CI (1.40-2.80),  $p < .001$ ]. Age < 40 and, surprisingly, limited social support and history of alcohol abuse predicted recovery independent of gender. While women had a higher risk than men for device replacement [HR 1.20, 95% CI (1.04-1.38),  $p < .05$ ], no differences emerged regarding death and transplantation.

**Discussion:** Women's hearts had better chances to recover than men's, independent of medical parameters. Since gender differences in psychosocial characteristics did not account for this finding, additional research is needed.

14:45 - 15:00

## Psychosexual implications of routine primary human papillomavirus testing in the English Cervical Screening Programme

K. Bennett<sup>1</sup>, J. Waller<sup>1</sup>, E. McBride<sup>1</sup>, A. Forster<sup>1</sup>, L. Marlow<sup>1</sup>

<sup>1</sup>Cancer Communication and Screening Group, Department of Behavioural Science and Health, UCL, United Kingdom

**Background:** Primary human papillomavirus (HPV) testing is being implemented in several countries. Because of the sexually transmitted nature of HPV, there may be psychosexual consequences of testing HPV+. This study aimed to assess psychosexual impact among women with different HPV and cytology screening results in the context of the HPV primary screening pilot.

**Methods:** Women (n=1127) were recruited from five sites in England where primary HPV testing is being piloted. They completed a postal survey around two weeks after receiving their screening result. Psychosexual impact was assessed using six items from the Psychosocial Effects of Abnormal Pap Smears Questionnaire. Variation in overall psychosexual impact and the proportion reporting psychosexual distress by individual item were compared across six groups with different HPV and cytology Results:

**Findings:** Psychosexual impact differed across results groups and was highest among women who were HPV+, irrespective of cytology result. Psychosexual impact did not differ between women who tested HPV- and the control group who were not tested for HPV. Women who were HPV+ were more distressed for all individual items (range among HPV+ women: 11.7-31.0% compared to 0.2-1.3% in the control group).

**Discussion:** The findings of this study suggest that while HPV testing does not appear to have a psychosexual impact, testing HPV+ does, at least in the short term. It is important to understand and minimise the psychosexual burden of testing HPV+ to ensure this does not cause undue concern among women, have an adverse effect on their relationships or influence future screening re-attendance.

15:00 - 15:15

## Are perceived risk of infection also biased and how? Lessons from large epidemics in France

J. Raude<sup>1</sup>

<sup>1</sup>EHESP School of Public Health, France

**Background:** Although people have been repeatedly found to underestimate health risks for themselves when compared to those of the others, we still do not know much about this common bias in risk perception, called “unrealistic optimism”. We took advantage of a series of large epidemics of mosquito-borne diseases to examine whether people are also unrealistically optimistic in a stressed environment. In this aim, we assessed the perceived risk of infection by zika, chikungunya or dengue fever during these outbreaks among different populations and epidemiological settings.

**Methods:** We used data drawn from 4 recent telephone surveys (400<n<1200), among representative samples of the adult population in 2 French tropical regions (Reunion Island and French Guiana). The participants were asked to estimate in a variety of ways the risk of infection by arboviruses (vulnerability, severity, worry, current and final prevalence), as well as to report the adoption of preventive behaviours.

**Findings:** The surveys showed that (1) contrary to predictions most respondents did not estimate their risk of infection in a optimistically skewed manner, (2) unrealistic optimism was not associated with the self-reported frequency of protective behaviours, and (3) unrealistic optimism seems to decrease considerably as experience of these diseases increased.

**Discussion:** These empirical findings suggest that biases in the perceived risks related to acute infectious diseases may be significantly different from those characterizing other types of illness. Nevertheless, they confirm that the lack of experience may play a considerable role in the magnitude of unrealistic optimism, as observed in previous experimental studies.

15:15 - 15:30

## Sense of meaning, coherence and spirituality on antiretroviral therapy adherence of people on ART care.

L. Phiri<sup>1,2</sup>

<sup>1</sup>University of South Africa, South Africa

<sup>2</sup>University of Johannesburg, South Africa

This study set out to explore the role of meaning in life, sense of coherence and spirituality on antiretroviral therapy (ART) adherence of people receiving ART. The objectives were to determine whether higher levels of meaning in life, sense of coherence and spirituality promotes ART adherence. A correlational design was used to collect data at 2 primary health facilities in the South of Johannesburg, South Africa. Participants were assessed for their levels of ART adherence using the AIDS clinical trials group adherence questionnaire (ACTG), meaning in life was assessed with the meaning in life questionnaire (MLQ), sense of coherence with sense of coherence-13 (SOC-13) and lastly, spirituality was measured with the spiritual well-being scale (SWBS). Multiple regression analysis was used to analyse data. Overall, the sample (n =130, M age = 22.5 years; SD ± 3.54) consisted of more women (64.6%). Additionally, 56.9% participants were non-adherent and 43.1 % were adherent. More participants reported higher levels of coherence (67.7%), spirituality (66.9%) and a boarderline 56.2% of meaning in life. Analyses further revealed that MLQ, SOC-13 and SWBS are strong predictors of adherence (ACTG), respectively. Meaning in life had the strongest influence on adherence (OR: 1.16, 95% CI: 1.11 to 1.21), followed by sense of coherence (OR: 1.03, 95% CI: 1.01 to 1.05) and lastly, spirituality (OR: 1.01 CI: 0.99-1.04). Findings show that meaning in life, sense of coherence and spirituality are considerable psychological drivers of sustained adherence to ART among people on ART care.

## ORAL

# The contribution of the extended family and the community to children's health

14:00 - 15:30

Galijun, Valamar Argosy

Laura Koehly

14:00 - 14:15

## Using family health history feedback to activate communal coping processes in Mexican-heritage families

L. Koehly<sup>1</sup>, J. Lin<sup>2</sup>, M. Myers<sup>3</sup>, A. Wilkinson<sup>4</sup>

<sup>1</sup>National Institutes of Health, United States

<sup>2</sup>Northern Arizona University, United States

<sup>3</sup>Cincinnati Children's Hospital Medical Center, United States

<sup>4</sup>University of Texas Health Sciences Center, United States

**Background:** We investigate whether family health history (FHH)-based feedback can activate communal coping related to type 2 diabetes risk in Mexican-heritage families. Communal coping is characterized by three interpersonal processes: communication about risk; shared appraisals of risk; and encouragement of risk-reducing behaviors.

**Methods:** Following in-home baseline assessment, households were randomized to receive FHH feedback based on four feedback conditions characterized by two factors: 1) whether all or one member(s) received supplemental risk assessments and 2) whether or not behavioral recommendations accompanied supplemental risk assessments. Follow-up telephone interviews were conducted at 3- and 10-months post feedback. 447 participants from 161 multi-generational Mexican-heritage households reported on 7,020 family network ties, indicating who was involved in risk communication and encouragement of healthy behaviours at each assessment. Logistic regression models were fitted with generalized estimating equations to control for within family clustering.

**Findings:** Results suggest that provision of personalized risk assessments and behavioral recommendations to all participating family members was associated with significantly lower levels of new risk communication ties at 3-month follow-up than all other conditions; however, this feedback condition yielded the highest level of new encouragement ties at 10-month follow-up. Moreover, as posited by communal coping, discussions of risk at the 3-month assessment were associated with a 2-fold increase in new encouragement ties at 10-month follow-up.

**Discussion:** Varying feedback components may differentially activate interpersonal mechanisms underpinning the model. Understanding the role of risk feedback and interpersonal relationships in Mexican-heritage families can help identify how best to shape future health behavior interventions.

14:15 - 14:30

## How can extended family members support parents of children with cancer?

L. Kelada<sup>1,2</sup>, C.E. Wakefield<sup>1,2</sup>, L. Carlson<sup>1,2</sup>, K. Hetherington<sup>1,2</sup>, B.C. McGill<sup>1,2</sup>, M.C. McCarthy<sup>3,4</sup>, G. Miles<sup>5</sup>, R.J. Cohn<sup>1,2</sup>, U. Sansom-Daly<sup>1,2</sup>

<sup>1</sup>UNSW, Australia

<sup>2</sup>Sydney Children's Hospital, Australia

<sup>3</sup>Murdoch Children's Research Institute, Australia

<sup>4</sup>Royal Children's Hospital, Australia

<sup>5</sup>Perth Children's Hospital, Australia

**Background:** Childhood cancer has a profound impact on parents and family relationships. After their child's diagnosis, parents commonly require support from their extended families including their own parents and siblings. Limited research has assessed how parents draw upon their extended families for support after diagnosis. Importantly, support – or lack of support – from extended families may permanently change family relationships. We aimed to assess how parents, after diagnosis: 1) perceive the support they received from their extended family; and 2) describe changes to relationships with extended family members.

**Methods:** We interviewed 35 parents of childhood cancer survivors (n=32 female, 91.4%) and performed thematic analysis. On average, children had successfully completed their cancer treatment 1.52 years (SD=1.23 years) prior to their parents' participation in our study (range=0.17-6.33 years).

**Findings:** We identified five themes: 1) extended family members as sources of support; 2) hurt, anger and resentment; 3) empathy for extended family members; 4) insulating the nuclear family; 5) relationships after treatment.

**Discussion:** Extended family members can provide valuable support to parents of a child with cancer and their families yet can also be a source of anger and frustration for parents, damaging relationships into the future. Parents and their extended families may have different conceptions or expectations regarding the kind of support which is helpful during a child's cancer treatment. Interventions and resources which educate extended family members may assist in bridging the gap between the support parents need, and what they receive, when their child is diagnosed with cancer.

14:30 - 14:45

## Effects of a healthy-lifestyle intervention for pre-schoolers (MEND 2-4) under conditions of normal service delivery

P. Chadwick<sup>1</sup>, M. Koloutouro<sup>2</sup>, D. Radley<sup>3</sup>, P. Sacher<sup>2</sup>

<sup>1</sup>University College London, United Kingdom

<sup>2</sup>Healthy Weight Partnership, United Kingdom

<sup>3</sup>Leeds Beckett University, United Kingdom

**Background:** Poor nutrition and inactivity in the early years increase the risk of obesity later in life and food and activity-related parenting practices play a critical role in children's weight regulation. Group-based, community healthy-lifestyle programmes are common in UK early years' settings but few publish data on performance nationally. Outcomes of a nationally available, 10-week programme for children aged 2-4 years at risk of obesity are presented.

**Methods:** Changes between baseline and post-programme data on 5006 children-parent/caregiver dyads (mean age: 2.8 years, weight status: healthy weight 76.9%, overweight/obese: 22%, underweight: 1.1%; 26.5% BAME; 28.3% parental unemployment) attending UK programmes were analysed.

**Findings:** Mean number of children per group was 6.9. Attendance and retention rate was 72.3% and 88.7% respectively. Participation was associated with statistically significant weight loss for all children with overweight/obese (OW) children losing considerably more than healthy weight (HW) counterparts (z-BMI change: OW -0.25,  $p < 0.0001$ ; HW -0.08,  $p < 0.0001$ ). Significant improvements were observed (all  $p < 0.0001$ ) for dietary quality (daily consumption of 5 portions fruit/veg: +13.6%), physical activity (outdoor play: +2.1hrs/wk), food-related parenting practices (covert control: +0.7; modelling: +0.8; use of food to control behaviour: -0.7), food neophobia (-1.2), and parenting self-efficacy (+3.5).

**Discussion:** Participation in MEND 2-4 was associated with improvements in child health and parenting behaviours associated with weight regulation in children. High attendance and retention rates suggest the programme is acceptable to families and that implementation of standardised, obesity prevention programmes are feasible in early years' settings. Future research should evaluate the long-term impact of the programme.

14:45 - 15:00

## 'Everybody's Different: The Appearance Game'. Evaluating an educational board game for children aged 9-11 years.

E. Guest<sup>1</sup>, D. Harcourt<sup>1</sup>, H. Williamson<sup>1</sup>, N. Sharratt<sup>1</sup>, H. Jarman<sup>1</sup>, A. Slater<sup>1</sup>

<sup>1</sup>Centre for Appearance Research, University of the West of England, United Kingdom

**Background:** Appearance dissatisfaction, increasingly prevalent in children, is associated with anxiety, disordered eating and poor school engagement. Additionally, people living with visible differences (e.g., scarring, craniofacial conditions) encounter societal stigma, leading to social anxiety and avoidance. We aimed to evaluate the effectiveness of a board game aimed at increasing knowledge of appearance-related issues, positive body image and acceptance of appearance diversity with British school children.

**Methods** 259 children (female=116), aged 9-11 (M=10.26; SD=0.67), from three primary schools in England participated in a cluster-randomised controlled trial. Outcome measures (Body Appreciation Scale 2-Children, Critical Thinking about Media Messages scale, board game knowledge and acceptance of visible difference) were collected pre-, post- and at two-week follow-up. ANCOVAs and t-tests were conducted to examine study hypotheses.

**Findings:** ANCOVAs revealed knowledge of game content ( $F(1, 247) = 11.054, p < .001, \text{partial } \eta^2 = .043$ ) and positive body image ( $F(1, 242) = 5.605, p < .05, \text{partial } \eta^2 = .023$ ) significantly increased in the intervention group pre-post, compared to the control group. However, there were no significant differences between groups relating to media literacy or acceptance of visible difference. 78% of children (n=117) reported enjoying the game and 85.3% (n=128) thought other children their age would like to play.

**Discussion:** The findings suggest 'Everybody's Different: The Appearance Game' is an enjoyable and effective way to promote positive body image and increase knowledge of appearance-related issues. Future research should consider how to increase media literacy and acceptance of appearance difference in children.

15:00 - 15:15

## Communication with father moderates the association between adverse childhood experiences and emotional and behavioural problems

M. Lackova Rebicova<sup>1</sup>, Z. Dankulincova Veselska<sup>1</sup>, D. Husarova<sup>1</sup>, A. Madarasova Geckova<sup>1</sup>, J. P. van Dijk<sup>2</sup>, S. A. Reijneveld<sup>2</sup>

<sup>1</sup>PJ Safarik University in Kosice, Slovakia

<sup>2</sup>University of Groningen, Netherlands

**Background:** Adverse childhood experiences (ACE) are known to have a significant impact on adolescent mental health. Good family communication may buffer some of this impact, as better family communication has been shown to improve adolescent mental health outcomes. However, evidence about the role of family communication on the relationship between ACE and emotional and behavioural problems (EBP) is lacking. The aim was to explore whether the adolescent's communication with mother and father moderates the association between ACE and EBP among adolescents.

**Methods:** We used data from the Health Behaviour in School-aged Children study conducted in 2018 in Slovakia, comprising 8,405 adolescents aged from 11 to 15 (mean age 13.43; 50.9% boys). We used generalized linear models adjusted for age, gender and family affluence to assess whether communication (easy communication vs. difficult communication) with mother and father modifies the associations between ACE and EBP (measured by the Strengths and Difficulties Questionnaire). Presented are B's and 95% confidence intervals (CI).

**Findings:** More ACE increased the probability of emotional and also of behavioural problems. Easy communication with the father decreased the association of ACE (1-2 ACE; 3+ ACE) with emotional problems (B: -0.04, 95%-CI: -0.08|0.00; and -0.05, -0.09|-0.01, respectively) and behavioural problems (-0.04, -0.08|0.00; and -0.05, -0.09|-0.01, respectively) problems, but this was not confirmed for communication with mother. The association between ACE and EBP was stronger in the case of difficult communication with father.

**Discussion:** Improvement in communication between the father and his child can decrease the probability of EBPs in adolescents with ACEs.

15:15 - 15:30

## Feeding Patterns and Mealtime Behaviours of Children with Type 1 Diabetes and Age Matched Controls

H. Lydon<sup>1,2</sup>, E. Cunningham<sup>1,3</sup>, L. Hobbs<sup>1,2</sup>, D. Barry<sup>1,2</sup>, R. Ward<sup>1,2</sup>, A. Martin<sup>1,2</sup>, B. McGuire<sup>1</sup>, V. McDarby<sup>3</sup>, E. Somers<sup>3</sup>, D. Cody<sup>3</sup>

<sup>1</sup>National University of Ireland Galway, Ireland

<sup>2</sup>Applied Behavioural Research Clinic, Ireland

<sup>3</sup>Our Lady's Children's Hospital Crumlin, Dublin, Ireland

The present study investigated the feeding patterns and mealtime behaviours of children with T1D (n= 129) and aged matched control (n=129) between the ages of 4 and 18 years, and their families, within the Irish context. Expanding on previous research, the study aimed to identify the relationship between child feeding patterns and mealtime behaviours and parental stress and self-efficacy in the management of their child's Diabetes. Results of the study found that children with T1D consumed relatively healthy diets, which were significantly influenced by their families' diets. The findings indicated that the younger children (4- 8 years) displayed more feeding problems and problematic mealtime behaviours than older children (9-13 years; 14-18 years). It was also found that both the number and frequency of behavioural feeding problems significantly influenced parental stress and self-efficacy. These findings indicate a need for the development of intervention strategies for young children with T1D and their families, to aid with effective management and treatment of the disease.

ORAL

# Prevention interventions

14:00 - 15:30

Asimon, Valamar Lacroma Dubrovnik

Jörg Huber

14:00 - 14:15

## Reducing the burden of maternal obesity: Co-designing a workplace health promotion program for reproductive-aged women

H. Skouteris<sup>1</sup>, B. Hill<sup>1</sup>

<sup>1</sup>Monash University, Australia

**Background:** Our Health in Preconception and Pregnancy (HiPP) program of research, spanning over 15 years, aims to refine and implement health promotion, lifestyle improvement, and obesity prevention strategically targeting women preconception and during pregnancy, to improve the health of women and the next generation. Workplaces have been identified by the World Obesity Federation/Policy and Prevention and WHO as priority health promotion settings. One aim of our HiPP research is to co-design a workplace health promotion program, implement this in workplaces and evaluate the efficacy to improve lifestyle knowledge, behaviours, and habits of reproductive-aged women.

**Methods:** We have adapted and administered a Workplace Health Promotion survey, to over 300 women, to understand reproductive-aged women's wants, needs, motivations, barriers, enablers and readiness to adopt healthy lifestyle behaviours. We have adopted qualitative methods to further understand the needs of women in the workplace around preconception.

**Findings:** Women want to know that their employer and workplace prioritises their health and wellbeing and is supportive of fostering preconception health. An online format is preferred in the form of a "one stop shop", web-based portal that provides lifestyle advice and education to promote physical and emotional health, as well as information about having a healthy pregnancy, maternity leave and return to work rights and policies. We are co-designing this portal with key stakeholders and pilot testing it for efficacy and acceptability.

**Discussion:** By targeting women where they work we are assisting them be the healthiest weight they can be, to improve maternal and child health outcomes.

14:15 - 14:30

## Evaluation of a novel intervention to reduce burnout in doctors-in-training: A mixed-methods pilot study

A. Rich<sup>1</sup>, M. Cecchinato<sup>2</sup>, A. Cox<sup>3</sup>, L. Lascau<sup>3</sup>, A. Aly<sup>3</sup>, M. Baker<sup>3</sup>

<sup>1</sup>UCL, United Kingdom

<sup>2</sup>Northumbria University, United Kingdom

<sup>3</sup>University College London, United Kingdom

**Background:** Burnout for doctors-in-training is increasingly cause for concern. Objectives were to assess the feasibility, acceptability and impact of a novel intervention to reduce burnout.

**Methods:** Doctors (n=22) participated in a face-to-face workshop which included group discussion of challenges experienced and strategies to enhance self-care and digital wellbeing. A pre-post-test mixed-methods evaluation was undertaken. Questionnaire measures were the Oldenburg Burnout Inventory, Warwick-Edinburgh Mental Wellbeing Scale and boundary control subscale of the Work-Life Indicator. Paired t-tests examined whether there were statistically significant differences. Eleven doctors also participated in post-intervention semi-structured interviews, analysed using thematic analysis.

**Findings:** The intervention was well-received, with all trainees finding the workshop useful and saying they would recommend it to others. At baseline most participants had scores indicative of burnout on both the disengagement (82% with subscore  $\geq 2.1$ ) and exhaustion (82% with subscore  $\geq 2.25$ ) subscales of the Oldenburg Burnout Inventory. One month post-intervention, participants had a statistically significant reduction in burnout (both disengagement and exhaustion) and improvement in boundary control. Wellbeing scores also improved, but differences were not statistically significant. Qualitative analysis indicated participants had welcomed a safe space to discuss stressors and many had implemented digital wellbeing strategies to manage their smartphone technology, and increased self-care such as mindfulness practice and walking in green space.

**Conclusions:** The intervention reduced burnout and improved boundary control. Having protected time for doctors to share personal experiences, adopt digital wellbeing and self-care strategies are suggested effective tools to support doctors' wellbeing and should be investigated further.

14:30 - 14:45

## Characteristics and outcomes for participants of beginner running programmes

C. Plateau<sup>1</sup>, J. Anthony<sup>1</sup>, S. Clemes<sup>1</sup>, C. Stevinson<sup>1</sup>

<sup>1</sup>Loughborough University, United Kingdom

**Background:** Beginner running programmes (e.g. Couch to 5K) are designed to help novices to learn to run for 30 minutes non-stop. Little is known about the characteristics of individuals who take part, or the outcomes that can be achieved from such programmes. This study aimed to explore the characteristics of individuals who embark upon beginner running programmes, and to explore changes in self-reported physical activity and psychological wellbeing over the course of the programme.

**Methods:** A total of 141 participants completed an online survey at the start of a beginner running programme; 63 completed a follow-up survey 10 weeks later. Participants provided information about their physical activity, psychological wellbeing, running identity, social physique anxiety, physical self-concept and self-efficacy for exercise at both time points.

**Results:** At baseline, most participants were female (n=122), had a mean age of 43 years (SD=10.11), were overweight (Mean BMI = 28.37kg/m<sup>2</sup>; SD = 5.72) and did not meet guidelines for moderate to vigorous physical activity (MVPA; Mean=115 min/week; SD=192). At follow up, 74% of participants reported being able to run for 30 minutes non-stop; 33% reported experiencing an injury. Significant improvements were reported for MVPA (Mean=198 min/week, SD=148), psychological wellbeing, running identity, social physique anxiety and physical self-concept.

**Discussion:** Beginner running programmes are attractive to those who would benefit from engaging with vigorous physical activity. Participants who complete the programme report significant improvements in physical activity and psychological outcomes. Further research is needed to explore whether these effects are sustained longer term.

14:45 - 15:00

## Improving health and wellbeing through fuel poverty reduction

J. Huber<sup>1</sup>, A. Sawyer<sup>1</sup>, N. Sherriff<sup>1</sup>, M. Darking<sup>1</sup>, R. Watson<sup>2</sup>, D. Bishop<sup>3</sup>, M. China<sup>4</sup>, S. Ramsbottom<sup>2</sup>, S. Venables<sup>4</sup>

<sup>1</sup>University of Brighton, United Kingdom

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<sup>3</sup>East Sussex County Council, United Kingdom

<sup>4</sup>Hastings Borough Council, United Kingdom

**Introduction:** Fuel poverty and living in a cold home can contribute to adverse physical and mental health. Energy efficiency interventions targeted at those at risk of fuel poverty may lead to health improvements. Over 22,600 (9.4%) households live in fuel poverty in East Sussex, England. In 2016 a local Clinical Commissioning Group established an 18-month pilot to fund installation of major heating and insulation measures (including full central heating systems, boiler replacements, and storage heaters) in 148 homes. The programme was evaluated to provide a greater understanding of its impact on the health and wellbeing of individuals and their families.

**Methods:** A mixed-methods evaluation approach, with before and after data collection points, was utilised. Data collection was carried out in three main phases: baseline survey data collection; follow-up survey data collection; and in-depth interviews with beneficiaries of the programme.

**Results:** Self-rated health and Warwick Edinburgh Mental Wellbeing Scale scores improved significantly, on completion of the home improvements. All participants interviewed reported positive impacts of having heating measures installed in their home including enhanced comfort and warmth, improved physical health, alleviation of stress and anxiety, and lower fuel bills. There were also very high levels of satisfaction with the service.

**Conclusion:** The findings from this evaluation indicate that the installation of major heating and insulation measures benefit the health and wellbeing of individuals. Further research is needed to understand the long-term impact of interventions targeted at reducing fuel poverty.

15:00 - 15:15

## Standardising STI and HIV behavioural surveillance in Ireland: developing a national second generation surveillance system

C. Kelleher<sup>1</sup>, S. Tecklenborg<sup>1</sup>

<sup>1</sup>Royal College of Surgeons in Ireland, Ireland

**Aims:** Ireland does not have a functional second generation (combining biological and behavioural intelligence) surveillance system &#40;SGSS&#41;. Ireland's first national sexual health strategy (2015), specifically recommends the establishment of such a system. This project used a collaborative approach with key stakeholders to agree core and population-specific behavioural indicators across several at-risk populations to enhance current, and inform future surveillance activities of STIs and HIV in statutory and non-statutory agencies.

**Methods:** Using the Joint United Nations and World Health Organisation's framework for initiating second generation HIV surveillance system, this project: assessed current STI and HIV surveillance systems (desk review); engaged key stakeholders in a national consensus building (modified E-Delphi and workshop); and conducted a small feasibility study assessing acceptability of agreed STI and HIV behavioural indicators (cognitive interviewing) in young people (N=20).

**Results:** Key deliverables included: a report, using a strengths, weaknesses, opportunities and threats (SWOT) framework on the current HIV/STI surveillance systems in Ireland; a list of consensus-agreed core and population-specific behavioural indicators across several at risk-populations (e.g. general population, young people, men who have sex with men, sex workers); and evidence on the acceptability of these indicators in cognitive interviews with young people.

**Conclusions:** This is the first project in Ireland to provide a comprehensive review of behavioural surveillance of STIs and HIV. It successfully engaged key stakeholders in consensus-building for STI and HIV behavioural indicators which is critical to a sustainable second-generation surveillance system. Findings are being used to inform future national surveillance activities.

15:15 - 15:30

## School-based on-site vaccination and education with the Prevention Bus – a cluster randomised controlled trial

N. Bethke<sup>1,2</sup>, P. Gellert<sup>1</sup>, J. Seybold<sup>1</sup>

<sup>1</sup>Charité - Universitätsmedizin Berlin, Germany

<sup>2</sup>Freie Universität Berlin, Germany

**Background:** Vaccination rates in Germany for mumps, measles, and rubella (MMR) as well as tetanus, diphtheria, pertussis, and polio (Tdap-IPV) are below WHO target. Health education combined with easy-access vaccination may be a promising approach to improve health knowledge together with vaccination rates.

**Methods:** A cluster randomised controlled trial (cRCT) was conducted (N=6,374), offering on-site vaccinations in the Prevention Bus (MMR, Tdap-IPV). Classes in the intervention group additionally received health education to foster vaccination-related knowledge, risk perception and self-efficacy. In total, 2,961 students from 10 schools (50% female, mean age=16.8 years), participated in the intervention condition, whereas 3,413 students from 15 schools (40% female, mean age=19.1 years) were in the control condition. While the primary outcome was vaccination uptake, in the present preliminary analyses, we focused on the secondary outcomes, i.e., vaccination related knowledge (0-6 correct answers) and perceived self-efficacy (5 items, range 1-4). Generalised Estimating Equations have been applied, which take the nested data structure and covariates into account.

**Results:** Preliminary analyses revealed higher levels of self-efficacy (M=3.12, SE=.01) and knowledge (M=4.48, SE=.03) in the intervention condition, relative to the control condition, (M=2.97, SE=.01, difference  $p < .001$  and M=2.93, SE=.02, difference  $p < .001$ , respectively). For self-efficacy, the mean difference corresponds with a small (Cohen's  $d = .28$ , CI .22-.33) and for knowledge with a large effect size (Cohen's  $d = 0.99$ , CI .94-1.05).

**Discussion:** We found first evidence that the educational approach effectively increases vaccination related knowledge and perceived self-efficacy. More attention should be paid to group differences regarding vaccination rates in further analyses.

## Posters

# Patient education and decision-making

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Madelynne Arden

15:30 - 17:00

## Factors associated with oral nutritional behaviours in people with motor neurodegenerative diseases: A systematic review

P. Norman<sup>1</sup>, I. Williams<sup>1</sup>, M. Essat<sup>1</sup>, R. Archer<sup>1</sup>, E. Coates<sup>1</sup>, N. Zarotti<sup>1</sup>, M. Clowes<sup>1</sup>, S. White<sup>2</sup>, H. Stavroulakis<sup>1</sup>, C. McDermott<sup>1</sup>

<sup>1</sup>University of Sheffield, United Kingdom

<sup>2</sup>Sheffield Teaching Hospitals, United Kingdom

**Background:** Excessive weight loss is common in motor neurodegenerative diseases (e.g. Motor Neuron Disease, Parkinson's Disease, Huntington's Disease) and is associated with reduced quality of life, functional ability and survival. However, little is known about the key correlates of oral nutritional behaviours in motor neurodegenerative diseases.

**Methods:** Searches were conducted in several electronic databases to identify papers that examined factors (e.g. knowledge, beliefs) associated with oral nutritional behaviours/outcomes (e.g. swallowing, calorie intake, weight) in motor neurodegenerative diseases. The COM-B model was used to structure the narrative review and synthesis.

**Findings:** Sixty-one quantitative and four qualitative papers were included in the review. The most consistent correlates of poorer outcomes were disease characteristics including disease severity, disease duration, respiratory problems, dysphagia, and bulbar onset (Capability-Physical). Cognitive impairment and lack of knowledge were also related to poorer outcomes (Capability-Psychological). Living alone and the absence of caregivers/support were important social factors (Opportunity-Social/Physical). Patients' desire for control and independence were related to better outcomes whereas low perceived need and low response efficacy were related to poorer outcomes (Motivation-Reflective). Eating habits, depression and lack of appetite were related to poorer outcomes (Motivation-Automatic).

**Discussion:** The quantitative studies predominantly focused on the impact of disease characteristics on nutritional outcomes, whereas the qualitative studies explored the impact of motor neurodegenerative diseases on nutritional behaviours in the context of everyday life. Together, the findings highlight that interventions to support high calorie diets should target all COM-B components and be tailored to patients' disease stage and social circumstances.

15:30 - 17:00

## Modifiable determinants of medication adherence in bipolar-disorder mapped to the Theoretical Domains Framework: systematic review

A.R. Prajapati<sup>1,2</sup>, A. Dima<sup>3</sup>, G. Mosa<sup>2</sup>, S. Scott<sup>1</sup>, F. Song<sup>1</sup>, J. Wilson<sup>2</sup>, D. Bhattacharya<sup>1</sup>

<sup>1</sup>University of East Anglia, United Kingdom

<sup>2</sup>Norfolk and Suffolk NHS Foundation Trust, United Kingdom

<sup>3</sup>University Claude Bernard Lyon 1, France

**Background:** Medication non-adherence in bipolar-disorder is a significant clinical problem with huge economic impact. This study aimed to map modifiable determinants of medication adherence in bipolar-disorder to the Theoretical Domains Framework (TDF) to inform future development of adherence interventions.

**Methods and analysis:** We searched CINAHL, Cochrane Library, Embase, Medline, PsychINFO, PubMed using MeSH terms "Treatment Adherence and Compliance", "Bipolar Disorder" AND "Psychotropic Drugs". We used framework synthesis to map literature identified modifiable determinants to the TDF. The study protocol registration number is [PROSPERO:CRD42018096306] and published in BMJ Open [<https://bmjopen.bmj.com/content/9/2/e026980>].

**Findings:** Fifty-five studies were included of which 50 explored determinants from the patient's perspective, five from the health care professional's perspective and none from carer's perspective. Inter-rater reliability for mapping the modifiable determinants to the TDF domains showed substantial agreement of around 80%. The three most frequently reported TDF domains were: 1)Environmental Context and Resources (e.g. experience of side-effects) 2)Beliefs about consequences (e.g. concerns about potential side-effects) and 3)Knowledge (e.g. insufficient understanding of the disorder).

**Discussion:** This is the first study mapping modifiable determinants of medication adherence in bipolar-disorder to a theoretical framework. The frequent reporting of determinants in the above three TDF domains indicate that interventions comprising information provision and patient engagement to tailor prescribing decisions according to acceptability and tolerability may be appropriate. However, carers who play a significant role in supporting adherence are poorly represented in the literature. To establish the relevance and importance of literature reported determinants, further qualitative work with patients and their carers is required.

15:30 - 17:00

## Understanding the use of psychosocial support services among cancer patients

T. Matsui<sup>1</sup>, K. Hirai<sup>2</sup>, Y. Gondo<sup>2</sup>, S. Sato<sup>2</sup>

<sup>1</sup>Waseda University, Japan

<sup>2</sup>Osaka University, Japan

**Background:** There are various psychosocial support services for cancer patients in Japan to reduce psychological distress. However, the utilization rate of such services is low. The present study aimed to examine the use of psychosocial support services among cancer outpatients using the transtheoretical model (TTM).

**Methods:** We conducted an internet survey among cancer outpatients and asked them to respond to a questionnaire through an internet research company (N = 960). We asked for demographic information (e.g., age, sex) and about the use of psychosocial support services, BCWI, and HADS.

**Findings:** In total, 712 cancer patients (mean age = 58.1 years) were analyzed. Of those, 111 participants had experienced to use psychosocial support services (15.5%). Participants with the following characteristics used such services more: younger age ( $t(710) = -4.114$ ,  $p = .00$ ), female ( $\chi^2 = 10.553$ ,  $df = 1$ ,  $p < .001$ ), breast cancer ( $\chi^2 = 11.055$ ,  $df = 1$ ,  $p < .01$ ), prostate cancer ( $\chi^2 = 10.547$ ,  $df = 1$ ,  $p < .01$ ), and uterine cancer ( $\chi^2 = 5.942$ ,  $df = 1$ ,  $p < .05$ ). Of the non-users, 538 were in the Precontemplation stage (89.5%), 62 were in the Contemplation (10.3%) stage, and one was in the Preparation (0.2%) stage. Approximately 35% of those in the Precontemplation stage had adjustment disorders or major depression.

**Discussion:** We can understand the psychosocial support services in Japan based on our Results: Additionally, this study supported previous reports that cancer patients who have high levels of distress do not necessarily seek help.

15:30 - 17:00

## Determinants of screening participation of disadvantaged populations in France: a qualitative study.

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**Background:** Screening is a prevention practice that consists of early detection of asymptomatic disease for improving the prognosis of patients. In France as in other European countries, several organized and opportunistic screenings are recommended. However, strong health inequalities exist, especially for deprived and disabled populations, who access less to preventive care than the general population. We aim to identify their specific barriers to and facilitators of screening participation.

**Methods:** A qualitative study is being conducted with persons living with disability or in socio-economic deprivation in Lyon, France (N= 20-30), recruited through associative and public structures involved in social care. Semi-structured interviews will follow a guide developed based on the Theory of Planned Behaviour and the Health Belief Model, two complementary models commonly used in prior screening research. Thematic content and lexicometric analyses will be performed.

**Expected results:** The interviews will explore key concepts in screening participation, such as attitudes, social norms, perceived control, perceived vulnerability, etc. Hence, this study represents an opportunity to identify determinants specific to disadvantaged populations, but also to investigate the way individuals combine considerations about screening in general and about screening for particular conditions.

**Current stage of work:** Interviews will start on March 2019 and first results will be available in June 2019.

**Discussion:** The expected impact of the study is to reach disadvantaged people who are unlikely to participate in screening, in order to develop relevant tools providing appropriate information and supporting decision making on recommended screenings.

15:30 - 17:00

## Effect of manipulating descriptive norms on vaccination decisions

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<sup>1</sup>Herzen State Pedagogical University of Russia, Russia

<sup>2</sup>National Research University Higher School of Economics, Russia

**Background:** A refusal of adults to vaccinate themselves or their children is an important public health problem in the modern world. According to the focus theory of normative conduct, descriptive norms are supposed to be important factors of performing the behavior. This study was aimed to test if manipulating the descriptive norm might influence the decision about vaccination and if the framing of the information regarding descriptive norm would moderate this effect.

**Methods:** 1175 citizens of Saint-Petersburg, Russia took part in the telephone interview focused on vaccination attitudes and behavior. The fictitious scenario about a new disease and corresponding vaccine was presented and participants were asked to make a decision about vaccination. The 3X2 design was used. Fictitious scenario contained information about the descriptive norm about vaccination (10%, 50% or 90% of others decided to vaccinate) framed positively (% of agreed to vaccinate) or negatively (% of refused to vaccinate).

**Findings:** In the case where the majority agrees to vaccination, 62.9% parents decided to accept vaccination; when the social norm is blurred or most parents refuse vaccination, the corresponding number was lower (51.5% and 49.0% correspondingly) ( $p \leq 0.01$ ). However, in the case of personal vaccination, the effect wasn't found. Framing effect, in contrast, was found only in regard to the personal vaccination: positive framing of descriptive social norms is associated with higher rates of agreement to vaccination (48.1% vs. 40.1%,  $p \leq 0.01$ ).

**Discussion:** More research is needed in order to better understand differences in decision making about personal vaccination and child vaccination.

15:30 - 17:00

## Medical empathy and patient health beliefs explain patients' intention to uptake patient education.

S. Lelorain<sup>1</sup>, A. Wilu Wilu<sup>2</sup>, G. d'Almeida<sup>2</sup>, L. Alsberghe<sup>2</sup>, N. Bertin<sup>2</sup>, M. Bourgoin<sup>2</sup>

<sup>1</sup>Univ. Lille, CNRS, CHU Lille, UMR 9193 – SCALab – Cognitive and Affective Sciences, France

<sup>2</sup>Teaching Hospital of Lille, Transversal Unit of Patient Education, France

**Background:** Patient education (PE) has proven its efficacy to help patients in the self-management of chronic diseases. However, numerous patients do not uptake patient education in spite of caregivers' referrals. Our aim was to test whether the Health Belief Model, along with the patient perception of medical empathy could explain patients' intention to participate in PE.

**Method:** In a cross-section design, 276 patients to whom hospital physicians or nurses proposed PE were invited to complete ad-hoc questionnaires assessing their beliefs about PE (perceived benefits and barriers) and disease (perceived threat and control over disease) as well as their intention of participation. Patients also assessed the empathy of the health care professionals who proposed PE to them using the CARE questionnaire. Regression analyses were performed controlling for clinical and sociodemographic covariates.

**Findings:** Perceived threat of the disease was not associated with intention. Perceived control over the disease tended to decrease intention ( $p = .09$ ). Perceived benefits of PE interacted with both empathy and barriers ( $p < .05$  for each interaction). When patients perceived high benefits, they highly intended to uptake PE, regardless of perceived empathy or barriers. However, when they perceived a low-level of benefits, high empathy or low barriers increased intention.

**Discussion:** In order to favor patients' participation in PE, physicians and nurses should empathically insist on the benefits of PE and deal with the potential perceived barriers. Creating fear in patients by focusing on the severity or possible complications of their pathology is not only unethical but also useless.

## Posters

# Social factors in behavior change interventions

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

TBA

15:30 - 17:00

## Effect of companions during a sleep hygiene intervention: A pilot randomized controlled trial

I. Mindlis<sup>1</sup>, T.A. Revenson<sup>2</sup>

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<sup>2</sup>Hunter College & The Graduate Center, City University of New York, United States

**Background:** University students experience frequent sleep difficulties. While sleep hygiene interventions have had moderate effects on sleep quality, better outcomes might be achieved when delivered in the presence of a friend, partner, or family member. Companions may encourage adherence to recommendations or help remember specific content. Currently, no research examines the influence of a companion. This pilot randomized controlled trial will test the feasibility of a companion intervention and examine its added value to the effect of a brief educational sleep intervention on sleep quality and quantity.

**Methods:** Undergraduate students (n=50) will be randomized to the sleep hygiene intervention (The Sleep Treatment and Education Program for Students (STEPS), tailored for individual delivery) or sleep hygiene intervention + companion conditions. Sleep patterns will be measured at baseline and four weeks after the intervention through validated questionnaires and daily through electronic momentary assessment with a wearable device. Acceptability and feasibility of the companion intervention will be measured through attrition, adherence, data completion, and satisfaction with the study. Differences in sleep outcomes between study arms will be examined to determine an effect size.

**Expected results:** Participants in the Sleep hygiene education + Companion condition will have better quality and higher quantity sleep than those who receive the sleep hygiene intervention individually.

**Current stage of work:** Feasibility testing

**Discussion:** Results from this study would provide information on the mechanisms by which the presence of a companion can affect health behaviors and outcomes. The presence of companions could enhance the beneficial effects of existing interventions.

15:30 - 17:00

## Effects of individual, collaborative and dyadic planning on sedentary behavior

Z. Szczuka<sup>1</sup>, E. Kulis<sup>1</sup>, K. Horodyska<sup>2</sup>, M. Boberska<sup>2</sup>, M. Kruk<sup>2</sup>, A. Banik<sup>1</sup>, A. Luszczynska<sup>2,3</sup>

<sup>1</sup>SWPS University of Social Sciences and Humanities, Poland

<sup>2</sup>University of Social Sciences and Humanities Warsaw, Poland

<sup>4</sup>University of Colorado at Colorado Springs, Poland

**Background:** Individual planning helps in translating goal intentions into behavior change. Dyadic and collaborative planning extends individual action planning and refer to target people forming plans together with a partner. The present study investigated whether forming individual, dyadic, and collaborative physical activity plans would decrease the level of sedentary behavior.

**Methods:** Dyads consisting of patients (N = 165, aged 18-90 years old) who did not meet physical activity guidelines and their partners (N = 165, aged 18-84 years old), were randomly assigned to the individual, dyadic, or collaborative planning condition or the control group. Regardless the assigned group, respondents took part in a physical activity and sedentary behavior education session after the first measurement. Sedentary behavior was measured by self-report at baseline (T1) and after 10 weeks (T2).

**Findings:** Analysis indicated the effect of time: the level of sedentary behavior decreased between T1 and T2 across planning and control groups and in both patients ( $p = 0.006$ ) and their partners ( $p = 0.005$ ). Among partners, there was a statistical trend indicating a time x group interaction: individuals who formed individual plans spend less time sitting than those from the control group ( $p = 0.055$ ). No other significant interactions were found.

**Discussion:** Results showed limited effects of forming physical activity plans on sedentary behaviors. Further studies may need to clarify which types of planning (e.g. planning active breaks vs planning to increase overall physical activity) may be useful to reduce sedentary behaviors.

15:30 - 17:00

## Friends' role in adolescents' physical activity maintenance: Qualitative analysis of trial participants' follow-up interviews

K. Kostamo<sup>1</sup>, E. Renko<sup>1</sup>

<sup>1</sup>University of Helsinki, Finland

**Background:** Despite widely acknowledged benefits, levels of physical activity (PA) tend to decline in adolescence. School-based PA interventions can increase PA. However, the impact has been short-term and mostly seen in school-related PA. Previous literature has suggested longitudinal qualitative approaches to gain understanding about health-related behaviours.

**Methods:** The 'Let's Move It' intervention program (<https://osf.io/rvj43/>) was developed and implemented to promote physical activity and reduce sitting among Finnish vocational school adolescents. A subsample of participants (N=19) from intervention and control schools were interviewed individually 14 months post-intervention. Content analysis focused on interviews describing PA increase during the 14-month-period (n=13).

**Results:** Eleven participants highlighted the role of their friends for PA maintenance, but deliberate use of activating social support to help one's PA maintenance was rarely illustrated. Friends were presented as PA barrier, PA incentive, support in PA planning and company during PA. Especially participants who reported only short-term PA increases seemed to require their friends for support or company.

**Discussion:** Adolescents' PA maintenance appears to be embedded in their daily social practices. For effective health promotion, social support and social networks need to be integrated into intervention contents.

15:30 - 17:00

## Clinical efficacy of multidisciplinary family-based treatment of pediatric obesity compared with routinely given individual counseling

A. Bogdanic<sup>1</sup>, M. Grubić<sup>1</sup>, A. Spehar-Uroic<sup>1</sup>, E. Pavic<sup>1</sup>

<sup>1</sup>University Hospital Centre Zagreb, Croatia

**Objective:** To evaluate the effectiveness of outpatient group family based weight loss treatment program and to determine its relative efficacy when compared to standard physician weight loss counseling.

**Methods:** The intervention program is based on a multidisciplinary family-based approach, structured treatment, education and monitoring of children with excessive body weight over 2 years. 79 overweight and obese children aged 6-18yrs (45girls, 34boys) and their parents were separately included in small age-homogeneous groups in which they went through one week program that included workshops with physician, psychologist and nutritionist. For each family, individualized plan for change was tailored which was revised on follow-up group meetings every 1-2 months.

The effectiveness of the treatment was measured through change in BMI z-score from baseline after one and two years and through % of children that lost weight. Its efficacy was measured by comparison with a control group that undergone standard individual physician counseling.

**Results:** One year after the baseline 90% of intervention group and 60% of controls lost weight. 2yrs after the baseline 86% of intervention group and 70% controls maintained weight loss. Significant loss in zBMI has been found in both intervention and control group 1yr after the baseline, as well as at the 2yr follow-up meeting. The intervention group had significantly higher zBMI reduction than control group at both times.

**Conclusion:** These results imply that a multidisciplinary family-based group intervention is a promising treatment option for childhood obesity.

15:30 - 17:00

## Collective identity and wider engagement: Ways forward for antenatal education interventions

T. Vandrevalla<sup>1</sup>, V. Barber<sup>1</sup>, A. Calvert<sup>2</sup>, C. Star<sup>3</sup>, A. Khalil<sup>2</sup>, P. Griffiths<sup>4</sup>, P. Heath<sup>2</sup>, C. Jones<sup>5</sup>

<sup>1</sup>Kingston University, United Kingdom

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<sup>4</sup>UCL Medical School, London, UK., United Kingdom

<sup>5</sup>University Hospital Southampton UK, United Kingdom

**Objective:** To develop a conceptual understanding of the processes underlying women's perspectives towards engaging in behaviours that reduces the risk of infections in pregnancy.

**Design:** Pregnant women were recruited via antenatal clinics in a large South London hospital and through the community. Thirty-three semi-structured interviews were conducted and analysed using grounded theory.

**Results:** The findings illustrate that for behavioural change to become viable, it is necessary for an individual to progress through potential barriers or facilitators at the individual, inter-personal and system levels. Knowledge, empowerment and self-efficacy facilitate behavioural change, while fear and anxiety act as barriers to pregnant women's readiness to engage in behavioural change to prevent infections in pregnancy. By widening the theoretical lens beyond individual cognitive determinants, the proposed model places sufficient emphasis on inter-personal and system factors that are of particular relevance to pregnant women, such as the collective identity, support networks, interaction with the health care system and support from the wider community.

**Conclusion:** The theory provides an invaluable framework for developing tailored and theoretically informed risk prevention interventions in antenatal education.

15:30 - 17:00

## SMARTFAMILY - A family-based m-health intervention to promote physical activity and healthy eating

K. Wunsch<sup>1</sup>, J. Gnam<sup>1</sup>, L. Berckhan<sup>1</sup>, H. Reiterer<sup>2</sup>, B. Renner<sup>2</sup>, A. Woll<sup>1</sup>

<sup>1</sup>Karlsruhe Institute of Technology, Germany

<sup>2</sup>University of Konstanz, Germany

**Background:** Physical activity and healthy nutrition are commonly known as core facets of health. However, recent studies confirm a lack of these aspects in today's society. With most people lacking time for exercise and cooking, m-health applications may be the means of choice to promote healthier lifestyles. The current study aimed to develop a smartphone intervention app based on scientific theoretical background which uses behavior change techniques (BCT's) to promote physical activity and healthy eating behavior in a family setting.

**Methods:** A total of at least 30 families will be randomized into one of two groups: an intervention group, receiving three weeks of the m-health intervention, and a waiting list control group. Participants' daily activity was measured via accelerometry for a duration of one week prior and following the m-health intervention. Moreover, participants completed questionnaires about their daily activity and eating behavior.

**Expected results:** As of the low count of participants, first descriptive analyses point to an increase in moderate to vigorous physical activity following the intervention. However, more participants will be examined to further study this first impression.

**Discussion:** This study is the first to establish a m-health intervention in a family setting based on assumptions made by self-determination theory using BCT's. Preliminary results point to a substantial improvement of healthy lifestyles in all family members. However, further participants need to be examined in order to attain more convincing Results:

## Posters

# The patients' perspective: illness perceptions and representations

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Evangelos Karademas

15:30 - 17:00

## Illness and rehabilitation treatment beliefs as predictors of patient satisfaction and outcome in psychosomatic rehabilitation

R. von der Warth<sup>1</sup>, A. Nau<sup>1</sup>, M. Rudolph<sup>2,3</sup>, M. Stapel<sup>2,4</sup>, J. Bengel<sup>5</sup>, M. Glattacker<sup>1</sup>

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<sup>4</sup>SRH - The Mobile University, Germany

<sup>5</sup>University of Freiburg, Germany

**Background:** There is robust evidence that psychosomatic rehabilitation is effective.

However, 20-30% of patients are considered non-responders and dissatisfied with the rehabilitation treatment. Primary research found that illness beliefs are relevant predictors of different rehabilitation related outcome domains. Therefore, using the common-sense model (CSM) as theoretical basis, this project aims at exploring the role of illness beliefs and rehabilitation treatment beliefs as predictors of patient satisfaction and rehabilitation outcome.

**Methods:** We conducted ten semi-structured interviews with rehabilitation patients exploring the patients' rehabilitation treatment beliefs. Based on the CSM related assessment instruments and these interviews, we developed a questionnaire assessing the rehabilitation treatment beliefs.

The main study follows a quantitative longitudinal design with three measurement points (begin of rehabilitation; two weeks later; end of rehabilitation). Using regression models, we will analyse if illness and rehabilitation treatment beliefs predict patient satisfaction and rehabilitation outcome (operationalised through the Hamburg Modules for the Assessment of Psychosocial Health [Health-49]). Further predictors, such as sociodemographic and disease related variables (e.g. early-response) will be considered. A sample size of N=280 is planned.

**Expected results:** Illness beliefs and rehabilitation treatment beliefs are significant predictors of patient satisfaction and rehabilitation outcome in psychosomatic rehabilitation.

**Current stage of work:** Data collection of main study on-going.

**Discussion:** The results will add to the understanding of illness and rehabilitation treatment beliefs as predictors of relevant rehabilitation outcomes. Results might contribute to the development of interventions aiming at realistic illness and rehabilitation treatment beliefs.

15:30 - 17:00

## The importance of measuring illness representations among adolescents with anxiety/ depression: modification of the IPQ-R

H. Bear<sup>1,2</sup>, Z. Moon<sup>3</sup>, J. Edbrooke-Childs<sup>1,2</sup>, M. Wolpert<sup>1,2</sup>

<sup>1</sup>University College London, United Kingdom

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<sup>3</sup>King's College London, United Kingdom

**Background:** The self-regulatory model represents an important framework for better understanding, modelling and predicting a number of important responses and outcomes among adolescents with anxiety and depression, yet, it remains underutilised. The aim of this study was to develop a modified, population-specific version of the Revised Illness Perceptions Questionnaire (IPQ-R).

**Method:** Qualitative interviews were conducted with 26, 14-24 year olds with past or current anxiety/ depression to determine their core and constituent illness representations. Interviews were analysed using framework analysis and initial modifications were made to the IPQ-R. Think-aloud interviews were then conducted with 13 additional participants to assess the face validity and acceptability of the new measure.

**Results:** A series of modifications resulted from the two rounds of interviews including, a newly derived list of symptoms (e.g. self-harm), 'consequences' were altered to reflect the negative impact expressed by adolescents (e.g. socialising with friends), a new five-item 'positive consequences' domain was included (e.g. being more resilient and open-minded) and a new list of causes derived (e.g. adverse childhood experiences).

**Implications:** The next phase of research will involve recruiting a sample of 300 adolescents with past or current anxiety/ depression to assess the factor structure, internal consistency and test-retest reliability of the modified measure. Thereafter, assessing the construct validity and associations with current distress, coping, well-being, treatment expectations and demographic/ clinical variables. Identifying representations which are specific to this population may go some way towards improving understanding of these problems and the subsequent development of targeted interventions which could improve outcomes.

15:30 - 17:00

## Measuring illness representations among adolescents with anxiety and depression: modification and validation of the IPQ-R

H. Bear<sup>1,2</sup>, Z. Moon<sup>3</sup>, M. Wolpert<sup>1,2</sup>, J. Edbrooke-Childs<sup>1,2</sup>

<sup>1</sup>University College London, United Kingdom

<sup>2</sup>Anna Freud National Centre for Children and Families, United Kingdom

<sup>3</sup>King's College London, United Kingdom

**Background:** The self-regulatory model represents an important framework for better understanding and predicting a number of important responses and outcomes among adolescents with anxiety/ depression, yet, it remains underutilised. The aim of this study is to modify and validate a population-specific version of the Revised Illness Perceptions Questionnaire (IPQ-R) to better understand the illness perceptions of this group.

**Method:** Modifications were made following qualitative interviews with adolescents (14-24 years) with anxiety/depression to determine their core illness representations. Revisions were made following think-aloud interviews which assessed the face validity and acceptability of the measure. Modifications included a newly derived list of population-specific symptoms (e.g. self-harm) and a new five-item 'positive consequences' domain (e.g. resiliency).

We are recruiting a cross-sectional sample of 300 adolescents with anxiety/ depression to assess the factor structure, internal consistency and test-retest reliability of the measure. We will assess the construct validity of the new subscales and associations with demographic and clinical variables, current distress, well-being, coping, treatment expectations and cross-validate with the Brief-IPQ.

**Results:** It is predicted that the factor structure will be consistent with the proposed subscales and will exhibit acceptable internal and test-retest reliability. Based on the existing literature, it is hypothesised that higher levels of anxiety/ depression will be positively associated with identity, consequence, emotional representations, and negatively with cure and treatment control.

**Implications:** Identifying representations which are specific to this population may go some way towards improving understanding of these problems and the subsequent development of targeted interventions which could improve outcomes.

15:30 - 17:00

## Alexithymia in asthma: the potential mechanism behind symptom perception, illness cognitions, mood, and treatment adherence

I. Alexeeva<sup>1</sup>, M. Martin<sup>1</sup>

<sup>1</sup>University of Oxford, United Kingdom

**Background:** Prior evidence suggested that alexithymia may be related to impaired interoception, including perception of respiratory processes. Accordingly, research to date indicates there is a correlation between alexithymia and impaired asthma control and management. This study investigated potential cognitive and emotional mechanisms associated with alexithymia in a sample of asthma patients compared to healthy controls.

**Method:** Asthma (N = 31), and healthy (N = 71) participants completed a battery of cognitive tasks measuring alexithymia, attentional processes, emotion regulation, and self-report measures of illness symptoms, illness cognitions, beliefs about medication, treatment adherence, stress, and mood.

**Findings:** In the asthma group higher alexithymia is related to greater symptom severity, increased concern regarding asthma medication, psychological distress, subjective stress, anxiety, depression, and negative affect, distortions in attentional processes, all *r*s in the range of .3-.5, significance levels below .05.

**Discussion:** The link between alexithymia and impaired cognitive and emotional processes may point towards the mechanisms underpinning the influence of alexithymia on asthma symptom perception, asthma control and management. Elucidating particular mechanisms that undermine symptom perception and asthma management would help improve the efficacy of interventions targeting treatment non-adherence and badly controlled asthma.

15:30 - 17:00

## Illness representations, coping and illness outcomes among men with prostate cancer over an 18-months period

I. Otto<sup>1</sup>, C. Hilger<sup>1</sup>, F. Kendel<sup>1</sup>

<sup>1</sup>Institute of Medical Psychology, Charité - Universitätsmedizin Berlin, Germany

**Background:** Men diagnosed with localized prostate cancer (LPCa) have to choose between treatment options that differ considerably in their side effects and have different long-term requirements for coping with the disease. The choice for a treatment option and the use of a coping strategy may depend on the assumptions men have about their illness. This study aims at analyzing the interaction of cognitive illness representation, coping and illness outcomes, as conceptualized by the Common Sense Model of Self-Regulation, over time in men with LPCa under different treatment options.

**Methods:** The present study adopted a longitudinal and observational Design: At 4 measurement points, each 6 months apart, participants answered a questionnaire. N = 187 men agreed to participate in the study and fulfilled the inclusion criteria (diagnosis of a low or early intermediate risk prostate cancer; before invasive treatment; between 0-12 months after diagnosis; younger than 79 years). Data will be analyzed using a longitudinal structural equation modeling approach.

**Expected results:** The results will reveal how illness representations of men with LPCa change over time, which coping strategies are especially relevant in certain phases of the illness / treatment and how they influence illness outcomes.

**Current stage:** Data collection ended in mid-February 2019. Currently (end of February 2019) data entry and data cleansing are performed.

**Discussion:** This study contributes to the rare evidence on how illness representations change over time. For the daily practice, we anticipate to derive information from the study that may advance consultations regarding suitable treatment options.

15:30 - 17:00

## Baring all: The impact of the hospital gown on recovery and wellbeing

L. Morton<sup>1</sup>, N. Cogan<sup>1</sup>, E. Georgiadis<sup>2</sup>

<sup>1</sup>University of Strathclyde, United Kingdom

<sup>2</sup>University of Suffolk, United Kingdom

**Background:** Despite recent drives to empower patients with person centred health care provisions, the institutionalised acceptance of the hospital gown persists. Research has yet to explore the impact of wearing the hospital gown on patients' health, wellbeing and recovery.

**Methods:** Two small scale studies were carried out to consider the impact of the hospital gown on wellbeing and recovery among adults with and without chronic health conditions. The first study consisted of conducting in-depth, semi-structured interviews (n = 10) with adults living with life-long chronic health conditions, which were audio-recorded, transcribed and thematic analysis was used to identify themes from the qualitative data. The second study was a cross-sectional, online survey exploring adults' views (n = 200+) and experiences of the hospital gown.

**Expected Results:** Qualitative analysis identified the following master themes: (1) loss of 'healthy' identity, (2) symbolic embodiment of the 'sick' role, (3) relinquishing control to medical professionals, and (4) vulnerability, disempowerment and embarrassment. Quantitative analysis of the online survey data indicated that adults often reported wearing the hospital gown despite lack of medical necessity. Its design was considered to be not fit for purpose and lacking in dignity.

**Current Stage of Work:** Completed qualitative data collection and preliminary analysis of data. Data collection for online survey is ongoing.

**Discussion:** The implications of these findings are discussed, emphasising the importance of challenging cultural norms in healthcare since de-humanising aspects of care may adversely impact on wellbeing and recovery.

## Posters

# Positive psychology: The influences of positivity on health

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Dorota Włodarczyk

15:30 - 17:00

## Individual differences in psychological well-being, anxiety and depression in psoriasis patients.

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<sup>1</sup>School of Psychology, Trinity College Dublin, Ireland

<sup>2</sup>TCD, Ireland

<sup>3</sup>University College Dublin, Ireland

**Background:** Psoriasis patients can experience a range of psychosocial difficulties, which can impact their psychological wellbeing and also lead to higher levels of anxiety and depression. The literature on Mindfulness based interventions identify that by learning mindfulness skills that patients suffering from chronic diseases can improve their psychological wellbeing, anxiety and depression symptoms. The mindfulness literature consistently identifies the need to more clearly understand the complex change process involved in mindfulness practice, through the identification of mechanisms of mindfulness that influence changes in anxiety, depression and psychological wellbeing. This study aimed to examine individual differences in psoriasis patients' psychological wellbeing, anxiety and depression using a clinically modified Buddhist psychological model (CBPM) as a theoretical framework.

**Methods:** As part of a cross-sectional design 285 participants completed quantitative measures of each component of the CBPM; attention regulation, self-compassion, acceptance, mindfulness, non-attachment, aversion, rumination, worry, psychological wellbeing, anxiety and depression at time 1, with 209 of these patients filling in the measures 4 months later.

**Findings:** structural equation modeling analyses found that a direct and mediated effects CBPM model was a good fit to the participant data attained. This study's results also suggest that non-attachment, aversion, acceptance and self-compassion could potentially have a direct effect on the wellbeing, anxiety and depression of psoriasis patients, and an indirect effect through reduced worry and rumination.

**Discussion:** this study provided preliminary evidence for a direct and mediated effect CBPM as being a potentially useful explanatory framework of variation in psoriasis patients' anxiety, depression and wellbeing.

15:30 - 17:00

## Trajectories of fatigue in IBD patients: Predictors and the relationship with disease activity and well-being

B. Klusmann<sup>1</sup>, K. Tovote<sup>2</sup>, M. Schroevers<sup>1</sup>, R. Weersma<sup>1</sup>, H. Dullemen<sup>1</sup>, J. Fleer<sup>1</sup>, G. Dijkstra<sup>1</sup>

<sup>1</sup>University Medical Center Groningen, Netherlands

<sup>2</sup>University Medical Center Groningen (former), Netherlands

**Background:** One of the complaints most frequently reported by patients with Inflammatory Bowel Disease (IBD), in active as well as in quiescent disease, is fatigue. We aimed to distinguish clinically distinct trajectories of fatigue experienced by IBD patients over a period of more than eight years and relate these to different characteristics, such as sociodemographic and clinical factors, disease activity, as well as psychological well-being.

**Method:** In total, 920 patients with either ulcerative colitis (UC) or Crohn's Disease (CD) were included in the study. Patients were assessed on average nine times (range 3 to 51 consults) over the course of eight years. Latent Class Growth Analyses were conducted to identify distinct trajectories for fatigue. Analyses of Variances and Chi square tests were performed to evaluate differences of characteristics among distinguished fatigue courses.

**Results:** We found three trajectories classifying patients that experienced constant severe (11%), moderate (45.7%), or mild (43.3%) fatigue over time. A higher proportion of CD patients female patients, smokers, and parents were found within the group with severe fatigue. Patients experiencing high disease activity levels or flare-ups were more likely to report higher fatigue severity. A strong negative relationship was found for fatigue and psychological well-being.

**Conclusion:** IBD patients depict stable courses of fatigue over the course of time with differences in severity. Treating disease activity should still be the first-line treatment, however, we suggest to intensify monitoring for fatigue inference due its high negative impact on patients psychological well-being, especially in CD patients, females, smokers, and parents.

15:30 - 17:00

## Dimensions of personality perception and links to well-being

J. Stewart<sup>1</sup>, J. Biesanz<sup>1</sup>

<sup>1</sup>University of British Columbia, Canada

Good targets are those individuals who are seen more accurately than others (e.g., Human & Biesanz, 2013). Our present study examines the extent to which the good target is consistent across domains (i.e., traits and motives) and contexts (i.e., in-person and through writing) as well as how being perceived accurately across these facets correlates with well-being.

We ran 202 participants through a round-robin forming first-impressions design, and had them write essays on five life domains (Borkenau et al., 2015). We also collected several measures of well-being, including satisfaction with life (Diener, Emmons, Larsen & Griffin, 1985), relationship satisfaction (Ryff, 1989), and self-esteem (Rosenberg, 1965). An additional 200 participants each read 15-16 essays using a Latin square design to assess the author's personality. We used the social accuracy model (SAM; Biesanz, 2010) to allow for detailed analysis of individual differences among targets across traits and motives while maintaining both perceiver and target as random factors.

We found that the good target does generalize across both contexts and domains, with an unexpected interaction. We're currently doing further analyses to examine how well-being correlates with being perceived accurately. We expect to find that good targets are consistently higher in well-being across domains and contexts.

Past research has shown that being seen accurately is related to enhanced well-being, increased social support, reduced loneliness, and person-environment fit (Human & Biesanz, 2011). This research, which expands our understanding of how being seen accurately is related to well-being across domains and contexts, is an important step.

15:30 - 17:00

## Specificity of links between curiosity-trait, coping and post-MI QoL– optimism and hope as covariates

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**Background:** Curiosity, optimism and hope are three personality dispositions whose impact on coping and quality of life (QoL) has been confirmed. However, a number of similarities in their effects are observed. This study focused on determining the mediating role of coping strategies in relation between curiosity and QoL after MI with adoption of two approaches: independently of optimism and hope and controlling for the variance explained by them.

**Methods:** The participants were patients after MI (N=140) taking part in three stages of the study: at the beginning of cardiac rehabilitation, at its end and one year after leaving the cardiac rehabilitation centre. Curiosity, optimism and hope were measured by Spielberger's STPI, Scheier et al.'s LOT-R, Snyder's THS, respectively. The modified COPE by Carver et al. and MacNew by Höfer et al. were used to assess coping and QoL. Analyses of serial mediation with coping strategies from consecutive stages of the study as serial mediators were performed.

**Findings:** When curiosity, optimism and hope were analysed independently, mostly similarities in their effects concerning mediating role of coping strategies were observed. Specific effects identified for curiosity-residue were related to humour, positive reinterpretation and resignation. However, links with positive reinterpretation and use of substances in reference to different aspects of QL were identified also for optimism-residue and curiosity-residue.

**Discussion:** The study indicates some specificity of mechanisms mediating the relationship between curiosity and QoL after MI, especially in comparison to hope. The findings can be used to better plan and match therapeutic interventions.

15:30 - 17:00

## “StudiCare Mindfulness” - Effects of an online-based mindfulness intervention on interoceptive processes in students

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Interoception, defined as the ability to detect internal bodily signals, is related with different health-related variables such as stress and emotion regulation. In this context, previous research focused on the improvement of interoceptive abilities through mindfulness interventions. Due to a high experience of stress in students, a mindfulness intervention with the focus on body-related therapy seems to be a promising approach.

This study aims at investigating the effectiveness of a guided online mindfulness-based intervention for students concerning interoceptive variables. In this multicenter, two-armed randomized controlled trial with a parallel design, an eight-week guided online mindfulness-based intervention is compared to a waitlist control group. So far, 17 university students have been recruited at Ulm University. Interoceptive variables (interoceptive accuracy and sensibility) were assessed.

To examine the effectiveness of the intervention concerning mindfulness, self-reported mindfulness as a control variable was measured. The assessments took place prior to randomization, eight weeks (post intervention) and six months after randomization (follow-up). All data analyses were conducted according to the Intention-To-Treat principle.

Results showed a significant increase in mindfulness, indicating that the intervention was successful. Whereas interoceptive accuracy did not significantly change over time, interoceptive sensibility revealed a descriptive trend from pre to post measurement in the intervention group.

This is the first study investigating interoceptive processes in an online-based mindfulness intervention, which provides different advantages such as cost-effectiveness and no need of therapist availability. Future studies could combine online- and smartphone-based interventions to improve the adherence level of participants.

15:30 - 17:00

## Individual difference in the optimism change by reminiscence and its underlying neurocognitive mechanism

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Optimism is a belief that the future holds more success than failures (Scheier 1994). Interestingly, recent study has demonstrated that reminiscence of nostalgic past increases this future oriented belief (Cheung 2013). However, what kind of mechanisms enable such a psychological effect remains unknown. We aimed to investigate the neurocognitive mechanism underlying the optimism change by reminiscence using a functional magnetic resonance imaging (fMRI).

Fifty healthy students (21.1±1.21 years old) were participated in this study. Participants conducted a reminiscence task where they were required to remember autobiographical memories cued by 48 photo stimuli during fMRI. Immediately before and after the task, they answered the optimism questionnaire (LOT-R). In the fMRI data analysis, we first extracted the reminiscence related brain activity, then performed a regression analysis between the brain activity and the rate of change of the LOT-R.

The behavioral data showed the significant positive correlation between the number of nostalgic photos and optimism change ( $p < .05$ ). In the fMRI analysis, we identified brain regions associated with reminiscence that included the dorsomedial prefrontal cortex (DMPFC), ventral striatum, and hippocampus ( $p < .05$ ). Among these regions, DMPFC activation was positively correlated with optimism change ( $p < .05$ ).

The behavioral result extends the finding by Cheung (2013) in that the more the participants remember nostalgic memories, the more optimism increases. Then, since the DMPFC is involved in updating beliefs in a positive manner (Sharot 2011), the fMRI result suggests that the updating belief about the past during reminiscence may be the important process for the optimism change.

## Posters

# Adjustment to chronic disease

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Gerry Molloy

15:30 - 17:00

## Moderating the relationship of Emotional Eating and BMI in Cystic Fibrosis patients through mindfulness-based constructs.

H. Egan<sup>1</sup>, M. Mantzios<sup>1</sup>

<sup>1</sup>Birmingham City University, United Kingdom

The investigation of eating behaviours in non-clinical populations has resulted in interventions incorporating mindfulness practices that have proved useful in modifying eating behaviours; however, there is no research that specifically explores these concepts within a CF population. Adult patients (n=92, Mage = 30.80, SD = 10.65; MBMI = 23.19, SD = 4.03; females = 45, males = 33, not disclosed = 14) were recruited from our large UK adult CF centre to take part in a quantitative cross-sectional study. Questionnaires included: Self-compassion, Five Facet Mindfulness Questionnaire, Mindfulness Eating Scale, Three factor eating questionnaire, The Palatable Eating Motives Scale. A bivariate correlation indicated a significant positive association of BMI with motivations to eat palatable foods, cognitive restraint, and emotional eating. Mindful eating, mindfulness and self-compassion did not significantly relate to BMI (although mindful eating and mindfulness appeared to have a negative coefficient, while self-compassion did not). Further moderation analyses revealed that the significant positive relationship between emotional eating and BMI become insignificant when mindfulness or mindful eating scores increase, while this was not true for self-compassion.

Mindfulness and mindful eating may prove effective interventions for regulating eating within a CF population.

15:30 - 17:00

## Understanding the Experience of Weight Management Post Bariatric Surgery: An Interpretative Phenomenological Analysis Study

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<sup>3</sup>Leeds Trinity University, United Kingdom

**Background:** Bariatric surgery is a weight loss procedure designed for individuals who are overweight. This qualitative study aimed to explore post-bariatric surgery weight management experiences.

**Methods:** Participants (who had undergone bariatric surgery between 18 to 36 months prior to the study) were recruited from online forums or at NHS post surgery clinics. Fourteen participants took part in semi-structured interviews about their experience of weight management post surgery. Interpretative phenomenological analysis informed the design the study and analysis.

**Findings:** Three themes were identified; 'Weight loss recognition', 'New Tummy, same behaviours' and 'Seeking mental health help'. 'Weight loss recognition' highlighted the ways in which weight change is noticed including how the individual who had bariatric surgery measured weight change, the influence of others perspective and how different goals drive these changes. 'New stomach, same behaviours' described how the physical weight change is weakened by unchallenged eating behaviours. Finally, 'Seeking mental health help' represented the emotional relationship with food and how one's mental health was affected by bariatric surgery.

**Discussion:** This study suggests that the physical barrier that bariatric surgery provides to control eating behaviour may be insufficient for weight management as participants in this study found "loopholes" which allowed them to eat unhealthy foods. The study also highlighted the need for support with mental health issues that impact on weight management.

15:30 - 17:00

## The role of exercise in storying arthritis: a road to resistance or reinforcing ruin?

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<sup>2</sup>Brunel University, United Kingdom

**Background:** Illness narratives employ the consequences of serious illness into a coherent, meaningful whole; thereby not just reflecting illness experience but actively shaping it. For those living with arthritis, regular physical activity is clinically advised with little regard for how it impacts people's wider illness narratives. To this end, we asked: how do physical activity and exercise experiences impact arthritis illness narratives?

**Methods:** We used loosely structured life-story interviews to explore the physical activity experiences of 21 participants with arthritis (6 male, 15 female), aged between 24 and 79 years (M=57.7 years). Interviews lasted between 55 – 160 minutes, yielding over 35 hours of data. We transcribed interviews verbatim before conducting a structural and thematic narrative analysis.

**Findings:** Early illness experiences were characterised by a contamination narrative; a "good-to-bad" story of life getting progressively worse post-diagnosis. Efforts to engage with exercise impacted this narrative in two distinct ways; reinforcing it or resisting it. When exercise was perceived to be a positive experience, associated with reduced symptoms and health maintenance, contamination was resisted, and the story altered to one of redemption (bad to good). When exercise was considered difficult or painful, contamination was reinforced and strengthened, highlighting what the person could no longer do.

**Discussion:** Practitioners should be aware that in addition to its biological effects, exercise experience may also be considered emblematic of the wider arthritis experience. Personalising exercise prescription and adequately supporting exercise uptake may help guard against negative experiences that reinforce an illness narrative of loss and decline.

15:30 - 17:00

## Physical activity and psychotic symptoms in people with psychotic disorders: systematic review

E. Swora<sup>1</sup>, M. Boberska<sup>1</sup>, E. Kulis<sup>1</sup>, A. Luszczynska<sup>1</sup>

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**Background:** The aim of the systematic review was to provide a synthesis of trials analyzing the associations between physical activity (PA) level and positive psychotic symptoms (e.g., delusions, hallucinations) or negative psychotic symptoms (e.g., apathy, isolation, lower social functioning) among people with psychotic disorders, including individuals with their first psychotic episode.

**Methods:** The electronic databases such as Academic Search Complete, PsycINFO, MEDLINE, Health Source: Nursing/Academic Edition, Health Source - Consumer Edition, PsycARTICLES and ERIC resulted in k= 148 original studies included in the systematic review (total screened: k = 1,125). Main inclusion criteria referred to testing the PA-PS relationship and the quality score (GRADE system). The study was conducted in accordance with PRISMA guidelines and registered with PROSPERO database, reference number CRD42018118236.

**Results:** That the majority of included studies indicated a significant negative association: Higher levels of PA were associated with lower levels of positive and negative symptoms. Furthermore, interventions targeting PA were effective in terms of the reduction of positive and negative negative symptoms in individuals with psychotic disorders.

**Discussion:** PA interventions have may improve functioning (reduce to positive or negative symptoms) in individuals with psychotic disorders.

15:30 - 17:00

## Prevalence and predictors of adherence to inhaled corticosteroids among young adults with asthma: Systematic review

J. Murphy<sup>1</sup>, L. Van Rhoon<sup>1</sup>, J. Mc Sharry<sup>1</sup>, G. Molloy<sup>1</sup>

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**Background:** Asthma is the most common chronic disease in Ireland and a leading cause of morbidity globally. Approximately 60% of people living with this condition have uncontrolled symptoms. Asthma control depends on adherence to inhaled corticosteroids (ICS), which remains poor.

The focus of this review is on young adults 15-30 years, who have reported the lowest levels of ICS adherence. This age range also incorporates the developmental period of 'Emerging Adulthood' (18-25 years), where young adults are taking on responsibility for the self-management of their health. This review aims to provide a prevalence estimate across studies through a quantitative synthesis, and a narrative review of predictor(s) of adherence.

**Methods:** A systematic review and random effects meta-analysis of studies assessing adherence were conducted. The Theoretical Domains Framework (TDF) was used to code predictors of adherence, which are presented using a narrative synthesis.

**Findings:** Twenty-eight studies were identified for inclusion; 27 measured adherence to ICS and 9 measured predictors of adherence to ICS. Analysis of 15 studies using a random effects model revealed that the pooled prevalence of adherence was 27.52% (95% CI = 23.87-31.17), with rates ranging from 6.00-58.10%. Due to heterogeneity, results from the remaining studies assessing adherence are synthesised narratively. Across studies, predictors were coded to 7 TDF domains.

**Discussion:** Adherence to ICS is a significant problem among young adults with asthma. There is a limited scale and scope of studies identifying predictors of adherence to ICS.

15:30 - 17:00

## Psychosocial determinants of quality of life and disability in chronic Inflammatory Bowel Disease.

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<sup>2</sup>McGill University Health Centre, Canada

**Introduction:** Psychosocial determinants associated with impaired quality of life (QoL) and disability in Crohn's disease (CD) and Ulcerative colitis (UC) are poorly understood.

**Methods:** A cross-sectional study in patients with CD or UC was done between March 2017 and December 2018. Quality of life, disability and productivity were done using validated disease-specific, indices. Psychological assessments included hospital anxiety and depression score (HADS), Brief COPE questionnaire and general self-efficacy scale. Disease activity, using the Harvey Bradshaw index (HBI) or partial Mayo score (PMS) for CD and UC respectively. Attentional bias was measured using the Stroop task.

**Findings:** 207 (144 CD / 63 UC) patients, median age of 39 and 88 (42.5%) males, were included. Moderate to severe impairment on disability (30.5%), quality of life (29.4%) and productivity (52.4%); along with some degree of anxiety (32.9%) and depression (23.3%) were identified. Both poor quality of life (SIBDQ<45) and disability (IBDDI>36) were significantly associated with maladaptive coping ( $p=0.002$ ) and disease activity ( $p<0.002$ ) in multivariate analysis. Productivity loss was associated with female gender ( $p=0.023$ ), active disease ( $p=0.003$ ). Self-efficacy was protective of disability ( $p<0.001$ ) and productivity loss ( $p=0.016$ ). Active disease ( $p=0.005$ ) and maladaptive coping ( $p=0.014$ ) were risk factors for anxiety (HADS  $\geq 8$ ). Maladaptive coping ( $p=0.014$ ), active disease ( $p=0.037$ ) and stricturing phenotype ( $p=0.048$ ) were associated with depression. The facilitation index of emotional words was positively correlated with anxiety ( $R = 0.47$ ;  $P < 0.01$ ).

**Discussion:** Our study emphasizes both the importance of psychological factors and the need for early and targeted interventions to improve QoL in IBD.

## Posters

# Stress, adaptation and resilience

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Sabine Öhlschläger

15:30 - 17:00

## Physical fitness in the prediction of stress-resilience and the role of peripheral brain-derived neurotrophic factor

R. Horstmann<sup>1</sup>, S. Matura<sup>1</sup>, M. Plichta<sup>1</sup>, S. Öhlschläger<sup>1</sup>, A. Chmitorz<sup>2,3</sup>, O. Tuescher<sup>2,3</sup>, A. Reif<sup>1</sup>, K. Lieb<sup>2,3</sup>

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<sup>3</sup>Department of Psychiatry and Psychotherapy, University Medical Center Mainz, Mainz, Germany

Mental health benefits induced by physical fitness are well known. In order to get a more sustained knowledge about how physical fitness contributes to the prevention of mental health disorders, we aim to investigate the role of physical fitness in stress resilience. Further, we want to understand the underlying neurobiological mechanisms. Thus, we consider brain derived-neurotrophic factor levels (BDNF) as a possible contributing molecular link between individual fitness and positive long term health outcomes.

Approximately 120 participants aged 18 to 50 take part in a longitudinal prospective determination study, designed to identify various mechanisms of resilience over the course of 18 month. For the objective assessment of cardiorespiratory fitness, the Chester-Step-Test is used to determine maximal oxygen uptake (VO<sub>2</sub>max). Muscular fitness is assessed by hand strength test. Serum BDNF-levels will be taken from peripheral blood samples. Stress resilience, here conceptualized as the absence of mental dysfunctions (assessed using the GHQ-28) in the face of modern-life stressors (life events and daily hassles) will be measured in a three-monthly online-stressor monitoring. Mediation analysis will be used to examine, whether a positive health effect of aerobic fitness is associated with BDNF-levels.

Preliminary results will be presented. Baseline data collection has started in 2017 and is still ongoing.

Getting a better understanding of the underlying mechanisms of mental health outcome after a period of adversity is obligatory for stress disorder prevention. This study is designed to substantiate the relevance of physical fitness as a public health resource.

15:30 - 17:00

## Students' Ability to Relax during Biofeedback with and without Relaxation Music

G. Jarasiunaite-Fedosejeva<sup>1</sup>, T. Vasiliauskas<sup>1</sup>

<sup>1</sup>Vytautas Magnus University, Lithuania

**Background:** There is not much research based evidence showing the effect of music when performing relaxation techniques. Usually practitioners choose to use relaxation with or without music based on preference of their clients or their own comfortability or habit. The aim of this study was to evaluate students' ability to relax during biofeedback with and without relaxation music.

**Methods:** 32 students aged between 20 and 27 participated in a study. The participants of this study were randomly assigned to two different groups: one group tried to relax using biofeedback with relaxation music and another - without music. Biofeedback device NeXus-10 (Mind Media) was used for performing biofeedback with skin conductance modality. Students' ability to relax was measured by changes in skin conductance and positive and negative affectivity by PANAS-X (Watson, Clark, 1994).

**Results:** The results of the study showed that students' skin conductance decreased more when using biofeedback with relaxation music than without music. Also, students' negative emotions decreased more using biofeedback with relaxation music than without music.

**Discussion:** Music gives an additional relaxing value when performing relaxation using biofeedback.

15:30 - 17:00

## Predictors of Resource Loss Among Pregnant Women Seeking Primary Care

E. C. V. Costa<sup>1,2</sup>, P. Correira<sup>3</sup>, M.G. Pereira<sup>4</sup>

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<sup>2</sup>North Regional Health Administration, Ministry of Health, Portugal

<sup>3</sup>North Regional Health Administration, Portugal

<sup>4</sup>University of Minho, Portugal

**Objective:** This study analyzed demographic, psychological, and relationship predictors of resource loss in pregnant women and evaluated the moderating effect of resource loss on the association between satisfaction with social support and depressive mood.

**Methods:** Depressive mood, social support, relationship intimacy, and resource loss were assessed in a sample of 200 pregnant women recruited from public primary-care clinics.

**Results:** Hierarchical regression showed that being younger, having lower yearly income, and having stronger depressive mood, little relationship intimacy, and little satisfaction with social support were the main predictors of resource loss. Depressive mood accounted for most of resource loss, after controlling for demographic risk factors. The models show the combined influence of demographic, psychological, and relationship factors in shaping resource loss. The loss of health, housing, and financial resources moderated the association between satisfaction with social support and depressive mood.

**Conclusions and implications:** Depressive mood was a major risk factor for resource loss among pregnant women, whereas social support and relationship intimacy had a protective role. The results highlight the importance of screening for depressive mood and level of resources during routine prenatal care, in order to identify pregnant women at risk. The findings point to interventions that foster patients' emotions to help them protect resources.

**Keywords:** pregnancy, depressive mood, resource loss, social support, relationship intimacy

15:30 - 17:00

## Preventing mental strain in the teaching profession: the role of student teachers' personal health resources

J.F. Bauer<sup>1</sup>

<sup>1</sup>University of Cologne, Germany

**Background:** Chronic stress is considered an important risk factor for the development of non-communicable diseases. A large body of research is therefore concerned with chronic stress, mental strain and their long-term consequences in working life. One of the occupations that is regarded as being particularly stressful is the teaching profession. Thus it has been suggested that preventive measures should be implemented as early as during teacher training. Because existing re-search has rarely adopted a resource-focused perspective on this topic, the current study explores various personal health resources and their association with mental strain in German student teachers to identify resource-oriented starting points for early prevention.

**Methods:** N =779 German student teachers were surveyed via an online questionnaire. Personal health resources (self-efficacy, uncertainty tolerance and mindfulness) and mental strain were assessed using well-established questionnaires. Correlations and multiple regression analyses were conducted to analyse the data.

**Findings:** Both bi- and multivariate analyses show significant (complementary) relationships of the three personal health resources with the different indicators of mental strain in the expected direction. All three resources together explain significant proportions of the variance of the different indicators of mental strain (Irritation Scale:  $R^2_{\text{corr}} = .305$ ; GHQ-12:  $R^2_{\text{corr}} = .221$ ; AVEM-44 sub-scale life satisfaction:  $R^2_{\text{corr}} = .220$ ).

**Discussion:** Interventions to strengthen such general resources as self-efficacy, uncertainty tolerance and mindfulness during teacher training could contribute to the prevention of health impairments throughout the teaching career. Building on existing evidence-based concepts, an intervention could be developed and subsequently tested in intervention studies.

15:30 - 17:00

## Introducing brief mindfulness and compassion program for medical students

E. Nishigaki<sup>1</sup>, A. Fujimura<sup>1</sup>, K. Nishiya<sup>1</sup>, Y. Karouji<sup>1</sup>

<sup>1</sup>Kansai Medical University, Japan

**Background:** Mindfulness and compassion have attracted attention as methods of nurturing compassion and self-care skills of medical professionals. However, it is difficult to include an 8-week mindfulness program into the busy curriculums of medical schools. We introduced a 10-hour brief mindfulness and compassion program to medical students. The objectives of this study were to investigate the impact of this program on improving the students' compassion, resilience, and positive emotions.

**Methods:** First-year medical students (N = 126) attended a brief mindfulness and compassion program as a compulsory subject. Following an introductory lecture, a 10-hour program lasting 3 months was introduced by well-trained mindfulness teachers and a Buddhist monk. The program was concluded with a reflection and feedback class. Questionnaires including the Neff's Self-Compassion Scale, the Connor-Davidson Resilience Scale, as well as the Wong and Law Emotional Intelligence Scale (J-WLEIS) were administered before and after the program. The Positive Mood Scale (PMS) was administered before and after each session.

**Results:** The results of a paired t-test indicated significant differences in self-compassion ( $t=2.56$ , 125 df,  $p=.012$ ), resilience ( $t=-2.00$ , 125 df,  $p=.047$ ), and use of emotions in J-WLEIS ( $t=-3.09$ , 125df,  $p=.002$ ) before and after the program. Moreover, the positive mood was increased significantly after each session. Furthermore, 80% of the participants evaluated the program positively, and 43% wanted to learn more and continue to practice.

**Conclusion:** The brief mindfulness and compassion program for medical students was effective and positively evaluated. Further research is needed to examine the long-term effects of the program.

15:30 - 17:00

## Influence of stress and depression on vascular phenotypes in children

L. Olive<sup>1,2</sup>, W. Abhayaratna<sup>2</sup>, D. Byrne<sup>2</sup>, R. Telford<sup>3</sup>

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<sup>3</sup>University of Canberra, Australia

**Background:** Psychological distress is associated with risk markers for cardiovascular disease, including arterial stiffness and high blood pressure. This study aims to investigate the effect of psychosocial stress and depression on arterial stiffness and blood pressure in a cohort study of Australian children followed through to adolescence.

**Method:** Participants were initially 486 (239 girls; M age = 11.6y) children. Depression and psychosocial stress were assessed via the Children's Depression Inventory and Children's Stress Questionnaire respectively. Central pulse wave velocity was assessed using applanation tonometry; with further assessments of supine brachial blood pressure and percent body fat (dual x-ray absorptiometry). All measures were repeated four years later at age 16 years.

**Findings:** We found no cross-sectional or longitudinal evidence that children self-reporting higher levels of psychosocial stress or depressive symptoms had greater arterial stiffness. Children reporting an increase in depressive symptoms had an increase in diastolic blood pressure and mean arterial pressure. An effect was also evident for pulse pressure, where higher pulse pressure was found in children with lower psychosocial stress at grade 2 and in children self-reporting a decrease in stress between grade 6 and grade 10.

**Discussion:** Findings from the current study contribute to the scant paediatric literature but only provide limited support for any influence of psychological factors on blood pressure. Depressive symptoms in apparently healthy adolescents may exert some influence on later risk for cardiovascular disease via increases in diastolic blood pressure and mean arterial pressure, but these effects were small.

## Posters

# Health behaviours and theories

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Kyra Hamilton

15:30 - 17:00

## The Role of Implicit Beliefs on Behaviour: Examination of a Moderation Effect

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**Background:** Implicit beliefs are built up over time through repeated experiences with the behaviour which are activated or made highly accessible on presentation of relevant contexts. This increases the likelihood that individuals holding such implicit beliefs will participate in a given behaviour more automatically when in that context as activation of a cue-response association in memory may be strengthened. Implicit beliefs, therefore, should moderate the effects of behavioural automaticity on subsequent behaviour.

**Method:** We assessed two behaviours: free-sugar intake (FSI) and heavy episodic drinking (HED). A two-wave correlational design was used (FSI N = 205; HED N = 125). Attitudes, behavioural automaticity, and implicit beliefs were assessed at Time 1, and behaviour at Time 2. Data were analyzed with robust path analysis in WarpPLS.

**Findings:** For both FSI and HED, attitudes (FSI  $\beta = .20$ ; HED  $\beta = .25$ ) and behavioural automaticity (FSI  $\beta = .13$ ; HED  $\beta = .35$ ), but not implicit beliefs (FSI  $\beta = -.03$ ; HED  $\beta = .05$ ), predicted behaviour. Implicit beliefs moderated the automaticity-behaviour relationship (FSI  $\beta = .16$ ; HED  $\beta = .13$ ) such that the effect of behavioural automaticity was highest in those with positive implicit beliefs. Implicit beliefs did not moderate the attitude-behaviour relationship (FSI  $\beta = .07$ ; HED  $\beta = .02$ ).

**Discussion:** Findings supported the moderation hypothesis on the automaticity-behaviour relationship by implicit beliefs. This provides preliminary evidence supporting the notion that implicit beliefs may influence the execution of highly autonomous behavioural scripts, even if they do not affect behaviour directly.

15:30 - 17:00

## Applying a dynamical systems approach to theories of habit and motivation for sustained physical activity

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Interest is growing in theories of health behaviour that attempt to explain processes of changes over a longer time horizon. Thinking of behaviour change as a complex dynamical system—one in which many factors affect each other iteratively over time—may be generative and enable more precise theorizing about time-intensive processes of change.

This research explores how a dynamical systems approach, common to allied disciplines, can improve psychological theories of behaviour change maintenance. We focus on two classes of processes—motivational and habitual—that may be most pertinent to sustaining changes in physical exercise. We develop a new model, computationally simulate it, and collect intensive longitudinal data to refine it.

Healthy US-based Fitbit users (18-64 years old) who recently initiated an increase in exercise, as determined by two-months of historical Fitbit data, are recruited. Participants (n = 40-60) are prospectively observed for two-months of exercise-as-usual. Measures of motivation (i.e., affect and satisfaction) and habit (i.e., automaticity and context stability of exercise and instigation-related behaviours) are assessed on three days weekly via phone.

Planned analyses explore associations between exercise trajectories (e.g., growth, maintenance, or failed maintenance) and changes in motivation and habit constructs. One expected result is that middling levels of automaticity of exercise, high automaticity for instigation of exercise, and high motivation, may result in optimal conditions for sustaining exercise long-term. A new mathematically formalized dynamical model is simulated and refined based on these Results: Data collection is in progress. The study will be completed by Spring 2019.

15:30 - 17:00

## Systematic review and meta-analysis of trials of behaviour-change interventions based on the Health Belief Model

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**Background:** Modelling of health behaviour patterns, from the 1950s onwards, led to the development of the Health Belief Model (HBM) and, subsequently, the Extended HBM, including self-efficacy. Previous HBM reviews have been reported but no comprehensive review of trial evidence is available.

**Aims:** (1) To assess the effectiveness of health behaviour-change interventions based on the HBM; and (2) to apply a bespoke taxonomy of intervention content to code descriptions of the interventions and explore heterogeneity of effect sizes to identify explanatory factors.

**Methods:** Randomised controlled trials of HBM-based behaviour-change interventions have been identified from the published literature. We are applying a bespoke taxonomy of 37 categories of techniques designed to promote psychological change, as well as sample, intervention, and methodological characteristics. We are also applying the Cochrane EPOC 'Risk of bias tool' (EPOC, 2012) to determine evaluation quality. Random effects meta-analysis and meta-regressions will be conducted.

**Expected results:** Initial work suggests that effect sizes will vary across trials and effectiveness will be associated with behaviour and sample type. Methodological quality will vary with many of the studies failing to provide sufficient information to accurately assess risk of bias.

**Current stage of work:** Data extraction and categorisation.

**Discussion:** The HBM has been, and is being, applied to develop effective health behaviour-change interventions. However results may highlight weak fidelity of theory translation, undermining theory-testing. Results are also expected to emphasise the importance of detailed bespoke categorisation of intervention and study characteristics to understand heterogeneity of effect sizes.

15:30 - 17:00

## Preventing sport injuries: The potential use of two behavior change theories

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**Background:** Research has shown that warm-up and recovery behaviors could prevent injuries in sport. However, the determinants of injury preventive behaviors have not yet been studied in elite athletes. The objective of this study is to use the Theory of Planned Behavior (TPB) and the Health Action Process Approach (HAPA) to identify the determinants of behaviors preventing sport injuries.

**Methods:** Elite women athletes playing basketball and rugby at the national and international level were asked to participate in this cross-sectional study. Pre-training warm-up routine and post-training recovery behavior were measured using self-report items. Additionally, items were created to measure TPB determinants in basketball (attitudes, subjective norms, perceived behavioral control, and intentions), and HAPA determinants in rugby (outcome expectancies, risk perception, intentions, action and coping planning, action and coping self-efficacy, and action control). Analyses will aim at verifying the predictive value of each determinant on injury preventive behaviors, and to compare individuals who adopt these behaviors and those who do not.

**Expected results:** This study is the first to investigate behavioral determinants in competitive elite sports using behavior change theories. Hence, no results are being expected, except that the data should not differ from those of studies on protective behaviors (e.g., sunscreen use, dental flossing) determinants.

**Current stage of work:** Data are being collected.

**Discussion:** The results will provide evidence of the contribution of two health behavior change theories to predict injury preventive behaviors in sports. Implications could include the development of tailored behavior change interventions applied to injury preventive behaviors.

15:30 - 17:00

## Nutrition, physical activity and self-assessment of health in Bulgarian adults

R. Massaldjieva<sup>1</sup>, N. Mateva<sup>1</sup>, T. Dimcheva<sup>1</sup>, K. Kilova<sup>1</sup>, A. Yaneva<sup>1</sup>, Z. Peychev<sup>1</sup>, D. Bakova<sup>1</sup>, A. Tosheva<sup>1</sup>

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**Background:** Lifestyle is one of the modifiable variables influencing the person's health status. Our main objective here was to evaluate the physical activity and nutritional factors and to assess the relationships between them and the self-assessed health status in Bulgarian adults.

**Methods:** This cross-sectional study included 240 adults, aged 17-80 years. The research was carried out at five general practices in Plovdiv, Bulgaria. The 12-Item Short Form Health Survey (SF-12), Questionnaire Ricci&Gagnon and a nutrition knowledge and habits questionnaire designed to meet our research objectives were used.

**Findings:** 75 and 84.7 % of respondents consume fruits and respectively vegetables at least once a day. 84 % choose a nutritional menu based on the health impact. Around 18% of the subjects reported hypertension or other heart or endocrine diseases; 5% - neurological diseases. All these diseases inter-correlated and correlated with the total score from the self-assessment of physical (PH) and mental health (MH) -SF-12( $P < 0,05$ ). The mean score for physical activity corresponded to moderate activity and was as follows: 26,92 (SD=7,31) in 17-44 age group; 25,49 (SD=6,54) in 45-64 age group; 22,43 (SD=8,64) in the group over 64 years; No significant difference between these groups ( $\chi^2=3.30$ ,  $p=0,192$ ). The mean sub-scores for SF-12 in the age groups differed significantly ( $p=0,03$ ) for PH. Ricci&Gagnon total score correlated moderately and significantly with the total SF-12 score.

**Conclusion:** Our results can be used in the development of recommendations for lifestyle, contributing to physical and mental health for the Bulgarian population.

(Project S0446SAIN (2017–2019) of AUF)

15:30 - 17:00

## Behavioural determinants of adult sleep duration and sleep quality

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**Background:** Sufficient sleep duration and good sleep quality are important contributors to physical and mental health. Insights in modifiable behavioural determinants may lead to lifestyle interventions to promote healthy sleep.

**Methods:** A convenience sample of work organisations was drawn from which employees (aged 22-55y) were invited to participate. Measurements included: 1) behavioural determinant information (online questionnaire based on the Reasoned Action Approach); 2) 24-hour sleep duration during 2 weeks (Fitbit Charge2); 3) self-reported sleep quality during 2 weeks (PROMIS short scale completed each morning in an online prompted survey). Ethical approval and active informed consent for the study were obtained. Regression analyses tested associations between determinants and sleep duration and quality.

**Findings:** A total of 263 adults participated (M age=40.00±7.95, 68% female). Average sleep duration was 7.64h±0.60, average sleep quality (T-score) was 46.40±3.97. Higher sleep quality (adj. R<sup>2</sup>=0.37) was predicted by lower pre-sleep cognitions, more positive healthy sleep attitudes, a more hygienic sleeping environment, sleeping alone (trend-significant), and less unhealthy coping (e.g. drinking alcohol) when unable to sleep (trend-significant). Higher sleep duration (adj. R<sup>2</sup>=0.14) was predicted by more positive healthy sleep attitudes, lower levels of getting up when unable to sleep, lower educational level, and more daytime napping when unable to sleep at night (trend-significant).

**Discussion:** The behavioural determinants were better able to predict (self-reported) sleep quality than (objectively measured) sleep duration. For both outcomes, attitudes and coping behaviours with sleeplessness were important. Sleep hygiene and pre-sleep cognitions were only important for sleep quality.

## Posters

# Behavior change interventions: Children and young people

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Krista van Mourik

15:30 - 17:00

## Effectiveness of a peer-led motivational interviewing intervention for increasing physical activity among at-risk adolescents

M. Lawler<sup>1</sup>, A. Hickey<sup>1</sup>, F. Doyle<sup>2</sup>, E. Nixon<sup>1</sup>, C. Darker<sup>1</sup>, M. Barry<sup>3</sup>, C.A. Field<sup>3</sup>, D. Hevey<sup>1</sup>

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<sup>3</sup>NUI Galway, Ireland

**Background:** Adolescents in low socioeconomic status (SES) communities are characterised by higher rates of health risk behaviours yet limited research exists on the impact of behaviour change interventions in hard-to-reach populations. Regular moderate-to-vigorous physical activity (MVPA) is associated with many positive physical and psychological outcomes however, most adolescents in Ireland are insufficiently active to benefit their health. Innovative strategies are therefore needed to promote health enhancing behaviours. Motivational interviewing (MI) has been widely implemented by health professionals to help people change their behaviour. Peers have an important influence on adolescent health behaviours, thus peer-led interventions might hold promise for increasing activity levels. The aim of this study is to investigate the efficacy of a six-week peer-led MI intervention to increase MVPA levels among adolescents from low SES communities.

**Methods:** Twelve adolescents peer educators (M age=15.67, SD=1.61) recruited from four low SES communities in Dublin, Ireland, participated in a two-day MI workshop and follow-up booster session. Peer educators implemented a MI intervention comprising approximately six individual sessions delivered in person to young people (n=22) in their community. Participants completed a self-report physical activity survey immediately prior to and post intervention.

**Findings:** Related-samples Wilcoxon signed rank tests revealed that adolescents' MVPA levels significantly increased following the MI intervention ( $p < .005$ ).

**Discussion:** This study is unique in being the first peer-led community-based MI intervention to effectively increase PA levels among at-risk adolescents in low SES communities. The findings demonstrate support for this novel approach in targeting adolescent health behaviour change.

15:30 - 17:00

## Using Implementation Intentions to Improve Adolescent Anger Management

L. Castillo-Eito<sup>1</sup>, C. Armitage<sup>2</sup>, R. Rowe<sup>1</sup>, P. Norman<sup>1</sup>

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The aim of this study is to test whether anger management in adolescents can be improved using implementation intentions. This technique involves identifying critical situations that might trigger the unwanted behaviour and making plans to engage in alternative actions when those triggers are present.

A randomised controlled trial was conducted. Students from 10 to 16 years old attending special schools for children with behavioural problems or referred due to anger issues were randomised to three conditions: control, specific triggers and general trigger. A list of triggers and solutions was provided in the form of a Volitional Help Sheet and participants in the experimental conditions were asked to link one trigger with one solution at a time in order to make plans. Participants in the specific triggers condition received a list of ten specific situations that may trigger anger while participants in the general trigger condition received only one general trigger: "If I am getting angry...". Anger management and aggression are measured at baseline, six weeks and six months after intervention. Currently, the data from the six weeks' follow-up is being collected. Data will be analysed using Analysis of Covariance.

Both intervention groups are expected to improve anger management and reduce reactive aggression in comparison to the control groups. Intentions, impulsivity and callous-unemotional traits are expected to be moderators of effectiveness.

If a VHS is effective in improving anger management and reducing aggression in adolescents, it can have great implications for reducing antisocial behaviour in youth in a cost-effective manner.

15:30 - 17:00

## Identifying Effective Elements of Preventive Parenting Interventions: A Meta-Analysis

K. van Mourik<sup>1</sup>, E. Joosse<sup>1</sup>, S. van der Veek<sup>2</sup>, W. Gebhardt<sup>2</sup>, M. Crone<sup>1</sup>

<sup>1</sup>Leiden University Medical Center, Netherlands

<sup>2</sup>Leiden University, Netherlands

There is lack of knowledge about the specific elements that make interventions effective in preventing parenting problems and child (psychosocial) behavior problems. The aim of the present meta-analysis is to increase this knowledge by providing a detailed analysis of intervention elements that can change behavior (i.e. behavior change techniques (BCTs)) and potential moderators of behavior change (i.e. intervention and study characteristics).

A literature study yielded more than 100 studies examining the effects of interventions for preventive parenting problems and child behavior problems. From these studies, effect sizes are extracted for parenting behavior, parental wellbeing, and child (psychosocial) behavior. The BCT taxonomy v1 is used to code the behavior change techniques present in interventions. Data collection further includes potential moderators of effect, such as the delivery setting, intervention duration, and characteristics of the target group.

This 'work in progress' presentation aims to provide insight in the most promising behavior change techniques associated with preventing parenting and child (psychosocial behavior) problems, as well as important moderators for intervention effectiveness.

We are currently (Feb 2019) in the last stage of data extraction, after which we start the meta regression analyses.

This meta-analysis aims to provide insight in what behavior change techniques work best for whom under which circumstances. The results could inform the development of future interventions as well as intervention delivery in the area of child psychology and family studies.

15:30 - 17:00

## The effects of training low-SES adolescents in Motivational Interviewing for health behaviour change among peers.

A. Hickey<sup>1</sup>, M. Lawler<sup>1</sup>, E. Nixon<sup>1</sup>, F. Doyle<sup>2</sup>, C. Darker<sup>1</sup>, M. Barry<sup>3</sup>, C.A. Field<sup>3</sup>, D. Hevey<sup>1</sup>

<sup>1</sup>TCD, Ireland

<sup>2</sup>Royal College of Surgeons, Ireland

<sup>3</sup>National University of Ireland, Galway, Ireland

**Background:** Health risk behaviours (smoking, alcohol consumption and sedentary behaviour) initiated in adolescence often persist into adulthood. A pilot study was conducted in a low SES community youth group to assess the feasibility and acceptability of training young people in Motivational Interviewing (MI) and its delivery to their peers for health behaviour change. Findings informed the implementation of a feasibility trial conducted in four low SES community groups in Ireland.

**Methods:** Community stakeholders (n=8), participated in semi-structured interviews, considering the acceptability of adolescents' participating in MI training and their capacity to facilitate MI sessions. Adolescent peer educators contributed in focus groups (n=7), providing insight into their experiences in MI training and engagement in the intervention. Thematic analysis was conducted.

**Findings:** Concerns arose at the capacity of the young people to acquire MI skills effectively, yielding recommendations to incorporate interactive training, enhancing their experience and capturing their continued attention. Peer educators reflected on their acquisition of MI skills and their perceived proficiency in delivering MI to their peers.

**Discussion:** Adapting MI training for participants was important, using dynamic and interactive methods to promote enthusiasm and engagement in the intervention. Anticipation of challenges in recruitment and retention rates of peers, as well as the perceived credibility of peer educators emerged. Continued support of youth workers in the study and their trusting relationships established with service users was key to implementation. Peer educators advised that proficiency in MI would be strengthened by the addition of MI supports for the feasibility trial.

15:30 - 17:00

## Improving wellbeing of children at school: Managing anger by a rational emotive approach

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<sup>2</sup>Faculty of Educational Sciences and Training Process, University of Parma, Italy

**Background:** In the last year an increasing attention on the difficulty experienced by children on emotional expression and correct behavior at primary school has been observed. Thus, educational programs that may help children to better express their emotions like anger or similar are welcome.

**Methods:** 20 pupils (second class, 7 yrs. of age, 8 female) were trained by a multidimensional brief educational program (one weekly session of 2 hours for 1 month) at primary school. The Rational Emotive Education (REE) was carried on by educators and teachers under the supervision of one psychologist. The program included the following structured lessons: 1. knowing emotions; 2. living emotions; 3. inside and outside anger; 4. strategies to manage anger; 5. control anger; 6. lived experience restructuring; 7. children literature about anger; 8. expression of positive behavior. A pre-post test design (Wilcoxon Signed Rank Test) was adopted to evaluate children' improvement on investigated dimensions of the Italian Interview on Basic Emotional Knowledge-2, i.e. emotions naming (N), emotions site (S), thoughts (T), sensations (S), self-recognized behavior (SR-B), behavior from the others (OT-B), emotion drawing and representing (Di), positive cognitive strategies (CS+), negative cognitive strategies (CS-), positive behavioral strategies (BS+), and negative behavioral strategies (BS-).

**Findings:** Pupils significantly improved on Di, BS+, and decreased on BS- ( $p = .001$ ).

**Discussion:** We concluded that REE produces positive effects on anger management in primary school children. Further research should implement such a training, by testing the REE in higher classes of primary school and secondary school.

15:30 - 17:00

## Interventions to reduce smoking and substance consumption at a Romanian music festival

Z. Abram<sup>1</sup>

<sup>1</sup>University of Medicine, Pharmacy, Science and Technology of Tirgu Mures, Romania

**Introduction:** The increasing consumption of different euphoric substances among youth opens new preventive strategies.

**Objectives:** The study of drug consumption and health attitude among the youth makes it possible to know the risk factors that show correlation with health, especially mental health.

**Methods:** During a Romanian music festival we examined smoking, alcohol consumption and drug usage habits of young participants using a questionnaire method, followed by interventions. The collected data were compared with data obtained during other surveys.

**Results:** The changes of both legal and illegal drug use habits led us to conclude that the same happens in our country as in the western Union countries. The frequency of drug trials grows among the youth, the habits of drug use change, cannabis derivatives and ethnobotanical drugs dominate while the proportion of opiate users is decreasing. The statistics are alarming among music festival participants: 83% of them are smokers, 64% have been drunk more than 10 times and the majority has tried any drug, about 10% of them being frequent users.

**Conclusions.** Our study underlines the importance of drug-prevention strategies and concludes the importance of making more effort in order to involve the younger generation in health education programs.

15:30 - 17:00

## Effectiveness of a pilot psychoeducational group intervention for forgiveness in Greek-Cypriot University students

P. Panayiotou<sup>1</sup>, M. Adonis<sup>1</sup>, X. Georgiadou<sup>1</sup>

<sup>1</sup>University of Nicosia, Cyprus

The current study aimed to examine the effectiveness of a new group psychoeducational intervention in Greek-Cypriot University students. The intervention was adapted from an empirically-supported, untargeted intervention to promote interpersonal forgiveness (REACH; Worthington, 1998, 2001, 2006), and was designed with the triple aim of: a) increasing interpersonal forgiveness for a perpetrator of a particular offense that was committed against the individual, b) increasing self-forgiveness for a specific transgression committed by the individual against another person and c) increasing dispositional (trait) forgiveness. 21 psychology postgraduate students who indicated they have experienced two unresolved interpersonal transgressions- one of which committed against them and the other committed by them - were enrolled in a 16-hour psychoeducational intervention group and tested against a control group (n=21). Measures of state self and other forgiveness, dispositional forgiveness, affect balance and depression were obtained at pretest, posttest, and at a 4-week follow-up. Participation in psychoeducational group sessions was shown to be effective for multiple outcome variables, including increasing self-forgiveness, other-forgiveness, dispositional forgiveness and affect balance; we did not find evidence for effects on depressive symptomatology. The implications of these findings for forgiveness research and intervention are discussed.

## Posters

# Health behavior and Individual differences in coping and emotion regulation

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Karolina Zarychta

15:30 - 17:00

## Exploring the relationship between prevention focus and emotional eating: The mediating role of emotion regulation

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<sup>2</sup>University of Hagen, Germany

**Background:** Prevention focus, the tendency to follow rules and avoid punishment, as well as maladaptive emotion regulation strategies (ERS) have been found to function as antecedents of emotional eating. Furthermore, prevention focus is conceptually linked to the use of maladaptive ERS. The present study aimed to identify if the relationship between prevention focus and emotional eating is mediated via the use of maladaptive ERS, in particular suppression, avoidance and rumination.

**Method:** A total of 409 participants (334f, age: 31.42) completed an online questionnaire about preventive focus (RFS), ERS (H-FERST) and emotional eating (FEV-II). The proposed multiple mediation model was performed with PROCESS controlling for age, bmi, and gender.

**Findings:** Prevention focus predicted all ERS (all  $p$ 's  $< .05$ ), but only rumination mediated the relationship between prevention focus and emotional eating (indirect effect:  $b = .06$ , 95% CI [.01; .11]).

**Discussion:** Prevention focus influences emotional eating through rumination. This is in line with previous research emphasizing the role of rumination for emotional eating. Especially individuals high in prevention focus benefit from learning more adaptive emotion regulation strategies.

15:30 - 17:00

## Does your partner's personality affect your health?

L. Williams<sup>1</sup>, S. Ashford-Smith<sup>1</sup>, L. Cobban<sup>1</sup>, R. Fitzsimmons<sup>1</sup>, V. Sukhatme<sup>1</sup>, S. Hunter<sup>1</sup>

<sup>1</sup>University of Strathclyde, United Kingdom

**Background:** An individual's own personality traits are powerful predictors of their health outcomes. However, the effect of personality on health may also occur at an interpersonal level, whereby the personalities of people close to the individual also effect his or her health outcomes. Our objective was to examine the dyadic effects of Big Five and Type D personality traits on health behaviour and quality of life in romantic couples.

**Methods:** A cross-sectional, self-report survey was utilised. There were 364 participants in total (mean age 35.7 years), consisting of 182 romantic couples. Each participant completed self-report measures of the Big Five (TIPI), Type D personality (DS14), health behaviours (GPHB), and quality of life (WHOQOL-BREF). Data were analysed using the Actor-Partner Interdependence Model (APIM) in order to examine the influence of a person's own personality on their own health (actor effect), and the influence of the individual's personality on their partner's health (partner effect).

**Findings:** The APIM showed significant male ( $\beta=.40$ ,  $p<.001$ ) and female ( $\beta=.25$ ,  $p<.001$ ) actor effects, and male ( $\beta=.15$ ,  $p<.05$ ) and female ( $\beta=.14$ ,  $p<.05$ ) partner effects of conscientiousness on quality of life. No other partner effects of the Big Five were found. There were no actor or partner effects of the overall Type D construct (NAXSI) on the outcome measures.

**Discussion:** These findings suggest that there are both actor and partner effects of conscientiousness on health. However, no partner effects were observed for the other Big Five traits, or for Type D.

15:30 - 17:00

## Gender-related Differences in Mental Health of Inflammatory Bowel Disease Patients

H. Bednaříková<sup>1</sup>, N. Kaščáková<sup>1</sup>, J. Furstova<sup>1</sup>, Z. Zelinková<sup>1,2</sup>, P. Falt<sup>3,4</sup>, J. Hašto<sup>1,5</sup>, P. Tavel<sup>1</sup>

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<sup>5</sup>Psychiatric Outpatient Clinic, Pro mente sana, s.r.o, Bratislava, Czech Republic

**Background:** IBD (inflammatory bowel diseases) comprising ulcerative colitis (UC) and Crohn's disease (CD) impact the overall health. We assessed parameters of mental and physical health in IBD patients compared to healthy people, with respect to gender differences.

**Methods:** A cross-sectional study with a sample of respondents reporting being healthy (N=405) taken from the representative sample of the adult population of the Czech Republic (N=1800, mean age 46.6, 48.7% of men). Data on the Brief Symptom Inventory (BSI-53) and the SF-8 Health Survey questionnaire were collected. The same questionnaires were assessed in the sample of IBD patients registered in IBD ambulances in the Czech Republic (total N=98; UC N=36, CD N=62). Nonparametric ANOVA was performed.

**Findings:** SF-8: IBD group had significantly worse physical functioning, feeling bodily pain, general health, vitality, social functioning, mental health and overall physical and mental component of health ( $p < 0.001$ ) compared to healthy group. Except for bodily pain in men with UC there were significant differences between healthy men/women and men/women with CD and UC.

**BSI-53:** Women with UC had higher scores in somatization, depression and anxiety ( $p < 0.001$ ) compared to healthy women. Women with CD had higher somatization and anxiety ( $p < 0.001$ ) compared to healthy women. In contrast, there were no significant differences in BSI scores between men with UC and healthy men. Men with CD had higher somatization than healthy men ( $p < 0.05$ ).

**Conclusion:** Women and men with IBD differ in experiencing and reporting somatization, depression and anxiety. This suggest that psychological interventions in IBD should be gender-specific.

15:30 - 17:00

## Binge eating in obese patients

A. Pokrajac-Bulian<sup>1</sup>, S. Klobucar Majanovic<sup>2</sup>, M. Kukic<sup>1</sup>, T. Mohoric<sup>1</sup>, P. Anic<sup>1</sup>

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<sup>2</sup>University of Rijeka, School of Medicine, Clinical Hospital Center Rijeka, Croatia

**Background:** The aim of this research was to explore the extent of binge eating in the sample of obese patients and to examine relationships among binge eating, food craving, impulsivity and depression.

**Methods:** The research was conducted on a clinical sample of obese patients (N=71), 50 of which were female, who were treated in the Clinical Medical Center Rijeka. Patients' age ranged from 26 to 71 years (M=45.20; SD=11.13). Body mass index (BMI) in the sample ranged from 30 to 71 (M=41.97; SD=8.85). Impulsivity, depression, food craving and binge eating symptoms were measured. Symptoms of binge eating were found in 48 patients.

**Results:** Higher impulsivity and depression were related to higher craving for food. Impulsivity, depression and craving for food together explained 56% of the variance of binge eating. Impulsivity was found to be a significant predictor in the first step ( $\beta=.42$ ) and craving for food in the second step ( $\beta=.72$ ) of the analysis.

**Discussion:** Due to impulsivity and craving for food, a person might reach for a large quantity of food and have binge eating episodes. Through psychotherapy, obese patients who scored high in impulsivity and food craving may learn how to recognise high risk situations and cope with them. Using cognitive-behavioural techniques (e.g. distractions and problem solving) can prevent risk of binge eating behaviour and gaining weight.

15:30 - 17:00

## A French short version of the Profile of Emotional Competence (PEC) for cancer patients

A. Baudry<sup>1</sup>, V. Christophe<sup>1,2</sup>, E. Constant<sup>1</sup>, G. Piessen<sup>2,3</sup>, A. Anota<sup>4,5</sup>

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<sup>4</sup>Methodology and Quality of Life in Oncology Unit (INSERM UMR 1098), University Hospital of Besançon, France

<sup>5</sup>French National Platform Quality of Life and Cancer, France

**Background:** Emotional competence (EC) - identification, understanding, expression, regulation, and use of one's own emotions (intrapersonal EC) and those of others (interpersonal EC) - predicts better health and cancer adjustment. Thus, the aim of this study was to valid a short version of the Profile of Emotional Competence (PEC) for cancer patients.

**Methods:** Five hundred thirty-five patients with cancer completed the PEC, giving a score or intrapersonal EC (25 items) and a score of interpersonal EC (25 items), after diagnosis and before treatments. Item Reduction Theory models were used to valid a short version of the PEC with Partial Credit Model. An iterative procedure was used for each component separately (intrapersonal and interpersonal EC). At each step, the item the most problematic regarding fit residuals was deleted, after agreement between the experts. Once no more items were problematic and global adjustment was good, the procedure was stopped. A confirmatory factor analysis was done on the full and short version of the PEC reporting goodness-of-fit statistics.

**Findings:** The final Short-PEC contains 13 items: 6 items of intrapersonal EC and 7 items of interpersonal EC; with an improved factorial structure (Root Mean Square Error of Approximation (RMSEA) = 0.075 (90% confidence interval 0.066-0.085), comparative fit index = 0.915).

**Discussion:** It is important to consider the emotional processes in explaining and predicting the cancer patients adjustment. The short PEC could be used in future studies as well as in clinical routine to assess the level of EC of patients and adapt psychosocial intervention.

15:30 - 17:00

## Psychological Aspects of Postnatal Depression Among Parents

S. Karabeliova<sup>1</sup>, R. Geneva<sup>1</sup>

<sup>1</sup>Sofia University "St. Kl. Ohridski", Bulgaria

Many mothers experience grief and anxiety in the first days after giving birth and in some cases this could last for a long period of time. Every 10th mother suffers from postnatal depression, which can manifest in rapid mood swings, excessive crying, irritability, anxiety, melancholy. The current study aimed to investigate the factors which contribute to the increase in depressive symptoms after giving birth. The study was conducted with 105 people – 66% mothers and 33% fathers, aged between 25 – 42 years ( $M=30.62$ ;  $SD=4.33$ ). The infants' age varied from 0 to 36 months ( $M=7.62$ ;  $SD=8.20$ ). We used the Edinburgh Postnatal Depression Scale ( $\alpha=.799$ ), "Postpartum distress measure" ( $\alpha=.851$ ), MASQ ( $\alpha=.877$ ) and Baby Blues ( $\alpha=.880$ ) for the first time in the Bulgarian context. The findings of the regression analysis showed that anxiety as a personal trait and going through negative emotions significantly increased the depressive symptoms of the parents right after birth (Adjusted  $R^2=.563$ ), as well as during the first year of raising the child (Adjusted  $R^2=.614$ ). Family and relatives played a significant role in decreasing the depressive symptoms after birth ( $r=-.343$ ;  $p<.05$ ). The findings of the study enrich the scientific literature and contribute to the deeper understanding of the problem of postnatal depression. The instruments and techniques, used for the first time in Bulgaria, might successfully contribute to the intervention of techniques in the consultation practices, help healthcare methods and increase the health status for parents and relatives.

## Posters

# Psychosocial factors in cancer and cardiovascular disease

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Anita DeLongis

15:30 - 17:00

## Daily laughter and risk of cardiovascular diseases among residents after the Great East Japan Earthquake

T. Ohira<sup>1</sup>, E. Eguchi<sup>2</sup>, S. Yasumura<sup>1</sup>, M. Maeda<sup>1</sup>, H. Yabe<sup>1</sup>, K. Kamiya<sup>1</sup>

<sup>1</sup>Fukushima Medical University, Japan

<sup>2</sup>Okayama University Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Japan

**Background:** The Great East Japan Earthquake occurred in Japan on March 11, 2011, with a nuclear accident subsequently occurring at the Fukushima Daiichi Nuclear Power Plant. Many evacuees were forced to change particular aspects of their lifestyles, and felt psychological stress after the disaster. We sought to examine the association between positive psychological behaviors such as laughter and incidence of cardiovascular diseases among residents in the evacuation zone after the disaster.

**Methods:** In a prospective study on 46,950 participants (23,115 men and 29,205 women) aged 20 years and older who were included in the Fukushima Health Management Survey in 2012. The daily frequency of laughter was assessed using a single-item question: "How often do you laugh out loud?" Four response options were provided: almost every day, 1–5 days per week, 1–3 days per month, and almost never. Follow-up surveys were conducted in 2013. Information on the incidence of cardiovascular diseases such as myocardial infarction and stroke during the follow-up period was obtained from the follow-up surveys.

**Findings:** Younger people and women were more likely to laugh. 572 cardiovascular diseases occurred during the follow-up period. Compared with those with "almost every day" laughter, the participants with fewer laughter had a higher risk of incidence of cardiovascular diseases. The multivariable-adjusted odds ratios (95% confidence intervals) for 1-5 days/w, 1-3 days/m, and almost never were 1.25 (0.98-1.58), 1.44 (1.10-1.88), and 1.43 (1.04-1.95), respectively.

**Conclusion:** Daily frequency of laughter may be associated with decreased risk of cardiovascular diseases after a disaster.

15:30 - 17:00

## Meaning in Life and Stress as Determinants of Quality of Life in Stroke Patients

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<sup>3</sup>Centre of Psychology of University of Porto, Portugal

**Background:** Stroke is a frequent life-threatening event. At first this study aims at understanding the differences between a group of stroke patients and a control, in relation to resilience, meaning in life (ML), stress and quality of life, highlighted in the reviewed literature. The second aim is to find quality of life determinants within the stroke group.

**Methods:** Two groups were used: the stroke group with 30 patients and a control group of 30 healthy participants, sharing similar gender, age and education level ( $p > .05$ ). Data was collected through: a sociodemographic questionnaire; Brief Resilient Coping Scale; Perceived Stress Scale; Meaning in Life Scale-ML and WHOQOL-BREF. For data analysis parametric statistics were used: Student' t test, correlations and multiple regressions.

**Findings:** There were no differences between groups regarding the variables assessed, except in the WHOQOL-BREF social domain that was lower in the patients' group ( $t = -2.01$ ,  $P < .05$ ). Age and stress were determinants of physical quality of life in the stroke group ( $R^2_{Aj} = .40$ ,  $F(2,27) = 10.511$ ,  $p < .001$ ); age=( $B = -462$ ,  $\beta = -.382$ ,  $p = .013$ ); stress=( $B = -1.256$ ,  $\beta = -.553$ ,  $p = .001$ ). For the psychological and social domains, ML was the unique determinant, respectively: ( $R^2_{Aj} = .51$ ,  $F(2,27) = 15.857$ ),  $p < .001$ ); ML=( $B = .2.320$ ,  $\beta = .600$ ,  $p = .001$ ); ( $R^2_{Aj} = .16$ ,  $F(2,27) = 3.673$ ),  $p = .039$ ); ML=( $B = 1.997$ ,  $\beta = .528$ ,  $p = .012$ ). Stress predicts the environmental domain ( $R^2_{Aj} = .33$ ,  $F(2,27) = 8.139$ ,  $p = .002$ ); stress=( $B = -.625$ ,  $\beta = -.411$ ,  $p = .035$ ).

**Discussion:** Stress and ML are modifiable variables amenable to psychological intervention most influencing quality of life of stroke patients. Enhancing stress reduction and reshaping ML are two major goals for improvement after a stroke.

15:30 - 17:00

## What do we know about young adult cardiac patients' experience? A systematic review

J. Journiac<sup>1</sup>, C. Vioulac<sup>1</sup>, A. Jacob<sup>1</sup>, A. Untas<sup>1</sup>

<sup>1</sup>Paris Descartes University, France

**Background:** As cardiac events usually occur after 50 years old, most of the research is dedicated to these patients. However, young adults with a cardiac disease account for 10 % of cardiac individuals. Therefore, little is known regarding young adults discovering and facing these chronic diseases.

Our aim was to gather all the psychological, mental, emotional information and experience regarding young cardiac people (< 50 years old).

**Methods:** A comprehensive, systematic search of the Cochrane Library, PsycINFO, PubMed and ScienceDirect databases, with relevant keywords, was conducted. Quantitative and qualitative articles were included. Congenital heart diseases were excluded. Selection and quality evaluation were made by three authors and cross-checked to limit biases.

**Findings:** Out of the 8279 studies identified (after duplicates removed), only 13 were included. Results highlight that the younger the patients are, the more difficulties dealing with their emotions, adherence and feeling apart they have. However, results seem inconsistent as some individuals develop high motivation regarding adherence, especially when they feel strongly supported. Results also show gender differences: erectile dysfunctions for men, more psychological distress for women. An important limit is that most of the articles focus only on coronary heart disease and myocardial infarction, leaving other cardiac diseases almost unexplored.

**Discussion:** Even though young cardiac adults have lower mortality rates than their older counterparts, they may have more psychosocial issues coping with their disease. There is a need to study adjustment to all cardiac diseases and to explore the role of family support.

15:30 - 17:00

## Validation of the Distress Thermometer in advanced cancer patients receiving palliative care

L. Graham-Wisener<sup>1</sup>, M. Dempster<sup>2</sup>, L. McCann<sup>3</sup>, A. Salder<sup>3</sup>, P. Wilkinson<sup>3</sup>, N. McCorry<sup>1</sup>

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<sup>3</sup>Marie Curie Hospice Belfast, United Kingdom

**Background:** Clinical guidelines recommend ongoing assessment of psychological reaction to illness, yet validated assessment tools are not commonly used in routine clinical practice within palliative care settings. This study aimed to provide the first validation of a unidimensional screening tool, the Distress Thermometer, in an advanced cancer population receiving palliative care. The objective was to establish cut-offs indicative of clinical levels of anxiety and depressive disorder.

**Methods:** Patients with advanced cancer (n=202) admitted to inpatient or day hospice care in a specialist palliative care unit were approached, with n=168 screened using the Hospital Anxiety and Depression Scale (HADS) and the Distress Thermometer (DT). A Receiver Operating Characteristics (ROC) analysis was used to compare cut-off points of the DT to the HADS.

**Findings:** The Area Under the Curve (AUC) was best using a DT cut-off score of  $\geq 5$  (in comparison to  $\geq 20$  on HADS total score) for total distress, with sensitivity of 0.853 and specificity of 0.537. A DT cut-off score of  $\geq 5$  was also best for depression (in comparison to  $\geq 8$  on HADS Depression) and  $\geq 4$  was best for anxiety (in comparison to  $\geq 8$  on HADS Anxiety). However, as there is little difference between the AUC scores for anxiety when the DT is 4 rather than 5, arguably a DT cut-off score of 5 would be most appropriate in all cases.

**Discussion:** The DT is a valid screening tool to be used routinely in a palliative setting with cut-offs as indicated, however caution is warranted in regards to the specificity.

15:30 - 17:00

## How is femininity is evaluated in women suffering from breast cancer? A systematic literature review

G. Bongeot<sup>1</sup>, F. Sordes<sup>1</sup>

<sup>1</sup>University of Toulouse, France

**Background:** Breast cancer is the most common amongst all female cancers. All treatments impact on the femininity. This study's aim was to investigate how authors assess femininity and which psychological factors could be linked to it.

**Methods:** A literature search was conducted including publications from 1982 to 2018. Combinations of terms "breast cancer" "treatment" and "femininity" were searched in PubMed, Psychinfo, Web of Science and Science Direct databases. 97 articles were included. Major items found as studies' aims and in studies' the methodology where selected. For qualitative studies having the trade association as a methodology were withdrawn from major items on the findings. The instruments used in these studies were also presented.

**Findings:** Quality of life is the psychological construct mostly used by authors when referring to the methodology for quantitative studies and for the aim for all studies. The methodology for the qualitative studies has shown that the body image is the psychological construct mostly used besides qualitative studies' findings, identity is the psychological construct that most women evoke when talking about their femininity. Finally, we emphasize that sexuality scales have only been used in two different studies.

**Discussion:** Psychological factors that seem to describe femininity in health psychology quality of life, body image, sexuality, anxiety and social relationships. The creation of a femininity scale could be appropriate.

15:30 - 17:00

## Activity and nutrition interventions for older adults with cancer: a scoping review

C. Forbes<sup>1</sup>, F. Swan<sup>1</sup>, S. Greenley<sup>1</sup>, M. Lind<sup>1</sup>, M. Johnson<sup>1</sup>

<sup>1</sup>University of Hull, United Kingdom

**Background:** Unmet physical activity and nutritional needs are key concerns for older adults with cancer; these are known to impact health-related quality of life (HRQoL) significantly. The aim of this review was to summarize the current literature for the effectiveness of activity and nutritional based interventions on HRQoL in this group.

**Methods:** Studies were identified through structured searches of CINAHL, Embase, and Medline databases, and bibliographic review. Inclusion criteria were: 1) delivered a lifestyle intervention for nutrition and/or physical activity to people with any cancer diagnosis, 2) included a measure of HRQoL, 3) participants over 60 years or at least 50% over 60 years with data analyses by age group, and, 4) randomized controlled trials. Titles were independently screened by two researchers.

**Findings:** Searches identified 5067 titles; 73 articles had full text review, with 13 studies (n=1389) ultimately included. Three had nutrition and activity components, one, nutrition only and nine, activity only. Duration ranged from 7 days to 1 year. Interventions varied from intensive daily prehabilitation to home-based gardening interventions. Studies investigated various HRQoL outcomes including fatigue, general and cancer-specific QoL, distress, depression, global side effect burden, and physical functioning. Seven studies reported significant intervention improvements in one or more QoL measure. Six studies did not report any psychosocial/theoretical framework.

**Discussion:** Among the few studies that target older adults with cancer, most were activity-based programmes with half reporting improvements in QoL. Future research should include nutrition intervention components and consider psychosocial aspects of behaviour change to maximize potential QoL improvement.

## Posters

# Health behavior interventions in chronic conditions

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Hanne Zimmermann

15:30 - 17:00

## Psychological predictors of outcomes in response to a 12-month outpatient behavioral weight loss intervention

R. Goetze<sup>1</sup>, M. Jensen<sup>2</sup>, A. Holgerson<sup>3</sup>, T. Wade<sup>4</sup>, D. Mikhail<sup>5</sup>, T. Jensen<sup>4</sup>, J. Geske<sup>6</sup>, M. Clark<sup>7</sup>, K. Grothe<sup>7</sup>

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**Background:** Obesity is prevalent in primary care (PC), and novel approaches are needed to help address this significant health problem. The aim of this research is to identify psychological variables predictive of weight loss (WL) and dropout in PC patients participating in intensive behavioral weight loss intervention.

**Methods:** Participants (N = 163, Mage = 50 ± 10 years, 81.3% female) completed baseline measures of demographic and psychological variables before attending weekly intervention groups for three months, biweekly groups for three months, then monthly groups for six months. Percent total WL (%WL) was assessed at 12-months for intervention completers (n = 106). Early dropout was defined as less than 3-month completion. Univariate analyses were used to describe study variables and identify predictors of weight loss/dropout.

**Findings:** At 3-months, less %WL was associated with screening positive for food addiction (FA; p = .05), food tolerance (p = .02), withdrawal (p = .03), and consumption of large amounts (p = .01). At 12-months, tolerance also predicted %WL. Attrition was significantly associated with endorsing a greater number of FA symptoms (p = .04), consuming large amounts (p = .04), withdrawal (p = .04), younger age (p = .00), and history of childhood sexual abuse (p = .04).

**Discussion:** Results suggest that symptoms of FA may negatively impact outcomes from a behavioral intervention with PC patients. Future research is needed to continue to identify predictors of dropout and tailor weight loss interventions for individuals at high risk for poor outcomes.

15:30 - 17:00

## A randomized controlled trial on the effects of hypnosis in patients with obesity

A. Untas<sup>1</sup>, F. Delestre<sup>2</sup>, G. Lehericey<sup>2</sup>, M. Brauer<sup>3</sup>, V. Lopez<sup>4</sup>, P. Giral<sup>2</sup>, E. Cappe<sup>1</sup>

<sup>1</sup>Paris Descartes University, France

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<sup>3</sup>Catholic Institute of Paris, France

<sup>4</sup>Claude Galien Hospital, France

**Background:** The usefulness of hypnosis in promoting weight loss in patients with obesity has not been well studied. The aim of this research was to investigate the effects of hypnosis and self-hypnosis combined with diets recommendations in patients with obesity compared to diets recommendations alone. The presentation will focus on secondary outcomes: coping strategies, quality of life and emotions.

**Methods:** Eithy-two patients took part in this study, 41 in each group (mean age=47.9; 86% of women; mean BMI at inclusion=35.3). Intervention consisted in 8 group sessions, one every 2 weeks. Patients completed self-reported questionnaires (CISS, SF-36, TFEQ) before intervention and 8 months later. They also took part in an individual interview at each time point. Its aim was to investigate more precisely emotions and strategies regarding eating behaviors. Analysis of variance and thematic analysis were performed.

**Findings:** Scores were comparable in both groups before intervention. At 8 months, patients from the hypnosis group used more task-oriented coping ( $p<.001$ ), less emotion-oriented coping ( $p<.01$ ) and distraction ( $p<.05$ ), had more energy ( $p<.001$ ) and higher mental quality of life ( $p=.001$ ). Qualitative analysis showed that patients from the hypnosis group reported they felt more comfortable in dealing with emotions associated with eating behaviors, in identifying feeling of hunger and satiety. Patients from the control group mainly reported trying to follow dietary recommendations but needing more support.

**Discussion:** Hypnosis seems an interesting intervention to help patient with obesity improve their coping strategies, especially regarding emotions related to eating behaviors.

15:30 - 17:00

## Choices between daily and event-driven pre-exposure prophylaxis for HIV-prevention among men having sex with men

H. Zimmermann<sup>1</sup>, S. Eekman<sup>1</sup>, R. Achterbergh<sup>1</sup>, M. Prins<sup>1,2</sup>, M. Schim van der Loeff<sup>1,2</sup>, H. de Vries<sup>1,2</sup>, E. Hoornenborg<sup>1,2</sup>, U. Davidovich<sup>1,2</sup>

<sup>1</sup>Public Health Service Amsterdam, Netherlands

<sup>2</sup>Academic Medical Center of Amsterdam, Netherlands

**Background:** Pre-exposure prophylaxis (PrEP) is an effective new biomedical HIV-prevention option. In the Netherlands it is offered in two type of regimens: daily (dPrEP) and event-driven PrEP (edPrEP). We studied the motives for choosing one regimen over the other among men who have sex with men (MSM).

**Methods:** We used data (2015-2017) from the Amsterdam PrEP study. dPrEP and edPrEP are offered to 376 HIV-negative MSM, of whom 273 chose dPrEP and 103 chose edPrEP. We measured motives for choosing between PrEP-regimens at baseline and switching at three-monthly follow-up visits. Open- and closed-end items were combined and analyzed using qualitative Methods:

**Findings:** dPrEP was preferred because of the anticipated better adherence and the fear of side-effects relating to edPrEP continuous re-initiation. Moreover, dPrEP was perceived to be more effective than edPrEP. Motives to choose edPrEP were the anticipated physical burden and side-effects of dPrEP, and fear of forgetting daily doses. Sexual lifestyle was also considered: dPrEP was preferred when having unplanned and/or frequent risky sex, while edPrEP was chosen when risk was predictable or less frequent. While some chose for dPrEP to gain more sexual freedom, others chose for edPrEP to control sexual risk episodes. Changes in the above factors over time resulted in switching PrEP-regimens.

**Discussion:** The diversity of motives to choose and switch between PrEP-regimens illustrates the importance of offering a flexible choice of PrEP regimens that are adaptable to changing sexual contexts, priorities and personal capabilities over time.

15:30 - 17:00

## Impact of Hepatitis C treatment on substance use and injecting behaviour: a systematic review.

M. Caven<sup>1</sup>, A. Malaguti<sup>1,2</sup>, E. Robinson<sup>1,2</sup>, E. Fletcher<sup>1,2</sup>, J.F. Dillon<sup>1,2</sup>

<sup>1</sup>University of Dundee, United Kingdom

<sup>2</sup>NHS Tayside, United Kingdom

**Background:** A systematic review was conducted to determine the impact of Hepatitis C (HCV) treatment on substance use behaviour in people who inject drugs (PWID).

**Methods:** A search for peer reviewed journal articles was conducted using the following databases: PubMed, EMBASE, CINAHL and PsycINFO. Studies were appraised against the following inclusion criteria: recruitment of PWID for HCV treatment; measurement of behavioural change in relation to drug use.

**Findings:** Five studies investigating the impact of HCV treatment on behavioural change in relation to drug use amongst PWID were identified. Studies investigated the impact of HCV treatment on past month injecting drug use (four studies), injecting frequency (two studies), needle and syringe borrowing (two studies) and injecting equipment sharing (three studies). Three of the four studies assessing impact of treatment on past month injecting frequency found treatment significantly reduced the odds of participants reporting past month injecting at follow up. One study found that there was significant reduction in weekly injecting frequency between enrolment, treatment and follow up. No association was found between treatment engagement and needle and syringe borrowing. Two out of three studies reported a significant decrease in injecting equipment sharing between enrolment, treatment and follow up.

**Discussion:** It is likely that engaging in treatment has a positive impact upon patients' injecting drug use and injection equipment sharing behaviour, with the health benefits of engaging with HCV care stretching beyond liver morbidity outcomes. This raises the possibility that treatment may be an opportune time for enhanced harm reduction interventions.

15:30 - 17:00

## How nutrition and mental health are associated – an exploratory approach

L. Lehner<sup>1</sup>

<sup>1</sup>SFU Linz, Austria

**Background:** With the aim to understand more precisely the causes and differences between depression and burnout syndrome an exploratory pilot study was conducted by a team of psychologists and psychiatrist at a psychiatric rehabilitation centre in Austria. For this purpose, various variables were collected, such as blood values, psychological data, psychiatric diagnosis, comorbidities, fitness and other lifestyle factors as well as social parameters. The aim of this thesis is to concentrate on this lifestyle variables, which include sport habits, nutrition, smoking and drinking habits, with focus on nutrition. New insight will be implemented in the rehabilitation program as fitness and nutritional consulting are already offered.

**Methods:** Therefore, the diagnosis as well as some psychological parameters and nutritional variables will be included to perform an exploratory cluster analysis. 4-day-food-records from 150 patients will be analysed with professional nutritional software and included in this analysis.

**Expected results:** Former findings give reason to expect high consume of sugar and fat also in connection with higher BMI in psychiatric patients. Furthermore, problematic smoking and drinking habits are expected as well as high drug/medication intake.

**Current stage of work:** Currently food-records from 95 patients have already been analysed.

**Discussion:** These findings will give us a clue why patients with mental disorders suffer from more other medical problems than the rest of the population as lifestyle could play an important role and will help generate new hypotheses and conduct further studies to get more insight in the mechanisms that link nutrition and mental well-being.

15:30 - 17:00

## Patient and spousal caregiver quality of life after a cardiac event and cardiac rehabilitation

K. Bouchard<sup>1</sup>, H. Tulloch<sup>1,2</sup>, K. Lemay<sup>2</sup>, P. Greenman<sup>3,4</sup>, S. Johnson<sup>5</sup>

<sup>1</sup>University of Ottawa Heart Institute, Canada

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<sup>4</sup>Institut du Savoir Monfort, Canada

<sup>5</sup>Ottawa Couple and Family Institute, Canada

Spouses who care for partners with cardiovascular disease (CVD) report reduced quality of life (QoL) following their partner's cardiac event. It is virtually unknown, however, whether a patient's participation in cardiac rehabilitation (CR), a known factor for improving patient QoL, will indirectly improve caregivers' QoL. To investigate this relationship, a cohort study was conducted at a tertiary cardiac centre in Canada. Participants completed validated disease-specific measures of QoL at baseline and 3-months (i.e., end of CR): Patients - MacNew Health-Related Quality of Life Instrument; Partners - Quality of Life of Cardiac Spouses Questionnaire. Paired samples t-test was used to investigate changes over time within each group (patient/partner). CR patient/partner dyads (N=184) participated in this study (n=368; 78% males; mean [M] age  $\pm$  SD: 65.8  $\pm$  10.7). Data revealed that there were improvements in patient QoL: emotional (5.31 points  $\pm$  1.35 points vs 5.76 points  $\pm$  1.04 points,  $p < 0.004$ ), physical limitation (4.82 points  $\pm$  1.15 points vs 5.81 points  $\pm$  0.97 points,  $p < 0.000$ ), social function (4.78 points  $\pm$  1.33 points vs 5.86 points  $\pm$  1.08 points,  $p < 0.000$ ) and global (5.07 points  $\pm$  1.17 points vs 5.82 points  $\pm$  0.97 points,  $p < 0.000$ ). Partner QoL scores from baseline to 3-months were higher for the emotional domain only (5.18 points  $\pm$  0.95 points vs 5.55 points  $\pm$  0.93 points,  $p < 0.035$ ). A CR program led to statistically significant improvements in patients' QoL across all domains and partners' emotional domain. These findings will support the development of a large RCT that aims to improve both partners' QoL.

## Posters

# Chronic illness and health care in ageing

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Ewa Gruszczyńska

15:30 - 17:00

## Effects of social participation on mild Alzheimer's disease and everyday functioning through cognitive performances

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<sup>2</sup>The University of Sheffield International Faculty, City College, Greece

<sup>3</sup>University American College Skopje, Macedonia

**Background:** There is a great scientific interest in identifying non-pharmacological approaches for the prevention of Alzheimer's disease, with the specific aim to retain cognitive vitality and functional independence for as long as possible. The main objective of the study was to examine the relationship between social participation and everyday functioning through cognitive performances in mild Alzheimer's disease patients and healthy control group.

**Methods:** A cross-sectional design study was applied including a hundred Macedonians (54 females, 46 males), aged from 64 to 85 years old (M=73.3). A score over 23 in the Mini-Mental State Examination was used as inclusion criteria for the healthy group, while 50 older adults were chosen based on an official clinical diagnosis of mild Alzheimer's disease. Both groups of participants completed the same set of neuropsychological tests (Trial Making Test Part A; Trial Making Test Part B; Digit Span Forward; Digit Span Backward; and Verbal Fluency Test), a questionnaire for social participation, and the Lawton Instrumental Activities of Daily Living Scale.

**Findings:** The findings showed that engaging in social participation is an important predictor for everyday functionality ( $\beta=-.391$ ;  $t=2.341$ ;  $p<.05$ ) as well as that is an important predictor for working memory ( $\beta=-.221$ ;  $t=1.922$ ;  $p<.05$ ) in healthy control group.

**Discussion:** The results are consistent with previous studies where participation in social activities improves cognition in healthy older adults. To address the needs of the increasing ageing population, we should invest in additional research, development of policies; evidence based preventive programmes and programmes for early detection and treatment.

15:30 - 17:00

## The future agendas of the person-centered nursing care services for health psychology: scoping review

N. Watanabe<sup>1</sup>, R. Yoshida<sup>1</sup>, T. Matsui<sup>2</sup>, K. Miura<sup>3</sup>, K. Takenaka<sup>2</sup>

<sup>1</sup>Waseda University/Graduate School of Human Sciences, Japan

<sup>2</sup>Waseda University, Japan

<sup>3</sup>Saitama Medical University, Japan

**Background:** The person-centered care gets attentions to deal with the two-tiered issues of sustainable good cares and employees' retention in the super-aging era. This interventional approach is known for "reablement" etc., attempts maximizing older adults' independency and quality of life with multi-disciplinary teams at the nursing care settings. Numerous studies have been conducted from different approaches. This study aims to map evidences on a topic and identify research characteristics of the interventions related to the person-centered care for future researches in the nursing care for health psychology.

**Methods:** To identify relevant studies, by reference to the PRISMA Extension for Scoping Reviews (PRISMA-ScR) checklist newly developed by Tricco et al. (2018), electronic databases -Medline, PsychINFO, Web of Science, and Cochrane Library- were searched between July 1st and December 20th in 2019. The general search structure for the electronic database was "reablement\*" OR "restorative care\*" OR "active service model" AND elderly AND nursing.

**Findings:** 60 out of 642 studies were identified to meet the defined criteria by consultation with experts. The major topics were program effectiveness (34) & developments (12), and staffs' education/training (14). U.S.A. took more quantitative and psychological approaches in the nursing home settings than other countries. More rehabilitation-based approaches in the home care settings were identified in Europe and Oceania.

**Discussions:** A nursing care is deeply associated with regional cultures, community manners, and policy makers. The person-centered care expects to be introduced while considering the facts at micro and macro levels based on the Social Ecological Model.

15:30 - 17:00

## Quality of life evaluation in patients affected by Severe Aortic Valve Stenosis in Italy

E.G. Bertoldo<sup>1</sup>, E. Callus<sup>1,2</sup>, V. Filippi<sup>1</sup>, A. Furiosi<sup>1</sup>, S. Mazzoleni Ferracini<sup>1</sup>, V. Pistuddi<sup>1</sup>, M. Ranucci<sup>1</sup>

<sup>1</sup>IRCCS Policlinico San Donato, Italy

<sup>2</sup>Biomedical Sciences for Health, Università degli Studi di Milano, Italy

**Background:** The Italian population is progressively aging with the consequence of increasing vascular diseases, mainly aortic valvular stenosis in the elderly (age  $\geq 65$  years) which requires surgical or transcatheter treatment.

**Methods:** Clinical information characterizing the individual risk and quality of life is being collected. The initial phase of this longitudinal study (the enrollment pre-treatment phase) will last 12 months. The next phase (follow-up phase) will last for at least 3 years, and the objective will be to conduct a post-treatment assessment of health related quality of life through the Short-Form Health Survey (SF-12)

**Findings:** To date 121 patients were assessed (60 male), 28.1% between 65-74 years of age (group 1) and 71.9% over 75 years of age (group 2). The Physical Component Summary (PCS) and the Mental Component Summary (MCS) scores of both group 1 and 2 patients are below the ones of the reference population of the SF-12 (Group 1: PCS = 39.77, MCS=49.58; Group 2: PCS = 40.1, MCS=49.6). Based on the clinical and Quality of Life data it seems that transcatheter treatment is the best indication in the elder population (64% of the group 2 patients).

**Discussion:** The SF-12 seems to be a good predictor scale for addressing, together with the clinical data, the health related quality of life of patients undergoing this kind of treatment. The patients' quality of life could also have a positive impact on medical expenditures.

15:30 - 17:00

## Get back on one's feet: improvements in physical capacity during cardiac rehabilitation

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**Background:** Although coronary heart disease is a major cause of mortality among older patients, cardiac rehabilitation is particularly underutilized among these patients. A fundamental problem lies in low referral rates to cardiac rehabilitation since only 47.1 % of the eligible patients get a referral recommendation in Switzerland and older adults are specifically underrepresented. One reason discussed is that physicians are not convinced regarding the beneficial effects of inpatient rehabilitation for older adults.

**Methods:** Inpatient care records (n = 9604, 66 % male, Mage = 69.12) from six cardiac rehabilitation clinics in Switzerland are included in this study. The main outcome variable - physical capacity - was measured objectively with the 6-minute walk test at baseline and at discharge from the 3-week rehabilitation program. Demographic variables and disease burden are included for predicting change in physical capacity.

**Findings:** A linear regression reveals clinically relevant improvements in physical capacity by rehabilitation completion for the average patient. Furthermore, these improvements are reduced but still present beyond the age of 80.

**Discussion:** Cardiac rehabilitation involves initiating healthy lifestyle changes to address risk factors for cardiovascular disease. Well-structured rehabilitation programs include exercise training, education on heart-healthy living, and counselling to reduce stress. Older adults are less often referred to cardiac rehabilitation and thereby miss a favourable opportunity for recovering from a cardiac event. The results suggest that older adults do profit from the rehabilitation and that eligible patients, regardless of age should get a referral.

15:30 - 17:00

## Sleep: Fuel for good mood, self-efficacy, and medication adherence among older men living with HIV

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**Background:** On a given day, numerous fluctuating factors (e.g., positive mood, negative mood, self-efficacy) may influence health behaviors such as whether a person will take their medications for chronic illnesses—here, HIV. Given that tiredness negatively affects mood, self-efficacy, and self-regulation, we propose that last night's poor sleep likely undermines today's adherence to antiretroviral medications (ART). However, research linking sleep health with ART adherence is scant. With funding from the National Institute of Aging, our study explores day-level effects of sleep on mood, self-efficacy, and medication adherence among older gay and bisexual men living with HIV.

**Methods:** Our racially-diverse sample of 100 NYC-based, older gay and bisexual men living with HIV will complete 21 days of online diaries (measuring subjective sleep quality, mood, self-efficacy, and adherence) along with wristwatch actigraphy. Multilevel modeling will test our hypotheses that, after a night of poor sleep, subsequently worsened mood and self-efficacy will compromise ART adherence.

**Expected results:** We hypothesize day-level associations linking poorer-than-usual sleep on a given night predicting worse mood, lower self-efficacy, and decreased odds of adherence the following day, with indirect pathways through mood and self-efficacy to adherence. Our study launches in March 2019 aiming to enroll 10 men per month. By September, we should have preliminary data for 50 participants.

**Discussion:** By elucidating the role of sleep in ART adherence among older men, our study hopes to generate findings to inform interventions aimed at achieving viral suppression, adding to the growing emphasis on the importance of sleep health in Health Psychology.

15:30 - 17:00

## Preliminary evaluation of the comprehensive psychoeducational program “healthy ageing” in older adults in Latvia.

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<sup>1</sup>Riga Stradins University, Latvia

Comprehensive preventive programs to promote healthy ageing are important to increase quality of life of older adults. The aim of preliminary study was to assess the content of a psychoeducational program developed within the project “Age is not an obstacle” NPAD-2017/10077 and implemented in the Baltic countries. The psychoeducational program included such topics as the cognitive processes, coping, health behavior and social support.

Method: The study sample consisted of 65 adults aged 65 - 87 years (M = 72.52; SD = 5.52), who participated in the psychoeducational program (63 (97%) female) and completed a demographic questionnaire and a follow-up evaluation questionnaire about each topic of psychoeducational program. Participation in psychoeducational program was voluntary, informed and confidential.

Results indicated that on average participants rated offered material as topical (M were in the range from 3.55 to 3.87, max = 4) and delivered in understandable manner (M were in the range from 3.68 to 3.95, max = 4). The majority of participants noted that they will use acquired knowledge daily (71%) and would recommend the program to others (74%). The highest ratings were given to the topics - social support, stress and coping.

Conclusions: The content of the psychoeducation program is topical, understandable, recommended to others and useful on a daily basis for older adults. This program could be beneficial for improving health or delaying its decline in older adults. Further research is needed to evaluate outcomes of this psychoeducational program in the Baltic countries.

Keywords: ageing, psychoeducational program, older adults.

## Posters

# Social relationships and health in the early lifespan

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Jan Keller

15:30 - 17:00

## Young carers during respite care: How does making a film about their experience help them?

G. Dorard<sup>1</sup>, F. Ellien<sup>2,3</sup>, A. Bourgeois<sup>2</sup>, A. Untas<sup>1</sup>

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**Context:** Young carers (YC) are children and teenagers who care for a family member suffering from a physical/mental/disability disorder. Many studies show effects of caring on mental health, education and social activities. Despite the number of YC programs, few have been evaluated. The aim of this mixed-method study is to explore effects of respite programs with an artistic approach. Throughout this program, YC were given the opportunity to make a film about their experience.

**Method:** 46 YC (24 children, 22 teenagers, age 8-17 years old, 60% of girls) completed self-reported questionnaires on their arrival and last day of their stay (caring activities, impact of caring, quality of life, emotional state, expectations and satisfaction regarding the program). Teenagers and parents were also invited to take part in an interview after the films were projected. A thematic analysis was performed.

**Conclusion:** YC mainly cared for one parent (80%), 45% reported a high level of care. Children and parents reported being very satisfied with the program and identified many benefits: respite, meeting and sharing with others, also the pleasure of learning film techniques. Difficulties were reported regarding pressure to accomplish their film. After the program, it seems YC became more conscious of their responsibilities asserting themselves and taking pride in their caring responsibilities.

**Discussion:** The study shows that this type of program seems particularly interesting for YC and their families. Data collection is still in progress to have a larger sample size.

15:30 - 17:00

## Adolescents facing the illness of a relative: preliminary results about young carers.

E. Jarrige<sup>1</sup>, G. Dorard<sup>1</sup>, A. Untas<sup>1</sup>

<sup>1</sup>Paris Descartes University, France

**Background:** Facing illness of a relative is a challenging event in life, especially during childhood and adolescence. Literature has shown that some children provide significant help on a regular basis. They are called young carers (YC). Studies showed that YC encounter more psychological difficulties than children not facing illness in their family. However, these studies did not clearly distinguish children facing illness and providing care from children not providing care. The aim of this study is to determine if and how these groups can be discriminated. A second aim is to explore mental health, quality of life and coping strategies in these groups as well as in adolescents not facing a relative illness.

**Methods:** This study includes French high school students. They complete anonymous self-administered questionnaires during school time (quality of life, mental health, caregiving activities, coping strategies). Data will be processed using multivariate analyses.

**Expected results:** Significant differences are expected between the groups regarding caregiving activities, quality of life, mental health, and coping strategies. Results should reveal the impact of providing care.

**Current stage of work:** 682 teenagers took part in the study in four different high schools. Currently, 14% reported providing significant help on a regular basis to a relative, and 9% facing the illness of a relative without providing care. Three other institutions will participate in the study before June 2019.

**Discussion:** Results should enable a better understanding of the effect of being a YC. Moreover, they will favor the development of new strategies to help them.

15:30 - 17:00

## Communication with father and mother differently impacts suicidal behaviour

C. Catunda<sup>1</sup>, C. van Duin<sup>1</sup>, A. Heinz<sup>1</sup>, H. Willems<sup>1</sup>

<sup>1</sup>University of Luxembourg, Luxembourg

**Background:** Positive relationships with parents can reduce the risk of suicidal behaviour in adolescents. Previous research has indicated that adolescents who report poor communication with their parents are more likely to display suicidal behaviour. The aim of this study is to find out whether communication with the father or mother is equally important for suicidal behaviour.

**Methods:** A total of 5595 students aged from 12 to 18 years old in secondary school participated in the 2014 HBSC Luxembourg survey. They responded to a questionnaire including, among others: 4 questions regarding sadness, suicide ideation, planning and attempt, and 2 questions about ease of communication with their father and mother.

**Findings:** Adolescents who indicate poorer communication with their mother or father have higher odds for all suicidal behaviours. Poor communication with fathers has a bigger influence on the odds for sadness, whereas poor communication with mothers has a bigger influence on the odds for attempted suicide. Lastly, adolescents who don't have or don't see their mother or father are at increased risk for the suicidal behaviours, although the odds are not as high as for those indicating very difficult communication with their parent(s).

**Discussion:** The Luxembourgish findings confirm the results of previous research and go further showing that, as a determinant, communication with mother differs from the communication with father. More studies should confirm these findings and include other variables, such as social support and stress, in order to see their relation with the communication with both parental figures and suicidal behaviours.

15:30 - 17:00

## What happens when your best friend doesn't like your body?

E. Çoban<sup>1</sup>, A. Çarkoğlu<sup>1</sup>

<sup>1</sup>Kadir Has University, Turkey

**Background:** Young women's dissatisfaction with their bodies may lead to problematic eating behaviors. Emotional eating is one such potentially problematic eating pattern. Relational predictors of body dissatisfaction rely on only reports from the target participant and lack actual information from actual relational others. In this study, we collected information from both target participants and their same-sex best friends, focusing on women only. Our aim was to examine the relationship between personal and friend-reported body dissatisfaction ratings and emotional eating patterns for women.

**Method:** Participants were 246 women aged 18-26 ( $M_{age}=21$ ,  $std=1.9$ ). Participants completed measures of body dissatisfaction and emotional eating. Participants' same-sex best friends also rated their evaluations of the participants' bodies.

**Findings:** Path analysis showed that friend-reported body dissatisfaction had a significant positive association with participants' own body dissatisfaction ( $b = .72$ ,  $t(244) = 10.65$ ,  $p < .001$ ), which was, in turn, positively correlated with participants' emotional eating ( $b = 8.60$ ,  $t(243) = 4.24$ ,  $p < .001$ ). Personal body dissatisfaction ratings fully mediated the relationship between friend ratings of participants' body and participant emotional eating ( $b = 10.59$ ,  $t(244) = 4.79$ ,  $p < .001$ ). As the friend-reported body satisfaction decreased so did the personal body satisfaction ratings and emotional eating increased.

**Discussion:** These findings underline the significant role same-sex best friends' role on women's own body image evaluations and emotional eating patterns. Programs aiming to change body dissatisfaction and emotional eating patterns should address the influence of female best friends. Nature of similar associations for male body image evaluations need further attention.

15:30 - 17:00

## Cancer diagnosis as a physical activity teachable moment for young people and friends/family

A. Cross<sup>1</sup>, S. Parkes<sup>1</sup>

<sup>1</sup>University of Derby, United Kingdom

**Background:** Physical activity (PA) provides potential psychological and physical health benefits for young people living with and beyond cancer. A cancer diagnosis can impact on family and friends; this may present a teachable moment for promoting physical activity for both the patient (secondary cancer prevention) and their close family and friends (primary prevention).

**Methods:** A semi-structured interview study was conducted with young cancer patients (18-25 years), their family and friends and health care professionals (HCPs). Thematic analysis was used to identify the most appropriate approaches to integrating PA into cancer treatment.

**Findings:** Overall, participants were supportive of a PA intervention that includes close friends/family as part of cancer treatment. Patients indicated a preference for the intervention to be offered following time to process and accept the diagnosis. Family/Friends reported a sense of shared responsibility, recognising the social and physical benefits for all involved. HCPs acknowledged the importance of integrating PA as part of cancer treatment but raised the need for training or support with making safe and effective recommendations for PA.

**Discussion:** Whilst the cancer diagnosis may be an appropriate PA teachable moment for young people with cancer and their close friends/family, flexible approaches tailored to both the needs of the patient and their friends/family are required. Interventions should account for individual barriers to physical activity during cancer treatment (e.g. fatigue, treatment effects, adaptation of usual activities). Friends and family can help support the integration of physical activity into cancer care for young people living with and beyond cancer.

15:30 - 17:00

## A qualitative investigation of social media's influence on body-related health behaviours in Irish adolescents

C. Mahon<sup>1</sup>, S. Akkol-Solakoglu<sup>1</sup>, D. Hevey<sup>1</sup>

<sup>1</sup>Trinity College Dublin, Ireland

**Background:** Social media constitutes a primary source of health and body-related information for adolescents. However, little is known about what body-related content adolescents consume on social media, how they interpret this content, and to what extent their behaviours are influenced by this content.

**Methods;** Four focus groups, 3 with females only (n = 23) and 1 with males only (n =6), investigated social media use in relation to body-related health behaviours among adolescents. Participants were aged between 15-16 years (M=15.31, SD=0.47) and were from rural and urban Irish secondary schools. Inductive thematic analysis identified several themes within the data.

**Findings:** Social media was reported to strongly influence adolescent dietary and exercise behaviours. Social media's influence was largely considered to be negative, as body-related behaviours were driven by feelings of body-dissatisfaction and guilt – feelings which were heightened by social media content. Social media content encouraged health behaviours to be pursued for largely aesthetic rather than health focused reasons, especially for females. Adolescents were cognisant of the unrealistic and unattainable nature of body ideals, yet they reported emulating the body-related behaviours of celebrities and social influencers to achieve them. Social comparisons with celebrities and social influencers shaped body image perceptions and directed the subsequent body-related behaviours that adolescents pursued.

**Discussion:** Findings highlight the importance of understanding the complex ways that social media influence the body-related behaviours at this developmental stage. In particular, understanding the impact body-related content on health behaviour motives is important for promoting adolescent health and wellbeing.

## Posters

# Public health interventions to promote physical activity and healthy eating.

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Wim Nieuwenboom

15:30 - 17:00

## The impact of improvements in urban green space on older adults' physical activity and wellbeing

J. Benton<sup>1</sup>, S. Cotterill<sup>1</sup>, J. Anderson<sup>1</sup>, V. Macintyre<sup>1</sup>, M. Gittins<sup>1</sup>, M. Dennis<sup>1</sup>, S. Lindley<sup>1</sup>, D. French<sup>1</sup>

<sup>1</sup>University of Manchester, United Kingdom

**Background:** Creating or improving urban green space has the potential to be an effective, sustainable and wide-reaching intervention for increasing physical activity and improving wellbeing. However, there is a dearth of well-conducted natural experimental studies examining the causal effect of changing urban green space on older adults' physical activity and wellbeing. This natural experimental study measured the impact of urban greening interventions in Manchester (UK) on older adults' physical activity and other wellbeing behaviours.

**Methods:** Four intervention sites where small-scale improvements were made to existing green spaces were matched to eight comparison sites. Sites were matched using ten items (e.g. population density, street connectivity). The outcome measures were three behavioural indicators of wellbeing (taking notice of the environment, physical activity, connecting with others), collected using a newly developed observation tool: MOHAWk. A total of 264 hours of data were collected across baseline, 6 and 12 months. Analyses were conducted using negative binomial regression models.

**Findings:** There was high inter-rater reliability between observers for recording behaviours (ICCs > 0.75). There was no statistically significant increase in older adults taking notice of the environment at the intervention sites at 1-year follow-up compared to matched comparison sites (primary outcome), or any of the other wellbeing behaviours.

**Discussion:** These null findings contradict earlier studies with a high risk of bias. However, the green space improvements were small and further natural experimental studies of larger interventions are needed. Methodological improvements included rigorous matching of multiple comparison sites and appropriate statistical control of key confounders.

15:30 - 17:00

## Food in motion: Selling a healthy snack to nudge people towards healthier snacking behavior

C. Schlinkert<sup>1</sup>, M. Gillebaart<sup>1</sup>, J. Benjamins<sup>1</sup>, M. Poelman<sup>1,2</sup>, D. de Ridder<sup>1</sup>

<sup>1</sup>Utrecht University, Netherlands

<sup>2</sup>Vrije Universiteit Amsterdam, Netherlands

Unhealthy diets are among the main causes of overweight and are associated with negative health outcomes. Characteristic of unhealthy diets are unhealthy snack foods consumed in between meals. Unhealthy snacks are typically tasty, but of poor nutritional value. Prior research has shown that the omnipresence and the easy access of unhealthy snacks in the urban environment contribute substantially to unhealthy snack consumption, because it communicates that eating unhealthy snacks is 'appropriate'. Also, snacking is generally a habitual behavior that often occurs outside awareness in response to environmental cues, which makes snacking difficult to overtly control. To tackle these environmental problems, the present research aims to facilitate healthy snacking in the urban environment by offering healthy snacks at critical times and spots with a snack car. Therefore, the authors developed a tasty tart snack that meets healthy criteria. They also developed branding that communicates the healthy-tasty association. The snack car will be placed in an urban location that was previously identified as a risk zone for unhealthy snacking. Changes in snacking habits and behavior, food environment perception and snack purchase will be measured with an app. People who are regularly exposed to the car will be assigned to the experimental group. The control group will consist of people on location who never see the car. Data collection will be finished by the time of the conference which allows presentation of first Results: Positive results will contribute to the idea that changing the environment can help people to make healthy food choices.

15:30 - 17:00

## Effectiveness of an evidence and theory-based brief counseling intervention for physical activity in Portuguese NHS

C. Godinho<sup>1,2</sup>, M. Silva<sup>2,3</sup>, C. Silva<sup>2,3</sup>, R. Mendes<sup>2,4</sup>, P. Teixeira<sup>3</sup>

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<sup>2</sup>Direção-Geral da Saúde, Portugal

<sup>3</sup>CIPER - Faculdade de Motricidade Humana, Universidade de Lisboa, Portugal

<sup>4</sup>ARS Norte, EPIUnit – Instituto de Saúde Pública da Universidade do Porto, Portugal

**Background:** Healthcare professionals are recognized as fundamental agents for physical activity promotion. To facilitate person-centered and autonomy-supportive physical activity brief counseling by healthcare professionals in the Portuguese National Health Service (NHS), digital tools targeting specific behavior change mediators (e.g. autonomous motivation, self-efficacy, outcome expectancies) and using validated techniques (e.g. goal-setting, self-monitoring) have been developed. This study aims to test the effectiveness of these tools for physical activity promotion via a pragmatic randomized controlled trial.

**Method:** Patients using Portuguese primary health care (PHC) services will be randomly allocated (cluster randomization) to one of three groups: (1) brief counseling; (2) brief counseling, plus a pedometer for patients' self-monitoring; (3) usual care. Patients' physical activity levels and sedentary behavior, health, and well-being indicators (e.g. blood pressure, BMI, vitality, perceived health status), and targeted psychological determinants, will be assessed at baseline, 1, 3, and 6 months, using validated measures. Considering the expected effect size and dropout rate, sample size was set to 2600 sedentary adults.

**Expected results:** It is expected that the brief counseling intervention will contribute to improve patients' physical activity levels, health, and well-being and that these effects are mediated by changes in motivation quality, perceived barriers, self-regulation, and self-efficacy beliefs.

**Current stage of work:** Data collection will start in April 2019 in 13 PHC units. Preliminary results are expected by September 2019.

**Discussion:** This study will contribute to test the effectiveness of a real-world intervention promoting physical activity and to better understand the role of specific psychological mechanisms in those changes.

15:30 - 17:00

## Nudging healthy food choices in an online supermarket setting

L. van Gestel<sup>1</sup>, M. Adriaanse<sup>1</sup>, D. de Ridder<sup>1</sup>

<sup>1</sup>Utrecht University, Netherlands

A common conflict that people face is the choice between tasty (but less healthy) and healthy (but less tasty) foods. While many people value the goal to eat healthily, intentions are not always translated into desirable behavior when facing such conflicts. Therefore, nudges have been proposed as a promising intervention to overcome these conflicts and promote healthy food choices. In the current study, we investigated the effectiveness of a default nudge in an online supermarket setting. 204 participants participated in our online supermarket study, which had a 1-factor (Condition: control vs. default) between subjects Design: In each trial of the task, participants were shown four food products, of which two were experienced as more healthy, but less tasty than the other two. In the default condition, one of the healthy products was selected as the default option. We measured the proportion of (nudged) healthy food products chosen. Results showed that participants chose the nudged healthy product more frequently in the default condition ( $M = .24$ ,  $SD = .18$ ) than in the control condition ( $M = .20$ ,  $SD = .17$ ),  $t(202) = -1.92$ ,  $p = .028$ ,  $D = .27$ . This implies that a default could effectively be employed in an online supermarket setting to nudge people into making healthier choices.

15:30 - 17:00

## Why does a good meal matter? Identifying the health-promoting characteristics of meal services for elderly.

W. Nieuwenboom<sup>1</sup>, F. Wettstein<sup>1</sup>, H. Schmid<sup>1</sup>

<sup>1</sup>University of Applied Sciences Northwestern Switzerland, Switzerland

**Background and Objectives:** As the age group of senior citizens in Switzerland is growing, there is an increasing need for home delivered meal services for homebound older adults. It is particularly challenging for these people to maintain an optimal nutrition status, health and well-being. A Swiss study, supported by Health Promotion Switzerland, examined the conditions for a health-promoting design of meal services in order to develop a quality label "Fourchette Verte" for those services.

**Methods:** On the basis of the present studies, a group concept mapping was conducted in a workshop with nine principals and the project managers with respect to: the planned measures (input) • the services (output) • the intended effects on the target groups or multipliers (outcome) and finally the longer-term social impacts of the project (Impact).

**Findings:** According to the stakeholders, output, outcome and intended effects encompass a quality meal service that reduces nutritional risk and pays particular attention to the nutritional aspects of the target group. These are characterized by good composition, balance and quantity of meals as well as different forms of social support. To achieve this goal, planned measures proposed are participation and influence of customers, installation of transparent communication channels and knowledge transfer of healthy eating behavior among services.

**Conclusions:** The method of group concept mapping among stakeholders of home meal delivery services helps to identify relevant research questions with respect to promoting healthy eating behavior among older adults.

15:30 - 17:00

## Causal beliefs about obesity and support for obesity policies in English and US populations

J. Reynolds<sup>1</sup>, M. Vasiljevic<sup>2</sup>, M. Pilling<sup>1</sup>, M. Hall<sup>3</sup>, K. Ribisl<sup>3</sup>, T. Marteau<sup>1</sup>

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<sup>2</sup>University of Durham, United Kingdom

<sup>3</sup>University of North Carolina at Chapel Hill, United Kingdom

**Background:** Public support for policies to address obesity is lower the more people attribute obesity to the individual. Experimental evidence testing the causal nature of this attribution is mixed. The aim of the current study is to test the impact in English and US populations of two messages about the environmental causes of obesity previously found in two studies to increase support for policies to address obesity.

**Methods:** An online between-subjects experiment conducted in England (n = 1395) and the USA (n = 1315). The study randomly allocated participants to one of three groups differing in their exposure to messages about the environment's impact on obesity: Group 1: message highlighting the roles of availability and cost of healthy vs unhealthy food, and portion size; Group 2: message highlighting the roles of advertising and placement of unhealthy foods in supermarkets; and Group 3: no message control group. The outcomes were support for obesity policies and beliefs about the causes of obesity.

**Results:** There was no evidence that messages about the role of the environment in causing obesity affected support for obesity policies or beliefs about the causes of obesity (all ps > .05). Neither participants' country nor BMI moderated the impact of the messages on the outcomes of interest.

**Discussion:** Using high-powered, nationally representative samples across two countries in a pre-registered study, we failed to replicate previous reports that messages about the role of environments in causing obesity change either beliefs about these causes or support for policies to reduce obesity.

15:30 - 17:00

## Intervention in the quality of life of persons with Parkinson's disease using tourism resources

T. Akamatsu<sup>1</sup>

<sup>1</sup>Bukkyo University, Japan

**Background:** Parkinson's disease (PD) is a progressive neurodegenerative disorder accompanied by motor symptoms and non-motor symptoms, such as depression and anxiety. People with PD avoid going out resulting that their quality of life (QOL) are lower. The sightseeing activities involve pleasure and distraction there is a possibility of raising their QOL. This study investigated the impact of wellness tourism for the persons with PD.

**Methods:** Participants were 48 people with PD (mean age :  $66.6 \pm 8.1$  years, disease duration:  $11.8 \pm 6.7$  years, Hoehn and Yahr stage:  $2.9 \pm 0.7$ ) from support groups in local communities. All people informed about the study, and they provided written informed consent. This study was approved by the Bukkyo University ethical review board for human research (approval number: H24-2). Each of PD persons chose which historical or beauty spots to visit with family and occupational therapist. Mood examined with face and depression scale, QOL status and the degree of stress from PD using visual analogue scale (VAS). The evaluation performed before and after the using tourism resources. The three months later, investigated about the daily life.

**Findings:** The mood disorder and QOL scores improved after visiting the historical interests and places ( $p < 0.05$ ). After the three months, their stresses were lower and everyday behaviors changed with walking, planning going out and more family conversation.

**Discussion:** Using of the historical and natural beauty tourism may have an impact on non-motor symptoms of person with PD, leading to positive effects on their QOL.

# Posters

## eHealth interventions and chronic conditions

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Emma Carr

15:30 - 17:00

## Web-assisted Self-help (WASH) for parents of children with ADHD: an effectiveness study

L. Wähnke<sup>1</sup>, M. Klemp<sup>1</sup>, J. Mühlenmeister<sup>1</sup>, J. Plück<sup>1</sup>, M. Döpfner<sup>1</sup>

<sup>1</sup>Department of Child and Adolescent Psychiatry, Psychosomatics and Psychotherapy, University Hospital of Cologne, Germany, Germany

ADHD is one of the most common mental disorders in childhood and adolescence (prevalence about 5%). The German guidelines recommend behavioral therapy (parent training) and pharmaceutical therapy, the former being less accessible and available. Effectiveness of guided self-help for parents using analogue media is proven, research on web assisted self-help is rare. This study aims on evaluating the effectiveness of the web assisted self-help program for parents of children with ADHD.

The parallel-group design compares effects of WASH, WASH plus telephone SUPPORT and treatment as usual on external symptoms of the child and other parameters (child: comorbidity, psychosocial impairment, Quality of life; parents: parenting, stress; as well as acceptance, usage behavior and satisfaction). We expect differences in favor of both WASH interventions for all parameters.

Inclusion criteria: parents of children with a (suspected) diagnosis of ADHD aged 6-12 years. Exclusion criteria: Children diagnosed with mental disability, autism spectrum disorder or indication for an inpatient treatment.

Since January 2018, 202 pediatricians across Germany recruited a total of 196 families by, 134 currently having been randomized (02/2019). Access to the online intervention was used by most parents within a few days (87.5%).

The support can be affordably made by telephone. Verbal feedback during phone calls at measurement times indicates that, the opportunity of personal contact for the parents is very motivating. Nevertheless because of timed extra effort in SUPPORT higher drop-out rates as expected are reported.

15:30 - 17:00

## Exploring the usability of a digital intervention to reduce the Patient Interval for breast cancer

E. Carr<sup>1</sup>, J. Walsh<sup>1</sup>, A. Groarke<sup>1</sup>

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**Background:** Usability is a key factor in engagement with digital interventions (DI). This study explored the usability of a public health DI to promote early presentation to a healthcare professional upon self-discovery of a breast cancer symptom. The DI was developed using results from primary qualitative research, a review of the literature and behavioural analysis. The objectives were to explore the extent and manner of user engagement, the features participants liked and disliked, and their opinions on ease/difficulty of use in order to enhance the usability of the DI.

**Methods:** Participants (n=12) took part in think-aloud interviews which were conducted iteratively. Three interviews were conducted and analysed, and the results used to update the DI before the next interviews were conducted. This process was repeated until no new usability data was generated. All interviews were audio-recorded and transcribed. To facilitate the iterative design, a relatively novel form of data analysis was used to rapidly analyse the findings. This involved tabulating barriers and facilitators to usability, and identifying and prioritising potential modifications before implementing changes.

**Findings:** Participants identified barriers and facilitators to usability of the DI and suggested feature additions. The rapid analysis technique facilitated the implementation of iterative changes.

**Discussion:** It is now accepted as good practice to elicit end-user/public/patient views during the design phase of interventions. It is hypothesised that incorporating these views into the development of interventions will increase their effectiveness by increasing acceptability and usability. This study provided valuable insights that enhanced the usability of the DI.

15:30 - 17:00

## Determining the predictors and outcomes of people with DLB to improve diagnosis and management: Lewy-CRATE

S. Moylett<sup>1,2</sup>, A. Price<sup>1,2</sup>, R.N. Cardinal<sup>1,2</sup>, J.T. O'Brien<sup>1,2</sup>

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<sup>2</sup>Cambridgeshire and Peterborough NHS Foundation Trust, Cambridge, United Kingdom

**Background:** Despite being the second most common degenerative dementia in older people, rates of misdiagnosis for Dementia with Lewy bodies (DLB) are high, and little is known of its natural history and outcomes. Very few previous studies have been able to access routine clinical information for large, unbiased DLB cohorts in order to examine presentation, neuropsychological profile and mortality in depth.

**Methods:** Using the CPFT Research Database (CRATE), a de-identified copy of electronic clinical records, the Lewy-CRATE project is identifying a cohort of ~700 DLB cases and several thousand non-DLB disease dementia controls to allow a detailed examination of their predictors, symptoms and outcomes. We aim also to link to UK national hospital episode databases to incorporate predictors and outcomes relating to acute healthcare. We have already identified a DLB cohort (N = 251) diagnosed between 2005 and 2012 and are currently in the process of extending this cohort to include diagnoses up to 2018.

**Findings:** Individuals with DLB present with a range of complaints, including memory loss, hallucinations and low mood. Rates of REM sleep disorder among our cohort were considerably lower (8.4%) than would be expected.

**Discussion:** Individuals diagnosed with DLB have markedly shorter survival times compared to AD (on average 3 years less) and present to secondary care settings with a wide range of symptoms, some of which are not immediately suggestive of a DLB diagnosis. Further examinations of large, unbiased cohorts are needed to further elucidate the complex presentation and clinical course of DLB.

15:30 - 17:00

## Evaluation and optimisation of the Tinnitus E-Programme, an internet-based intervention for tinnitus self-management

K. Greenwell<sup>1,2</sup>, M. Sereda<sup>2</sup>, N. Coulson<sup>2</sup>, A. Geraghty<sup>1</sup>, D. Featherstone<sup>3</sup>, D. Hoare<sup>2</sup>

<sup>1</sup>University of Southampton, United Kingdom

<sup>2</sup>University of Nottingham, United Kingdom

<sup>3</sup>Clitheroe Therapies Clinic, United Kingdom

**Background:** Internet-based interventions have the potential to reduce the disparity in access to psychological support that people with tinnitus currently experience. This research aimed to evaluate and optimise the Tinnitus E-Programme 1.0, an internet-based intervention to support self-management in people with tinnitus.

**Methods:** First, a process evaluation of the Tinnitus E-Programme 1.0 utilised mixed methods (internet survey, qualitative interviews, and relaxation logs) with two different study populations (current/past real-world users, and new users and research participants) to explore users' reactions and interactions with the intervention. Second, using person-, theory-, and evidence-based approaches to intervention development an optimised version of the intervention (Tinnitus E-Programme 2.0) was developed. Finally, qualitative think aloud interviews were carried out with 19 people with tinnitus to evaluate this new intervention.

**Findings:** The process evaluation of the Tinnitus E-Programme 1.0 revealed that the intervention was acceptable to its target users. Users identified several benefits they experienced from the intervention, but its implementation was limited by instances of poor usability, user engagement, and adherence to behavioural goals. These issues were addressed in the development of the Tinnitus E-Programme 2.0 and users of this new intervention viewed its content and design features positively. Users' pre-existing beliefs regarding tinnitus and self-management, their perceptions of relevance, and the nature of tinnitus influenced users' engagement with the intervention.

**Discussion:** Findings demonstrated that the Tinnitus E-Programme 2.0 was acceptable to people with tinnitus and provided valuable insights into potential implementation and contextual issues that may influence intervention delivery.

15:30 - 17:00

## Identifying psychosocial factors associated with refusal to participate in a mobile-app based adherence intervention

L. Hughes<sup>1</sup>, R. Moss-Morris<sup>1</sup>, M. Hunter<sup>1</sup>, S. Norton<sup>1</sup>, Z. Moon<sup>1</sup>

<sup>1</sup>King's College London, United Kingdom

**Background:** Approximately 50% of people with a long term condition are non-adherent to their prescribed treatment regimen. An increasing number of adherence interventions are being developed. However, people who are non-adherent to treatment are also less likely to participate in healthcare interventions. Currently, little is known about these people or how to better engage them.

This study aims to identify psychosocial factors associated with non-participation in a mobile-app adherence intervention for women prescribed hormonal therapy following primary breast cancer.

**Methods:** Up to 2000 women prescribed hormone therapy following breast cancer will be recruited into an observational study. Questionnaires include self-reported adherence (MARS), optimism (LOT-R), relationship with healthcare professional (CARE), illness (IPQ-R) and treatment (BMQ) beliefs, e-health literacy (eHEALS) and symptom impact (BCPT). Women scoring  $\leq 23$  on the MARS will be invited to participate in a trial of an app-based adherence intervention. Non-consent will be recorded.

**Expected results:** Hierarchical logistic regression will be carried out. It is hypothesised that those with a poor healthcare professional relationship and e-health literacy and lower perceived necessity of hormone therapy will refuse to participate in the trial.

**Current stage of work:** Recruitment started in 16 NHS sites across the UK in February 2019. It is anticipated that 100-150 people will be recruited per month with 16-23% being eligible for the trial and 13-25% of those refusing.

**Discussion:** Identifying factors associated with non-participation in healthcare interventions could help us to better engage the people who would most benefit from the intervention and improve outcomes.

15:30 - 17:00

## RCT testing impact of informative content of SMS reminders on attendance at diabetic retinopathy screening

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<sup>1</sup>Imperial College London, United Kingdom

<sup>2</sup>Medicines and Healthcare Products Regulatory Agency, United Kingdom

**Background:** Diabetes is a leading cause of preventable blindness in the UK. Annual retinopathy screening reduces this risk. However, a significant minority of patients do not attend screening regularly. Lack of understanding about retinopathy and screening contributes to non-attendance.

The aim of this study was to compare the impact of an informative short message service reminder (SMSR) on the uptake of retinopathy screening, compared to the standard SMSR.

**Methods:** This single-blinded RCT recruited adults registered with a general practitioner in north central London with a confirmed diagnosis of type 1 or 2 diabetes, who had not attended retinopathy screening in the previous 2 years. Adults were cluster-randomised by month of appointment to receive the standard-practice (control) or intervention SMSR. In total 984 and 1006 patients were allocated to the control and intervention arms, respectively.

The control SMSR reminded patients of the date, time and location of the appointment. The intervention SMSR contained informative content on the benefit of screening. "Diabetes harms eyes before you notice. Screening can save sight". The primary outcome was DNA rates, with comparisons made using logistic regression.

**Findings:** The DNA rate was 85.9% and 79.3% in the control and intervention arms, respectively OR 0.631 (95% CI 0.499-0.799),  $p < 0.001$ ).

**Discussion:** Adding informative content to standard SMSR regarding benefits of retinopathy screening significantly reduced do-not-attend rates. This intervention can be used to increase engagement with sight-saving screening, and reduce healthcare costs. Content based on appropriate behavioural techniques can be implemented within SMS to increase effectiveness of brief interventions.

15:30 - 17:00

## 'Hope for PCOS': Co-creation of an online self-management peer support programme for polycystic ovary syndrome.

C. Percy<sup>1</sup>

<sup>1</sup>Coventry University, United Kingdom

**Background:** Polycystic ovary syndrome (PCOS) is a common chronic endocrine condition affecting multiple bodily systems, with a major adverse impact on health related quality of life. This study aimed to co-create an online peer support intervention for PCOS, by adapting an existing programme based on positive psychology (Coventry University HOPE Programme).

**Methods:** Using the Antecedent-Target-Measure approach, individual semi-structured qualitative interviews were conducted with key stakeholders: 13 PCOS patients, 4 health professionals and 3 trustees of the UK PCOS charity Verity. Thematic analysis was used to extract perceived 'modifiable antecedents' (of self-management problems in PCOS) to be targeted in the new intervention.

**Findings:** Antecedents identified included: Patient Skills, e.g. to communicate with health professionals, Motivation, e.g. confidence to set clear, realistic self-management goals, Knowledge/Understanding, e.g. basic biology of PCOS, long term implications of PCOS, Difficult Emotions, e.g. embarrassment, shame, depression, anxiety & fear for future health, and adaptive or less adaptive Behaviours, e.g. taking medications as prescribed, binge eating, over-eating, over-exercising. At a national patient conference 58 key stakeholders voted on the most important antecedents to be included in the new intervention 'Hope for PCOS'. The existing online HOPE programme was adapted to focus on these targets. Goal-setting, mindfulness, gratitude activities and peer support were supplemented with information specific to PCOS, activities drawn from compassion focussed therapy and social empowerment.

**Discussion:** The new online intervention will be subjected to a feasibility trial. The Antecedent-Target-Measure approach used may be of interest to health psychologists seeking to adapt, design or co-create self-management interventions.

15:30 - 17:00

## Lending an Ear:iPeer2Peer plus Teens Taking Charge online self management to empower children with arthritis

J. Burke<sup>1</sup>, S. O'Higgins<sup>1</sup>, C. Heary<sup>1</sup>, L. Caes<sup>2</sup>, J. Stinson<sup>3</sup>, S. Ahola Kohut<sup>3</sup>, B. McGuire<sup>1</sup>, H. Durand<sup>3</sup>

<sup>1</sup>NUI Galway, Ireland

<sup>2</sup>University of Stirling, United Kingdom

<sup>3</sup>The Hospital for Sick Children, Canada

**Background:** Juvenile Idiopathic Arthritis (JIA) is a debilitating condition with no cure. Currently in Ireland, approximately 1200 children have JIA, with 100 children being diagnosed annually. Despite this, Ireland has the second lowest Paediatric Rheumatologist to patient ratio in Europe. Internet-based interventions may aid in overcoming barriers to psychological treatment for chronic conditions. This study aims to assess the efficacy of integrated Teens Taking Charge (TTC) and Skype-based peer support programme, iPeer2Peer (iP2P) for adolescents with JIA. Both have proven effective in improving outcomes individually, however, they have never been integrated and tested together.

**Methods:** Participants randomly assigned to one of three conditions: TTC alone, iP2P-TTC, or treatment as usual, over 12 weeks. Assessment of primary and secondary outcomes at baseline, post-intervention, and 3 months post-intervention. Primary outcomes include comparisons of Irish adapted TTC and iP2P-TTC and degrees of tailoring TTC to individual teen needs. Secondary outcomes include adolescent's self-management, disease knowledge, self-efficacy, physical pain, emotional (anxiety, depression) symptoms, perceived social support, and Health Related Quality of Life (HRQL). Semi-structured interviews and focus groups with adolescents and mentors post-participation to determine satisfaction with the Irish TTC and TTC-iP2P.

**Expected results:** It is expected that TTC-iP2P program will be acceptable for adolescents and parents. Significant improvements on secondary outcome measures expected for adolescents in Irish adapted TTC-iP2P group in comparison to TTC alone or control.

**Current stage of work:** Rolling recruitment of participants will continue until July 2019. Dyads currently being randomly assigned to conditions and completing baseline measures.

**Conclusion:** Findings from this pilot study will assess the feasibility and effectiveness of Irish-adapted Teens Taking Charge integrated with iPeer2Peer peer support programme.

# Posters

## eHealth and lifestyle behaviours

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Johanna Nurmi

15:30 - 17:00

## Emotional functioning, eating behaviours and body image: e-mental health intervention among woman with BMI $\geq$ 25

K. Czepczor-Bernat<sup>1</sup>, A. Brytek-Matera<sup>1</sup>

<sup>1</sup>SWPS University of Social Sciences and Humanities, Poland

**Background:** The main purpose of the study was to evaluate the effectiveness of e-mental health intervention in overweight and obese women.

**Methods:** The sample was composed of 129 women with BMI  $\geq$  25 kg/m<sup>2</sup>. The participants were randomly assigned to three groups: experimental group I (GS) - the intervention was based on emotional schema theory; experimental group II (GT) - the intervention was based on a set of techniques related to the regulation of emotions and stress and control group (GC). The Difficulties in Emotion Regulation Scale, the Positive and Negative Affect Schedule (PANAS), the Mindful Eating Scale, the Three Factor Eating Questionnaire R-18 and the Body Attitude Test were used. The study comprised three stages - T1: first day, T2: 15 days later, T3: two month later.

**Findings:** Both types of interventions (GS, GT) were effective because of increase adaptive emotion regulation (T2, T3: GS, GT differed from the GK). In the GS a greater reductions in the negative assessment of the body and emotional eating were observed compared to the GK (T2, T3). In second group - GT - decline in the level of emotional eating was observed (T3).

**Discussion:** The study described above is one of the first e-mental health intervention among woman with overweight and obesity in which intervention include emotional functioning, eating behaviours and body image. Both variants of the intervention (GS, GT) can be the basis of the future interventions among people with excessive body mass.

15:30 - 17:00

## Stress and quantitative food intake in daily life: a mHealth study exploring intra-individual variability

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Human health is substantially and directly influenced by nutrition and stress. In addition, stress also has an indirect impact on health, through changes in health-related behaviours such as diet. Laboratory studies found inter-individual differences in the dietary response to stress: roughly 40 % of the participants increased food intake, 40 % decreased the consumed amount and 20 % showed no change. However, these results cannot be generalized to the natural environment as the examined situations and the laboratory-induced stressors were artificially created and the offered food selection was limited. It also remains unclear whether the observed stress-induced responses are stable within a person across different situations. Therefore, the present study investigates intra-individual variability of the quantitative food intake in high-stress periods in daily life applying the mHealth approach. Approximately 70 adults aged between 18 and 50 years who are not diagnosed with a psychiatric disorder will be included. Participants are asked to enter all foods and drinks consumed using a mHealth-App for three days (event-contingent). Eight times per day they are prompted by the mHealth-App to complete questions regarding their experienced stress and stressful events since the last prompt (signal-contingent). Data collection has recently started. Multilevel analyses will be used to examine the relation of stress and quantitative food intake across different situations within and between participants. Preliminary results will be presented. An understanding of the connection between stress and diet in daily life is necessary for targeting specific situations and/or individuals at higher risk for unhealthy eating behaviour.

15:30 - 17:00

## Digital behaviour change interventions for long-term weight management in adults: Systematic review of core features

J. Encantado<sup>1</sup>, M. Marques<sup>1,2</sup>, A. Palmeira<sup>1,3</sup>, I. Santos<sup>1</sup>, C. NoHoW<sup>1</sup>

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<sup>3</sup>Universidade Lusófona, Faculdade de Educação Física e Desporto, Portugal

This review aims to 1) analyse the effects of behaviour change techniques (BCTs) on behavioural outcomes and engagement in the context of digital behaviour change interventions (DBCI) targeting long-term weight management in adults, 2) describe the personalisation features and theoretical frameworks used, and 3) examine the links between theoretical frameworks, personalisation features and BCTs implemented.

Studies were identified through electronic database searches (PubMed, PsycINFO, Cochrane Library, EMBASE, CINAHL). Studies were eligible if they (1) were DBCI aimed at weight management, (2) targeted overweight/obese adults or participants who have recently lost weight, and (3) assessed physical activity or dietary behaviour, measured at post-treatment and/or follow-up. Characteristics of studies (e.g. BCTs including features of personalization) will be extracted and synthesised using narrative and meta-analytical techniques.

Most studies will use more than one BCT (e.g., self-monitoring, action plans) and the extension of its use supported by a theoretical framework will be associated with significant positive intervention effects in behaviours and engagement with intervention. We also expect to find multiple types of personalisation features but with poor description and lack of a theoretical framework to support these choices.

We are currently updating the data screening and starting data extraction.

This review will allow to collect valuable information on key intervention components of digital interventions for weight management and highlight some important challenges in synthesizing interventions using current taxonomies. This review will be useful to inform which tailoring features may be more practical for which context of intervention and the extent of its effectiveness.

15:30 - 17:00

## Promoting physical activity and motivation with the Precious app: Usage findings from factorial n-of-1 RCTs

J. Nurmi<sup>1,2</sup>, K. Knittle<sup>1</sup>, F. Naughton<sup>3</sup>, S. Sutton<sup>2</sup>, A. Haukkala<sup>1</sup>

<sup>1</sup>University of Helsinki, Finland

<sup>2</sup>University of Cambridge, United Kingdom

<sup>3</sup>University of East Anglia, United Kingdom

**Background:** The Precious app targets adults whose low physical activity may compromise their health by offering biofeedback and digitalised features from Motivational interviewing (MI) to increase their motivation for physical activity.

**Methods:** 15 healthy adults downloaded the Precious app to their phones and wore an activity bracelet (MiFit) during the 6-week factorial n-of-1 RCT (600 observation days). During treatment periods, a push notification alerted participants of new intervention content: both Firstbeat biofeedback measurements and MI content were suggested seven times. Using multilevel modelling (Level 1: Daily observations, Level 2: Participants), we analysed whether (1) days when interventions were available and (2) days when interventions were used, predicted higher motivation or daily steps.

**Findings:** Participants kept using Precious features throughout the trial. Biofeedback measurements were conducted on average 6.18 times (min 3 max 11 ). Some participants conducted biofeedback measurements also during control days. Participants engaged with MI features on average 5.0 times (min 3 max 7), mainly on the first of the two days the new features were available. We will present whether interventions led to increases in motivation or steps on the same or the following day.

**Discussion:** Usage patterns within the trials were broadly in line with expectations but use of biofeedback tools was not fully consistent with the intervention protocol. Analysis of n-of-1 trial data should account for anomalous intervention engagement. One-day availability of new MI content seems sufficient to reach users, and offering one-day interventions may speed up testing specific digital features within individuals

15:30 - 17:00

## Physical activity-related predictors of maladaptive eating behaviours: a preliminary experimental study using eHealth technology

A. Brytek-Matera<sup>1</sup>, K. Czepczor-Bernat<sup>1</sup>, A. Modrzejewska<sup>1</sup>

<sup>1</sup>SWPS University of Social Sciences and Humanities, Poland

**Background:** It has been suggested that physical activity has an influence on psychological functioning in which individuals are more likely to have cognitive and emotional resources available to regulate eating behaviours. The objective of the present study was to examine whether physical activity-related behaviours (sedentary behaviour, low physical activity, number of calories burned during physical activities) predicted maladaptive eating behaviours (restrictive eating, emotional eating, uncontrolled eating, snacking) in young adults.

**Methods:** A total of 35 participants were asked to wear an ActiGraph wGT3X-BT accelerometer at their waist for 24 h/day for 7 consecutive days. After 7 days they completed the Three-Factor Eating Questionnaire-R18 and personal health information using an online platform.

**Findings:** Our results have showed that sedentary behaviours ( $\beta = -0,37$ ;  $p = 0,03$ ), low-intensity physical activity ( $\beta = 0,35$ ;  $p = 0,04$ ) and number of calories burned during physical activities ( $\beta = 0,38$ ;  $p = 0,02$ ) predicted emotional eating. In addition, amount of calories was significant predictor of uncontrolled eating ( $\beta = 0,47$ ;  $p = 0,005$ ) and snacking ( $\beta = 0,39$ ;  $p = 0,02$ ). Other relationships between physical activity-related behaviours and maladaptive eating behaviours turned out to be insignificant.

**Discussion:** Our findings broaden the current knowledge about the physical activity-related behaviours and its impact on maladaptive eating behaviours in young adults. Based on the previous research, future health interventions promoting health-related physical activity and emotion regulation could have a positive impact on reducing overeating in response to negative emotions.

15:30 - 17:00

## Why do people who want to lose weight stop weighing themselves: an observational analysis

K. Frie<sup>1</sup>, J. Hartmann-Boyce<sup>1</sup>, S. Jebb<sup>1</sup>, J. Oke<sup>1</sup>, P. Aveyard<sup>1</sup>

<sup>1</sup>University of Oxford, United Kingdom

**Background:** Self-monitoring of weight is a common feature of weight management interventions. As adherence to self-monitoring is a key factor for its success, this study investigated why people stop monitoring their weight.

**Methods:** We analysed weight and physical activity data from 1605 Withings HealthMate app users, who had set themselves a weight loss goal and stopped tracking their weight for at least 6 weeks after 16 weeks of continuous tracking. Mixed effects models compared weight change, average daily steps, and physical activity tracking frequency between a 4-week time period of continuous tracking (TP1) and a 4-week time period preceding the 6-week long stop in weight tracking (TP2). Additional mixed effects models investigated subsequent changes in physical activity during 4 weeks of the 6-week long stop in weight tracking (TP3).

**Findings:** People generally lost weight during TP1 (M=-0.47kg, SD=1.73) but gained weight at TP2 (M=0.25kg, SD=1.62; difference =0.71kg, CI=0.60,0.81). Both average daily steps ( $\beta$ =-220 daily steps/TP, CI=-320,-120) and physical activity tracking frequency ( $\beta$ =-3.4 days/TP, CI=-3.8,-3.1) significantly declined from TP1 to TP2. From TP2 to TP3, physical activity tracking further decreased in frequency ( $\beta$ =-6.6 days/TP,  $p$ <0.001), while daily step count increased ( $\beta$ =112 daily steps/TP,  $p$ <0.001).

**Discussion:** In the weeks before people stop tracking their weight, their physical activity and physical activity tracking frequency decline. At the same time, weight increases, suggesting that declining motivation for weight control might explain why people stop tracking their weight. The increase in daily steps during TP3 might result from selective measurement of more active days.

15:30 - 17:00

## On the dimensional structure of digital engagement: Psychometric evaluation of the 'DBCI Engagement Scale'

O. Perski<sup>1</sup>, J. Lumsden<sup>2</sup>, C. Garnett<sup>1</sup>, A. Blandford<sup>1</sup>, R. West<sup>1</sup>, S. Michie<sup>1</sup>

<sup>1</sup>University College London, United Kingdom

<sup>2</sup>University of Bristol, United Kingdom

**Background:** Engagement with digital behaviour change interventions (DBCIs) is a potentially important mediator of effectiveness; however, validated measures of engagement are lacking. We aimed to evaluate the 'DBCI Engagement Scale', which was systematically developed to capture the behavioural and experiential dimensions of digital engagement.

**Methods:** Participants, recruited via an online research platform, were adult, excessive drinkers residing in the United Kingdom who were willing to download the Drink Less app and complete the scale immediately after their first login in exchange for a financial reward. Five types of validity (i.e. construct, criterion, predictive, incremental, divergent) were examined in Exploratory Factor Analyses (EFAs), correlational analyses, and regression analyses. Cronbach's  $\alpha$  was calculated to assess the scale's internal reliability. Covariates included motivation to reduce alcohol consumption.

**Findings:** Of 266 eligible participants, 147 (55%) completed the scale. Six items were retained. A two-factor solution, with the experiential indicators loading onto factor 1 ('Experiential Engagement') and the behavioural indicators loading onto factor 2 ('Behavioural Engagement'), provided the best fit in EFAs. The scale showed moderate internal reliability ( $\alpha = .67$ ), but low divergent and criterion validity. Total scale scores predicted future behavioural engagement in both unadjusted and adjusted models (OR<sub>adj</sub> = 1.14, 95% CI = 1.03-1.27,  $p = .01$ ).

**Discussion:** Experiential and behavioural indicators of engagement with DBCIs may constitute two separate dimensions. Total scale scores predicted future behavioural engagement, which remained significant when adjusting for baseline motivation to reduce alcohol. These findings merit replication in a larger sample and across different DBCIs.

## Posters

# Implementation & health services research: Innovative approaches

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Anne Marie Plass

15:30 - 17:00

## Selecting components for a novel hospital deprescribing intervention: A modified nominal group technique

S. Scott<sup>1</sup>, A. Clark<sup>1</sup>, C. Farrow<sup>2</sup>, H. May<sup>2</sup>, M. Patel<sup>2</sup>, D. Wright<sup>1</sup>, D. Bhattacharya<sup>1</sup>

<sup>1</sup>University of East Anglia, United Kingdom

<sup>2</sup>Norfolk and Norwich University Hospitals NHS Foundation Trust, United Kingdom

**Background:** Deprescribing inappropriate medication for older people is not routine practice in hospital. Theoretical determinants of geriatricians' and hospital pharmacists' deprescribing behaviours have been established and linked to 28 evidence-based behaviour change techniques (BCTs) including vicarious reinforcement and covert conditioning. This consensus study aims to prioritise these BCTs and characterise their modes of delivery for inclusion in a hospital deprescribing intervention.

**Methods:** A panel of 12 geriatricians and pharmacists will be recruited into a modified nominal group technique to prioritise BCTs for inclusion. We will use an online survey for participants to appraise the 28 BCTs according to the APEASE criteria of affordability, practicability, effectiveness, acceptability, safety and equity. A face-to-face nominal group technique session will follow to 1) reach consensus on retained BCTs where disagreement arose from the online survey and 2) characterise modes of delivery for BCTs selected for inclusion in the novel deprescribing intervention.

**Expected results:** The evidence-based BCTs for inclusion in a novel hospital deprescribing intervention that are tailored geriatricians' and pharmacists' behaviours in the hospital context will be identified. Additionally, the preferred modes of delivery for these BCTs will be characterised.

**Current stage of work:** Geriatricians and pharmacists have consented to participate and online survey completion is under way. The face-to-face nominal group technique session is scheduled for March 2019.

**Discussion:** The selected BCTs and their associated modes of delivery will provide an evidence-base for supporting routine deprescribing in hospital. The dose, frequency and intensity of agreed BCTs will require modelling prior to feasibility testing.

15:30 - 17:00

## Ethical issues associated with medical biotechnologies: the case of xenograft.

C. Fraux<sup>1</sup>, M.T. Munoz Sastre<sup>1</sup>

<sup>1</sup>CERPPS, Université de Toulouse, France

**Background:** Organ shortage has always been a prominent public health issue. New DNA modifications techniques have been developed (e.i. CRISP-Cas9). As a result, xenotransplantation has increasingly become a feasible alternative. This technique raises moral and ethical issues. The aim of this study was to map French people's views regarding animal organ transplant to human patient.

**Method:** Attitude toward xenotransplantation has assessed using a scenarios design combining three factors: (a) urgency of surgery, (b) type of organ transplant (e.g., pig or baboon organ and tissue), and (c) consent of recipient's family. Additional factors were also considered such as the duration of the transplant (final or transient). We expected to recruit 250 participants from the general population. Cluster analysis and ANOVAS will be performed.

**Expected results:** We expect that a plurality of participants would be favorable to xenotransplantation, irrespective of circumstances. Some participants' attitude would, nevertheless, depend on circumstances. For example, the acceptability of the procedure would possibly differ whether transplant is final or transient.

**Current stage of work:** Currently we have started the process of recruitment. We are going to create an information note about the xenograft and its possible implications to include a before-session for half of our participants.

**Discussion:** This study could contribute to understand people's views concerning experimental xenotransplantation and if they consider it as a feasible alternative to human-to-human organ transplant. Beyond medical and ethical aspects, this present study could highlight psychological consequences (e.g. identity, relations with relatives, quality of life), that cannot set aside.

15:30 - 17:00

## Disseminating, Engaging, and Sharing Knowledge (DESK): patient informed resource for understanding our research.

B. O'Grady<sup>1,2</sup>, M. Hanlon<sup>1,2</sup>, L. O'Connor<sup>1,2</sup>, S. Haugh<sup>1,2</sup>, J. Flynn<sup>1,2</sup>, B. McGuire<sup>1,2</sup>

<sup>1</sup>National University of Ireland Galway, Ireland

<sup>2</sup>Centre for Pain Research, Ireland

**Background:** The aim of this project is to determine how to effectively disseminate findings from research conducted in the Centre for Pain Research (CPR) to patients and service users. Sharing research findings with the general public is very important but can be difficult to get right; we want to explore what people will actually find useful and engaging.

**Methods:** Participants (patients, carers, health researchers) will be recruited to take part in a workshop which will be informed by principles of patient and public involvement and use Collective Intelligence (CI) research Methods: This format will enable the group to combine knowledge, share insights, and generate possible solutions to how research findings could be shared with the general public and in what format. For example, would participants prefer copies of published papers, lay summaries, posters, videos with case stories or animations? How much detail do they want?

**Expected results:** A multi-format digital media resource on how best to disseminate research findings to health service users, research participants and members of the public will be created based on perspectives shared in the workshop. Participants will be invited to remain involved throughout the resource development, design and feedback stages.

**Current stage of work:** Recruitment phase.

**Discussion:** There is an increasing emphasis on involving patients, participants and the general public in all stages of research. It is anticipated that this resource could become an effective and straightforward template on how best to share knowledge/findings for both the CPR team and other health researchers.

15:30 - 17:00

## Building capacity from within – upskilling healthcare professionals to lead an evidence-based implementation approach

A. Morrow<sup>1</sup>, E. Hogden<sup>1</sup>, G. Tiernan<sup>1</sup>, N. Taylor<sup>1</sup>

<sup>1</sup>Cancer Council NSW, Australia

Translating evidence into complex health systems is an ongoing challenge. Whilst theories and frameworks can help to optimise intervention design and implementation, hospital-based implementation trials are often led by external researchers who, despite expertise in implementation science, lack the necessary understanding of the inner workings of the system – e.g. policies, procedures, networks, politics. Partnerships with behavioural scientists to upskill healthcare professionals (HCPs) to lead evidence-based implementation approaches may be more sustainable for effective translation.

The Hide and Seek Project (HaSP) is a cluster randomised controlled trial testing two implementation approaches – distinguished only by the use of theory for barrier identification (Theoretical Domains Framework) and intervention design (Behaviour Change Techniques) – for improving hereditary cancer referral at eight Australian hospitals. Eight HCPs were recruited from participating hospitals as ‘Implementation Leads’ and trained in one of the two implementation approaches via a one-day workshop. Delivered through interactive lectures, scenario-based learning and small-group activities, contents included: implementation science overview, leadership qualities, forming implementation teams, identifying target behaviours, identifying barriers, and designing interventions. Ongoing support will be provided through pre-phase teleconferences to prepare site-specific action plans.

Post-evaluation data indicated that 100% of trainees felt more prepared for their role and 88% found the workshop ‘very useful’. Semi-structured interviews are underway to gain a detailed understanding of workshop experiences and anticipated challenges.

Whilst maximising the potential for HaSP trial success, this training has the potential for a prolonged impact within the health system, with HCPs gaining knowledge and skills transferrable to other clinical contexts.

15:30 - 17:00

## Comparing theory and non-theory based approaches to improving referral practices: a cluster randomised trial protocol

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<sup>5</sup>Cancer Diagnosis and Pathology Group, Kolling Institute of Medical Research, Royal North Shore Hospital St Leonards, NSW, Australia

<sup>6</sup>Genetic Services of Western Australia, King Edward Memorial Hospital, Australia

<sup>7</sup>Macquarie University, Australia

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<sup>9</sup>The Royal Melbourne Hospital, Australia

<sup>10</sup>Prince of Wales Hospital, NSW, Australia

**Background:** Lynch syndrome (LS) is an inherited cancer predisposition syndrome associated with increased risks of cancer. Identifying individuals with LS can reduce cancer incidence and improve survival. However, LS is underdiagnosed and genetic referral rates are poor. This study aims to compare the effectiveness of theory and non-theory based implementation approaches to improving referral practices for detection of LS amongst Australian colorectal cancer (CRC) patients.

**Methods:** A two-arm parallel cluster randomised trial design is being used to compare two identical, structured implementation approaches, distinguished only by the use of theory (Theoretical Domains Framework) to identify barriers and design targeted intervention strategies (using behaviour change techniques). Healthcare professionals (Implementation Leads) have been trained to lead the following site-based phases: 1) baseline audits, 2) form multidisciplinary 'Implementation Teams', 3) identify target behaviours for change, 4) identify barriers, 5) generate intervention strategies, 6) implement interventions, and 7) evaluate. The theoretical and non-theoretical components of each trial arm are distinguished in phases 4-5.

**Expected results:** Study outcomes include a LS referral process map for each site, a suite of evidence-based interventions, and evaluation of the proportion of patients with risk-appropriate completion of the LS referral pathway.

**Current stage:** Implementation Leads have been recruited and trained. Baseline data scoping is currently underway.

**Discussion:** This trial will determine the more effective approach for improving the detection of LS amongst CRC patients, whilst also advancing understanding of the impact of theory-based implementation approaches in complex health systems and the feasibility of training healthcare professionals to use it.

15:30 - 17:00

## Legal and social aspects of the Polish geriatric care system

K. Ruzyczka<sup>1</sup>

<sup>1</sup>Jagiellonian University, Poland

Polish society belongs to aging countries, which causes the Polish government to be faced with the need to develop new legal regulations and social programs concerning comprehensive health care for the elderly.

The aim of the study was to analyze legal acts and actions undertaken by the Polish Government on legal and social issues regarding health care of seniors in 2016-17, as two consecutive years after the National Health Programs (2007-2015).

The basis of the research will be a review of legal acts regarding the protection and provision of rights for seniors in the field of health care, as well as an analysis of existing sources such as statistics, government reports as well as publications posted on the website of the Ombudsman and the Polish Central Statistical Office on this issue.

Despite the provisions on equality, prohibition of discrimination and health care regulations in Polish law, the issue of geriatric care and treatment still needs to be refined and implemented in systemic changes, guaranteeing a wider range of services and ensuring well-being to the elderly. The presented research results will be an analysis of legal and social actions taken in Poland to improve geriatric care, taking into account the expectations of elderly people, their families and a significant part of the population - future seniors.

## Posters

# Innovative methods and tools in occupational health psychology

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Beata Basinska

15:30 - 17:00

## Polish adaptation of the Copenhagen Psychosocial Questionnaire II (COPSOQ II)

K. Orlak<sup>1</sup>, D. Gołuch<sup>2</sup>, M. Stolarski<sup>1</sup>

<sup>1</sup>Zoom in on Posts: An Association for Occupational Health [Stowarzyszenie Zdrowa Praca], Poland

<sup>2</sup>Cardinal Stefan Wyszyński University in Warsaw [UKSW], Poland

**Background:** Copenhagen Psychosocial Questionnaire (COPSOQ) is identified to be appropriate to assess psychosocial hazards at work and is recommended in WHO publications. However the tool was never fully adopted in Poland. Purpose of the paper is to present psychometric characteristics of COPSOQ II in Polish.

**Material and Methods:** Validation study of long (128-item) COPSOQ II was conducted on stratified sample of the Polish Prison Service staff (N=380). Reliability was tested with Cronbach's  $\alpha$ . Validity was verified through factor analysis as well as analysis of correlations with four other relevant measures for psychosocial hazards assessment. All of them were previously widely applied in Poland by many researchers and approved to study psychosocial environment at work, health and well-being in Polish employees.

**Results:** Polish version of COPSOQ II is composed of 42 scales. More scales than in the original version results from reliability analysis. As the original "Variation" scale was the only with unsatisfactory Cronbach's  $\alpha$  so it was divided into two separate measures: "Work Repetitiveness" and "Work Variety". Seven factors were identified and labelled as: "Demands at Work", "Organizational Relations", "Physical Violence", "Psychological Violence", "Health and Well-being", "Work Commitment and Development Perspectives", "Relations in Team". All associations were in the expected direction.

**Conclusions:** Long COPSOQ II PL may be considered as a proper tool to study psychosocial hazards at work in Poland. However, further tests on work environments other than Prison Service are recommended.

15:30 - 17:00

## Associations between choice overload and psychological well-being (WHO-5) - A study on work stress

S. Zeike<sup>1</sup>, K. Choi<sup>1</sup>, L. Lindert<sup>1</sup>, H. Pfaff<sup>1</sup>

<sup>1</sup>University of Cologne, Germany

**Background:** The shift towards the information and technology age has brought a growth of options and opportunities for choice. Choice overload can occur, when a person can't adequately handle the quantity and/or quality of options. Especially for managers, who must frequently deal with rapid changes and complex decisions, this may be the case. We assume that excessive options and complex choices may be perceived as a burden and may negatively influence managers' well-being. Our hypothesis goes along with the choice overload hypothesis, which states that too much choice causes adverse consequences.

**Methods:** We developed three items, assessing main aspects of choice overload: 'burden of leadership decision', 'agony of choice' and 'complexity of decisions'. We conducted an online-survey with a sample of 368 upper-level managers from a German IT-company. To assess statistical differences between the group of managers with low and high well-being, chi-square and t-tests were conducted. A multivariate logistic regression analysis was performed to examine the relationship between well-being and choice overload.

**Findings:** The average of perceived choice overload among all participants was medium to high. Regression analyses showed that a higher degree of perceived 'agony of choice' and 'complexity of decisions' was significantly associated with low psychological well-being ( $p < 0.05$ ,  $OR = 1.401$ ;  $p < 0.01$ ,  $OR = 1.844$ ).

**Discussion:** So far, investigations of choice overload in managers are rare and relatively little is known about the psychological well-being among managers as well as the association between well-being and the perceived stress in having a lot of options and choices to make.

15:30 - 17:00

## Stress and Wellbeing in the Farming Community

E. Carswell<sup>1</sup>, T. Cassidy<sup>1</sup>

<sup>1</sup>Ulster University, United Kingdom

**Objectives:** The present study investigated experiences of stress, loneliness, mental health and wellbeing, help seeking, coping and support in the farming community.

**Design:** A survey using questionnaire data collection was used.

**Methods:** Members of the farming community completed questionnaire measures of stress, loneliness, mental health and wellbeing, help seeking, coping and support.

**Results:** Analysis of the 274 responses (199 males and 75 females) showed that compared to normative data participants scored significantly higher on measures of loneliness, depressed and anxious affect, and lower on wellbeing, and sense of community. Loneliness correlated inversely with sense of community and wellbeing and directly with depressed and anxious affect. Males exhibited higher levels of stress, depressed affect, and loneliness, and used more avoidance coping. Females reported more support from family, more emotion-focused coping and higher levels of wellbeing. Overall 46% indicated that they would not seek help for emotional problems but with a significant sex difference. For males, this was 73% while only 27% of females said they would not seek help.

**Conclusion:** The farming community are experiencing high levels of stress and distress. This seems to be related to loneliness and reduced sense of community. Of significant practical concern is the high level who would not seek help, particularly among males.

15:30 - 17:00

## Digital competence of upper-level managers and associations with psychological well-being

S. Zeike<sup>1</sup>, L. Lindert<sup>2</sup>, H. Pfaff<sup>2</sup>

<sup>1</sup>University Hospital Cologne, Germany

<sup>2</sup>University of Cologne, Germany

**Background:** Due to increasing digitisation today's working world is changing at a rapid pace and provides managers with new challenges. Digital competence is one important factor in managing these challenges and has become a key concept in the discussion of what kind of skills managers need in a changing world. The main research questions of the present study were: Has digital competence an impact on psychological well-being in upper-level managers? Is the effect moderated by age or gender?

**Methods:** Based on a qualitative pre-study and relevant literature we developed a new scale for digital competence in upper-level managers. The scale consists of six items with an internal consistency of  $\alpha = 0.87$  for the present study. We conducted an online-survey with a sample of 368 upper level managers from a German IT-company. Using a stepwise logistic regression analysis, we analysed potential effects of digital competence on psychological well-being (WHO-5).

**Findings:** The average of perceived digital competence among all upper-level managers was medium to high ( $M=2.94$ ;  $SD=0.63$ ). Logistic regression analyses showed that a higher degree of digital competence was significantly associated with higher psychological well-being ( $p<0.001$ ,  $OR=2.954$ ,  $CI: 1.829-4.773$ ). Results have also shown that gender and age have no effect on managers' well-being. There was no moderating effect found for gender and age.

**Discussion:** The study provides a valuable insight into the association between digital competence and psychological well-being in managers. The study can be used to derive practical implications to help managers improve their digital competence.

15:30 - 17:00

## Predictors of mental health and cognitive functions in older Croatian workers

A. Koščec Bjelajac<sup>1</sup>, J. Bobić<sup>1</sup>, J. Kovačić<sup>1</sup>, V.M. Varnai<sup>1</sup>, J. Macan<sup>1</sup>, Š. Smolić<sup>2</sup>

<sup>1</sup>Institute for Medical Research and Occupational Health, Croatia

<sup>2</sup>Faculty of Economics and Business, University of Zagreb, Croatia

Although national policies aim at keeping workers in active work force longer, older workers are often being excluded from labour force during restructuring processes. They are at higher risk for long-term unemployment, which poses multiple challenges for their physical, mental and social health. The aim of our study was to examine some aspects of mental health and cognitive functions in older Croatian workers taking into account their gender, self-reported health, level of education, employment status, cohabitation status and place of residence. From the Wave 6 of the Survey of Health, Ageing and Retirement in Europe (SHARE) we analysed data of 776 older Croatian workers aged 50-65 years, 57% women, 59% employed. The results showed that symptoms of loneliness were more often reported by the unemployed, by younger respondents in the sample, those living without a partner, those rating their health as poorer and those reporting at least one chronic illness. More depressive symptoms and poorer numerical skills were found in unemployed participants residing in rural areas. Depressive symptoms were more pronounced in females and in those rating their health as poorer, irrespective of place of residence. In urban subsample additional risk factors for more pronounced depressiveness were higher education level and living without a partner while in rural subsample those were unemployment and presence of chronic illness. To conclude, being an unemployed older worker in Croatia, especially in rural areas, significantly contributes to impairments in some aspects of mental health and cognitive functioning.

## Posters

# Provider communication and beliefs

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Abby Hunter

15:30 - 17:00

## Electronic cigarettes in pregnancy: A qualitative study exploring healthcare professionals' beliefs, attitudes, knowledge and behaviour.

A. Hunter<sup>1</sup>, C. Notley<sup>2</sup>, M. Ussher<sup>3</sup>, A. Bobak<sup>4</sup>, R. Murray<sup>1</sup>, S. Cooper<sup>1</sup>

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<sup>4</sup>Wandsworth Medical Centre, United Kingdom

**Background:** Finding effective ways to help pregnant women quit smoking and remain abstinent is a public health priority. Electronic cigarettes (EC) could be a suitable cessation tool in pregnancy for those who struggle to quit cigarettes, but it is essential that healthcare professionals (HCP) are sufficiently informed about these devices and have adequate training to offer advice. The COM-B model of behaviour change, along with the Theoretical Domains Framework provides a theoretical framework to support data collection and analysis to conceptualise the factors which explain or determine HCP attitudes and behaviours towards EC in pregnancy.

**Methods:** Interviews have been conducted with 55 midwives, GPs, health visitors, and stop smoking advisors across the UK. Recruitment was via our participant database, by contacting heads of medicine, midwifery and local stop smoking services, through social media, and utilising a snowballing technique.

**Findings:** Interviews are being analysed thematically using the 'Framework' approach. There was wide variability in opinions on EC in pregnancy, with some HCP actively encouraging EC use, and others actively discouraging them. Uncertainty was a key theme, as many HCP had a lack of knowledge of the devices and current guidelines, and did not feel confident advising patients about EC. Ongoing analysis will continue to explore themes, with data analysis complete by August.

**Discussion:** The findings will provide an understanding of HCPs attitudes and knowledge towards EC use in pregnancy, to help us understand the current context, what level of training is received and when training in smoking cessation is best offered.

15:30 - 17:00

## Provider Communication and Transition Readiness Among Adolescents with Type 1 Diabetes in a U.S. Setting

C. Ahrabi-Nejad<sup>1</sup>, E. Manegold<sup>1</sup>, B. Ely<sup>2</sup>, E. Jones<sup>2</sup>, C. Duncan<sup>1</sup>

<sup>1</sup>West Virginia University, United States

<sup>2</sup>West Virginia University School of Medicine, United States

**Introduction:** During adolescence, patients with type 1 diabetes (T1D) prepare for transition from pediatric to adult care. Transition can be uncoordinated, but effective provider-patient communication can foster transition readiness. Little research has investigated this possibility. Our study aim is to explore the relation between perceived provider communication and transition readiness among adolescents with T1D.

**Methods:** Sixty adolescents (ages 13-17; 56% males) and their caregiver (80% mothers) were recruited from endocrinology clinic appointments and independently completed the Mind the Gap (adolescent/caregiver perception of provider communication) and the Transition Readiness Assessment Questionnaire. Mediation and moderation analysis were run to analyze how glycemic control impacts patient-provider communication and transition readiness.

**Results:** Correlations between MTG and TRAQ scores were not significant ( $p > .05$ ) for adolescents ( $r = -.10$ ) or caregivers ( $r = -.01$ ), but MTG scores had a ceiling effect for both informants. Adolescents' and caregivers' perception of provider communication was not significantly correlated ( $r = .15$ ), suggesting they may have unique perspectives. The relation between parent reported patient-provider communication and glycemic control was significant,  $\Delta R^2 = 0.089$ ,  $F(1, 46) = 4.51$ ,  $p = 0.04$ , indicating that better communication was associated with better glycemic control.

**Conclusions:** Study results suggest that provider communication is not significantly associated with transition readiness among adolescents with T1D; however, our findings appear limited by the communication measure we used and data collection from one set of providers. Future research should consider recruiting from additional sites and using alternative methods of assessment, such as interactional coding, to better understand the relation between provider communication and transition readiness.

15:30 - 17:00

## Challenges encountered by sub-Saharan African migrants and health providers during HIV-related medical consultations in Australia

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**Background:** Despite significant advances in HIV prevention and treatment, sub-Saharan African (SSA) migrants experience higher rates of new HIV notifications and late diagnoses, with implications for onward transmission and poorer health outcomes. To address these disparities further research is required to understand barriers and facilitators to develop more effective, culturally-responsive approaches to HIV testing discussions during primary care medical consultations.

**Method:** Purposive and snowball sampling was utilized to recruit participants (N=24; health providers-doctors and nurses n=8; SSA community members n=9; bi-lingual cultural health workers n=7); in partnership with health clinics (focused on migrant health) and cultural support organisations. Qualitative semi-structured interviews conducted by experienced researchers/clinicians, and trained bi-lingual health workers (for community member interviews), assessed knowledge/attitudes/practices, individual/social/structural factors and future recommendations regarding HIV testing and prevention. Thematic analysis (Braun & Clarke, 2006) was used to identify themes regarding challenges during medical consultations. **Findings:** Three key themes (with sub-themes) were identified: 1) Relationship with health providers (e.g., trust, respect, power); 2) Complexities and limitations with translation (e.g., confidentiality, logistics, dual relationships); and 3) Factors impacting on HIV testing (e.g., fear, stigma, risk perceptions, health literacy). **Discussion:** These findings highlight a range of complex individual differences and tensions that cross cultural, religious, gender, age and acculturation among community members. Health providers engaged with SSA communities indicate a willingness to support their patients and express constraints within the medical system. Bi-lingual cultural health workers can help bridge these gaps in developing innovative, culturally-responsive and individually tailored support to promote HIV testing as appropriate.

15:30 - 17:00

## Nurses' knowledge, experience and attitudes regarding Alternative and Augmentative Communication (AAC) in hospital

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<sup>2</sup>Clinical Hospital Dubrava, Croatia

**Background:** Alternative and augmentative communication (AAC) methods and aids improve quality of patient care and their satisfaction. The objective of the study was to explore nurses' communication with patients with complex communication needs and their knowledge and attitudes about AAC.

**Methods:** Subjects were 121 nurses from one of the largest Croatian hospitals. Survey questionnaire consisted of 18 questions about the subjects' experience with patients with communication difficulties, their knowledge, experience and education about AAC. Attitudes regarding the implementation of communication boards in hospital were assessed with 17 semantic differential type scales.

**Findings:** Majority of the respondents are vaguely or not at all acquainted with the meaning of AAC. Majority of them had no education about AAC. Over 50% of the respondents were in regular contact with patients whose communication was disrupted due to stroke, cognitive and sensory impairment, degenerative diseases, medication, severe pain or because they don't speak Croatian. Majority of the respondents use simple AAC methods for communication about patient basic needs and only 16% use AAC for therapeutic communication. Lack of education and resources /aids are perceived as major barriers. The respondents have positive attitudes about possible introduction of communication boards or cards into their practice. Older subjects and those with more year of experience have more positive attitudes. **Discussion:** Results indicate that nurses have poor knowledge, little experience, positive attitudes and great need for education about AAC. Education about AAC should be included in health communication curriculum at all levels of nursing education .

15:30 - 17:00

## Understanding health workers' experiences of an Ebola outbreak and attitudes to infection-prevention-control in Sierra Leone

J. Hart<sup>1</sup>, L. Byrne-Davis<sup>1</sup>, R. Thompson.<sup>2</sup>, M. Kallon-Mansaray<sup>3</sup>, T. Gale<sup>4</sup>

<sup>1</sup>University of Manchester, United Kingdom

<sup>2</sup>Wexham Park Hospital, United Kingdom

<sup>3</sup>Masanga Hospital, Sierra Leone

<sup>4</sup>Plymouth University Medical and Dental School,, United Kingdom

**Background:** The 2014-16 West Africa Ebola outbreak was an unprecedented public health challenge. Fragile health systems contributed to the scale of the epidemic and lack of adequate training in infection prevention control (IPC) was a key issue. In Tonkilili, 14,124 cases were reported and 3,590 lives lost. A team from Plymouth University developed distributed simulation for immersive training for healthcare workers using tablet devices.

Following training, we wanted to understand more about the healthcare workers experiences of the outbreak and attitudes towards IPC.

**Methods:** We conducted 7 focus groups in English/Krio with 31 healthcare workers in Tonkilili, 6 months after training. We carried out inductive thematic analysis and deductive framework analysis (based on COM-B).

**Findings:** There were four inductive themes: 1)Knowledge is power –and we have knowledge; 2)Mortal men are hard to control –strong clinical leaders can influence whole communities, 3)Agonising decisions –Ebola risk wanes, other priorities threaten IPC, 4)Now Ebola is over –challenge of maintaining behaviours in resource-poor healthcare system. The framework analysis showed distinct phases of the outbreak with differing levels of COM: A.The outbreak begins – confusion; B.Uncontrolled spread – mistrust and anger C.Epidemic controlled –behaviour changes and D.Post-outbreak phase – resilience or complacency?

**Discussion:** Healthcare workers were confident of their ability to resist further outbreaks because of their new knowledge/skills. They described complex decision making in prioritising preventive behaviours – balancing cultural acceptability with perceived risk of disease. Changes in COM over the timeline can enhance understanding of the experience and potentially contribute to future interventions.

15:30 - 17:00

## Emotional related skills for Applied Theatre Practitioners performing in Health Care context: A qualitative approach.

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<sup>2</sup>Newman University, Faculty of Arts, Society and Professional Studies, Birmingham, United Kingdom

There is emerging evidence of the contribution of Applied Theatre Practice (ATP) to positive patient outcomes and patient centred care in Health Care context (HC). Drawing from a published qualitative study that explored the competencies of ATPs in HC context, this presentation goes further and deeper to describe the emotional related skills for ATP professional training and practice within HC settings.

An exploratory qualitative approach was applied, using thematic analysis to secondary data. Five ATPs and five trainees with an experience of either performing or observing theatrical interventions in HC settings were recruited via purposive convenience sampling. In-depth, semi-structured interviews were conducted.

Social awareness: aware of the HC environment and the situational factors that may impact the performance. Adaptability: flexible to the unexpected and adaptive to new situations. Emotional awareness: identify emotions in the self and others and respond appropriately. Emotional regulation: control own emotions before, during and after performance. Empathy: demonstrating the understanding of others. Normalising the hospital experience: entertain through participation in interactive performance and assist relaxation (breathing techniques). Team-working: building professional relationships and effective communication in HC environment.

The findings highlight the need for professional training system to equip trainees to perform in challenging HC environment. Role-play, experiential learning and reflective practice seem beneficial to prepare trainees. Moreover, tailored support system such as peer support, mentorship, supervision and debriefing to assist ATPs is needed. The potential of Emotional Intelligence in facilitating ATP individual resilience to stress, professional training and practice in HC is proposed.

## Posters

# Challenges, adversity and resilience

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Gerjo Kok

15:30 - 17:00

## Challenges of health promotion at community health centers

Y.A. Sokang<sup>1,2</sup>, A. Westmaas<sup>1,3</sup>, G. Kok<sup>1</sup>

<sup>1</sup>Maastricht University, Netherlands

<sup>2</sup>Krida Wacana Christian University, Indonesia

<sup>3</sup>University of Applied Sciences Leiden, Netherlands

**Background:** Many approaches are recommended to promote health in community. In Indonesia, public seminar is the commonly used approach, and conducted by the Community Health Center (CHC). As yet, CHC encounter critics on how they conduct the health promotion. This study took CHC medical staff's perspective to explore the challenges and obstacles on conducting health promotion in Jakarta.

**Methods:** Data was collected using four focus group discussions with 46 CHC medical staffs. These staff members were general practitioner interns who did their internship at several CHCs. Thus, allowing us to compare different health promotion programs between CHCs in Jakarta. The FGDs were analyzed using a thematic analysis, which combined human coding and NVIVO-12.

**Findings:** Medical staffs were unsatisfied with the health promotions that have been done. They complained about the lack of health-personnel to go to the community which made it difficult to provide proper health promotion to the public. The medical staffs realized that the public seminar topics were too broad, and targeting the unsuitable groups of the community. It might be the reason why the community tended to do self- and traditional treatments before visiting CHC.

**Discussion:** The study suggests that the Indonesian government and decision makers should consider recruiting more health-personnel at the CHC level, including psychologists to actively involve in the community. Another suggestion is that to involve traditional treatment in modern treatment, to maintain cultural values while improving the community's health.

15:30 - 17:00

## Evaluation of health promotion at community healthcare centers in Indonesia: a long way to go

Y.A. Sokang<sup>1,2</sup>, A. Westmaas<sup>1,3</sup>, G. Kok<sup>1</sup>

<sup>1</sup>Maastricht University, Netherlands

<sup>2</sup>Krida Wacana Christian University, Indonesia

<sup>3</sup>University of Applied Sciences Leiden, Netherlands

**Background:** Health promotion is a complex issue in a multicultural city such as Jakarta. Currently, the Community Health Center (CHC) is the institution responsible for health promotion. Yet, despite their efforts, Jakartans' health level remained low. This unsuccessful effort might be due to their limited information on the values of the community. We explore values that are considered important by the community in health, health facilities, and health promotion contexts in hopes to discover interventions that is effective for health promotion in Jakarta.

**Methods:** We used focused-group discussions using thematic analysis to understand the community's perspectives and health-related culture. Additionally, we will conduct a systematic literature review to examine the best-practice intervention that has been carried out in other cities. Later, we will conduct a quantitative survey study to measure the needs on the suggested interventions from the systematic literature review.

**Expected results:** To find intervention options for supporting health promotion in Jakarta.

**Current stage of work:** The third out of five studies, which explores the CHC medical staff's challenges and obstacles on conducting health promotion in Jakarta.

**Discussion:** We found a discrepancy between the CHC's health promotion approach and the values of the community. CHC's approach focus on physical health, while the community also considered other aspects of health, including psychological and religious ones. As a result, people choose self- and traditional treatments before visiting the CHC. Subsequent studies will be carried out to bridge this gap, as an effort to improve the efficiency of health promotion in Jakarta.

15:30 - 17:00

## Effects of resilience and cross-cultural understanding in parents living abroad on their parenting attitudes

H. Hirata<sup>1</sup>

<sup>1</sup>Kagawa Nutrition University, Japan

Japanese people living abroad for business are increasing in contemporary society where global competition and involvement are advancing. The number of school-aged children living abroad is also increasing.

This study examined the effects of resilience and cross-cultural understanding in parents living abroad on their communication-focused parenting attitudes. Participants were Japanese fathers (N=335, mean age =42.1, mean number of years living abroad =5.5) and mothers (N=486, mean age = 40.9, mean number of years living abroad =4.8) having elementary school children. The results of multiple regression analysis indicated that standardized partial regression coefficients from resilience factors such as novelty-seeking, positive future orientation, and tendencies to regard cross-cultural understanding as important to communication-focused parenting behaviors were significant in both fathers and mothers. On the other hand, emotion regulation was not significant in either fathers or mothers.

Parents' communication-focused parenting behaviors were facilitated when they had a strong orientation to try new things, positive future planning and goals, and strong desires to go and live overseas if they get a chance, to learn the local culture and habits, and to practice local rules. These findings indicated factors facilitating parenting behaviors of parents living abroad.

15:30 - 17:00

## It's mine, so I am taking care of it: Psychological ownership for sustainable health-related infrastructure

B. Ambuehl<sup>1,2</sup>, J. Inauen<sup>2</sup>

<sup>1</sup>Eawag, Switzerland

<sup>2</sup>University of Bern, Switzerland

**Introduction:** Arsenic-contaminated water is consumed by 100 million people worldwide, with severe health consequences, e.g. skin-related diseases and cancer. Even though low-cost arsenic-safe water options have been installed in many areas, their long-term acceptance, maintenance and use is low. Creating psychological ownership, the feeling that something is mine or ours might mitigate this. This study investigated the role of psychological ownership for safe water infrastructure.

**Methods:** We used a mixed-method approach. First, qualitative interviews with users, non-users and caretakers of safe water infrastructure were conducted (N=17). Content analysis was performed. Second, we developed a questionnaire to test the routes to and consequences of psychological ownership (N=300).

**Results:** Quantitative analyses of psychological ownership corroborated the conceptualisation revealed by qualitative Results: Users with low values in routes to ownership (knowledge, investment and control) had lower self-reported psychological ownership for the infrastructure. They indicated low acceptance of the safe water infrastructure, and did not use it. Additionally, low psychological ownership related to low caring for the infrastructure. Caretakers reported high values in the three routes to psychological ownership, but only the caretakers of functional mitigation options reported high caretaking.

**Discussion:** The results of the study indicated that psychological ownership is relevant in the context of safe water infrastructure. Interventions to promote the use of safe water infrastructure should target the routes leading to psychological ownership, e.g. by community based participatory approaches. The role of ownership for caretaking was less clear. Future research may explore the importance of psychological ownership for other health behaviours.

15:30 - 17:00

## Adversity and Gender-Discrimination Among College Students in India and the Relationship to Emotional and Physical-Health

L. Olszewski<sup>1</sup>, S. Suchday<sup>1</sup>

<sup>1</sup>Pace University, United States

The current study assessed whether: a) early life adversity (before age 16) and current adversity predicted GD; b) gender discrimination predicted anger, rumination, stress, and somatic symptoms.

Self-reports of GD in the family and community were assessed among college students in Mumbai, India (N=374; 72 Males; Mean Age=19 years, SD= 1.53) by yes/no questions in areas of preference for boys versus girls, giving and taking dowry, health and education expenditure, and birth.

Participants' responses were summed to create a composite score of GD in the family and community. Males and females did not differ significantly in reports of GD. Reports of GD in the family were positively associated with adversity before the age of 16 ( $r = .23, p = .0001$ ), current adversity ( $r = .24, p = .0001$ ), Internalized Anger ( $r = .14, p = .008$ ), Rumination ( $r = .19, p = .0001$ ), Stress ( $r = .13, p = .015$ ), and Somatic Symptoms ( $r = .24, p = .0001$ ). Gender discrimination did not have a significant relationship with depressive symptoms. Results of this study indicate that early and current experienced adversity is associated with GD. Additionally, GD can result in rumination, internalized anger, stress, and somatic complaints.

The current "MeToo" movement highlights the pervasiveness of global GD which has negative economic, educational, and health implications. The systemic cost further highlights the importance of reframing GD as an overarching global public health concern warranting future research.

15:30 - 17:00

## Moving Towards an LGBTQ Inclusive and Affirmative Health Psychology: Challenges and Recommendations

J. Semlyen<sup>1</sup>, I. Williamson<sup>2</sup>

<sup>1</sup>UEA, United Kingdom

<sup>2</sup>De Montfort University, United Kingdom

Lesbian, gay, bisexual and trans (LGBT) populations exhibit several health inequalities, including poorer mental health and increased levels of smoking and alcohol consumption. Integration of LGBTQ issues into teaching and training is critical for improved health care and health outcomes. Content analysis of British standards and key textbooks in health psychology training revealed minimal material on LGBTQ populations. We found little coverage with the predominant focus being poor sexual health amongst gay men. We argue that this gap in provision needs to be addressed through inclusion of LGBT health throughout health psychology teaching and training and offer recommendations for this.

In the second part of our presentation we illustrate the potential integration of LGBTQ identities into health psychology beyond the domain of sexual health and present recent research exploring associations between BMI and sexual orientation identity. We found that women identifying as lesbian (OR = 1.41, 95% CI: 1.16, 1.72) or bisexual (OR = 1.24, 95% CI: 1.03, 1.48) were at increased risk of overweight/obesity compared to heterosexual women. Increased risk of being underweight was seen for men identifying as gay (OR = 3.12, 95% CI: 1.83, 5.38) or bisexual (OR = 2.30, 95% CI: 1.17, 4.52). We posit several explanations for these findings and discuss the importance of developing a genuinely LGBTQ inclusive health psychology. For that to happen, we must recognise the diversity and resilience of LGBTQ communities and not see sexuality as an optional add-on to the health psychology curriculum.

15:30 - 17:00

## Rejective or Receptive Attitude toward Sexual Orientation among Japanese Junior, High School, and University Students

M. Kasai<sup>1</sup>, M. Tanaka<sup>1</sup>, A. Kawakami<sup>1</sup>

<sup>1</sup>Naruto University of Education, Japan

The issues related sexual orientation and gender identity have received wider social recognition in Japan these years. Same-sex partnership systems have been approved in 11 cities and wards by the end of 2018. However, it was reported that over 60% of lesbian and gay men have experienced bullying during their school years (Hidaka, 2016). In this study, we hypothesized that students with following aspects tend to be rejective toward LG students: 1) high tendency to reject things different from themselves, or 2) high anxious feeling about seen differently from others, and students who have good cham experience (Sullivan, 1953) tend to be receptive toward LG students.

Attitude toward LGB (LGB-CASH, JIHP), anxiety and rejection toward difference (Kosaka, 2010), and cham experience scale (Tanaka & Yoshii, 2005) were administrated to 136 junior high school students, 54 high school students, and 94 university students. We also asked whether they want to be friends with a fictitious LG student.

Results indicated that regardless of age, student showed lower interest to be friends with a fictitious LG student. The two former hypotheses were affirmed but the latter one was rejected. For younger age, direct contact experience with LGBTQ related to receptive attitudes and high tendency for conformity related to rejective attitudes. We concluded that the characteristics of Japanese young people, which are wanting to confirm with others and afraid of being stood out, influence their perspective toward sexual minorities and the solution for this is the direct good contact experience with sexual minorities.

15:30 - 17:00

## Exercise Science Students' Stigma and Conscious/Automatic Responses: The Importance of Weight and Sex of Target.

A. Rojas-Sánchez<sup>1</sup>, B. Cheval<sup>2</sup>, P. Sarrazin<sup>1</sup>, P. Melendez<sup>3</sup>, W. Oliva<sup>3</sup>, A. Chalabaev<sup>1</sup>

<sup>1</sup>Université Grenoble Alpes, France

<sup>2</sup>Université de Genève, Switzerland

<sup>3</sup>Escuela Nacional de Entrenadores Deportivos, Mexico

The purpose of this study was to compare implicit and explicit stigmatizing attitudes to automatic and conscious behaviors toward prospective higher weight trainees. 175 Mexican undergraduate students completed a minikin task, and Implicit Association Test and a questionnaire composed of the anti-fat attitudes scale (AFAS) and a scale based on Cuddy's bias map, which asks participants to report on their attitudes towards a visual stimulus (male/female and higher weight/normative weight). Results show that, only implicit stereotypes are related to approach responses  $F(7, 7614)=7.71, p<0.001; B=0.20, p<0.05$ . While explicit attitudes and both implicit measures are related to conscious behavior. Analyses showed that implicit attitudes and stereotypes were related to less harm for males regardless of their weight  $F(7, 12632)=15, p<0.001; B=-0.21, p<0.001; B=-0.39, p<0.001$ , but more harm for thin females in the case of attitudes  $B=-0.23, p<0.001$ . At the same time explicit attitudes are related for more harm for males irrespective of their weight  $F(7, 12472)=11.2, p<0.001; B=0.07, P<0.001$ , and more harm for females only if they are obese  $B=0.10, p<0.001$ . Finally, explicit attitudes were related to less facilitation for obese females  $F(7, 12792)=24.66, p<0.001; B=-0.07, p<0.001$  but more facilitation for thin females  $B=0.07, p<0.001$ . The results seem to indicate that implicit stigma is related to impulsive responses, while explicit stigma elicits compensatory behaviors for male targets. When the target of stigma is female however, stigma is prevalent and overt.

# Posters

## Medicines and messages

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Alexandra Dima

15:30 - 17:00

## Analysis of media's representation of Medicinal Cannabis: Life-saving Medicine or Criminal Drug?

J. Ahmed<sup>1</sup>, T. Vandrevalla<sup>1</sup>, A. Coyle<sup>1</sup>

<sup>1</sup>Kingston University, United Kingdom

**Background:** From November 2018, specialist physicians in the UK were legally permitted to issue prescriptions for cannabis-based medicines for specific patients who are deemed likely to benefit. This change followed much debate and campaigning. The study that we report examines contemporary media representations of the medicinal use of cannabis. It aims to understand the nature of these representations and how they have been adopted, contested and/or resisted. Mainstream media is known to have influence and power over shared public knowledge and understandings, and can act as an intermediary between experts and the public.

**Method:** Newspaper articles relating to medicinal cannabis covering the UK pre- and post-legalisation periods were sourced from the European Newsstream data base. Newspaper articles were sourced from five different UK newspapers. This permitted an examination of the impact of legalisation on the representational terrain. The data set was subjected to thematic analysis.

**Findings:** The analysis highlights diversity and tensions across and within media representations of medicinal cannabis, centred on representations of cannabis as a transformative and life-saving medicine and as a criminalised, dangerous drug. Competing voices were noted in the legalisation debate. Expert and political voices were mobilised in representations of cannabis as medically beneficial and as dangerous. Lay voices were presented as contesting negative representations of medicinal cannabis whilst lay people were represented as taking an agentic role in contributing to legal changes. Findings are discussed in relation to the role of social representations in health (in)equalities and social inclusion/exclusion.

15:30 - 17:00

## Brazilian caregivers' adherence to child primary care recommendations: the predictive role of psychosocial determinants

S. Mourão<sup>1</sup>, S. Bernardes<sup>1</sup>, R. Guerra<sup>1</sup>

<sup>1</sup>Instituto Universitário de Lisboa (ISCTE-IUL), Portugal

**Background:** Several psychosocial determinants, identified at different but interrelated levels of analysis, have been associated with immigrants' (pharmacological) treatment adherence. However, little is known about the predictive role of these psychosocial variables on immigrants' adherence to preventive health recommendations. Based on a previous qualitative research, this study aimed to test a multilayered theoretical model which hypothesizes the predictive role of certain psychosocial determinants on immigrant caregivers' adherence to Child Primary Care (CPC) recommendations.

**Methods:** A cross-sectional study was conducted, with 123 Brazilian immigrant parents of children aged between 2 and 6 years old. Data were collected by a paper or electronic protocol, composed by: 1) the CPC-Adherence Scale; 2) clinical and demographic questions; 3) the Concerns about Medicine Subscale; 4) measures that assessed the parental satisfaction (EUROPEP) and trust in care (Trust in Physician Scale); 5) indicators of cultural (mis)matches in child care practices and a measure of immigrants' own and perceived acculturation orientations.

**Findings:** Psychosocial determinants at a structural level (i.e. socio-economic status, time or legal situation in Portugal) predicted immigrant caregivers' adherence to CPC recommendations that promote children's safe psychomotor development and paid vaccines. Concerns about pediatric medication (individual level) predicted immigrant caregivers' adherence to a safe psychomotor development recommendations. Cultural mismatches in the type of food (intergroup level) predicted their adherence to nutritional counselling.

**Discussion:** These results, by providing innovative empirical contributions, also may contribute to increasing CPC health professionals' multicultural sensitivity and competency.

15:30 - 17:00

## #Diabetesonaplate: Contesting representations of diabetes on Instagram

L. Blackwood<sup>1</sup>, J. Johansen<sup>1</sup>, J. Gavin<sup>1</sup>, J. Barnett<sup>1</sup>

<sup>1</sup>University of Bath, United Kingdom

**Background:** People with diabetes report feeling stigmatised by health messaging that represents diabetes as a consequence of unhealthy relationships with food. We have conducted research looking at how diabetes is popularly represented in mainstream social media through the hashtag ‘#DiabetesOnAPlate’.

**Methods:** Study 1 involved a thematic analysis of more than 6,000 instagram posts captioned as #DiabetesOnAPlate. Study 2 used an on-line survey tool, Vizata, to examine how people with diabetes 1, diabetes 2, and without diabetes (N=66) understand these Instagram posts.

**Findings:** Our research found that the majority of Instagram posts depicted high-calorie food and were posted by people without diabetes; but there were also counter-posts by people with diabetes 1 depicting health foods and diabetes management devices. Across both studies we found people with diabetes 2 both passively and actively disengaging from the #DiabetesOnAPlate message. People with diabetes 1 however, displayed various forms of resistance, the most common being a disassociation from people with diabetes 2.

**Discussion:** This talk will provide further details about the studies and also reflect on the atomising effects of stigmatic health about diabetes and its consequences.

15:30 - 17:00

## A qualitative exploration of students' experiences with nonmedical use of prescription medicines for cognitive enhancement

J. Green<sup>1,2</sup>, F. Monnet<sup>3</sup>, C. Ergler<sup>2</sup>, E. Pilot<sup>3</sup>, P. Sushama<sup>3</sup>

<sup>1</sup>University of Limerick, Ireland

<sup>2</sup>University of Otago, New Zealand

<sup>3</sup>Maastricht University, Netherlands

**Background:** Little previous research explores the narratives of students who use prescription medicines to enhance their cognitive performance. Thus, we aimed to explore the nuances of student experiences, perception, and practices of cognitive enhancement in a university context.

**Methods:** From a larger quantitative survey on prevalence and attitudes towards cognitive enhancement at a single publicly funded New Zealand university, five students who used prescription medicines for cognitive enhancement were recruited for semi-structured interviews. Additionally, local newspapers, blog entries and discussion forums referring to pharmacological cognitive enhancement were identified. Interviews and text sources were analysed thematically.

**Findings:** Students used high levels of stress and workload to justify their cognitive enhancement practices, but still took individual responsibility for their decision. They considered their use to be cautious and safe, and that cognitive enhancement was a method for coping when other options were exhausted. Their identities as students, peer influences and social norms also influenced their choices. Further, some participants were already receiving medically-justified psychopharmacological treatment, but extended and supplemented this with nonmedical use.

**Discussion:** The results provide further understanding of students cognitive enhancement practices; their motivations, justifications, and own perceptions of cognitive enhancement for improving academic performance. Compared to previous research, this study provides a more nuanced picture of the use of prescription medicines for cognitive enhancement that is not limited to prescription stimulants or to healthy students.

15:30 - 17:00

## Exploring barriers and facilitators to daily medication adherence in young people with asthma

L. Rau<sup>1,2</sup>, G.(. Stadler<sup>3</sup>, D. Powell<sup>3</sup>, P. Rackow<sup>1</sup>

<sup>1</sup>University of Stirling, United Kingdom

<sup>2</sup>Martin-Luther-Universität Halle-Wittenberg, Germany

<sup>3</sup>University of Aberdeen, United Kingdom

**Background:** Adherence to asthma medication is key to control symptoms and allow young people to live a normal life. However, adherence rates are poor, especially in young people. This project aims at identifying barriers and facilitators to asthma medication on a daily basis. In particular, the feasibility and acceptability of receiving daily questionnaires and electronic monitoring of adherence as well as the accuracy of self-reported adherence will be assessed. Barriers and facilitators relevant for daily adherence will be identified.

**Methods:** About 5 young people diagnosed with asthma (aged 16 to 24) will take part in this study. A series of n-of-1 studies that contain electronic monitoring of adherence and 4 short daily questionnaires over the course of 28 days will be applied. Additionally, weekly data prompted interviews will be used to gather in depth understanding of daily adherence predictors, acceptability and feasibility.

**Expected results:** We are expecting to be able to identify barriers and facilitators to medication adherence in young people that are relevant on a daily basis. Moreover, we will be able to evaluate the acceptability and feasibility of a daily diary study in this target group.

**Current stage of work:** We have started putting together all relevant materials, programming the questionnaires, and seeking ethical approval. The first interviews will take place in April, 2019. The study will be completed by June, 2019.

**Discussion:** Our results can inform future studies about how many questionnaires per day are feasible and acceptable for participants, and necessary to detect change.

15:30 - 17:00

## The influence of parents' beliefs about medicine on their use of over-the-counter medicines in children

H. Pattison<sup>1</sup>, L. Rutkauskas<sup>2</sup>

<sup>1</sup>Aston University, United Kingdom

<sup>2</sup>Sheffield University, United Kingdom

**Background:** Research on parents' use of medicines for children has focused on prescribed medication. This study investigated whether general Beliefs about Medicines predicted parents' use of OTC medicine in children.

**Methods:** A questionnaire survey was advertised online, targeting parents in the UK with children aged 2-12 years. Parents were asked about their use of OTC medication over the previous 90 days. The questionnaire also contained the general subscale from the Beliefs about Medicines questionnaire and the Parental Stress Scale.

**Findings:** There were 468 analysable questionnaires returned with 83% reporting administering OTC medication to children in the previous 90 days. More positive Beliefs about Medicines predicted a higher number of different OTC medicines administered ( $t = -2.430$ ,  $B = 0.112$ ,  $p = 0.015$ ) and a higher number of days administering medicines ( $t = -2.705$ ,  $B = 0.102$ ,  $p < 0.05$ ). However the models explained only a small amount of variance (2.4% and 3.8% respectively). Moderation analysis showed the interaction between Parental Stress and Beliefs about Medicines significantly improved the prediction of the number of OTC medicines administered ( $R^2$  Change = 0.013,  $p = 0.03$ ), but not the number of days on which medication was administered. When parental stress was high, the relationship between Beliefs about Medicines and the number of different medicines administered, was not significant ( $b = -0.001$ , 95% CI [-0.037; 0.034],  $t = -0.09$ ,  $p > 0.05$ ).

**Discussion:** Parental Beliefs about Medicine influence the administration of OTC medicines to children but explain very little variation in this behaviour.

## Posters

# Methodology: developing and validating health psychology tools and measures

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Jenny McSharry

15:30 - 17:00

## Developing a tool for individual health related behavior values assessment

M. Danina<sup>1</sup>

<sup>1</sup>Psychological Institute of Russian Academy of Education, Russia

**Background:** Reducing the risk of developing socially significant diseases through effective preventive measures is an extremely important issue. Researchers are concerned with identifying ways to change people's health related behavior by influencing individual self-regulation. The problem of personalization of preventive measures based on individuals values is still poorly developed. The aim of the study was to develop a tool to assess individuals health related behavior values.

**Methods:** First we gathered empirical data from 540 internet users (18-45 years old, both men and women). The subjects were asked to answer the question: "Why do people lead a healthy lifestyle?». The answers were grouped into categories that were included in the primary set of statements of the questionnaire. At the second stage of the study, the questionnaire was tested on 548 subjects. Exploratory factor analysis, Structural equation modeling and the alpha Cronbach coefficient were used.

**Findings:** As a result, a questionnaire with 6 scales was obtained. Questionnaire scales are: 1) Ecological concern (ex., "To be in harmony with nature and the outside world"), 2) Approval and encouragement from others ("To please people"), 3) Preservation of youth and health in old age ("To feel good in old age"), 4) Self-knowledge ("To know oneself"), 5) Avoiding ("To run away from life problems"), 6) Physical Attractiveness ("To look good").

**Discussion:** Further research is needed to identify the role of individual values in the regulation of health-related behavior. The developed questionnaire can shed light on the issues of personalization of behavior change strategies.

15:30 - 17:00

## The development of a new measure: The Impact of Female Chronic Pelvic Pain Questionnaire (IF-CPPQ)

M. Al-Abbadey<sup>1</sup>, C. Liossi<sup>2</sup>, C. Graham<sup>2</sup>

<sup>1</sup>University of Portsmouth, United Kingdom

<sup>2</sup>University of Southampton, United Kingdom

**Background:** Chronic pelvic pain (CPP) is a common pain condition experienced by women. A validated questionnaire that assesses the quality of life of women affected by CPP is needed to facilitate the interpretation and comparison of studies and compare data reliably. The aim of this study was to assess the validity, reliability, and factor structure of the Impact of Female Chronic Pelvic Pain Questionnaire (IF-CPPQ).

**Methods:** A cross-sectional questionnaire study was administered online. Participants had to be female, experienced CPP for at least six months, and be over 18 years of age. A total of 969 women (mean age 35.4 years, SD = 12.0) participated. The main outcome measure was the IF-CPPQ. Additional validated measures that assessed related constructs were also administered. Principal axis factor analysis was used to assess the factor structure of the IF-CPPQ. Internal consistency was assessed using Cronbach's alpha. Convergent and discriminant validity were assessed using Pearson correlations. The consistency and model fit of the resulting factor structure was assessed using confirmatory factor analysis.

**Findings:** The final 26-item questionnaire comprised five factors (Psychological Impact, Sexual Impact, Relationship Impact, Occupational Impact, and Emotional Impact). Findings suggested good convergent and discriminant validity and internal consistency.

**Discussion:** The findings indicate that the IF-CPPQ is a reliable and valid measure of the impact of CPP on women's quality of life. While the IF-CPPQ has the potential for multiple uses within research and clinical practice, further research is needed to determine the questionnaire's ability to detect clinically meaningful changes with treatment.

15:30 - 17:00

## One single question is not sufficient to identify individuals with electromagnetic hypersensitivity

Z. Dömötör<sup>1</sup>, R. Szemerszky<sup>1</sup>, F. Köteles<sup>1</sup>

<sup>1</sup>Institute of Health Promotion and Sport Sciences, Eötvös Loránd University, Hungary

**Background:** Idiopathic Environmental Intolerance attributed to Electromagnetic Fields (IEI-EMF) is a self-reported condition with non-specific symptoms attributed to weak non-ionizing electromagnetic fields. There is no generally accepted diagnostic procedure to identify patients with this condition, hence studies usually apply only one question as inclusion criterion. The aim of our study was to identify further self-report questions (items) that could be applied as inclusion criteria.

**Methods:** Cross-sectional on-line survey study was carried out with 473 participants (76.3% women; age: 35.03±13.24 yrs). Self-diagnosed IEI-EMF (as assessed by a yes-or-no question), frequency of EMF-related symptom, severity of the condition and prevalence of somatic symptoms were assessed.

**Findings:** 72 (15.2%) individuals labelled themselves as IEI-EMF, however only 61% of them remained in the IEI-EMF group after the use of three inclusion criteria instead of one. 21% of the individuals labelling themselves as IEI-EMF reported neither symptoms nor any negative impact on their daily life.

**Discussion:** A minimum of two questions appear to be necessary as inclusion criteria for IEI-EMF in empirical research. Instead of the widely used yes-or-no question on accepting the IEI-EMF label, frequency of symptoms attributed to EMF should indicate regularity and at least a slight negative impact on daily life are required.

15:30 - 17:00

## Multimethod stress evaluation: Effects of an intervention on teachers' health including self-report and biologically measurement

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<sup>1</sup>University of Koblenz-Landau, Germany

<sup>2</sup>University of Applied Sciences: Ludwigshafen, Germany

Concerning the health of teachers, empirical research has been conducted for a significant amount of time, which, in general, comes to the following conclusion: Teachers are a risk population in terms of mental diseases. Teachers' stress is an important factor correlated with mental health problems. However, applied science aiming to evaluate efficient, theory-based interventions with multimethod designs leave something to be desired. Therefore, the project "Healthy teaching" has been initiated. In a randomized-controlled trial, 61 teachers took part in a training on positive, health-related self-management. In groups, participants were trained over the time of four weeks. The concept of the intervention was developed from previous studies and based on findings in positive psychology. The trainings were evaluated by validated questionnaires and biological measurement (saliva cortisol). Results show that participants significantly improved in techniques of positive psychology, health behavior and reducing dysfunctional cognition. There was a moderate interaction effect (group x time) in reducing self-reported stress and depressive mood. No interaction effect was found for the biological stress assessment. The problem of the missing covariance between self-reported and biological measurement in health interventions shall be discussed. Moderators like sensitivity, compliance and time could play an important role. In terms of the self-reported measures, a positive, health-related self-management can be concluded as an important aspect for the well-being of the teaching person. Future research should concentrate on understanding the divergence in evaluation results depending on the method of measurement.

15:30 - 17:00

## Generation of Patients-as-Partner Items Through a Qualitative Data Analysis : A Content Validation Process

A. Odero<sup>1</sup>, M. Baumann<sup>2</sup>

<sup>1</sup>University of Luxembourg, Luxembourg

<sup>2</sup>University of Luxembourg, Research Unit INSIDE, Luxembourg

Health psychology aspires to find ways for evaluating the Patient as a Partner. The Montréal model, proposes a verbal and conceptual interpretation. Developed by a University of Montréal research team, this approach advances that patients should play an active role in the healthcare process. Quantitative assessments employing a methodological framework involving a qualitative approach do not exist. Our study aimed at analyzing a procedure for generating patient as a partner related items and to elaborate their classification.

Five semi-structured focus groups with 20 chronic disease patients and 15 professionals (doctors, nurses) were conducted. A qualitative analysis, combining inductive (data abstraction was conducted from specific to general), and deductive (guided by a predefined protocol) methods was employed to create a flexible framework of analysis. A thematic categorical content analysis of the transcriptions was conducted. Verbatim were extracted and classified into categories. Cluster analysis using Sorensen's coefficient was performed with the software N'Vivo 12. Sorensen's similarity analysis helped to structure a conceptual framework for the assessment of patient as partner at the doctor patient interaction level. The content of each category was verified through consensus by multidisciplinary experts, who formulated items to capture the overall patient as partner experience.

Our list of items constituted fundamental dimensions of partnership, constituting a first classification and a basis for the development of a routine clinical assessment tool. This process should guarantee that the items are acceptable, comprehensive and relevant (reflecting the lived experience of the participants) ensuring a validity of the future questionnaire.

15:30 - 17:00

## Development and validation of a new measure of adherence to cystic fibrosis care

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<sup>4</sup>University of Kansas Medical Center, United States

**Introduction:** Patient adherence to cystic fibrosis (CF) treatment is variable (30-70%). With newly discovered medications, enhancing adherence is expected to significantly improve lifespan and quality of life. We report on the development and validation of a new adherence measure (CF-Care Behavior Survey; CF-CBS).

**Method:** The CF-CBS is a self- and caregiver-administered survey, containing questions assessing type (inadvertent/volitional) and frequency of non-adherence, barriers, and motivation for improving adherence (importance/confidence). Standard items are asked separately for each CF treatment component (e.g., airway clearance, inhaled antibiotics). Content validation of the CF-CBS was conducted through a multi-site, pilot feasibility RCT for an adherence promotion intervention. Our validation sample was 38 patients (ages 14-25) and 17 parents. Patients and parents each completed the CF-CBS at study enrollment, followed by an individualized and structured cognitive debriefing interview. Interviews were audio-recorded, transcribed, and coded (N = 3 trained coders); 20% of interviews were reliability coded.

**Results:** Transcripts were coded for consistency in participant interpretation of item content and need for clarification. Discrepancies were discussed and resolved with the intervention study team. Aggregated results and feedback guided revisions in the CF-CBS. Participant feedback will be summarized and the revised measure will be displayed as part of the presentation.

**Conclusion:** The CF Care Behavior Survey (CF-CBS) is a unique tool for measuring adherence to CF care (e.g., volitional vs. inadvertent non-adherence). It has significant potential for measuring variation in adherence across different CF regimen components, and is expected to be valuable in measuring outcomes during targeted adherence promotion interventions.

## Posters

# Rapid Communication: Clinical health psychology and relationships with providers

15:30 - 17:00

Elafiti 4, Valamar Lacroma Dubrovnik

Andrew Thompson

15:30 - 15:45

## Health-related quality of life and sleep in adolescents in residential care

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<sup>1</sup>Nursing School of Coimbra, Portugal

<sup>2</sup>Universidade do Porto, Portugal

**Introduction:** Sleep is a fundamental physiological activity for the health and development and growth of the human being. Sleeping well is one of the main factors in maintaining quality of life at all stages of the life cycle, and true restful sleep is at night. It is during the asleep period that the body plays vital functions of the body, such as strengthening the immune system, consolidating memory, regenerating cells, focus and concentration and even mood stability.

**Objective:** To analyze the relationship between sleep variable and Health-Related Quality of Life (HRQOL).

**Methodology:** Descriptive-correlational study; sample 390 adolescents in residential care. **Instruments:** Kidscreen-52 (Portuguese version, Gaspar & Matos 2008, ten dimensions); sociodemographic and health questionnaire. Fulfilled ethical assumptions. Data Handled in IBM-SPSS, Version 22.

**Results:** Ages between 10 and 19 years ( $M = 14.77$ ,  $SD = 2.034$ ). There are significant differences between groups that sleep well and those who sleep poorly, in nine of ten dimensions of Kidscreen-52: health and physical activity ( $p = .000$ ), feelings ( $p = .000$ ), mood ( $p = .000$ ), family ( $p = .000$ ), self-perception ( $p = .000$ ), learning and leisure time ( $p = .000$ ) and HRQOLTotal ( $p = .000$ ), as they sleep well or poorly. The averages are higher in these dimensions, in groups that sleep well.

**Conclusion:** Higher HRQOL in adolescents who sleep well, however it is important that conditions be provided to adolescents even in residential care for a better quality of sleep and to avoid problems arising.

**Keywords:** Adolescents, quality of life, sleep

15:45 - 16:00

## Prospective study on PTSD related to childbirth among Tunisian women: Prevalence and associated factors

H. Nawel<sup>1</sup>, E. Spitz<sup>1</sup>

<sup>1</sup>University of Lorraine, France

**Background:** The objectives of the present study were to determine the prevalence of Posttraumatic Stress Disorder (PTSD) and traumatic symptomatology following childbirth in a Tunisian sample according to the diagnostic criteria of DSM 5 and to differentiate between two groups: a group of women with PTSD related to childbirth and a group of women without PTSD following childbirth.

**Methods:** The sample included 226 women with two assessment times: during the third trimester of pregnancy and two months postpartum. These women completed questionnaires measuring traumatic symptomatology, anxiety, depression, perception of support from the health team care, coping strategies and quality of life.

**Findings:** At 2 months postpartum, 16.5% of women had PTSD and 36.2% had partial PTSD. Compared to women without PTSD, women with postpartum PTSD had more postnatal depression ( $D = 40,004$ ,  $p = 0.001$ ), used dramatization as coping strategy ( $D = 5.045$ ,  $p = 0.02$ ), had a poorer perception of support from the health care team ( $D = 9.574$ ,  $p = 0.003$ ), felt they had a lower quality of mental life ( $D = 23.301$ ,  $p = 0.001$ ) and reported having more physical pain ( $D = 8.545$ ,  $p = 0.004$ ), as well as limitations in their social functions ( $D = 8.412$ ,  $p = 0.004$ ).

**Discussion:** This is a first study on the prevalence of PTSD in Tunisian women using a specific diagnostic tool for PTSD related to childbirth and including the diagnostic criteria of DSM 5.

16:00 - 16:15

## The school climate as a protective factor for drug use

M.L. Souza<sup>1</sup>, M.I.G. Conceição<sup>2</sup>

<sup>1</sup>UNIEURO Centro Universitário Euro-americano, Brazil

<sup>2</sup>Universidade de Brasília, Brazil

**Background:** The study highlights the main concepts, studies and measures of school climate and traces a relationship between school climate and risk and protection factors to drug use in schools. It is based on the analysis of the projects presented in the 5th and 6th editions of Drug Use Prevention Course for Educators of Public Schools developed by the University of Brasília. The study aimed to investigate educators' conceptions about the risk and protection factors to drug use in school and its relationship with school climate.

**Methods:** The qualitative study used documentary analysis and focus group with the participation of school educators. The Iramuteq software was used to data analysis.

**Findings:** It was identified as protective factors that contribute to a positive school climate: school relations based on affectivity, respect and commitment among educational agents; the presence and collaboration of families; diversified and creative pedagogical practices; the presence of clear rules and standards; academic and emotional supports offered to teachers. Risk factors that contribute to a negative and non-protective school climate: location of the school in the context of vulnerability; absence of families in school; use of drugs by student families.

**Discussion:** The parameters to measure the school climate need constant revision, given the complexity of the theme. The school climate assessment should use not only psychometric measures, but qualitative studies that provide information that the instruments fail to capture.

16:15 - 16:30

## Poor perception of team care support and PTSD after childbirth. Mediation of maternal self-efficacy

M. Pongy<sup>1</sup>, N. Hanachi<sup>1</sup>, M. Tric<sup>1</sup>, E. Spitz<sup>1</sup>

<sup>1</sup>University of Lorraine, France

**Background:** The impact of the poor perception of team care support during delivery on the development of Posttraumatic Stress Disorder (PTSD) after childbirth has been highlighted by several studies. However, the role of maternal self-efficacy perception in the development of this disorder has rarely been addressed.

**Methods:** This study examined the mediating effect of maternal self-efficacy on the relationship between poor perception of team care support and development of PTSD after childbirth. Women were initially recruited during birth preparation sessions during their third trimester of pregnancy (n = 420). Two months after childbirth, women were recalled (n = 153) and responded to a questionnaire on PTSD related to childbirth, perception of team care support (mHCCQ) and maternal self-efficacy (PES). Simple mediation was tested between variables.

**Findings:** Our results suggest that poor perception of team care support increases negative maternal self-efficacy, which increase development of PTSD after childbirth ( $R^2 = 0.304$ ;  $F = 15.51$ ;  $p = .0001$ ); Bootstrap Confidence Interval [-.0925; -.0011]. Our results also show that relational aspect of maternal self-efficacy is the dimension which specifically mediate the relation between poor perception of team care support and PTSD after childbirth Bootstrap Confidence Interval [-.0906; -.0008].

**Discussion:** This study presents an explanatory model of the impact of poor perception of team care support and negative maternal self-efficacy on the development of PTSD after childbirth. Future research is needed to support these Results:

16:30 - 16:45

## Engaging immigrants in psychotherapy: Development and pilot RCT of a culture-tailored, web-based intervention

H. Reich<sup>1,2</sup>, R. Mewes<sup>2,3</sup>

<sup>1</sup>Institute of Medical Psychology, Justus Liebig University Giessen, Germany

<sup>2</sup>Division of Clinical Psychology and Psychotherapy, Department of Psychology, Philipps-University Marburg, Germany

<sup>3</sup>Outpatient Unit for Research, Teaching and Practice, Faculty of Psychology, University of Vienna, Austria

**Background:** Conventional psychotherapy may be less successful in engaging immigrant and ethnic minority patients in treatment. One reason might be a lower motivation for psychotherapy due to beliefs in fatalistic or supernatural illness causes, which we found in Turkish immigrants compared to native German inpatients (Reich, Bockel, & Mewes, 2015). However, culturally adapted psychotherapy can increase the success rate. For instance, culturally adapted psychoeducational group sessions for asylum seekers were evaluated positively (Demir, Reich, & Mewes, 2016). In this regard, the integration of the patient's illness beliefs is a key element to improve treatment engagement and outcome. The present project aimed to develop a web-based, culture-tailored intervention to engage immigrant inpatients in psychotherapy, and to assess its acceptance and usefulness.

**Methods:** The engagement intervention (EI) was developed in a web-based manner using principles of Motivational and Ethnographic Interviewing. It was tested using an experimental control group design (active control condition: progressive muscle relaxation) in a sample of Turkish immigrant inpatients in Germany (N=26).

**Findings:** The EI was rated better than the control condition ( $p=.002$ ). In particular, participants in the EI felt better prepared for therapy ( $p=.013$ ). By working with the EI, self-efficacy increased ( $p=.034$ ) and external-fatalistic control beliefs diminished ( $p=.021$ ). However, half of the participants needed assistance using a computer and the web-based interventions.

**Discussion:** The results regarding acceptance and usefulness were promising. The developed EI provides a first step towards feasible culture-tailored psychotherapeutic elements which can be integrated into routine clinical care.

## SYMPOSIUM

# The Multiphase Optimization Strategy (MOST): Case examples and considerations in behavioural intervention research

9:30 - 11:00

Elafiti 1, Valamar Lacroma Dubrovnik

Bonnie Spring

9:30 - 9:45

## Overview of Multiphase Optimization Strategy (MOST) phases and designs to address evidence-based behavioral practices

A. Pfammatter<sup>1</sup>, S. Hoffman<sup>1</sup>, C. Pellegrini<sup>2</sup>, H.G. McFadden<sup>1</sup>, L. Collins<sup>3</sup>, B. Spring<sup>1</sup>

<sup>1</sup>Northwestern University Feinberg School of Medicine, United States

<sup>2</sup>University of South Carolina, United States

<sup>3</sup>Pennsylvania State University, United States

**Background:** Behavioural interventions often comprise treatment packages whose components have not been evaluated for efficient resource utilization. The Multiphase Optimization Strategy (MOST), a framework adapted from engineering science, seeks to identify and assemble maximally impactful, resource efficient interventions.

**Methods:** MOST is comprised of three phases. Preparation involves developing a conceptual model and testing intervention components for feasibility. Optimization involves systematically screening components, sequencing and/or timing and investigating their main effects and interactions. Researchers then adopt a decision-priority perspective to assemble an optimal treatment package or algorithm for given constraints and decide whether to evaluate or go back to previous phases. In Evaluation, the optimized treatment is compared to control. Dr. Kjølbi will illustrate the preparation phase of MOST. Ms. Hoffman and Dr. Pfammatter will present two Spring Lab optimization phase experiments to develop effective, efficient treatments for weight loss. The Opt-IN study screened components to maximize weight loss for an average individual under cost constraints. The SMART study is developing a stepped care treatment algorithm that addresses between-person differences in the response to obesity treatment in order to allocate treatment resources equitably and efficiently.

**Discussion:** MOST is an innovative methodological framework that involves a suite of experimental methods intended to develop interventions that are both effective and resource efficient for individuals and for populations. Whereas a factorial design optimizes a fixed treatment package, a SMART design determines an adaptive treatment sequence. Optimized interventions need evaluation relative to a control to be considered evidence-based for their use context.

9:45 - 10:00

## Using the multiphase optimization strategy (MOST) to develop an intervention to reduce child maltreatment

J. Kjøbli<sup>1</sup>, K. Olafsen<sup>1</sup>

<sup>1</sup>Regional Center for Child and Adolescent Mental Health, Norway

**Background:** Only a very small portion of children subjected to maltreatment receive evidence-based intervention (EBI) in Norway. Our aim is to use MOST to develop an intervention based on common elements, which are theorized to represent particularly active components of EBIs. The goal is to increase the use of EBI to reduce child maltreatment in Norway.

**Methods:** The presentation will discuss strategies in the preparation phase of MOST on how to systematically identify, map and pilot test potentially effective common elements. A systematic method of identifying common elements will be presented. Second, the presentation will offer suggestions on how the outcomes and usability of the elements can be rigorously pilot-tested with the use of single case experimental designs (SCEDs) before the optimization phase.

**Findings:** We have identified common practice elements in a systematic review of experimental trials on relational interventions for reducing child maltreatment. Preliminary findings suggest that the intervention will consist of the following elements: work on caregiver-child interactions, parenting techniques, understanding the child's contributions, caregiver-focused work, modifying internal representations, psychoeducation, motivational enhancement. Second, and in line with MOST, the presentation will discuss a theoretical model that explicitly shows what role each element is to play in the intervention. This theoretical model allows for careful testing of the proximal outcomes of the intervention elements.

**Discussion:** The use of MOST may increase the effectiveness, implementability and reach of EBI and has the potential to improve outcomes for vulnerable children subjected to maltreatment.

10:00 - 10:15

## The MOST optimization phase: Case example of the Opt-IN weight loss study

S. Hoffman<sup>1</sup>, A. Pfammatter<sup>1</sup>, C. Pellegrini<sup>2</sup>, H.G. McFadden<sup>1</sup>, L. Collins<sup>3</sup>, B. Spring<sup>1</sup>

<sup>1</sup>Northwestern University Feinberg School of Medicine, United States

<sup>2</sup>University of South Carolina, United States

<sup>3</sup>The Pennsylvania State University, United States

**Background:** In the Multiphase Optimization Strategy (MOST), the optimization phase involves testing components for inclusion in an optimized treatment package. Opt-IN, a 6-month intervention, utilized a full factorial design to test the effect of 5 behavioural components on weight loss. Components were added to an evidence-based “core” consisting of psychoeducation, self-monitoring, and diet and exercise goals. Opt-IN's goal was to test augmentation options to the “core,” and thereby optimize a treatment package that was efficacious for weight loss and implementable for less than \$500/person USD.

**Methods:** Opt-IN tested the following components: coaching intensity (12/24 calls), progress reports sent to a primary care physician (PCP; Yes/No), meal replacement recommendations (Yes/No), text messages (Yes/No), and “Buddy” support training (Yes/No). Participants completed assessments at baseline, 3 months, and 6 months.

**Findings:** Participants (n=562; mAge=38.7; 81.5% female, 74.1% white, 86.8% non-Hispanic, mBMI baseline 32.3kg/m<sup>2</sup>) lost an average 4.84kg at 6 months. A main effect of Buddy training was observed at 6 months(p<.046); no other main effects were observed. The threshold for important effects was set to p<.10, and an important time\*Buddy\*text\*PCP effect was observed at 6-months(p<.051), such that weight loss was greatest when Buddy and PCP were set to On, and text was set to Off.

**Discussion:** Buddy training and PCP reports were selected as active components for inclusion in the optimized treatment package, along with the lowest level of texts and coaching calls. This treatment package will be tested in a future RCT in the MOST evaluation phase for comparison against usual care.

10:15 - 10:30

## Testing Stepped Care Interventions Optimized for Weight Loss and Conservation of Resources

A. Pfammatter<sup>1</sup>, I. Nahum-Shani<sup>2</sup>, H.G. McFadden<sup>1</sup>, J. Siddique<sup>1</sup>, D. Hedeker<sup>3</sup>, B. Spring<sup>1</sup>

<sup>1</sup>Northwestern University Feinberg School of Medicine, United States

<sup>2</sup>University of Michigan, United States

<sup>3</sup>University of Chicago, United States

**Background:** Gold standard treatments for obesity includes costly and burdensome in person intensive lifestyle interventions. There is a lack of evidence on when to use low cost, mHealth tools and/or more expensive traditional treatment components (e.g., coaching, meal replacement). A sequential multiple assignment randomization trial (SMART) is a research design that can inform the development of an empirically based stepped care intervention, a rational resource allocation approach to treat obesity in the population. The SMART weight loss trial tests the non-inferiority of app alone, compared to app plus coaching, as first line treatment. The SMART research design will also identify the best tactic to address early treatment nonresponse and the optimal treatment sequence for cost-effective weight loss.

**Methods:** Four hundred participants, 18-60 years old with Body Mass Index between 27-45 kg/m<sup>2</sup> will be randomized to app (APP) or app plus weekly coaching (APP + C) for 12 weeks. Individuals achieving less < 0.5 lb weight loss on average per week, measured by wireless scale at 2, 4, and 8 weeks, will be deemed non-responders. All non-responders will be re-randomized to step-up modestly (adding another mHealth component) or vigorously (adding mHealth and traditional treatment components) for the remaining weeks. The weight loss outcome will be assessed in person at baseline, 3, 6, and 12 months.

**Discussion:** Results will inform construction of a treatment algorithm for greatest weight loss. The use of SMART research designs can propel the evidence base for effective treatment algorithms that can improve population health.

## SYMPOSIUM

# IAAP-Division 8: Individuals' health, behavior and coping: professionals and community-based, participatory approaches to promote individuals' health

9:30 - 11:00

Elafiti 2, Valamar Lacroma Dubrovnik

Urte Scholz, Yiqun Gan

9:30 - 9:45

## Physical inactivity and anxiety in the context chronic illness and age: a meta-analysis

A. Luszczynska<sup>1</sup>, A. Banik<sup>1</sup>, B. Stanczykiewicz<sup>2</sup>

<sup>1</sup>SWPS University of Social Sciences and Humanities, Poland

<sup>2</sup>Wroclaw Medical University, Poland

**Background:** Physical inactivity or sedentary behaviors (SB) may be linked to negative affect thorough psychosocial and physiological mechanisms (e.g. displacement hypothesis), with larger effects expected in populations with chronic illness or disability and in older individuals. The number of studies testing the associations between SB and anxiety is growing, yet a synthesis of existing evidence is missing. Thus, this systematic review and meta-analysis aimed at providing a comprehensive overview of accumulated evidence.

**Methods:** A search conducted in 8 databases resulted in  $k = 31$  original studies included in the systematic review ( $N = 99,192$ ) and  $k = 17$  ( $N = 13,659$ ) included in the meta-analysis. Publication bias-related asymmetry and quality of included studies were evaluated. The study was following the PRISMA statement and was registered at PROSPERO (CRD42017068517).

**Findings:** The meta-analysis indicated that estimates of average effects were small. Higher levels of symptoms of anxiety were correlated with higher levels of SB (weighted  $r = .093$ ; 95% CI [.055, .130];  $p < .001$ ). Moderator analyses indicated statistical trends for stronger effects were observed among adults compared to children/adolescents ( $p = .085$ ) and among individuals with a chronic illness compared to those from the general population ( $p = .082$ ).

**Discussion:** The associations between SB and anxiety are weak across age groups, among healthy individuals, and those with chronic illness. Importantly, as the majority of evidence was of correlational and cross-sectional character (71%), we were unable to establish if anxiety precedes sedentary behavior or if sedentary behavior precedes anxiety.

9:45 - 10:00

## The role of social support and discrimination in PTSD among Filipino Domestic Workers in China

B. Hall<sup>1,2</sup>

<sup>1</sup>University of Macau, China

<sup>2</sup>Johns Hopkins Bloomberg School of Public Health, United States

**Background:** Key drivers of population health risks for migrants involve cumulative exposures to social determinants of health (e.g., discrimination) and potentially traumatic life events (e.g., natural disasters). These exposures are found across the migration continuum, occurring within pre-, peri-, and post-migration contexts. Discrimination in the receiving country is associated with an increased burden of mental health challenges among migrants. The role of social support to buffer migrants from adversities has mixed evidence.

**Objective:** The current study focused on understanding postmigration experiences as key modifiers of the association between cumulative life adversities and posttraumatic stress disorder symptom severity.

**Method:** Respondent driven sampling methods were utilized to enroll 1349 female Filipino domestic workers in the study. The Everyday discrimination scale (EDS), Life Events Checklist (LEC-5), PTSD Checklist (PCL-5), and the Multidimensional Scale of Perceived Social Support (MSPSS) were translated and culturally adapted for use.

**Results:** Nearly 20% of the population met criteria for PTSD. The number of lifetime exposures to potentially traumatic events ( $r = .21$ ) and greater discrimination ( $r = .32$ ) were associated with higher PTSD symptom severity. Multivariable linear regression analysis showed that discrimination modified the effect of lifetime trauma exposure, but social support failed to buffer this effect.

**Conclusion:** Women who reported greater discrimination also reported greater current PTSD symptom severity. Social support is not always beneficial supporting a more nuanced view of the support buffering hypothesis among migrants. These results will be discussed within the growing literature that demonstrates the importance of the receiving country context for migrant mental health.

10:00 - 10:15

## Illness Perceptions, Coping and Well-Being among Persons with Multiple Sclerosis: A Common Sense Model Application

M. Bassi<sup>1</sup>, M. Benin<sup>2</sup>, S. Cilia<sup>3</sup>, E. Minacapelli<sup>4</sup>, C. Niccolai<sup>5</sup>, M. Pattini<sup>6</sup>, E. Pietrolongo<sup>7</sup>, M.E. Quartuccio<sup>8</sup>, R.G. Viterbo<sup>9</sup>, A. Delle Fave<sup>10</sup>

<sup>1</sup>Department of Biomedical and Clinical Sciences Luigi Sacco, University of Milan, Italy

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<sup>3</sup>Multiple Sclerosis Center, University Polyclinic Hospital G. Rodolico, Catania, Italy

<sup>4</sup>Neurological Department, San Raffaele Hospital, Milan, Italy

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<sup>7</sup>Department of Neurosciences, Imaging and Clinical Sciences, University G. d'Annunzio, Chieti, Italy

<sup>8</sup>Department of Neuroscience, San Camillo-Forlanini Hospital, Rome, Italy

<sup>9</sup>Department of Basic Medical Sciences, Neurosciences and Sense Organs, University of Bari, Italy

<sup>10</sup>Department of Pathophysiology and Transplantation, University of Milan, Italy

**Background:** The Common Sense Model posits that illness perceptions influence patients' well-being directly and indirectly through coping responses. While research among persons with multiple sclerosis (PwMS) highlighted the direct relation between illness perceptions and well-being, this study aimed to test their indirect relation through coping strategies and social support.

**Methods:** Questionnaires were administered cross-sectionally to 680 PwMS to assess their illness beliefs (Revised Illness Perception Questionnaire), coping strategies (Brief COPE), social support (Multidimensional Scale of Perceived Social Support), and positive and negative well-being indicators (Satisfaction with Life Scale and Beck Depression Inventory-II). Multiple mediational analyses were performed controlling for disability level.

**Findings:** The regression models explained 30% and 34% of the variance in life satisfaction and depression, respectively. Concerning indirect effects, social support was a significant mediator for both well-being indicators, specifically mediating the negative relation of illness consequences with life satisfaction, and their positive relation with depression. Meaning-focused responses uniquely mediated the relation between beliefs and life satisfaction, with emotional representations contributing to lower satisfaction, and identity, personal and treatment control, coherence, and psychological causes to higher satisfaction. Avoidance uniquely mediated the relation between illness beliefs and depression, specifically the association of emotional representations and chance with higher depression, and of identity and coherence with lower depression.

**Discussion:** Illness beliefs are related to PwMS' well-being both directly and indirectly. Overlapping and unique pathways were detected for positive and negative well-being indicators, suggesting the need to consider the interplay among these dimensions in interventions aimed at promoting PwMS' illness adjustment.

10:15 - 10:30

## Partnerships to enhance health behaviour change practice and outcomes: learning from the response to HIV

J. de Wit<sup>1</sup>, P. Adam<sup>2</sup>

<sup>1</sup>Utrecht University, Netherlands

<sup>2</sup>UNSW Sydney, Australia

**Background:** Health psychology makes pivotal contributions to health behaviour science. Participatory approaches, engaging affected communities, practitioners, policy-makers and others, strengthen implementation of health behaviour change intervention. Participatory approaches are rooted in social psychological theory and are best practice in health promotion and public health. We identify lessons learned from the HIV response that has been instrumental in establishing participatory approaches.

**Methods:** We undertook a critical events analysis to identify junctures and disruptions along the timeline of the global HIV response. These included the advent of the epidemic, the pursuit of treatments, adaptation to the epidemic and the recent emergence of new prevention tools.

**Findings:** From the outset, the HIV response has been driven by affected communities, including identifying and promoting effective preventive behaviours. Medical, public health, public policy and behaviour change experts contributed expertise strengthening and formalizing the HIV response. Community advocacy has been critical to driving progress and innovation, and the uptake of behaviour change approaches has consistently been contingent on alignment with important other goals of those affected regarding avoiding stigma and enabling intimacy.

**Discussion:** Engaging affected communities is critical to the success of the HIV response. Partnership approaches are rapidly gaining importance across public policy domains and can enhance the impact of health psychology to policy and practice. Participatory approaches reflect a commitment to the democratic right of those affected to be involved, and requires recognition of the complementarity of expert and lay knowledge and of deductive and inductive approaches to the development of behaviour change approaches.

## SYMPOSIUM

# Targeting automatic processes to change eating behaviour

11:30 - 13:00

Elafiti 1, Valamar Lacroma Dubrovnik

Laura M. König

11:30 - 11:45

## Electrophysiological correlates of response inhibition training on high and low calorie food cues

M. Aulbach<sup>1</sup>, V. Harjunen<sup>1,2</sup>, M. Spapé<sup>1</sup>, K. Knittle<sup>1</sup>, A. Haukkala<sup>1</sup>, N. Ravaja<sup>1</sup>

<sup>1</sup>University of Helsinki, Finland

<sup>2</sup>Aalto University, Finland

**Background:** Go/No-Go training has been proposed as a way to alter processing of food stimuli and reduce calorie intake. While some research indicates that Go/No-Go training strengthens top-down inhibitory control, additional evidence shows that trained foods are actually devalued through training. This study investigated differences in processing high- vs low-caloric food items during Go/No-Go training, using reaction times and a neural measure of response inhibition (the N2 event-related potential). In addition, we examined training effects on dietary intake and relations between dietary intake and laboratory measures.

**Methods:** 50 participants recruited through university mailing lists and social media completed (1) a balanced block of food Go/No-Go, i.e. half of the items were high- vs low-caloric food items with Go and No-Go trials evenly distributed across these, followed by (2) High-Calorie-No-Go training and (3) Low-Calorie-No-Go training (counterbalanced) with a snacking opportunity after each training block.

**Findings:** We found no differences in reaction times between food groups and against our hypotheses, EEG data suggest (1) that baseline N2 event-related potentials were more pronounced in No-Go trials for low than for high calorie food images, (2) that changes in N2 occurred to the same degree in both food groups through training, and (3) N2 amplitude was not related to food intake.

**Discussion:** While the N2 is often conceptualized as a measure of response inhibition, its role in this study is unclear and future research should aim to illuminate its role in food-related executive function and its relation to eating behavior.

**Pre-registration:** <https://osf.io/txfhz/>

11:45 - 12:00

## ImpulsePal: Developing an impulse management intervention to support dietary changes and weight management

S. van Beurden<sup>1</sup>, J. Smith<sup>1</sup>, N. Lawrence<sup>1</sup>, C. Abraham<sup>2</sup>, C. Greaves<sup>3</sup>

<sup>1</sup>University of Exeter, United Kingdom

<sup>3</sup>University of Melbourne, Australia

<sup>4</sup>University of Birmingham, United Kingdom

**Background:** Recent empirical research and theoretical models acknowledge that impulsive processes, can often undermine peoples' attempts to lose weight despite currently available and effective support. This project aimed to develop, deliver, and evaluate an impulse management intervention to support dietary change for weight loss in overweight and obese adults.

**Methods:** Intervention Mapping was used to initially develop the intervention. A feasibility trial, with nested mixed-methods process evaluation and two cycles of action-research, was conducted to further refine the intervention.

**Results:** A novel smartphone app-based intervention (ImpulsePal) was developed containing practical strategies providing in-the-moment support to resist temptation to give in to desires to engage in behaviour resulting in excessive energy intake. Although app usage statistics indicated reductions in use of some of the components, the interviews indicated that participants were still applying these techniques. Areas for improvement such as (a) receipt and understanding of instructions, and (b) ongoing engagement were identified following cohort 1. Resulting refinements included: (a) locking of content, (b) personalisation, (c) and the ability to set and amend reminders. Further improvements identified following cohort 2 concerned accessibility and motivation enhancing features. Overall, interviews highlighted that participants valued having access to in-the-moment support, felt more aware of their own eating behaviour and influences on it, and felt an increased ability to resist temptations.

**Conclusion:** This work developed a novel, theory- and evidence-informed, person-centred app which was acceptable to users and showed preliminary potential to improve impulse management and promote healthier eating for weight management.

12:00 - 12:15

## Assortment size and time pressure modulate the link between attitudes and food choice

L.M. König<sup>1</sup>, T. Volk<sup>1</sup>, B. Renner<sup>1</sup>

<sup>1</sup>University of Konstanz, Germany

**Background:** The present study examined the relationship between explicit and implicit attitudes and food choice in different food choice contexts. Specifically, the number of available choice options and time pressure were manipulated to test if they trigger different motivational signatures when choosing healthy and unhealthy desserts for lunch.

**Methods:** For assessing explicit attitudes towards six healthy and six unhealthy dessert choices, 169 participants filled in a questionnaire. Implicit attitudes were assessed by a single category implicit association test. Food choices were assessed using three realistic Fake Food Buffets varying in the number of available dessert options (two, four or six options each). In addition, time pressure was induced in half of the sample.

**Results:** Path modeling revealed that explicit attitudes were generally associated with dessert choice, however, the strength of the association differed between time pressure conditions and depending on the assortment size with  $\beta$  ranging from .21 ( $p = .051$ ) to .44 ( $p < .001$ ). Associations were more pronounced when no time pressure was induced and when fewer choice options were available. Implicit attitudes were not related to dessert choice ( $\beta$ s  $\leq |.17|$ ,  $p$ s  $\geq .138$ ).

**Discussion:** The choice environment moderates the relationship between explicit attitudes and food choice. Impact of explicit attitudes is decreased if the choice environment is more cognitively demanding.

12:15 - 12:30

## The impact of health warning labels on snack selection: two online experimental studies

N. Clarke<sup>1</sup>, E. Pechey<sup>1</sup>, T. Marteau<sup>1</sup>, E. Mantzari<sup>1</sup>, A. Blackwell<sup>2</sup>, K. De-loyde<sup>2</sup>, R. Morris<sup>2</sup>, G. Hollands<sup>1</sup>

<sup>1</sup>University of Cambridge, United Kingdom

<sup>2</sup>University of Bristol, United Kingdom

**Background:** Excessive consumption of energy-dense food increases the risk of obesity, which in turn increase the risk of non-communicable diseases, including heart disease, type 2 diabetes and most non-smoking related cancers. Nutrition information labels and health warning labels (HWLs) could help reduce intake of energy-dense snacks.

**Aims:** To identify the most promising HWLs for reducing intake of energy-dense snacks in two online studies, for subsequent evaluation in laboratory and field settings.

**Methods:** Study 1: A between-subjects design with 18 different pictorial HWL conditions illustrating the adverse health consequences of excess calorie consumption. Participants (N=4618) were randomly allocated to view a food product with one HWL. HWLs rated highest on negative emotional arousal were selected for Study 2.

**Study 2:** A between-subjects, 3 (HWL: text only, pictorial, no label) x 2 (calorie information; no calorie information), factorial experimental Design: Participants (N=4080) were randomised to see a selection of low and high energy-dense snacks with one of five label types or no label. The primary outcome was the proportion of participants selecting energy-dense snacks in a hypothetical vending machine task.

**Results:** HWLs illustrating bowel cancer, heart disease and type 2 diabetes were selected for use Study 2 negative emotional arousal scores. Free text responses were coded into themes (positive, negative, neutral) based on their sentiment. Data collection is in progress for Study 2 (due 03.2019).

**Discussion:** Results will provide evidence for the extent to which HWLs could reduce selection and consumption of energy-dense snacks, to be validated in laboratory and field settings.

12:30 - 12:45

## Public acceptability of nudging and taxing to reduce consumption of alcohol, tobacco, and food

J. Reynolds<sup>1</sup>, S. Archer<sup>1</sup>, M. Pilling<sup>1</sup>, G. Hollands<sup>1</sup>, M. Kenny<sup>1</sup>, T. Marteau<sup>1</sup>

<sup>1</sup>University of Cambridge, United Kingdom

**Background:** There is growing evidence for the effectiveness of choice architecture or 'nudge' interventions to change a range of health behaviours. By contrast, relatively few studies have explored public acceptability of these interventions, including the extent to which acceptability varies with the type of intervention and the target behaviour as well as with evidence of intervention effectiveness.

**Methods:** An online study using a between-participants full factorial design with three factors: Policy (availability vs size vs labelling vs tax) x Behaviour (alcohol consumption vs tobacco use vs high-calorie snack food consumption) x Evidence communication (no message vs assertion of policy effectiveness vs assertion and quantification of policy effectiveness). Participants (N = 7058) were randomly allocated to one of the 36 groups. The primary outcome was acceptability of the policy.

**Results:** Acceptability differed across policy, behaviour and evidence communication (all  $p < .001$ ). Labelling was the most acceptable policy (supported by 78%) and Availability the least (47%). Tobacco use was the most acceptable behaviour to be targeted by policies (73%) compared with policies targeting Alcohol (54%) and Food (55%). Relative to the control group, asserting evidence of effectiveness increased acceptability ( $p = .001$ ); adding a quantification to this assertion did not significantly increase this further ( $p > .999$ ).

**Discussion:** Public acceptability of interventions to change behaviour varied with the policy and the behaviours targeted. Asserting that a policy was effective increased acceptability, with no additional effect evident from quantifying the effectiveness.

## SYMPOSIUM

# Do we fear what harms us? New perspectives on individual and societal-related risk perceptions

11:30 - 13:00

Elafiti 2, Valamar Lacroma Dubrovnik

Nadine Lages

11:30 - 11:45

## People's knowledge about toxicology and factors predicting consumers' "chemophobia"

R. Saleh<sup>1</sup>, A. Bearth<sup>1</sup>, M. Siegrist<sup>1</sup>

<sup>1</sup>ETHZ, Switzerland

**Background:** People tend to have negative perceptions of chemicals despite their benefits, which might lead people to overreact or endanger themselves (e.g., avoid vaccines that are perceived to contain harmful chemicals). Thus, the goal of this study was threefold: 1) explore people's associations and affect towards chemicals, 2) assess peoples' knowledge of toxicology, 3) and determine the factors influencing peoples' irrational fear of chemicals (i.e., their chemophobia).

**Methods:** An online survey was conducted in the German-speaking part of Switzerland (N = 546 participants, 52.7% females, Mage = 45). In the questionnaire, people's associations regarding the term "chemical substance," their affect, health concerns, risk-benefit perceptions, knowledge of toxicological principles, trust in the regulation, and their chemophobia were measured.

**Results:** People tend to associate chemicals with toxicity and health danger and report particular negative affect regarding the term "synthetic chemical substance." Similar substances of natural or synthetic origin are perceived in different ways. The results suggest that chemophobia is higher, when people report higher negative affect, lower trust and knowledge about toxicological principles, and perceive more risks and less benefits. Furthermore, general health concern has a strong positive relationship with chemophobia.

**Conclusion:** Risk communicators might need to inform people about the benefits of the use of chemicals and toxicological concepts to debunk the misconception that natural chemicals are safer. The ultimate goal is to limit overreactions and ensure the appropriate handling of consumer products.

11:45 - 12:00

## Flu vaccination beliefs and herd immunity: Comparing free-riders and prosocial actors

N.C. Lages<sup>1</sup>, J. Kollmann<sup>1</sup>, L.J. Debbeler<sup>1</sup>, B. Renner<sup>1</sup>

<sup>1</sup>University of Konstanz, Germany

The World Health Organization has declared vaccine hesitancy as one of ten threats to global health in 2019. Specifically, individuals who free-ride on others' vaccine uptake and protection are a substantial threat to realizing sufficient herd immunity. In the present study, vaccine related attitudes and risk perceptions of free-riders (i.e. individuals who rely on vaccination by others) and prosocial actors (i.e. individuals who vaccinate to protect others) were compared.

In total, 505 respondents took part in an online survey in 2018 assessing (1) attitudes towards free-riding and prosocial vaccination behavior, (2) perceived risk of getting infected with the flu virus and other infectious diseases for the self and others, (3) perceived risk of experiencing vaccine side-effects for the self and others, and (4) perceived effectiveness of the vaccine. ANOVAs and post-hoc tests (Bonferroni) were calculated.

Free-riders and prosocial actors did not differ in their perceived flu risk for themselves ( $F(2, 395)=2.57, p=.077$ ) and for others ( $F(2, 410)=1.57, p=.208$ ). The two groups did also not differ in their risk perception for other infectious diseases. Conversely, free-riders ( $M=4.47$ ) gauged their risk for experiencing flu vaccine side-effects as significantly higher than prosocial actors ( $M=3.24$ ),  $F(2, 448)=20.69, p<.001$ . Moreover, they rated the vaccine effectiveness as lower than prosocial actors, ( $M=36.86$  vs.  $M=55.39, F(2, 445)=21.55, p<.001$ ).

The results suggest that free-riders do not gauge the disease risk differently but react differently to vaccination itself (the behavior). Thus, public health campaigns need to target cost-benefit ratios and to stress the social benefit of vaccination.

12:00 - 12:15

## Citizen Science: Psychological and situational factors that determine people's willingness-to-share health and genomic data

A. Bearth<sup>1</sup>, M. Siegrist<sup>1</sup>

<sup>1</sup>ETH Zurich, Switzerland

Of all the information that we (knowingly and unknowingly) share in digital surroundings, health and genomic data might be among the most valuable for researchers. As this data is considered particularly sensitive information, health research efforts using this data raise a couple of pressing issues regarding people's preferences and privacy concerns. Thus, in two online experiments (first experiment: N = 333; second experiment: N = 416), we aim at contributing to an understanding of people's reported willingness-to-share their health and genomic data for science (WTS). For this, both psychological and situational factors (e.g., risk and benefit perceptions, trust, data recipient, type of data) were considered. Results suggest that benefit perception appears to be the key factor regarding people's WTS, while risks were less salient. People seem to be driven by (mostly) altruistic motives of improving public health and contributing to the diagnosis and treatment of diseases. While people expressed some concern regarding the privacy of their data, this did not have a significant impact on their WTS. However, in light of the emerging public discourse and data scandals (e.g., Facebook sharing personal data with private company for profit), these factors should not be disregarded, as people's risk perceptions and their role for WTS might increase. Especially in the sensitive area of health, medical and genomic data future risk and psychological research should strive to understand people's shifting perceptions and preferences.

12:15 - 12:30

## Accuracy in the perception of lifestyle and societal risks: A comparison between Germany and Israel

J. Kollmann<sup>1</sup>, Y. Benyamini<sup>2</sup>, N. Lages<sup>1</sup>, L.J. Debbeler<sup>1</sup>, B. Renner<sup>1</sup>

<sup>1</sup>University of Konstanz, Germany

<sup>2</sup>Tel Aviv University, Israel

Various studies showed that when it comes to making decisions about health and safety, we do not always worry the most about the most pressing threats. In the present study, we explored the impact of hazard exposure and experience on the “risk perception gap” by comparing four health-behaviour risks and one societal risk in Germany and Israel.

In total, 532 respondents took part in an online survey (Germany: N=269, Israel: N=263) assessing risk perceptions and hazard exposure levels for lifestyles risks (nutrition, physical activity, alcohol and tobacco consumption) and societal risk (terror attacks).

Exposure levels differed significantly between samples. The German sample had a higher exposure level to alcohol and an unhealthy diet than the Israeli sample, but a lower exposure level to physical inactivity,  $p < .001$ ,  $d > .27$ . Moreover, they had an expected substantially lower exposure rate to terror attacks (Germany: 17%; Israel: 54%). For the total sample, higher exposure levels were generally associated with a higher perceived risk indicating relative accuracy. However, in a cross-national comparison, relative accuracy was only found for the societal risk and for one lifestyle risk (alcohol consumption). Israelis reported a higher perceived terror risk and a lower perceived risk through alcohol consumption, but underweighted their risk of physical inactivity while Germans underweighted their nutrition related risks.

The data suggest that risk perception gaps reflect different cultural norms and experiences and that lifestyle risks might be more difficult to be rated accurately than societal risks.

12:30 - 12:45

## We shall live till 86 in excellent health: Desire for greater (un)equal distribution of health

L.J. Debbeler<sup>1</sup>, N. Lages<sup>1</sup>, J. Kollmann<sup>1</sup>, B. Renner<sup>1</sup>

<sup>1</sup>University of Konstanz, Germany

How we perceive the distribution of health in our society and how we construe an acceptable level of social differences and health inequality is important for policy as well as for individual health related decisions ranging from welfare to physical behaviour. We assessed how people estimate the current distribution of life expectancy, health, and fitness status in Germany and asked them to construct their ideal distribution of health.

In total, 377 respondents took part in an online survey assessing perceived actual and ideal distribution for life-expectancy, health, and fitness in Germany. In addition, respondents were asked for their own actual and ideal health and fitness status and life expectancy.

Results showed that respondents were accurately aware of the existing life expectancy inequality in Germany and constructed ideal distributions that are almost equitable with a mean of 86 years. For health and fitness, actual and ideal distribution also differed greatly with a clear desire for top centred health and fitness distributions (excellent/very good status for 70-80% of the population) as compared to the estimated actual distribution. For themselves, participants also saw an actual-ideal gap for health and fitness as well.

People might have an unrealistic conception of how health and fitness should be distributed in the population which might suggest that people have overly optimistic control beliefs, health expectancies and public health policy preferences.

## SYMPOSIUM

# Making healthy choices the easy choice: Redesigning systems and environments to promote health

11:30 - 13:00

Olipa 1, Valamar Collection Dubrovnik President

Julia Allan

11:30 - 11:45

## Is increasing the availability of healthy options enough? The example of Scottish hospitals.

J. Allan<sup>1</sup>, M. Heddle<sup>1</sup>, F. McKenzie<sup>2</sup>, S. Webb<sup>2</sup>, M. Johnston<sup>1</sup>

<sup>1</sup>University of Aberdeen, United Kingdom

<sup>2</sup>NHS Grampian, United Kingdom

**Background:** Typologies of choice architecture interventions identify changes in availability as a key method of changing behaviour. The present study evaluates the availability, healthiness and purchasing of single serve snack foods in hospitals across one large UK city after the implementation of national, government guidelines restricting the availability of unhealthy foods.

**Methods:** Data were collected and descriptively summarised on the calorie, fat, and sugar content of all single-serve snack foods (n=416) available for sale in 76 food retail units (cafes, shops, vending machines, and canteens) located in hospitals across one large UK city. Snack purchases made in 6 of the largest retail sites were recorded over 4 weeks (27,989 purchases) to identify top selling items. As an indicator of relative 'healthiness', each product (available or purchased) was coded according to whether it met set healthy option criteria.

**Findings:** Healthy options were readily available in the hospitals studied, but snacks for sale varied markedly in nutritional content and healthiness. Single-serve snacks varied in calorie content from 18-641 kcals (mean: 188 kcals), in sugar content from 0-76g (mean:14g) and fat content from 0-39g (mean: 9g). Despite increased availability of healthy options, most items purchased (15/20 top sellers) did not meet healthy option criteria.

**Discussion:** While a national choice architecture intervention has reduced the availability of unhealthy foods for sale in Scottish hospitals, consumers continue to purchase unhealthy options in high numbers. Further interventions (e.g. point of purchase prompts) may be required to prompt consumers to purchase the healthier products now on offer.

11:45 - 12:00

## Interventions to reduce saturated fat of food purchases: randomised trial in an experimental online supermarket

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<sup>1</sup>University of Oxford, United Kingdom

<sup>2</sup>NIHR Oxford Biomedical Research Centre, United Kingdom

**Background:** Interventions to reduce the saturated fat (SFA) content of food purchases may help reduce consumption and lower cardiovascular risk. This factorial RCT (ISRCTN13729526) aimed to examine the effect of altering the default order of foods and being offered a swap on the SFA content of food purchases during an online experiment.

**Methods:** Grocery shoppers were recruited online and invited to select items in an experimental online supermarket using a 10-item shopping list. Participants were randomly allocated to one of four groups (i) to see products within a category ranked in ascending order of SFA content (ii) receive an offer to swap to a product with less SFA, (iii) a combination of both interventions, or (iv) no intervention.

**Results:** Between March and July 2018, 1240 participants were evenly randomised and 1088 who completed the task were analysed (88%). Compared with no intervention (n=275) where the percentage energy from SFA was 24.8% (SD 5.0%), altering the order of foods (n=261) reduced SFA by [mean difference (95%CI)] -5.3% (-6.5 to -4.1)) and offering swaps (n=279) by -2.0% (-3.2 to -0.8). The combined intervention (n=273) was significantly more effective than swaps alone (-4.2% (-5.4 to -3.0)) but not different than altering the order alone (-0.9% (-2.1 to 0.3), p=0.11 for interaction).

**Conclusions:** Altering the default order to show foods in ascending order of SFA and offering a swap with lower SFA reduced percentage energy from SFA. Altering the default order appears a more promising way to improve food purchasing than swaps.

12:00 - 12:15

## Under pressure: is nudge effectiveness influenced by time pressure?

F. de Boer<sup>1</sup>, M. Gillebaart<sup>1</sup>, N. van der Laan<sup>2</sup>, D. de Ridder<sup>1</sup>

<sup>1</sup>Utrecht University, Netherlands

<sup>2</sup>Tilburg University, Netherlands

**Background:** Nudging interventions hold great potential for improving food choices, but very little is known about their working mechanisms. It is presumed that nudges target automatic decision-making, as opposed to deliberate processes. In this study, we investigated 1) whether salience nudges increase healthy food choices in the supermarket, and 2) whether this effect is moderated by time pressure (to induce automatic decision-making).

**Methods:** A 2x2 between-subjects study was executed in a virtual reality (VR) supermarket to investigate the effect of nudges and time pressure on food purchases. Participants (n=99, age=30.7 y, 59.6% female) performed a shopping task in the VR supermarket, followed by a questionnaire on decision-making styles (deliberate, habitual and impulsive) and socio-demographics. Results were analyzed using t-tests, ANOVAs and chi-square tests.

**Findings:** Participants were marginally faster in the time pressure conditions (p=0.051). There was no significant main effect of time pressure on the number of purchased nudged products (p=0.728), but there was a main effect of the nudges on supermarket purchases (p=0.013). An interaction effect was absent. Interestingly, time pressure and nudges affected self-reported habitual decision-making style: in these conditions, participants bought less of the products that they usually purchased (p=0.013).

**Discussion:** Although time pressure influenced the speed of grocery shopping and the decision-making style of the participants, nudge effectiveness was not moderated by time pressure. Our results suggest that nudging is not dependent on people's decision-making style, and that salience nudges can thus be used to increase healthy food choice in hurried and unhurried grocery shoppers.

12:15 - 12:30

## Health and control over the environment in disadvantaged and non-disadvantaged neighborhoods

M. Gillebaart<sup>1</sup>, D. de Ridder<sup>1</sup>

<sup>1</sup>Utrecht University, Netherlands

**Background:** People from disadvantaged neighborhoods suffer from more health problems than people from non-disadvantaged neighborhoods. Numerous health promotion interventions have focused on increasing self-regulatory skills, while the perceived control people have over their environment has remained underexposed. We aimed to explore how control over the self and the environment differs between disadvantaged and non-disadvantaged neighborhoods.

**Methods:** A survey (N = 3758) was conducted containing questions about control, several health outcomes, and neighborhood. Regression analyses were used to test associations between self-control, perceived control, and health and lifestyle outcomes in different types of neighborhoods.

**Findings:** Participants in disadvantaged neighborhoods reported poorer general health, as well as unhealthier lifestyles compared to participants in non-disadvantaged neighborhoods. Self-control was positively associated with health and lifestyle variables. However, self-control did not differ between participants from different neighborhoods. Perceived control over the environment mediated between type of neighborhood and health, with participants from a disadvantaged neighborhood reporting a lower sense of perceived control, which in turn was associated with poorer self-reported general health and less healthy lifestyle choices.

**Discussion:** Findings confirmed the notion that people from disadvantaged neighborhoods generally report lower health outcomes than people from non-disadvantaged neighborhood, and demonstrated that self-control levels are positively correlated to lifestyle and health outcomes. Neighborhood differences were not associated with differences in self-control but with differences in perceived control over the environment. This provides a new angle for interventions, that may be more effective when focusing on changes in the environment (e.g., nudging interventions) rather than training individual self-control.

12:30 - 12:45

## Consumption of artificially and sugar sweetened drinks and snack choice in teenagers: An experimental study.

R. Crockett<sup>1</sup>

<sup>1</sup>University of Stirling, United Kingdom

**Background:** Consumption of artificially sweetened soft drinks (ASDs), is associated with obesity. Preferences for sugary foods following consumption of an ASD may be driven by physiological responses to the sweetener or psychological responses to information about the sweetener. This study aimed to assess whether preferences for sugary snacks following consumption of an ASD are driven by physiological or psychological processes.

**Methods:** A between subjects 2 (drink sweetener: artificial vs. sugar) x 2 (drink label: artificially vs. sugar sweetened) factorial Design: Participants aged 13 to 18 years were randomly allocated to experimental group. Participants completed an unrelated task while consuming the drink and then given the choice of a sugary or non-sugary snack.

**Findings:** Preliminary analyses of data from 78 teenagers (m=21) using binomial logistic regression found no significant effect of the type of soft drink sweetener on subsequent snack choice. However, there was a marginally significant effect of sweetener information on subsequent choice, such that believing that the soft drink was artificially sweetened resulted in participants being twice as likely to choose a sugary snack subsequently compared to those who were told the drink was sugar sweetened (OR= 2.31, 95%CI: .87,6.10, p=.09)

**Discussion:** These findings suggest cognitive processes underlie choices for sugary foods following ASD consumption. This study extends similar findings in an adult sample to teenagers who consume high levels of soft drinks and are at risk of unhealthy weight gain. To reduce sugar intake in this population, interventions should consider the promotion of unsweetened drinks to teenagers.

## SYMPOSIUM

Europe's illicit drug use challenges: are health psychological, social and policy responses fit for purpose?

14:00 - 15:30

Elafiti 1, Valamar Lacroma Dubrovnik

Gjalt-Jorn Peters

14:00 - 14:15

## Trends in cannabis consumption among youth in Luxembourg

C. Catunda<sup>1</sup>, C. van Duin<sup>1</sup>, A. Heinz<sup>1</sup>, H. Willems<sup>1</sup>

<sup>1</sup>University of Luxembourg, Luxembourg

**Background:** Cannabis is the most widely consumed illegal drug worldwide. Among adolescents, cannabis use is a risk factor for cognitive decline, mental illness, social problems, and the use of other psychoactive drugs. The current study presents trends in cannabis consumption among adolescents in Luxembourg.

**Methods:** The Health Behaviour in School Aged Children (HBSC) Study in Luxembourg collected data in 2006, 2010, 2014 and 2018 using a standardized paper-pencil questionnaire. In total, 23,346 secondary schools students aged 11 to 18 years old (M=15.51, SD=1.53) responded to questions on cannabis, tobacco and alcohol consumption (lifetime and the past 30 days).

**Findings:** In general, students who never used cannabis significantly increased over the four HBSC study waves (78%, 81.2%, 81%, 84%), whereas trends are similar for boys (74.5%, 77%, 78.2%, 81.4%), but not for girls (81.5%, 85%, 83.2%, 86.3%). Cannabis use (past 30 days) significantly differ for girls (94.1%, 94.1%, 92.8%, 93.7%), but not in general (91.7%, 92%, 90.9%, 91.7%), neither for boys (89.3%, 90.1%, 88.6%, 89.6%).

**Discussion:** Cannabis lifetime use remains high for both genders. While consumption in the last 30 days remained stable for boys, it increased for girls over the past years. Tailored preventive interventions, based on health psychological models, are essential to educate adolescents about the social-cognitive risks of cannabis use and strengthen their capacities and resilience to resist experimental drug use and social pressure. In a context where legalization policies are discussed in various European countries, e-health approaches, for example, could be widely implemented in a cost-effective manner.

14:15 - 14:30

## Psychosocial predictors of injecting risk behaviour in people who inject drugs on hepatitis C treatment.

A. Malaguti<sup>1,2</sup>, F. Sani<sup>1</sup>, A. Eriksen<sup>2</sup>, K. Power<sup>2,3</sup>, J. Dillon<sup>1,2</sup>

<sup>1</sup>University of Dundee, United Kingdom

<sup>2</sup>NHS Tayside, United Kingdom

<sup>3</sup>University of Stirling, United Kingdom

**Background:** Injecting risk behaviour remains the primary risk factor for hepatitis C (HCV) infection. People who inject drugs (PWID) infected with HCV in Scotland are offered HCV treatment. Their risk of reinfection remains high when sharing of injecting equipment continues to occur post-treatment. Social factors and mental health have been shown to influence injecting risk behaviour, whilst social identity isolation has been linked to poor mental health. This study investigates the role of mental health, illness perception and group identification on injecting risk behaviour.

**Methods:** The sample of this cross-sectional pilot study included 30 participants on treatment for active HCV infection. Correlation analyses were run to analyse the association of group identification, mental health and illness perception with sharing of injecting equipment. A multiple regression was run to test the model under investigation. Only factors with a strong correlation to sharing behaviour were included in the model.

**Findings:** The regression model was a good fit for the data. Group identification with drug network, PTSD score and injecting frequency were significant predictors of sharing behaviour,  $F(3,26)=11.48$ ,  $p<.001$ . The model explained 57% ( $R^2$ ) of the variance in sharing behaviour.

**Discussion:** Reducing injecting risk behaviour to lower reinfection rates in PWID is essential to render HCV treatment more cost-effective for the NHS. Identification with a social group, which is usually associated with improved physical and mental health, may pose health risks depending on the type of group identification. Interventions on social networks identification might be essential to influence sharing of injecting equipment.

14:30 - 14:45

## Sexual health and social inequities in women on opioid substitution treatment

L. Medina Perucha<sup>1</sup>, J. Scott<sup>1</sup>, C. Dack<sup>1</sup>, S. Chapman<sup>1</sup>, H. Family<sup>1</sup>, J. Barnett<sup>1</sup>

<sup>1</sup>University of Bath, United Kingdom

**Background:** Women using drugs are at high risk of sexually transmitted infections (STIs) and blood-borne viruses (BBVs). Little attention has been paid to identify the psychosocial and structural factors associated with the heightened risk of sexually transmitted STIs and BBVs. This study aimed to explore the role of psychosocial and structural factors in the increased sexual health risks of women on opioid substitution treatment (WOST).

**Methods:** This study was designed using Intervention Mapping. Semi-structured interviews and focus groups were conducted with WOST (N=24) in Bath, Midsomer Norton and Bristol (UK) between October 2016 and September 2017. Data were collected in drug services and a charity for sex workers. The data were analysed using Framework Analysis and Content Analysis.

**Findings:** Through the lens of the Social-Ecological Approach and Intersectionality Theory, findings suggested that social inequities – gender inequity and poverty – are at the core of sexual health risks among WOST. These were underlying the main STI/BBV risk factors among WOST at different social-ecological levels: intrapersonal (e.g., social identity), interpersonal (e.g., gender-based violence), organisational (e.g., intersectional stigma), community (e.g., sex/sexual health taboo), and public policy (e.g., sexual health policies).

**Discussion:** This study highlights the need to direct our attention towards prevailing social inequities of health, particularly gender inequity and poverty in drug using populations. Greater attention to these issues needs to be made in health promotion, education and public health agendas. Multi-level and comprehensive interventions need to be developed to address social inequities of health to tackle STI/BBV risk among WOST.

14:45 - 15:00

## Sampling and recruitment of PWID in the study: notes from the field

K. Eritsyanyan<sup>1,2</sup>, A. Lyubimova<sup>3</sup>

<sup>1</sup>Herzen State Pedagogical University of Russia, Russia

<sup>2</sup>National Research University Higher School of Economics, Russia

<sup>3</sup>NGO "Stellit", Russia

**Background:** The recruitment and sampling of people who inject drugs (PWID) is usually based on respondent-driven sample (RDS) or less rigorous frameworks. Methodological challenges regarding the implementation of those studies have rarely been discussed previously.

**Methods:** Field notes and datasets from 8 cross-sectional bio-behavioral studies focusing on HIV-related behavior among PWID and their sexual partners in Russia were analyzed. Moreover, explorative semi-structured interviews with coordinators of data collection among PWID (n=20) in different regions of Russia were conducted in winter 2018-2019.

**Findings:** The qualitative data analysis revealed several factors that might introduce bias in the data. Factors included including short or absent formative research phases, rigid field data collection plans based on non-relevant international experience, low accessibility of data collection sites, exclusion of intoxicated participants, lack of prior established contact between researchers and PWID, and insufficient or excessive incentives for research participants. Regression analysis of bio-behavioral data revealed that presence of sexual partners known to be HIV-positive (AOR: 10.07 (5.60 – 18.12)) and known to be HIV-positive injection partners (AOR: 2.32 (1.40 – 3.84)) were the most significant predictors of HIV status among study participants.

**Discussion:** The current study identified numerous factors that might negatively affect the quality of sampling of PWID in bio-behavioral studies, and therefore the accuracy of information about their behaviors. Possible selection of sexual and drug use partners by PWID based on HIV-status might be an additional factor of bias in network-based samples such as RDS.

## SYMPOSIUM

# Women's health issues across the lifespan: Identifying risks and opportunities for change

14:00 - 15:30

Karaka, Valamar Argosy

Efrat Neter

14:00 - 14:15

## Persevering in fertility treatments despite repeated failures: unrealistic-optimism and the reality of a pronatalist culture

Y. Benyamini<sup>1</sup>, M. Abramov<sup>2</sup>

<sup>1</sup>Tel Aviv University, Israel

<sup>2</sup>Hillel Yafe Medical Center, Israel

**Background:** Israel's unprecedented extent of fertility treatments and funding for them reflects the high value of parenthood in the Israeli society and leads women to undergo multiple treatment cycles, even when odds of success are poor. We aimed to investigate the psychological mechanisms (e.g., unrealistic optimism) that contribute to Israeli women's willingness to continue fertility treatments even after repeated failures, comparing age groups.

**Methods:** One-hundred women (ages 31-45, mean 37±4) undergoing in-vitro-fertilization (IVF) treatment (1-22 previous treatment cycles, mean 5±4) were recruited at a medical center and filled in questionnaires assessing their estimates of treatment success (theirs/for same-age patient), information received from physician, plans for continued treatment, and psychological adjustment. Follow-up was conducted about 17(±4) months later, by phone (n=71) and medical records (n=90).

**Findings:** Most women (57%) reported that they will continue treatment for as long as needed till they have a child and 18% did not know; 25% mentioned a specific plan (significantly more women ages 40+). Women's estimates of treatment success showed vast unrealistic optimism, which was unrelated to their age, previous cycles, or plans for continued treatment. Unrealistic optimism was related to better psychological adjustment. Adjustment was higher among those who planned to continue treatment "as long as needed". Follow-up data showed that almost all women who did not conceive, continued treatments.

**Discussion:** Unrealistic optimism helps women maintain hope and psychological well-being along the demanding journey to (biological) parenthood in a country where childlessness is highly stigmatized, and contributes to a culture of perseverance in treatment.

14:15 - 14:30

## Women's decisions about next-generation sequencing for newborn screening: psychological mediators of increases in pregnancy anxiety

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<sup>3</sup>Duke University, United States

<sup>4</sup>University of North Carolina at Chapel Hill, United States

**Background:** The North Carolina Newborn Exome Sequencing for Universal Screening (NC NEXUS) study is evaluating whether genome-scale next-generation sequencing (NGS) can extend the utility of standard newborn screening (NBS). We developed a decision aid to help parents make an informed decision about consenting to NGS-NBS. Educating pregnant women about their baby's possible risk for genetic conditions and offering to test for these genetic risks could increase prenatal maternal pregnancy anxiety—an outcome associated with adverse maternal-fetal outcomes. In this study we described changes in pregnancy anxiety from enrollment (T1) to a follow up (T2; administered prenatally, after decision aid completion), and evaluated whether changes in pregnancy anxiety were associated with women's understanding of NGS-NBS, as indicated by their knowledge about genomics and about NGS-NBS, perceived risk that NGS-NBS would find genetic risks in their newborn, and endorsement of reasons to accept or to decline NGS-NBS.

**Methods:** Participants were 78 women with non-complicated pregnancies who completed the T1 assessment, decision aid, and T2 assessment.

**Findings:** Pregnancy anxiety increased in 35.5% of women. Increases in pregnancy anxiety were unrelated to women's demographic characteristics except that lower education was associated with greater increases ( $p < .01$ ). Controlling for education, women with higher perceived risk demonstrated greater increases in pregnancy anxiety ( $p = .001$ ). No other indicators of understanding were significant predictors.

**Discussion:** Findings can guide additional research to understand implications of preparing pregnant women to make an informed decision about NGS-NBS, focusing on potential increases in prenatal anxiety, with implications for their risk for adverse maternal-fetal outcomes.

14:30 - 14:45

## Compensatory health beliefs on breastfeeding varying by breastfeeding status

E. Neter<sup>1</sup>, L. Baganz<sup>1</sup>

<sup>1</sup>Ruppin Academic Center, Israel

**Background:** Though breastfeeding is documented as providing many health benefits for both newborns and mothers and WHO recommendations are to exclusively breastfeed at least until 6 months, many women do not breastfeed exclusively or at all. These women may use compensatory health beliefs (CBB) to neutralize or reduce the cognitive dissonance between non-nursing and optimal infant care. A CHB scale for breastfeeding was constructed and its validity was examined by comparing CHB levels as a function of breastfeeding status among mothers of infants. Association with birth trauma was also examined.

**Methods:** Participants included 822 women aged 18 and older ( $M = 32.8$ ) who gave birth in the last two years; 474 were breastfeeding exclusively, 172 were breastfeeding partially, and 176 were not breastfeeding. The study design was cross-sectional, with CHB as the dependent variable (14 items) and demographics and feeding status as the independent variables.

**Findings:** The internal reliability of the CHB scale was  $\alpha=0.87$  and the correlation between individual items to the total score was above 0.40, except for two items which were below criteria, yet their removal hardly changed the reliability. There was a statistically significant difference in the level of CHB between non-breastfeeding, breastfeeding women and women who combined breastfeeding with infant formula ( $F(2,760) = 96.72, p < 0.001$ ). There was no significant difference in CHB by birth experience.

**Discussion:** This study extended CHB to breastfeeding, documenting the discomfort of non-breastfeeding women and their attempt to reduce it. Space for this voice is advocated.

14:45 - 15:00

## Title: Sedentary behaviors and behavior-specific social support in mother-child and female partner-patient dyads

M. Boberska<sup>1</sup>, K. Horodyska<sup>1</sup>, M. Kruk<sup>1</sup>, E. Kulis<sup>1</sup>, Z. Szczuka<sup>1</sup>, A. Luszczynska<sup>1</sup>

<sup>1</sup>University of Social Sciences and Humanities, Poland

**Background:** The study discusses longitudinal associations between sedentary behaviors (SB) and social support to reduce SB. The predictive role of provided and perceived social support, collaborative social control, and social support satisfaction in explaining SB total time and the number of active breaks was investigated.

**Method:** Data from mother-child (N = 107; maternal Mage = 41.1, child Mage = 11.4,) and female partner-patient (N = 155; female partner's Mage = 45.8 patient's Mage = 49.4,) dyads were collected at baseline (T1) and at the 1-month follow-up (T2). Patients with behaviour related illnesses (e.g., cardiovascular, (47%)) were included. Participants reported their SB, number of active breaks, and social support variables. Path analyses were performed to test the hypothesized associations.

**Findings:** Limited dyadic effects of perceived social support on active breaks were found for both types of dyads. In female partner-patient dyads, perceived support reported by female partners was associated with SB time (T2), reported by patients. Additionally, in female partner-patient dyads, social satisfaction reported by patients (T1) was related to received support reported by patients at T1 and provided social control reported by female partners. In mother-child dyads, child's active breaks (T2) were predicted by collaborative social control reported by children (T1).

**Discussion:** The hypothesized dyadic effects were not confirmed, except for one association obtained for female partner-patient dyads. Changing habitual behaviors, such as SB, may require individual and social resources, as well as environmental triggers to reduce SB.

15:00 - 15:15

## The role of health literacy and health beliefs in colonoscopy screening among Romanian women

A. Baban<sup>1</sup>, A. Ciucă<sup>1</sup>, R. Moldovan<sup>1</sup>, S. Pinteă<sup>1</sup>

<sup>1</sup>Babes-Bolyai University, Romania

Colorectal cancer is the second most frequent form of cancer in Romania for men and women as well. This could be strongly connected with the absence of a national screening program for colorectal cancer, which has led to the highest proportion in EU of individuals aged 50 to 74 years never been screened (95%). Present study aims at identifying the role of different dimensions of health literacy and health beliefs with the best discriminative values between positive and negative decision for colonoscopy screening. The sample included 98 women aged over 50 years (mean age 63.47 years, SD= 8.27). Besides socio-demographic variables, family history of cancer and the number of past colonoscopies, health literacy (accessing, understanding, appraising and applying health information), dimensions of health beliefs model (benefits, barriers, self-efficacy and optimism), and the experience of interaction with healthcare providers, were assessed. Almost one quarter of the participants (23%) reported previous colonoscopy screening. Receiver Operating Characteristic (ROC) curve analysis shows that colonoscopy uptake is best discriminated by perceived benefits of screening (AUC=0.711, d=0.787, p=0.001), health care providers recommendations for screening (AUC=0.689, d= 0.697, p=0.007), previous disease prevention recommendations (AUC=0.675, d=0.642, p=0.011) the health literacy related to disease prevention (AUC=0.672, d=0.630, p=0.01), and self-efficacy (AUC=0.659, d=0.588, p=0.01). A better knowledge of factors associated with screening compliance support the design of efficient campaigns to achieve higher rates of colorectal screening uptake and cancer prevention.

## SYMPOSIUM

# Advancing acceptability research: application of health psychology approaches to inform intervention development and assessment

14:00 - 15:30

Olipa 1, Valamar Collection Dubrovnik President

Mandeep Sekhon and Martin Cartwright

14:15 - 14:30

## Prospective acceptability of a proposed rehabilitation programme for chest trauma patients: a qualitative study

M. Cartwright<sup>2</sup>, J. Coe<sup>1</sup>, E. Olander<sup>2</sup>

<sup>1</sup>Brighton and Sussex University Hospitals NHS Trust, United Kingdom

<sup>2</sup>City University London, United Kingdom

**Background:** Traumatic injuries account for over 10% of the global burden of disease. Traumatic rib fractures are the third most prevalent subset and expose patients to significant pain and disruption to normal breathing mechanics. Long-term outcomes are often poor. A structured exercise programme represents one potential rehabilitation strategy to improve these outcomes. The aim of the study was to evaluate the prospective acceptability to patients of a proposed exercise programme.

**Methods:** A qualitative study with hospitalised traumatic rib fracture patients. Participants were provided with visual, textual and verbal descriptions of the proposed exercises. Semi-structured interviews based on the Theoretical Framework of Acceptability (TFA) were conducted prior to discharge (n=12) and again approximately two weeks post-discharge (n=5). Data were deductively coded into TFA constructs (Affective Attitude; Burden; Ethicality; Intervention Coherence; Opportunity Costs; Perceived Effectiveness; Self-efficacy) then thematically analysed.

**Findings:** Participant responses were coded into six TFA constructs. For example, anticipated Opportunity Costs of performing the exercises were generally perceived to be low. Intervention Coherence and Perceived Effectiveness varied across participants and showed predictable relationships with reported readiness to engage. Participants were uncertain whether they would be able to complete all the proposed exercises (Self-Efficacy), citing factors such as catheters and pain.

**Discussion:** When applied at an early stage of intervention development, the TFA enabled a fine-grained analysis of acceptability that generated specific, concrete suggestions for improvement of the intervention ahead of an initial feasibility study, e.g. clearer explanations of the rationales for each exercise. Suggestions for theory improvement were also identified.

14:30 - 14:45

## Acceptability of infant feeding interventions in primary care with healthcare professionals: a qualitative interview study

E. Toomey<sup>1</sup>, K. Matvienko-Sikar<sup>2</sup>, C. Hayes<sup>3</sup>, C. Heary<sup>1</sup>, M. Hennessy<sup>1</sup>, P. Kearney<sup>2</sup>, S. McHugh<sup>2</sup>, M. Byrne<sup>1</sup>

<sup>1</sup>National University of Ireland Galway, Ireland

<sup>2</sup>University College Cork, Ireland

<sup>3</sup>Trinity College Dublin, Ireland

**Background:** Infant feeding behaviours have been identified as an important factor in chronic disease prevention; vaccination visits represent a potential vehicle for a brief intervention to improve infant feeding behaviours in primary care. This study aimed: (1) to explore HCPs acceptability of delivering infant feeding interventions in primary care and (2) to identify barriers and enablers for delivering an infant feeding intervention during vaccination visits for primary care healthcare professionals (HCPs).

**Methods:** 21 semi-structured interviews were conducted with a variety of primary care HCPs. Thematic analysis was used to analyse the data; themes were subsequently mapped to the Theoretical Framework of Acceptability (TFA).

**Results:** For all infant feeding interventions delivered in primary care, HCPs emphasised the importance of ensuring consistency of intervention content across all providers, the importance of evidence-based trustworthy resources and the inclusion of practical skills. Analysis identified a number of barriers and enablers to delivering an intervention during vaccination visits. Barriers included 1) lack of time/capacity/resources, 2) role uncertainty and 3) parent/child stress during vaccinations. Enablers were the 1) topic importance 2) provision of training/resources and 3) positive relationships between HCPs and parents. Themes mapped to the TFA categories of Burden, Perceived Effectiveness and Affective Attitude.

**Discussion:** Identified barriers and enablers will inform the development and enhance the feasibility and acceptability of a brief infant feeding intervention to be delivered during vaccination visits. This has the potential to reduce complications with intervention delivery and facilitate the implementation of the intended intervention, maximising efficiency and potential for effectiveness.

14:45 - 15:00

## Development of eczema care online, a digital intervention to support eczema self-management in young people

K. Greenwell<sup>1</sup>, M. Santer<sup>1</sup>, D. Ghio<sup>1</sup>, K. Sivyer<sup>1</sup>, E. Teasdale<sup>1</sup>, S. Wilczynska<sup>1</sup>, A. Roberts<sup>2</sup>, L. Yardley<sup>1</sup>, I. Muller<sup>1</sup>

<sup>1</sup>University of Southampton, United Kingdom

<sup>2</sup>University of Nottingham, United Kingdom

**Background:** This research aimed to develop Eczema Care Online (ECO), a digital intervention to support eczema self-management in young people (13-25 years).

**Methods:** Theory-, evidence- and person-based approaches to intervention development were used. In Phase 1, interviews (primary research and secondary analysis) with young people (n=28), and a systematic review of qualitative studies developed an in-depth understanding of this target group's psychosocial context. In Phase 2, guiding principles were created to address key behavioural issues, needs, and challenges identified in Phase 1. Behavioural analysis and logic modelling described the intervention and its hypothesised mechanisms, and mapped intervention content onto behaviour change theory (COM-B, Theoretical Domains Framework). Finally, think-aloud interviews explored young people's (n=25) reactions to an intervention prototype. Optimisation was iterative, moving between data collection, analysis, and modifying the intervention.

**Findings:** Think-aloud interview findings provided support for the importance and acceptability of the intervention features highlighted in the guiding principles. ECO addressed young people's information gaps, treatment concerns, and unhelpful beliefs, thus providing them with a more complete understanding of managing their eczema in the context of their everyday lives. Young people valued the design features intended to engage this group, mainly the interactive quiz, quotes from peers, and videos delivering key behaviour-focused messages. Behaviour change content that was confusing or misinterpreted was identified and re-written.

**Discussion:** Findings demonstrated that ECO was acceptable and engaging to young people with eczema. The person-based approach allowed us to understand and accommodate the perspectives of young people with eczema to maximise intervention acceptability.

15:00 - 15:15

## Evaluating the acceptability of digital interventions for improving quality of life in adults with asthma

B. Ainsworth<sup>1</sup>, S. Stanescu<sup>2</sup>, K. Greenwell<sup>2</sup>, M. Western<sup>1</sup>

<sup>1</sup>University of Bath, United Kingdom

<sup>2</sup>University of Southampton, United Kingdom

**Background:** Using digital behaviour change interventions to aid self-management of long-term conditions such as asthma is increasingly recognised as effective and cost-effective. To address critical issues such as low uptake and ongoing engagement, both qualitative and quantitative approaches can be used. We will consider such approaches used during the development and evaluation of 'My Breathing Matters', a digital asthma self-management intervention, and 'Headspace', a popular mindfulness-meditation app.

**Methods:** In the iterative, person-based development of 'My Breathing Matters' 30 adults with asthma were interviewed until the intervention was optimally acceptable and engaging. The intervention was then evaluated in a randomised feasibility trial of 88 adults with asthma with questionnaires at baseline, 3 and 12-months, and a further 18 qualitative interviews were conducted and thematically analysed. 'Headspace' was evaluated in 158 adults with asthma with questionnaires at baseline and 3-month follow-up alongside 30 patient interviews. Both interventions gathered detailed usage data which was triangulated with qualitative and quantitative questionnaire data to understand engagement and acceptability.

**Findings:** Thematic analysis found both interventions to be acceptable and engaging, and usage data demonstrated both were frequently used (Median usage 'My Breathing Matters': 4 [IQR 8], Headspace: 8.5, [IQR 32]). People who repeatedly accessed the interventions often returned for specific, favoured intervention components (eg Breathing Retraining).

**Discussion:** Complementary insights from quantitative, qualitative and usage data should be triangulated to understand whether an intervention is acceptable and engaging for targeted populations. Interventions can be further optimised by understanding the individual differences required to facilitate 'effective engagement'.

# STATE OF THE ART

## Managing addiction and chronic pain

9:30 - 11:00

Elafiti 3, Valamar Lacroma Dubrovnik

Brian McGuire

9:30 - 10:15

## Testing STOP: Self-regulation Therapy for Opioid addiction and Pain

A. Wachholtz<sup>1</sup>

<sup>1</sup>University of Colorado Denver, United States

**Introduction:** Opioid addiction has reached epidemic levels and chronic pain is common among individuals with Opioid Use Disorder (OUD). There is so much that we do not know about the psycho-physiological needs of this population making it difficult to design effective and efficient treatments. In this study series, we used psycho-physiological data to create a novel psychotherapy treatment to target both the physiology of cravings and pain as well as the psychology. The STOP Study is a NIDA-funded Stage 1B clinical trial for adults with OUD and chronic pain.

**Method:** STOP is a 12-week rolling entry RCT of psychotherapy to be used in conjunction with medication assisted treatment for Comorbid Opioid Addiction and Pain (COAP) in conjunction with methadone or buprenorphine assisted treatment in community addiction treatment centers. Participants (N=26) were randomized to STOP or treatment as usual (TAU). Both groups completed psychological and physiological assessments at baseline, post-treatment, and at a 1-month follow-up.

**Results:** There were no baseline differences between the groups. Repeated measures ANOVAs showed significant differences between STOP vs TAU treatments. Specifically significant differences occurred in reported pain levels: Significant differences occurred in current pain levels ( $p < .05$ ), pain interference in daily tasks ( $p < .01$ ), days using illicit drugs in the past week ( $p < .01$ ), and opioid craving levels ( $p < .05$ ).

**Discussion:** The STOP study treatment shows promise as a unique treatment to simultaneously treat comorbid pain and opioid addiction within the setting of community addiction treatment centers. Implications and training needs to implement this treatment will be discussed.

10:15 - 10:30

## The role of psychologist in the multidisciplinary program for the treatment of chronic pain

I. Dimitrijević<sup>1</sup>, M. Knez<sup>2</sup>

<sup>1</sup>KBC Osijek, Anesthesiology clinic, Pain management department, Croatia

<sup>2</sup>KBC Osijek, Croatia

The multidisciplinary pain management program is based on an approach that educates and involves the patient as an equal and active participant in the treatment of chronic pain. An experts from different profiles are part of the multidisciplinary team: anesthesiologist educated for pain management, nurse, psychiatrist, psychologist, physiotherapist, nutritionist and work therapist. The aim of this paper is to show the role of psychologist in the work of a team for the treatment of chronic pain and to show the results of monitoring their emotional status at the beginning and at the end of the treatment. During group and individual work with patients, the psychologist uses various psychological procedures that are part of a complete therapy of pain. Numerous cognitive-behavioral techniques are used, from which the most commonly used are: psychoeducation on different factors that can affect pain experience, cognitive restructuring, distraction techniques and attention refocusing, relaxation techniques, behavioral activation, behavioral experiment and time management. Patient's (N=159) symptoms was evaluated with a CORE-OM (Clinical Outcomes in Routine Evaluation) which is a scale designed as a measure of general psychological distress. Comparison of the results on the initial and final questionnaire application points to a positive trend on aspects of total score ( $t=9.77, df=158, p<0.01$ ) subjective well-being ( $t=8.79, df=158, p<0.01$ ), general and social functioning ( $t=6.62, df=158, p<0.01$ ), and reduction of anxiety and depressive symptoms and somatic problems ( $t=10.67, df=158, p<0.01$ ).

Patient's results show the reduction of anxiety and depressive symptoms and improvement their everyday functioning at the end of the four week program.

10:30 - 10:45

## Neurofeedback for central neuropathic pain: understanding successful neuromodulation in able-bodied and spinal cord injury participants

K. Anil<sup>1</sup>, J. Burridge<sup>2</sup>, I. Cotter<sup>3</sup>, S. Demain<sup>4</sup>, D. Simpson<sup>1</sup>, J. Taylor<sup>5,6</sup>, A. Vuckovic<sup>7</sup>

<sup>1</sup>Faculty of Engineering and Physical Sciences, University of Southampton, United Kingdom

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<sup>3</sup>Department Clinical Psychology, NSIC, Stoke Mandeville Hospital, United Kingdom

<sup>4</sup>Faculty of Health and Human Sciences, University of Plymouth, United Kingdom

<sup>5</sup>Sensorimotor Function Group, Hospital Nacional de Paraplégicos, Spain

<sup>6</sup>Harris Manchester College, University of Oxford, United Kingdom

<sup>7</sup>Department of Biomedical Engineering, University of Glasgow, United Kingdom

Central neuropathic pain (CNP) is a debilitating problem prevalent in 53% of the spinal cord injury (SCI) population. Electroencephalogram (EEG)-based neurofeedback (ENF) is a process where individuals self-modulate brain activity (neuromodulation) using mental strategies (MS) to control a computer display of real-time EEG feedback. Preliminary research suggests that ENF has potential to reduce CNP after SCI. This exploratory study examined individuals' MS used for ENF neuromodulation.

Twelve SCI patients with CNP (4 female; mean age 50) and twenty-six able-bodied participants (13 female; mean age 30.69) engaged in ENF on eight and four visits respectively. Each visit comprised of six five-minute ENF sessions; no neuromodulation guidance was given. Semi-structured interviews were conducted at the end of each visit examining participants' MS and perceived neuromodulation performance, which was compared to actual-performance using frequency-spectrum analysis of their EEG activity. Interviews were analysed using thematic framework analysis. MS of patient and able-bodied participants were compared.

Common MS (e.g., imagination) were found, although none were consistent within and across participant groups. Trait of MS (e.g., attentiveness) was associated with neuromodulation success. Unsuccessful participants reported they could not differentiate between successful and unsuccessful strategies; interview analysis revealed this was due to a non-optimal method of displaying EEG activity that overloads attentional resources.

The results indicate that MS are a mediator, where MS are used to invoke specific mental processes (trait of MS) needed for ENF neuromodulation. The computer display of EEG activity may benefit from modifications by simplifying the on-screen information to facilitate learning ENF neuromodulation.

10:45 - 11:00

## Investigating the effect of an online ACT intervention for multimorbidity and chronic pain on HRQoL

L. O'Connor<sup>1</sup>, B. Slattery<sup>2</sup>, S. Haugh<sup>1</sup>, M. Hanlon<sup>1</sup>, J. Flynn<sup>3</sup>, B. O'Grady<sup>1</sup>, S. O'Higgins<sup>3</sup>, C. Dwyer<sup>3</sup>, B. McGuire<sup>3</sup>

<sup>1</sup>Centre for Pain Research, NUI Galway, Ireland

<sup>2</sup>DCU, Ireland

<sup>3</sup>National University of Ireland Galway, Ireland

**Background:** Multimorbidity (MM) is the coexistence of two or more conditions where no one condition is primary. MM can have debilitating effects on Health Related Quality of Life (HRQoL). There is a dearth of research using online psychotherapy to target HRQoL for people living with MM.

This study compares the clinical-effectiveness of an online ACT intervention with a waitlist control in terms of increasing HRQoL and reducing pain interference among people with MM with chronic pain.

**Methods:** Participants who met our inclusion criteria were randomised into conditions. Baseline measures currently show participants are mostly female (83.1%), with a mean age of 50 (SD=13.28). The experimental group undertook an 8-session online ACT-programme over 8 weeks. The waitlist group continued treatment as usual. Participants were assessed at pre-intervention, post-intervention and 3-month follow-up. Pain interference and HRQoL are primary outcomes. Secondary outcomes include global impression of change, illness perceptions, depression, anxiety and acceptance.

**Findings:** Preliminary analyses show a trend towards improvement from pre to post, with greater reductions in pain intensity, pain interference, anxiety, and depression reported by those who completed all 8 sessions (50% of those with pre-post data submitted). Participants completed 4 sessions on average (SD=2.9). Despite the variable numbers of sessions completed, participants have been broadly happy with the programme itself and the user experience, with only 1 so far who would not recommend it to others.

**Discussion:** This RCT adds to current evidence related to the clinical effectiveness of online ACT interventions, for chronic conditions and specifically multimorbidity.

ORAL

Theory-based approaches to  
understanding physical activity

9:30 - 11:00

Olipa 4, Valamar Collection Dubrovnik President

Kyra Hamilton

9:30 - 9:45

## The social identity process and school climate as novel targets for physical activity behaviour change

L. Olive<sup>1,2</sup>, R. Telford<sup>3</sup>, K. Reynolds<sup>2</sup>, R. Telford<sup>3</sup>

<sup>1</sup>Deakin University, Australia

<sup>2</sup>Australian National University, Australia

<sup>3</sup>University of Canberra, Australia

**Background:** This study investigated the social identity process and the effect of school climate on physical activity and student attitudes toward physical education (PE).

**Methods:** Participants were 283 grade-six primary school students from 16 primary schools participating in the Physical Education Physical Literacy (PEPL) longitudinal study. Questionnaires were administered to students to assess: school climate factors; school norms relating to physical activity; and attitudes towards PE. Physical activity was assessed via accelerometers. General linear mixed modelling was used to investigate the influence of school norms and school climate on habitual physical activity and student attitudes toward PE.

**Findings:** Children who perceived there to be a high degree of shared classroom, peer and school norms in relation to the importance of physical activity participated in more moderate-to-vigorous physical activity (MVPA), less sedentary activity and held more positive attitudes toward PE (all  $p < 0.05$ ). Students reporting higher levels of engagement in learning participated in more MVPA ( $p = 0.002$ ), less sedentary activity ( $p = 0.018$ ) and had more positive attitudes toward PE ( $p = 0.005$ ). Finally, students who perceived more positive student-to-student ( $p = 0.001$ ) and student-to-teacher ( $p = 0.001$ ) interactions within the school held a more positive attitude toward PE.

**Discussion:** Social level factors operating within a school context, such as school climate and school norms, are related to student MVPA, sedentary activity and attitude towards PE. The social identity approach provides a promising framework from which to explore physical activity behaviour and highlights a novel approach to intervention.

9:45 - 10:00

## The relationship between personality traits and the dual process of adopting physical-activity among nurses

R. Avraham<sup>1</sup>, D. Van Dijk<sup>1</sup>, T. Simon-Tuval<sup>1</sup>

<sup>1</sup>Ben-Gurion University of the Negev, Israel

**Background:** The dual process theory that refers to the conscious and non-conscious processes of decision-making, have been found to predict physical-activity adoption. Personality traits may affect this process.

**Objective:** To examine the association between two personality traits – regulatory-focus (prevention and promotion foci) and present-bias (the tendency to over-value immediate rewards over long-term ones), and the dual process of physical-activity adoption.

**Methods:** A cross-sectional survey among 154 nurses through Facebook. Validated tools estimated habit strength (non-conscious), intention and behavior control (conscious), physical-activity, regulatory-focus, and present-bias.

**Findings:** Logistic regression models showed that high promotion focus reduced the likelihood of a strong habit of physical-activity (OR 0.67, 90% CI: 0.50-0.90,  $p = 0.028$ ). However, among moderate-to-low active participants, high promotion focus increased the likelihood of a strong habit of physical-activity (OR = 1.48, 90% CI: 1.14-1.93,  $p = 0.013$ ). High present-bias reduced the likelihood of a strong habit (OR = 0.70, 90% CI: 0.52-0.94,  $p = 0.049$ ). In addition, high present-bias reduced the intention to adopt physical-activity (OR = 0.69, 90% CI: 0.51-0.93,  $p = 0.046$ ), and reduced physical-activity control (OR=0.70, 90% CI: 0.51–0.96,  $p=0.067$ ). High promotion focus increased physical-activity control (OR = 1.28, 90% CI: 1.04-1.56,  $p = 0.045$ ).

**Discussion:** regulatory-focus and present-bias are associated with both conscious and non-conscious processes of physical-activity adoption, and should be considered in future health-promotion interventions. Further study should be designed to examine the causal association between regulatory-focus and present-bias and objective measures of physical-activity through the dual process.

10:00 - 10:15

## Objectively measured physical activity and executive function

D. Powell<sup>1</sup>, G Stadler<sup>1</sup>, C. Gawrilow<sup>2</sup>, J. Kuehnhausen<sup>2</sup>, A. Johnstone<sup>1</sup>, D. Crabtree<sup>3</sup>, W. Buosi<sup>1</sup>, B. McCavour<sup>1</sup>, J. Allan<sup>1</sup>

<sup>1</sup>University of Aberdeen, United Kingdom

<sup>2</sup>Eberhard Karls Universität Tübingen, Germany

<sup>3</sup>University of the Highlands and Islands, United Kingdom

**Background:** Executive function is an umbrella term describing core cognitive processes important in the execution of goal-directed behaviour. Physical activity may also lead to improvement in executive function, suggesting a reciprocal relationship between executive function and activity leading to health benefits over time. In a cross-sectional dataset combining data from three sub-studies, this analysis tests the hypothesis that better executive function is associated with higher physical activity.

**Methods:** Data from Sub-study 1 (n = 150; Age range = 7-76 years), Sub-study 2 (n = 65; Age range = 18-70) and Sub-study 3 (n= 31; Age range = 18-56) were pooled (N = 246). Participants in each sub-study completed the lab-based DKEFS Verbal Fluency test (Letter Fluency) before wearing an Actigraph GT3x+ accelerometer for 7 consecutive days to assess Daily Moderate Vigorous Physical Activity (MVPA) in daily life. A minimum accelerometer wear-time criterion was set at 6 hours per day, over at least 4 days. The analysis used linear regression, adjusting for age, gender and accelerometer wear-time, and was pre-registered on Open Science Framework.

**Findings:** There was no statistically significant association between Letter Fluency and Daily MVPA ( $\beta = -.049$ ,  $p = .335$ ). Similar results were found with Daily Step Counts and Vector Magnitudes.

**Discussion:** Executive function – as measured by letter fluency – was not associated with physical activity in a large cross-sectional dataset. Future studies should examine if the association of physical activity with executive function exists in shorter time windows, and whether it differs by age group.

10:15 - 10:30

## Capabilities, opportunities and motivations to be physically active in disadvantaged communities in Doncaster, UK

M. Arden<sup>1</sup>, M. Lamb<sup>1</sup>, L. Kilby<sup>1</sup>, C. Armitage<sup>2</sup>, C. Henry<sup>3</sup>, J. Bridger<sup>3</sup>

<sup>1</sup>Sheffield Hallam University, United Kingdom

<sup>2</sup>University of Manchester, United Kingdom

<sup>3</sup>Doncaster Council, United Kingdom

**Background:** Doncaster is a town in the UK whose residents have been identified as having relatively low levels of physical activity (PA). This study aimed to identify the levels of PA in eight different community areas in Doncaster and to explore barriers and facilitators using the capabilities, opportunities and motivations framework (COM-B).

**Methods:** Face-to-face surveys were conducted with 1,120 households. The questionnaire assessed demographics, PA (short form of the Active Lives Survey), and COM (using a 6-item measure).

**Findings:** Consistent with the sampling frame, PA was very low with 57.7% of participants being classified as inactive (<30 minutes of moderate PA per week). Participants who were more active reported greater capabilities, opportunities and motivations than those who were less active ( $F[12,2182] = 32.43, p < 0.001$ ). There was a significant effect of community on COM ratings ( $F[42,5120] = 4.39, p < 0.001$ ) and a significant interaction ( $F[84,6087] = 1.59, p < 0.001$ ) so that, for example, inactive participants rated social opportunities for PA much lower in some communities than others (means 3.81 - 6.45).

**Discussion:** The COM factors varied between communities suggesting that there were somewhat different barriers to PA even within disadvantaged communities in the same area of the UK. Geographical variations have rarely been considered by health psychologists in intervention Design: The next phase of the project will see us working with members of three of the communities to train them to undertake in-depth interviews to explore barriers to PA and to utilise these findings to co-design interventions.

10:30 - 10:45

## Exploring LBGTQ+ minority stressors within physical activity contexts from a self-determination theory perspective

S. Herrick<sup>1</sup>, L. Duncan<sup>1</sup>, M. Rocchi<sup>1</sup>, S. Sweet<sup>1</sup>

<sup>1</sup>McGill University, Canada

LGBTQ+ individuals experience challenges such as discrimination and marginalization (referred to as minority stressors) that are detrimental to their mental and physical health. LGBTQ+ minority stressors may influence motivation for and willingness to participate in physical activity. The purpose of this study was to explore whether LGBTQ+ minority stressors, as indicators of the social-environmental context, would relate to the basic psychological needs—motivation—physical activity pathway, as per self-determination theory. An online cross-sectional survey was completed by 798 LGBTQ+ adults. Structural equation modelling showed that LGBTQ+ minority stressors have a statistically significant negative relationship with need satisfaction, which in turn is associated with lower levels of motivation, and decreased adherence to physical activity. Future research focused on increasing LGBTQ+ participation in physical activity should investigate the effects of (a) reducing LGBTQ+ minority stressors, and (b) better supporting LGBTQ+ adults' autonomy, competence, and relatedness within physical activity contexts.

10:45 - 11:00

## Planning and action control as predictors of physical activity among patients with knee osteoarthritis

R. Schwarzer<sup>1,2</sup>, S. Di Maio<sup>1</sup>, A. Domke<sup>1</sup>, J. Keller<sup>1</sup>, N. Knoll<sup>1</sup>

<sup>1</sup>Freie University Berlin, Germany

<sup>2</sup>SWPS University of Social Sciences and Humanities, Poland

**Background:** Regular physical activity (PA) was found to alleviate pain and improve function among patients with osteoarthritis of the knee (OAK). However, adherence to a PA program is considered as demanding and often fades unless motivational and volitional factors can counteract self-regulatory failure. This study explores the predictive role that volitional factors, namely planning and action control, may play among OAK patients.

**Method:** The present analysis used baseline data of a registered randomized controlled intervention trial with 243 OAK patients (Mage=65.47 years, SD=0.49). We examined their moderate and vigorous physical activity (MVPA) levels as well as their number of steps with triaxial accelerometer devices (ActiGraph GT3X) over a seven-day period. Planning and action control were measured, and sex, body mass, and age were included as covariates.

**Results:** Overall, being younger, not being overweight, planning one's activities, and executing action control was predictive of physical activity. In addition to main effects, moderation analyses revealed interactions between planning and action control on MVPA ( $p < .05$ ), as well as interactions between planning and body mass on the number of steps in the subgroup of middle-aged patients ( $p < .05$ ).

**Conclusions:** Regular physical activity in OAK patients can be sustained by volitional factors such as planning and action control. It is likely that these factors operate in a synergistic manner. However, this seems to work only in particular subgroups of patients such as those who are less old or less overweight. Further moderating factors need to be explored.

ORAL

# Managing chronic conditions with digital technologies

9:30 - 11:00

Karaka, Valamar Argosy

Neil Coulson

9:30 - 9:45

## Moving On: Acceptability of a personalised mHealth lifestyle self-management intervention for cancer survivors

J. Groarke<sup>1</sup>, J. Walsh<sup>2</sup>, J. Mc Sharry<sup>2</sup>, A. Groarke<sup>2</sup>, O. Harney<sup>2</sup>, J. Richmond<sup>3</sup>, M.G. Kelly<sup>3</sup>, L. Glynn<sup>4</sup>

<sup>1</sup>Queen's University Belfast, United Kingdom

<sup>2</sup>National University of Ireland Galway, Ireland

<sup>3</sup>Letterkenny University Hospital, Ireland

<sup>4</sup>University of Limerick, Ireland

**Background:** A significant proportion of cancer survivors are overweight. However, weight problems are infrequently addressed in oncology aftercare. A lifestyle self-management intervention using mobile technology (mHealth) and behaviour change techniques (BCTs) was delivered to improve health outcomes in cancer survivors with a BMI over 25. This study aimed to examine the acceptability of that intervention.

**Methods:** In the context of a 2-arm RCT, semi-structured interviews were carried out to assess retrospective acceptability of the intervention from the perspective of the recipients. Thirteen participants (2 males) were interviewed. The theoretical framework of acceptability of healthcare interventions was used as a topic guide. Qualitative analysis of transcripts was performed using thematic coding.

**Findings:** Themes of Trust, Motivation, Programme Support, and Social Support were identified. Results suggest strong support for the acceptability of the intervention. Most held a positive attitude towards the intervention and enjoyed many of its elements. In particular, SMS contact relating to physical activity goals, and self-monitoring using the Fitbit wearable activity monitor were rated positively. When asked about intervention coherence participants understood the aim of the programme to be 'moving on' from cancer, rather than a sole focus on weight management. The intervention was perceived to have high efficacy and low burden.

**Discussion:** Based on the coherence of responses with theorised aspects of intervention acceptability, we are confident that this intervention using mHealth and BCTs to improve health outcomes is acceptable to cancer survivors. Future studies are needed to assess the feasibility of delivering the intervention in clinical practice.

9:45 - 10:00

## Examination of the empowering processes and outcomes arising from engagement with fibromyalgia online support groups

N. Coulson<sup>1</sup>

<sup>1</sup>University of Nottingham, United Kingdom

**Background:** Fibromyalgia is a long-term pain syndrome with varied symptomology and negative psychosocial impact, affecting 0.2-6.6% of the population worldwide. Individuals are increasingly turning to online support groups as a way of addressing their support needs. The aim of this study was to explore the relationship between participation in online support groups and psychosocial outcomes, with empowerment as the overarching theoretical framework.

**Methods:** 165 individuals (152 females, 12 male and 1 other, aged 22 to 79 years, mean = 47.3) completed an online survey which included: socio-demographic and descriptive information around use of online support groups as well as medical background; empowering processes encountered within online support groups; empowering outcomes considered to have occurred as consequence of participation; the PHQ-9 and the State-Trait Anxiety Inventory (short).

**Findings:** All empowerment processes and outcomes were present, with 'finding recognition', 'sharing experiences' and 'exchanging information' being the most frequently reported. The empowering outcome experienced to the strongest degree was 'being better informed'. Multiple regressions were conducted to determine which processes explained the greatest amount of variance in each outcome (i.e. empowering outcomes and PHQ-9 and STAI). The variables entered significantly predicted each of the outcomes apart from the PHQ-9. The total percentage variance explained ranged from 26.8% (outcome: increased optimism and control over the future) to 49.4% (outcome: being better informed).

**Discussion:** Participation in fibromyalgia online support groups may empower members in a number of ways which are useful to successful self-management. Future research should seek to explore the longer-term impact of participation.

10:00 - 10:15

## A chance to modify behavioural risk factors? Behaviour change techniques in chronic condition self-management apps

L. Siqueira do Prado<sup>1</sup>, C. Carpentier<sup>2</sup>, M. Preau<sup>2</sup>, A. Schott<sup>1,3</sup>, A. Dima<sup>1</sup>

<sup>1</sup>University Claude Bernard Lyon 1, France

<sup>2</sup>University Lumiere Lyon 2, France

<sup>3</sup>Hospices Civils de Lyon, France

**Background:** Actions defined by the World Health Organization to prevent and control chronic conditions with highest mortality involve modifying behavioural risk factors: tobacco and alcohol consumption, diet and physical activity. Mobile health applications (mHealth apps) may support behaviour change if they integrate appropriate evidence-based behaviour change techniques (BCTs). Although the mHealth offer is increasing rapidly in France, no systematic review of apps behaviour change content is yet available.

**Methods:** We extracted data on Google Play store “TOP” apps in “Medicine” category or found via keywords for cardiovascular diseases, cancer, respiratory diseases and diabetes, and apps identified through literature search. We selected native Android apps available in France for self-managing chronic conditions in the four groups above and coded target behaviours, and BCTs using the BCTv1. We performed non-parametric bivariate analyses to investigate BCTs frequencies and co-occurrence.

**Findings:** Forty-four apps in French were downloaded. They focused mainly on symptom monitoring; none targeted tobacco or alcohol consumption. Twenty-one BCTs (in general) were observed, most common being “Self-monitoring of outcome(s) of behaviour” (31 apps), which co-occurred the most with “Feedback on outcome(s) of behaviour(s)” ( $\rho = 0.44$ ,  $P = .003$ ). “Goal setting” was present in 11 apps (outcome) and in 1 app (behaviour). Median number of BCTs per app was 3 (range 0-12).

**Discussion:** Globally, apps included few BCTs and goal management and social support BCTs, shown to be effective in changing dietary and physical activity behaviours, were rare. These findings indicate mHealth apps need substantial improvements for supporting behavior change.

10:15 - 10:30

## Reducing cancer-related fatigue (CRF) by means of the Untire App – A randomized controlled trial

S. Spahrkäs<sup>1</sup>, A. Looijmans<sup>2</sup>, M. Hagedoorn<sup>1</sup>, R. Sanderman<sup>1</sup>

<sup>1</sup>University of Groningen, Netherlands

<sup>2</sup>University Medical Center Groningen, Netherlands

**Background:** Cancer-related fatigue (CRF) is a devastating side effect of cancer and cancer treatment that affects millions of (former) cancer patients worldwide. The Untire App was developed as a self-management app to reduce CRF and improve quality of life (QoL) in (former) cancer patients. This study examines the effectiveness of the Untire app in improving CRF and QoL after 12 weeks.

**Methods:** We carried out a randomized controlled trial comparing app use (intervention) vs. care-as-usual (control). (Former) fatigued cancer patients (n = 787) were recruited online in four English speaking countries (UK, AUS, CAN, USA) and randomly (2:1) assigned to the intervention (n = 503) or control (n = 284) condition. Participants completed online-questionnaires about CRF (Fatigue Severity Inventory) and QoL (EORTC-QLQ-30) at baseline, 4 weeks, 8 weeks, 12 weeks (T12), and 24 weeks. Intention-to-treat repeated measures analyses were carried out with time as within-subject factor and condition as a between-subject factor to assess treatment effects between conditions over time.

**Findings:** Preliminary results indicate that levels of fatigue-severity (FSI) significantly improved in the intervention-group from T0-T12 vs. the control group,  $F(1,335) = 6.77$ ,  $p = .01$ . Also, average QoL-levels (EORTC-QLQ-30) improved significantly in the intervention group after 12 weeks vs. the control group,  $F(1,332) = 17.21$ ,  $p < .01$ .

**Discussion:** Results indicate that the Untire App might be a helpful low-threshold self-management tool for (former) fatigued cancer patients to reduce their CRF and improve their QoL. Upcoming per protocol analyses will elucidate whether this effect depends on the degree of app-use.

10:30 - 10:45

## The association between user engagement, illness beliefs and self-management: A RCT of two diabetes apps

A. Maharaj<sup>1</sup>, A. Serlachius<sup>1</sup>, R. Murphy<sup>1</sup>

<sup>1</sup>The University of Auckland, New Zealand

**Background:** The prevalence and rapid increase of type 2 diabetes (T2D) presents a considerable challenge to healthcare systems worldwide. Diabetes apps represent a feasible, low-cost alternative to traditional face-to-face self-management interventions. The aim of this study was to investigate user engagement of two diabetes apps (Glucose Buddy and mySugr) over two weeks and to examine associations between user engagement, illness beliefs and self-care behaviours.

**Methods:** 89 adults with T2D were recruited and randomised to trial one of the apps. Self-care behaviours, illness beliefs and user engagement were assessed via self-report. Mann-Whitney U tests and Wilcoxon-signed rank analyses were used to examine changes between and within groups. A linear regression was used to examine which factors predicted user engagement.

**Findings:** There were no changes in self-care behaviours or illness beliefs from baseline to follow-up (all  $p$ 's  $>.05$ ). There was no clear evidence that mySugr was more engaging than Glucose Buddy, although there was a trend towards participants using mySugr on more days ( $p=.057$ ). Blood glucose testing was significantly related to minutes of app use ( $p = .022$ ). Three illness beliefs (timeline, identity, and T2D understanding) were significant predictors of user engagement (all  $p$ 's  $<.05$ ). All of the illness beliefs (except identify) were significantly correlated with self-care (all  $p$ 's  $<.05$ ).

**Conclusion:** User engagement was associated with increased blood glucose testing. Illness beliefs were associated with self-care behaviours and user engagement, highlighting a promising area of research in terms of both increasing user engagement with diabetes apps and improving patients' self-care behaviours.

10:45 - 11:00

## Impacts of digital technologies on health and patient-doctor relationship in chronic diseases

C. Vansimaey<sup>1</sup>, C. Balagué<sup>1</sup>, L. Benamar<sup>1</sup>

<sup>1</sup>LITEM, Univ Evry, IMT-BS, Université Paris-Saclay, France

**Background:** With digital technologies (Internet, mobile app and Internet of Things) becoming widely available over the past decades, concerns have been raised that health outcomes and patient-doctor relationship may be affected by the ease to access to health information.

This study aims to investigate those questions in a population of individuals living with chronic diseases.

**Method:** 954 participant completed an on-line questionnaire measuring their uses of Internet, mobile applications and connected devices, their levels on several health outcomes (health motivation, self-efficacy, empowerment, health-related quality of life) and their quality of patient-doctor relationship. The perceived benefits and limits of the digital technologies on those outcomes were also assessed.

Cluster analysis were performed to identify different types of digital technologies users among chronic diseases patients. Groups were then compared on health outcomes and patient-doctor relationship.

**Results:** There are three profiles of digital users in chronic patients population: 1) hyperconnected (8,9% of the total sample, regular users of all digital technologies), 2) biconnected.(19,3%, regular users of the Internet and app, no users of connected devices), 3) hypoconnected (71,8%, casual user of the Internet only). Comparison showed that the more connected people are, the more they perceive benefits of digital technologies on their health despite no differences between the three groups on most health outcomes. Furthermore, hyper- and bi-connected patients are more empowered and also are more engaged in the relationship with their doctor.

**Discussion:** Digital technologies effectively transform patients toward empowerment that is an ally for strengthening the patient-doctor relationship.

ORAL

Conscious, intuitive and compensatory  
health behaviors

9:30 - 11:00

Olipa 1, Valamar Collection Dubrovnik President

Gerry Molloy

9:30 - 9:45

## A Qualitative Investigation of the Use and Characterisation of “Habit” by Lay-People

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<sup>1</sup>Griffith University, Australia

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<sup>3</sup>University of Jyväskylä, Finland

**Background:** While in the history of psychology the habit construct has been one of the most enduring, the inherent difficulties in defining and measuring habit has been well-documented. The way lay-people come to understand the meaning of habit may differ from accounts in the scientific literature. Exploring the way lay-people characterise habit may, therefore, provide further insights into the way the habit construct is conceptualised. This knowledge will provide clarification on consistencies and inconsistencies with scientific understandings of habit, and the extent to which people have insight into these processes.

**Methods:** Participants (N = 155) completed an online survey about the definition of habit. A second sample of participants participated in a semi-structured interview (N = 10) or small focus-group discussion (N = 17; 7 groups of 2 – 4 participants). Data were analysed using thematic content analysis.

**Findings:** Several themes of how lay-people characterise habit were identified: habits form over time through either goal-directed or non-conscious (e.g., emotional) mechanisms; are repetitive (e.g., daily to yearly) patterns of behaviour; are triggered; are thoughtless/automatic but also intentional and goal-dependent; and provide comfort or reward. When describing habitual behaviours, regular (e.g., behaviours done often), recurring (e.g., behaviours repeated over and over), and routine (e.g., behaviours done as part of one’s daily/weekly/monthly/yearly schedule) were themes identified.

**Discussion:** Lay-people have insight into habit processes that are relatively consistent with the scientific literature, but also some inconsistencies were identified. This knowledge may help health-practitioners and researchers to preemptively challenge individuals’ misunderstandings when forming automatized health-behaviours.

9:45 - 10:00

## Conscientiousness and adherence to anti-hypertensive medications: Using direct and indirect measures

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<sup>1</sup>NUI Galway, Ireland

<sup>2</sup>University of Limerick, Ireland

**Background:** Conscientiousness, from the five-factor model of personality, has been associated with medication adherence in several chronic conditions. In this study we provide an assessment of the association between conscientiousness and 4 methods of measuring adherence for antihypertensive medication.

**Methods:** In this correlational study design participants classified as having apparent treatment-resistant hypertension were recruited as part of a larger primary care-based study. Participants completed a standardized and validated 10 item measure of conscientiousness (N=213), provided a urine sample for the detection of adherence to antihypertensive medications and completed two established self-reported adherence measures. In a sub-sample of participants patient records were screened for prescription refill adherence. The analytical sample size varied according to the method of measurement used and the main method of analysis was correlational.

**Findings:** There were small-to-medium sized significant associations between conscientiousness and the two self-reported medication adherence measures ( $r = 0.14-0.17$ ). The associations between the urine assay ( $r=0.09$ ) and the prescription refill data ( $r = -0.04$ ) were small and not statistically significant.

**Discussion:** The association between conscientiousness and medication adherence may be over-estimated due to common method variance, however all 4 measures have inherent strengths and weaknesses, and none can be regarded as 'gold standard' for adherence measurement. Future work should attempt to develop composite adherence measures that have established predictive validity for patient important health outcomes.

10:00 - 10:15

## The relationship between intuitive eating, self-reported and laboratory food intake in middle-aged adults

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<sup>2</sup>NutriAct – Competence Cluster Nutrition Research Berlin-Potsdam, Germany

**Background:** Intuitive eating is characterized by regulating food intake in response to internal cues of hunger and satiety and by monitoring how food feels in the body. Although it is hypothesized that intuitive eating leads to healthy food intake, there is a lack of empirical evidence regarding its relationship to food intake. This laboratory study investigated how intuitive eating and food intake are related in middle-aged adults.

**Methods:** Fifty-five participants aged 50-70 years completed the Intuitive Eating Scale-2. To assess healthy self-reported food intake, a short Food Frequency Questionnaire was filled out. To assess healthy and total laboratory food intake, we conducted a bogus taste test. Data were analyzed by regression analyses with both frequentist and Bayesian approaches.

**Findings:** As expected, intuitive eating did predict healthier self-reported food intake. The data were 22.25 times more likely under H1 than under H0. Contrary to our assumptions, intuitive eating did not predict healthy or total laboratory food intake. The data were about 3 times more likely under H0 than under H1.

**Discussion:** Although intuitive eating is related to healthy habitual food intake, this is not reflected in a single laboratory test situation. These results suggest that self-reported and laboratory data may measure different aspects of food intake. Thus, a differentiated assessment of food intake in the context of intuitive eating seems to be relevant. There is a need for further studies including larger samples and other measures of intuitive eating (e.g., behavioral paradigms) or food intake (e.g., Ecological Momentary Assessment).

10:15 - 10:30

## Is unhealthy snacking related to compensatory beliefs and behaviors? Evidence from an intensive-longitudinal study

M. Amrein<sup>1</sup>, U. Scholz<sup>1</sup>, J. Inauen<sup>2</sup>

<sup>1</sup>University of Zurich, Switzerland

<sup>2</sup>University of Bern, Switzerland

**Background:** Compensatory Health Beliefs (CHBs) can serve as a justification to indulge in unhealthy eating behaviour. People endorsing these beliefs by thinking they can compensate unhealthy eating later, for example with healthy eating or with physical activity. However, cross-sectional studies have shown that people do not necessarily perform the compensatory behaviour. This is the first study investigating the following assumptions using an intensive-longitudinal design: Higher indulgence in unhealthy snacks (US) is associated with higher CHBs (H1). Higher scores in CHBs are related with a decreased consumption in prospective US (H2) and with increased prospective physical activity (H3).

**Methods:** Young adults (N=45; age M=21.93, SD=1.88) completed questionnaires five times daily for 7 days (n=478 observations analysed). We investigated the within- and between-person associations between initial US consumption, CHBs regarding the initial US consumption, the prospective US consumption and daily physical activity with multilevel analysis.

**Findings:** A significant positive association emerged between the initial US consumption and CHBs (B=0.04, SE=0.02, p=.021) at the within-person level (H1). No significant associations emerged between CHBs and prospective US consumption (H2) and daily physical activity (H3).

**Discussion:** We found support for the assumption that unhealthy eating may activate compensatory health beliefs, possibly as a justification, at the within-person level. Confirming results from less intensive studies, we found no support that unhealthy snacking is compensated by subsequently less snacking, or engaging in physical activity. Interventions focusing on minimizing CHBs to justify unhealthy eating should intervene in moments of indulgence and emphasize the lack of actual compensation afterwards.

10:30 - 10:45

## Understanding compensatory eating: Reasons for eating less healthy after exercise

N. Reily<sup>1</sup>, L. Vartanian<sup>1</sup>, K. Faasse<sup>1</sup>

<sup>1</sup>University of New South Wales, Australia

**Background:** There is considerable variability in how successful people are in losing weight via exercise programs. People who lose less weight may be increasing their food intake or eating less healthily after they have exercised. This pattern of “compensatory eating” is maladaptive for weight loss, and is likely to be driven (at least in part) by psychological factors. However, little is known about the frequency of compensatory eating behaviour and the reasons why people engage in compensatory eating.

**Methods:** Three separate samples (total N = 879) were surveyed about compensatory eating behaviour, and participants rated their agreement with statements capturing different reasons for eating less healthily after exercise.

**Results:** Across all samples, 44% of participants reported eating less healthily after exercise at least “sometimes”. We identified four distinct factors underlying compensatory eating that were consistent across all samples. Reward for Effort (39-59% across samples) and Permission to Consume (31-57%) were most commonly endorsed by participants, while Need to Refuel (23-31%) and Reduced Self-Control (14-21%) were less commonly reported. In Sample 3, we found that Need to Refuel reasons were endorsed to a greater extent for men than women ( $p < .001$ ), for vigorous exercisers compared to moderate exercisers ( $p = .015$ ), and for those not trying to lose weight than those trying to lose weight ( $p = .032$ ).

**Discussion:** Compensatory eating after exercise is relatively common, and may occur for a variety of reasons. Broadening current knowledge of compensatory eating after exercise has the potential to facilitate development of strategies to improve health behaviour regulation.

10:45 - 11:00

## **FOODLIT-PRO: Profiles of eating as needed and associated psychological/behavioural strategies - Portuguese experts' perspectives.**

R. Rosas<sup>1</sup>, F. Pimenta<sup>1</sup>, I. Leal<sup>1</sup>, R. Schwarzer<sup>2</sup>

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<sup>2</sup>Freie University Berlin, Germany

**Background:** Overweight/obesity rising rates point out the urgency to not only understand the diverse meanings of eating healthily but also explore which psychological and behavioural strategies are linked to eating habits. In the field of food literacy, the aim of this study is to explore the meaning of eating according to one's needs and related psychological/behavioural strategies, identified by Portuguese experts.

**Method:** In this cross-sectional study, a mixed methodology was used. Semi-structured interviews were conducted with 30 professionals (20 females, 10 males) working in areas (in)directly to food (Agricultural/Commercial Industry, Education, Food Policy, Health). The interviews were analysed through directed content analysis. A multiple correspondence analysis was applied to the emergent content, in order to represent associations between inherent themes/categories.

**Findings:** A five-factor model explained associations amidst categories from the meaning of eating according to one's needs and psychological/behavioural strategies: (i) analytical and routine-maker (salt/sugar-intake moderation, food-pyramid, information analysis, habit-formation, behaviour change), (ii) restrict to invest (fat-intake moderation, portion control, restriction, delay instant gratification, health investment), (iii) inventive and personalised sustainability (personalised diet, tasting meals, creativity, sustainable-eating, long-term habit), (iv) unrefined, diverse and favourable (less-industrialised, without animal-origin, variety, personal preferences, self-reward), (v) recognised flexibility and seasonality (flexibility, frequency, fruits/vegetables, seasonality, identity-associated).

**Discussion:** The diversified understanding of what's eating according to one's needs reveals distinct psychological and behavioural strategies associated to food intake, which highlights the demand for personalised food literacy interventions.

ORAL

# Health services research: Assessing implementation

9:30 - 11:00

Galijun, Valamar Argosy

Lucie Byrne-Davis

9:30 - 9:45

## Implementing a low-cost psychosocial intervention (DIALOG+) in low and middle-income countries in South-Eastern Europe

J. Hunter<sup>1</sup>, J. Francis<sup>1</sup>, R. McCabe<sup>1</sup>

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**Background:** DIALOG+ is a low cost app-based psychosocial intervention that structures clinician-patient communication to focus on patient satisfaction and needs for care. It improves quality of life in psychotic patients in the UK. DIALOG+ may benefit lower and middle-income countries (LMICs): Bosnia and Herzegovina, Kosovo\*<sup>1</sup>, Former Yugoslav Republic of Macedonia, Montenegro and Serbia who, due to adverse socio-economic factors, have large treatment gaps. The IMPULSE project aims to implement DIALOG+ with high-fidelity in these different settings.

**Methods:** After implementing DIALOG+ across the LMICs in a pilot study, 11 focus groups were conducted with clinicians and patients to explore their experiences with the intervention. Codes identified in the transcripts were mapped onto the Theoretical Domains Framework (TDF) of behaviour change. Codes were inductively analysed to identify themes reflecting implementation barriers. Behaviour Change Techniques (BCTs) were identified using published methods to address these barriers.

**Results:** Major barriers to implementation were related to the environmental context and resources (limited time for sessions and other organisational issues) and beliefs about capabilities (patients' psychotic symptoms affect clinicians' belief about theirs and patients' use of DIALOG+). Most barriers reflected limited skills, which could be overcome with training, specifically role-playing challenging scenarios.

**Discussion:** This study used a reliable theoretical framework of behaviour change to study barriers to implementing a psychosocial intervention in LMICs, identifying some organisational and cultural issues in lower income settings. The strategies used to overcome LMIC-specific barriers may help further adapt DIALOG+ and other psychosocial interventions to settings in greatest need of cost-effective interventions.

9:45 - 10:00

## Playing for Change: Experiential learning methods in behaviour change training with Ethiopian Health Extension Workers

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<sup>4</sup>University of Kent, United Kingdom

**Background:** Ethiopian Health extension workers (HEW) aim to change maternal nutritional behaviours through providing information. Knowledge of behaviour change techniques (BCTs) may benefit their practice. Implementing learning from BCT training can be difficult and even more challenging in cross-cultural training delivery. Previous research focuses on the most effective BCTs to include in training and less on training Methods: Experiential learning (EL) methods can help the transfer of learning into practice and assist communication in translator-assisted training. This project, part of the University of Manchester Change Exchange programme, set out to explore feasibility and acceptability of EL methods in BCT intervention training for Ethiopian HEWs in a UN World Food Programme collaboration.

**Method:** We designed and delivered a 2-day BCT training intervention to 98 HEWs using EL methods including Draw-Write-Tell and Communication Games. We assessed HEW's use of BCTs in Role-Plays of simulated conversations with mothers, recording, translating and coding BCTs. The Training Acceptability Rating Scale with open questions on training benefits and recommendations assessed acceptability.

**Results:** Role-plays demonstrated HEWs use of goal-setting, problem-solving and social support BCTs. Draw-Write-Tell method indicated that post-training, HEWs recognised importance of role modelling and problem solving skills to behaviour change. The mean for workshop satisfaction, understanding, confidence, and expectation to use skills was between 3.7 to 3.9; median of 4 and range 3-4 on a 4 point scale.

**Conclusions:** Using EL approaches in HBC training is acceptable to Ethiopian HEWs and role-plays showed BCT use. EL methods can facilitate cross-cultural training and learning evaluation

10:00 - 10:15

## A qualitative exploration of anaesthesia providers' experiences following training in Tanzania, Nepal and Bangladesh

E. Bull<sup>1,2</sup>, N. Dharni<sup>3</sup>, E. Sanga<sup>4</sup>, A. Babu Shrestha<sup>5</sup>, R. Ram Shrestha<sup>5</sup>, M.A. Hossain<sup>6</sup>, D. Snell<sup>7</sup>, M. Lilaonitkul<sup>8</sup>, J. Hart<sup>9</sup>, L. Byrne-Davis<sup>9</sup>

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<sup>5</sup>Kathmandu Model Hospital, Nepal

<sup>6</sup>Shaheed Tajuddin Ahmad Medical College, Bangladesh

<sup>7</sup>Newcastle-upon-Tyne Hospitals NHS Foundation Trust, United Kingdom

<sup>8</sup>University of California San Francisco, United States

<sup>9</sup>University of Manchester, United Kingdom

**Background:** Millions of pregnant women globally lack access to safe anaesthesia. Safer Anaesthesia From Education Obstetrics (SAFE Obs) is a three-day training co-delivered by UK and in-country anaesthetists in 28 countries, targeting 20 essential anaesthetic practices for maternal emergencies. As part of a wider behavioural evaluation led by The Change Exchange, we explored course impacts and participants' experience of implementation qualitatively in three countries using the Theoretical Domains Framework (TDF).

**Methods:** We conducted 70 interviews with anaesthetic providers who had completed SAFE Obs training up to four months previously, in Tanzania, Nepal and Bangladesh. We explored their perceptions of course impact and barriers and facilitators to practice change. Interviews were audio-recorded and professionally transcribed. We conducted deductive thematic analysis using the TDF to explore influences on practice change.

**Results:** Participants reported successfully implementing many behaviours with positive impacts for maternal and neonatal health. Beliefs about capabilities, Behavioural regulation, Knowledge and Skills in obstetric anaesthesia emerged as key areas of psychological change. Across behaviours, Social influences (e.g. perceived pressure from other surgical or nursing colleagues) and Environmental context and resources (e.g. access to monitoring equipment) domains featured prominently as important perceived influences on implementation.

**Discussion:** Theory-based qualitative analysis of interviews shed light on psychological and behavioural impacts of anaesthetic training, as well as social and environmental barriers and facilitators of practice change. To maximise implementation in low-income countries, health professional training could target whole multi-disciplinary teams and explicitly equip participants to overcome team and hospital-level challenges to changing practice.

10:15 - 10:30

## Patient Partner Approach in healthcare : between representations and application. An interregional qualitative study

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<sup>2</sup>Université de Liège, Belgium

<sup>3</sup>Universität Trier, Germany

**Background:** Healthcare in Europe has undergone many changes in the last 50 years. To respond to these upheavals and to be able to maintain quality healthcare, the Patient Partner Approach in healthcare (APPS) aims to take a step further by considering the patient as a full member of care.

In order to promote its recognition and integration into healthcare systems, this exploratory study aims to better understand the actors' representations and experiences of partnership in the Great Region (Lorraine, Wallonie, Sarre, Luxembourg.)

**Methods:** Interviews were conducted with 100 patients with chronic diseases and 120 health professionals. Interviews were analyzed using the Nvivo software and a coding grid created by the multicultural team of researchers, according to the inductive approach.

**Findings:** Five main themes were developed by professionals and patients: the characteristics of the partnership, the conditions (facilitators or impeding factors) related to the establishment of this partnership, the perceived benefits and the perceived disadvantages of this partnership, as well as identified needs to go to the APPS.

**Discussion:** The preliminary results of this study already show a strong ambivalence between the discourse and the practice of the actors of the partnership. All seem to agree on a definition of partnership close to the literature, but if we analyze how they describe their practices of effective partnership in the care relationship, we realize that in reality we are still far enough from the notions of collaboration, co-construction and mutual learning as suggested by the APPS.

10:30 - 10:45

## Exploring safe anaesthesia behaviours in Tanzania, Zimbabwe, Nepal and Bangladesh

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<sup>8</sup>UCL Institute of Child Health, United Kingdom

**Background:** The Safer Anaesthesia from Education (SAFE) project is an initiative of the Association of Anaesthetists of Great Britain and Ireland with the World Federation of Societies of Anaesthesiologists, supporting anaesthesia providers to deliver competent anaesthesia in four countries. Funded by Laerdal Foundation, a 3-day obstetric anaesthesia intervention was delivered by global anaesthesia providers. Health psychologists partnered with the SAFE team, and explored behaviours, behavioural determinants and behaviour change techniques (BCTs) of anaesthesia practice.

**Methods:** 361 participants (30% doctors, 70% allied health professionals) received the SAFE intervention in Tanzania (n=135), Bangladesh (n=115), Zimbabwe (n=56) or Nepal (n=54). Courses in Tanzania were observed/coded for behaviours targeted and BCTs used. Participants were assessed pre/post course and at 6-month follow-up, on knowledge, skills, self-reported expectation and psychological determinants of performing key behaviours. A follow-up sample were interviewed and observed in practice.

**Findings:** More than 200 behaviours were targeted and 36 BCTs observed, from a variety of domains of techniques, targeting capability, opportunity, motivation (COM). Collaborators specified 20 core behaviours. Knowledge and skills rose from pre to post course and remained high at follow-up. Self-reported behavioural expectations were high pre-course (median expectation of >50% for all behaviours) and were significantly higher post-course for 5 behaviours. Participants reported COM barriers and facilitators of practice change.

**Discussion:** SAFE improved knowledge, skills, and some determinants of behaviour change pre-post course, with maintenance at follow-up. Input by psychologists enabled specification and measurement of behaviours/determinants, observations of BCTs and exploration of barriers/facilitators to implementation and feedback to course leads.

10:45 - 11:00

## Systematic Review and Behavioural Analysis of Making Every Contact Count, Alcohol and Smoking Brief Interventions

A.M. Rodrigues<sup>1</sup>, D. Newbury-Birch<sup>2</sup>, C. Durlik<sup>3</sup>, A. Sallis<sup>3</sup>, T. Chadborn<sup>3</sup>, C. Haighton<sup>1</sup>

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<sup>2</sup>Teesside University, United Kingdom

<sup>3</sup>Public Health England, United Kingdom

**Background:** Alcohol consumption, tobacco use, diet and physical activity are all significant public health problems, however research has shown that brief interventions (just a few minutes of advice and information) can be effective in helping support people to make changes to these behaviours which have been linked to risks of ill health.

**Methods:** Three systematic reviews of the literature were conducted to identify barriers and facilitators associated with the delivery of making every contact count (MECC), alcohol and smoking brief interventions by healthcare professionals (HCPs). Identified barriers and facilitators were coded into the COM-B model and the Theoretical Domains Framework, linking these to an analysis of the behaviour change techniques (BCTs).

**Findings:** Several barriers/facilitators were identified for the delivery of MECC, alcohol and smoking by HCPs. These were linked to theoretical domains that interventions should target to promote the delivery of brief interventions. We identified 9 interventions to promote the delivery of MECC; 6 for alcohol; and 7 for smoking. The majority of BCTs in these interventions were not linked to the most important domains identified by the systematic review. Opportunity seized was the highest for the domain 'Knowledge' as interventions to promote delivery of MECC, alcohol and smoking mostly focus on imparting knowledge.

**Discussion:** The interventions identified in this research used a narrow range of BCTs - primarily targeting knowledge domain. To better address barriers and facilitators identified in this work, more BCTs are needed to encourage healthcare professionals to promote positive behaviour change amongst their patients.

ORAL

# Parents and family: Challenges and solutions

9:30 - 11:00

Asimon, Valamar Lacroma Dubrovnik

Marita Hennessy

9:30 - 9:45

## Healthy growth during the first 1,000 days: parental views and maximising their engagement in interventions

M. Hennessy<sup>1</sup>, M. Byrne<sup>1</sup>, R. Laws<sup>2</sup>, C. Heary<sup>1</sup>

<sup>1</sup>NUI Galway, Ireland

<sup>2</sup>Deakin University, Australia

**Background:** Childhood obesity is a global public health challenge. While early intervention is advocated, research on the views of parents, including fathers, in this area is limited. Developed with the input of a parent advisory group, this study examines parents' views on healthy growth and associated behaviours, and specifically health professional-delivered obesity prevention interventions which target children during the first 1,000 days.

**Methods:** Qualitative, semi-structured interviews were conducted with a sample of parents across Ireland. Parents were recruited through purposive sampling, aiming to ensure a mix of mothers/fathers, socio-economic backgrounds, prima/multi-parous mothers, and feeding methods, amongst other variables. Interviews were digitally recorded, transcribed and analysed thematically following Braun and Clarke (2013), using NVivo software for data management.

**Findings:** A total of 29 interviews were conducted during March-May 2018 (24 mothers, 5 fathers). While parents recognised the importance of promoting healthy behaviours during this critical period, and acknowledged their pivotal role in this, they experienced challenges at interpersonal, organizational, community, and public policy levels. They felt that interventions should be practical, tailored, multi-component, and non-judgemental.

**Discussion:** This study contributes to our understanding of what mothers and fathers think about obesity prevention in children under the age of two, and acceptable foci and modes of delivery of interventions. It provides much needed evidence to support efforts, nationally and internationally, to develop, or indeed adapt, interventions to promote obesity prevention in early life. Findings are particularly relevant for interventions involving health professionals, and for maximising parental engagement and responsiveness.

9:45 - 10:00

## A core outcome set for infant feeding interventions to prevent childhood obesity

K. Matvienko-Sikar<sup>1</sup>, C. Griffin<sup>1</sup>, C. Kelly<sup>2</sup>, C. Heary<sup>2</sup>, E. Toomey<sup>2</sup>, M. Hennessy<sup>2</sup>, M. Queally<sup>3</sup>, D. Devane<sup>2</sup>, M. Byrne<sup>2</sup>, P. M. Kearney<sup>1</sup>

<sup>1</sup>University College Cork, Ireland

<sup>2</sup>NUI Galway, Ireland

<sup>3</sup>Michelle Queally, Ireland

**Aims:** Parent's infant feeding behaviours are implicated in the aetiology of childhood obesity. Lack of outcome standardisation in trials of infant feeding interventions limits examination of intervention effects and mechanisms of change. Core outcome sets represent an agreed-upon minimum set of outcomes to be measured in trials of a specific health condition. The aim of this research is to develop a core outcome set for infant feeding interventions to prevent childhood obesity.

**Methods:** Core outcome set development was conducted in four stages: (1) systematic review of 126 papers to identify all infant feeding outcomes in the extant literature, (2) group meeting with 12 stakeholders to clarify and discuss outcomes identified, (3) prioritisation of outcomes using the e-Delphi technique with an international panel of 179 stakeholders, (4) consensus meeting with 7 stakeholders to reach consensus on the final core outcome set. Stakeholders were: Researchers, Healthcare Professionals, Parents, and Childcare Professionals.

**Findings:** Twenty-six outcomes were identified for inclusion in the core outcome set. These were categorised into the following 9 outcome domains: 'breast and formula feeding', 'introduction of solids', 'parent feeding practices and styles', 'parent knowledge and beliefs', 'practical feeding', 'food environment', 'dietary intake', 'perceptions of infant behaviour and preferences', and 'child weight outcomes'.

**Discussion:** This core outcome set represents the minimum outcomes that should be measured and reported in all future trials of infant feeding interventions to prevent childhood obesity.

10:00 - 10:15

## Mothers and fathers in NICU: comparing parental stress, sources of stress and stress reduction techniques

Z. Pukljak Iričanin<sup>1</sup>, M. Kostovic Srzentic<sup>1</sup>, M. Grubić<sup>2</sup>

<sup>1</sup>University of Applied Health Sciences, Croatia

<sup>2</sup>University Hospital Centre Zagreb, Croatia

**Background:** Parents of newborns hospitalized in Neonatal Intensive Care Unit (NICU) often experience high levels of psychological distress. However, the emphasis of most research has been on mothers and the results may not be generalizable to fathers. The objective of this study was to assess the differences between mothers' and fathers' level of psychological distress, stressors related to NICU and to outside the hospital, stress reduction techniques and their effectiveness.

**Methods:** 227 parents (120 mothers, 107 fathers), aged 17 to 55, completed Parental Stressor Scale-NICU, External Stressors Scale, Stress Reduction Scale and CORE-18. Average gestational age of infants from two regional NICU was 32 weeks (24-42), birth weight 1605 gr (580-3720) and 56% needed respiratory support; average hospitalization duration was 28 days (5-161).

**Findings:** 52,4% parents were in clinically significant global distress, more mothers than fathers. Mothers have more clinically significant results on three CORE dimensions: subjective well-being, problems/symptoms and general life functioning. Fathers showed more clinically significant results on risk of self-harm or hurting other. There were no gender differences in stress related to NICU itself. Among external stressors, child-care for siblings is more stressful for mothers, meeting work obligations for fathers. Speaking to other parents in NICU is more often a stress reduction technique for mothers, exercise for fathers. Mothers find professional counselling, prayer and confiding in friends and family more effective in reducing stress than fathers.

**Discussion:** Results imply the importance of gender specific psychological and social support for parents of newborns hospitalized in NICU.

10:15 - 10:30

## Attitudes and beliefs about food allergies in adolescents with and without a diagnosed food allergy.

K. Newman<sup>1</sup>, R. Cooke<sup>2</sup>, H. Pattinson<sup>1</sup>, R. Knibb<sup>1</sup>

<sup>1</sup>Aston University, United Kingdom

<sup>2</sup>University of Liverpool, United Kingdom

**Background:** Adolescents with food allergy (FA) are an age group that is associated with higher rates of allergic and fatal allergic reactions due to increased risk-taking behaviour. As peers were highlighted as important yet no previous research looked at their beliefs, we recruited a further sample to explore these beliefs and compare them to the FA sample and identify a focus for a peer-led intervention.

**Method:** Participants aged 11 to 16 years, with FA (n=20) and without FA (n=16), living in the UK were invited to attend semi-structured interviews to explore their beliefs and attitudes regarding food allergies. Interviews were transcribed verbatim and analysed using thematic analysis.

**Results:** Four themes were observed through the process of thematic analysis; 1) anaphylaxis and adrenaline auto-injectors (AAI's): views of severity, 2) questioning accuracy and necessity: looking at labels, 3) managing FA in different situations, and 4) education and improvement; peers, schools and beyond.

**Conclusion:** Adolescents with no history of FA were able to imagine some aspects of life with a food allergy in line with FA diagnosed adolescents beliefs. Conflicting beliefs surrounded the areas of communication and education; adolescents with FA believed their peers were unwilling to learn, while the peer sample acknowledged they had gaps in their knowledge and wanted to learn, but were reluctant to ask questions so not to pry. Adolescents from both samples emphasised the need for further education in their age group, as well as the wider community, in aspects such as anaphylaxis and adrenaline auto-injectors.

10:30 - 10:45

## THE impact of BEHCET'S disease on intimate relationships in women: a qualitative study

F. Sweeting<sup>1</sup>, E. Arden-Close<sup>1</sup>

<sup>1</sup>Bournemouth University, United Kingdom

**Background:** Behçet's disease is a rare, potentially life limiting and incurable condition where the body's immune system attacks healthy tissue. Behçet's can cause blood clots and ulcerations to form in every organ and system in the body, with one of the most unpleasant symptoms being deep, painful and slow to heal genital ulceration. Global quality of life is impaired relative to the general population. However, the psychological impact of the disease on intimacy and relationships has not been explored. This study aimed to explore how the disease impacts on female patients' intimate partner relationships.

**Method:** In a qualitative study, semi-structured interviews lasting 80 minutes on average were conducted with seven female, UK based patients with Behçet's disease who were in committed relationships. Interviews explored participants' sexual functioning and intimate relationships and were conducted via video conferencing or by telephone. Data was analysed using Interpretative Phenomenological Analysis. NViVo was used to aid data analysis.

**Findings:** Themes identified that influenced patients' intimate relationships were: issues due to lack of knowledge of symptoms (misdiagnosis of herpes) issues due to symptoms (genital manifestations, painful sex, exhaustion), difficulties communicating with medical professionals, medication, partner support, and support from fellow patients with Behçet's disease.

**Discussion:** Female patients with Behçet's disease are at risk of developing psychological problems with intimacy due to symptoms, lack of knowledge of symptoms, and negative impacts of medication. Intimacy needs to be discussed in medical consultations so these issues can be addressed before a lack of intimacy negatively impacts relationships.

10:45 - 11:00

## Psychosocial predictors of IVF success after one year

M. McLaughlin<sup>1</sup>, T. Cassidy<sup>1</sup>

<sup>1</sup>Ulster University, United Kingdom

**Objectives:** There is growing evidence that psychosocial factors play an important role in the success of in vitro fertilisation (IVF). The current study explored the impact of coping style, social support, self-compassion, parenthood motivation, and relationship attachment as predictors of IVF success.

**Design:** A follow-up survey of 305 women undergoing IVF who had initially been assessed one year earlier (Cassidy & McLaughlin, 2016).

**Methods:** Participants were assessed on measures of coping style, social support, self-compassion, parenthood motivation, relationship attachment, and psychological distress and reassessed one year later in terms of the outcome of IVF.

**Results:** Of these 156 reported successful births while 149 had been unsuccessful. Of the 149 who had been unsuccessful 66 were undertaking another cycle of IVF and 83 were not, although whether they had completely given up is not known. The significant positive predictors were, problem focused coping, mindfulness, nurturance motivation, secure attachment, support from friends, and self-kindness. In addition, social pressure motivation, and avoidance coping were negative predictors.

**Conclusions:** The findings point to potential psychological interventions in terms of stress management, couple counselling, and mindfulness therapy in increasing the likelihood of success from IVF.

ORAL

# Treatment approaches in chronic illness

11:30 - 13:00

Elafiti 3, Valamar Lacroma Dubrovnik

Maryanne Martin

11:30 - 11:45

## Exploring the potential for a transdiagnostic approach to chronic disease-related fatigue treatment.

C. Willis<sup>1</sup>, L. Rixon<sup>2</sup>, T. Chalder<sup>3</sup>

<sup>1</sup>Kings Health Partners, United Kingdom

<sup>2</sup>City University, United Kingdom

<sup>3</sup>Kings College London, United Kingdom

**Background:** Fatigue is common in chronic diseases. Previous research has observed that chronic disease-related fatigue is often perpetuated by psycho-social factors rather than underlying disease activity. This study compared anxiety, depression, sleep quality, social responses and symptom-related cognitions and behaviours in patients with Autoimmune Rheumatic Diseases (ARD), Human Immunodeficiency Virus (HIV) and breast cancer. It aims to further empirical work to identify shared and specific processes to be targeted in the treatment of chronic disease-related fatigue.

**Methods:** 455 participants completed questionnaire measures of these psychosocial factors and fatigue. ANOVA and ANCOVA analysis adjusting for the covariates of fatigue and age were conducted to compare the three illness groups. Correlations between fatigue and cognitive behavioural responses and social adjustment were also assessed.

**Findings:** There were no statistically significant differences between the groups for anxiety, depression, poor sleep, negative and solicitous responses from significant others, behavioural avoidance and symptom focussing after adjustment for fatigue and age. HIV and ARD groups showed significantly higher responses for damage beliefs and embarrassment avoidance than the breast cancer group after adjustment for fatigue. Fatigue was also strongly correlated with all cognitive and behavioural responses and social adjustment across all three groups with the exception of some lower correlations for breast cancer patients.

**Discussion:** Fatigue in ARD, HIV and breast cancer is perpetuated by similar underlying transdiagnostic processes. Specific differences were also observed between illness groups.

A transdiagnostic approach to treatment that is individualised to target specific processes may therefore be warranted and effective.

11:45 - 12:00

## Emotional processing and mood as mediators of cognitive behavioural therapy in Irritable Bowel Syndrome

A. Sibelli<sup>1</sup>, K. Goldsmith<sup>1</sup>, T. Chalder<sup>1</sup>, H. Everitt<sup>2</sup>, S. Windgassen<sup>3</sup>, R. Moss-Morris<sup>3</sup>

<sup>1</sup>IoPPN, King's College London, United Kingdom

<sup>2</sup>University of Southampton, United Kingdom

<sup>3</sup>King's College London, United Kingdom

**Background:** The aim of this study was to assess whether changes in emotional processing and positive affect at the end of treatment mediated longer term treatment effects in the context of cognitive behavioural therapy (CBT) for Irritable Bowel Syndrome (IBS).

**Methods:** 558 adults meeting IBS Rome III criteria were randomised to telephone delivered CBT (TCBT), web-based CBT with minimal support (WCBT) or treatment as usual (TAU). Putative mediators (measured at 3 months post-randomisation) were: Beliefs about Emotions (BES), Impoverished Emotional Experience (IEE), Hospital Anxiety and Depression Scale (HADS), Positive Affect (PA). Primary outcomes were IBS Symptom Severity (IBS-SSS) and Work and Social Adjustment (WSAS) at 12 months post-randomisation. Mediator models were fitted in the structural equation modelling framework; first with single mediators, then with multiple mediators in parallel.

**Findings:** Both CBT interventions had significantly greater treatment effects than TAU on both outcomes. TCBT led to a 0.10 SD decrease on WSAS via BES: 95%CI -0.17 to -0.04, proportion mediated 20% (largest indirect effect in single mediator models). WCBT led to a 0.09 SD decrease on WSAS via HADS: 95%CI -0.15 to -0.04, 20% proportion mediated (largest indirect effect in single mediator models). Similar results were produced with IBS-SSS as an outcome. Parallel models confirmed BES, HADS and PA as mediators, but effects were small.

**Discussion:** These findings suggest that the efficacy of cognitive behavioural interventions aimed at improving IBS physical symptoms and reducing IBS related impact may be enhanced by explicitly targeting emotional processing difficulties and increasing positive affect.

12:00 - 12:15

## Testing a Moderated Mediation model of MBCT's effects for psoriasis patient

A. Maddock<sup>1</sup>, D. Hevey<sup>2</sup>, P. D'Alton<sup>3</sup>, B. Kirby<sup>3</sup>

<sup>1</sup>School of Psychology, Trinity College Dublin, Ireland

<sup>2</sup>TCD, Ireland

<sup>3</sup>University College Dublin, Ireland

**Background:** The evidence base supporting the positive impact of mindfulness-based interventions (MBIs) on the mental health and psychological wellbeing of clinical populations has increased in the last number of years. The mechanisms by which MBIs effect changes on these outcomes are still unclear. This study aimed to investigate if changes in attention regulation, self-compassion, acceptance, mindfulness, non-attachment, aversion, rumination and worry scores after engaging in an MBCT intervention predicted anxiety, depression and wellbeing levels of psoriasis patients.

**Methods:** This study used data from an RCT (N = 101) investigating the impact of a Mindfulness-based Cognitive therapy intervention (MBCT) on psoriasis symptoms, depression, anxiety and psychological wellbeing. We tested moderated mediation effects of changes in attention regulation, self-compassion, acceptance, mindfulness, non-attachment, aversion, rumination and worry scores post intervention on anxiety, depression and psychological wellbeing. Total, direct and indirect effects were estimated by bootstrapped moderated mediation analyses providing 95% bias corrected bootstrap confidence intervals.

**Findings:** indicated that changes in self-compassion were associated with changes in anxiety and attention regulation with psychological wellbeing when moderated by group allocation post intervention. Decreases in aversion were also found to be significantly associated with improved psychological wellbeing when mediated by reduced rumination, and reduced anxiety when mediated by decreases in worry. Increased mindfulness was found to be significantly associated with reduced anxiety when mediated by reduced worry.

**Discussion:** overall, this study has provided some initial evidence on the potential mechanisms of mindfulness, helping to fill a research gap consistently outlined in the mindfulness literature.

12:15 - 12:30

## Treatment fidelity in the gait rehabilitation in early rheumatoid arthritis (GREAT) feasibility study

E. Godfrey<sup>1</sup>, M. Sekhon<sup>1</sup>, L. Hardy<sup>1</sup>, G. Hendry<sup>2</sup>, M. Steultjens<sup>2</sup>, C. Sackley<sup>1</sup>, L. Bearne<sup>1</sup>

<sup>1</sup>King's College London, United Kingdom

<sup>2</sup>Glasgow Caledonian University, United Kingdom

**Background:** Many people with early rheumatoid arthritis (RA) report foot pain and walking disability. An exercise-based gait rehabilitation intervention (GREAT) was developed, comprising two compulsory sessions and up to four optional sessions. Physiotherapists and podiatrists received bespoke training incorporating motivational interviewing and behaviour change techniques (BCTs), to help patients to complete their exercises. This study aimed to assess fidelity of delivery within the GREAT feasibility study.

**Methods:** 42 adult participants with early RA were recruited across three centres in the UK. Novel treatment fidelity measures were developed to examine delivery. Two trained, independent assessors rated audio tapes of GREAT sessions and assessed the extent to which core elements and BCTs in session 1 and session 2 were delivered.

**Findings:** A sample (20%, n=13) of audio-recorded GREAT compulsory sessions were rated. The 6 core elements and 6 BCTs in Session 1 were delivered with high (89%) treatment fidelity, but 11 further BCTs were not consistently delivered (range 23-69%). In session 2, the 5 core elements and 5 BCTs were delivered with good fidelity (78%), but another 7 BCTs were not reliably delivered (range 11-56%).

**Discussion:** Allied health professionals were able to deliver the core elements of GREAT compulsory sessions with high fidelity but adherence to the protocol was not complete. These results suggest further training or greater on-going support may be required. Alternatively, the intervention could be simplified to enhance delivery, as research shows complex interventions should consider mandatory BCTs alongside optional ones, depending on the needs of individual participants.

12:30 - 12:45

## Effectiveness of a therapy adherence intervention; a multi-center randomized controlled trial

J. Tatousek<sup>1</sup>, J. Lacroix<sup>1</sup>

<sup>1</sup>Philips Research, Netherlands

**Background:** Educating people about the benefits of a medical therapy and feeding back monitored personal results have been shown promising in improving therapy adherence. Currently, most of the interventions to promote therapy adherence take a one-size-fits-all approach. This study compares the effectiveness of providing style-tailored and untailored education and personal feedback, with standard of care on CPAP therapy adherence for obstructive sleep apnea (OSA) patients.

**Methods:** 157 patients diagnosed with mild to severe OSA and prescribed CPAP treatment completed this randomized, controlled multicenter clinical trial. Three groups were included: a Standard of Care (SoC) group, a Tailored Intervention group (TI) receiving tailored education and feedback, an Untailored Intervention group (UI) receiving untailored education and feedback. The intervention groups received 2 educational leaflets in week 1 and 2 of their treatment followed by 7 weekly feedback reports about personal CPAP usage and recommendations.

**Findings:** The provision of personal education and feedback has a significant positive impact on adherence levels (a 36% higher nightly CPAP use), mask fit and psychological variables related to CPAP compared to SoC. In addition, there is a more favorable reception of style tailored compared to untailored content in terms of subjective outcomes.

**Conclusion:** Personal education and feedback substantially improved adherence levels compared to SoC with an additional effect of tailoring on the patient experience. The results show that providing tailored personal education and feedback is a promising approach to increase adherence levels and patient experiences.

12:45 - 13:00

## Impact of Mindfulness-Based Cognitive Therapy for Irritable Bowel Syndrome: A randomised control trial.

M. Martin<sup>1</sup>

<sup>1</sup>Department of Experimental Psychology, University of Oxford, United Kingdom

**Background:** Irritable Bowel Syndrome (IBS) is a chronic condition that affects the digestive system, characterized by stomach pain, cramps, bloating, diarrhoea and constipation. It is the most common functional gastrointestinal disorder, with worldwide prevalence rates of about 10–15%.

This is the first trial to evaluate Mindfulness-Based Cognitive Therapy (MBCT) adapted specifically for patients with IBS. The 6-week intervention aimed to reduce IBS symptoms, improve quality of life and also detect underlying mechanisms of change.

**Methods:** Sixty-seven female patients with a doctor's diagnosis of IBS were randomly allocated to either a MBCT for IBS group (MG) or a wait-list control group (WLG). Measures included an objective reaction-time instrument (the Implicit Association Test) and a range of self-report instruments.

**Results:** Significantly greater reductions in IBS symptoms ( $p = .003$ ) and improvement in quality of life ( $p < .001$ ) occurred at follow-up in the MG than in the WLG. Simple mediation analyses and serial mediation analyses were carried out. Reductions in IBS symptoms were mediated by reductions in implicit association with illness, pain catastrophizing and visceral anxiety sensitivity. Treatment expectations correlated significantly with change scores from pre- to post-treatment for IBS symptoms,  $p = .007$ , and quality of life,  $p = .011$ .

**Discussion:** The present trial provides evidence for the effectiveness of MBCT for IBS. Reducing maladaptive illness cognitions and self-referent processing of illness may assist in ameliorating symptoms. Improvements at follow-up were greater than those directly post-treatment, suggesting a continuing beneficial influence of mindfulness practice on IBS outcomes.

ORAL

# Individual differences in emotion regulation

11:30 - 13:00

Olipa 4, Valamar Collection Dubrovnik President

John de Wit

11:30 - 11:45

## Impaired Sleep and Psychological Symptoms in Turkish Adults: A Test of the Emotion Dysregulation Pathway

E. Tuna<sup>1</sup>

<sup>1</sup>Çankaya University, Turkey

Disordered sleep has been shown to predict psychological symptoms. One mechanism linking impaired sleep to psychological symptoms may be difficulties in emotion regulation. The aim of the present study was to explore the associations between quality of sleep, emotion dysregulation, and psychological symptoms.

Our sample consisted of 395 Turkish adults with a mean age of 22.94. Participants completed Pittsburgh Sleep Quality Index, Epworth Sleepiness Scale, Difficulties in Emotion Regulation Scale and Brief Symptom Inventory. Data was collected via an online survey. First, bivariate correlations between variables were calculated. Then, a structural equation model was tested. The model consisted of three latent variables: Psychological symptoms (as indicated by depression, anxiety, hostility, negative self-concept, and somatization), sleep quality (as indicated by subjective sleep quality and sleepiness) and emotion dysregulation (as indicated by clarity, strategies, awareness, non-acceptance, impulse, and goals).

Subjective quality of sleep and sleepiness were correlated with all dimensions of psychological symptoms and emotion dysregulation. The model proposing the mediator role of emotion dysregulation in the relationship between sleep quality and psychological symptoms exhibited a good fit to the data,  $\chi^2(56, N = 395) = 170.51, p < .001, CFI = .96, RMSEA = .072, SRMR = .036$ , and all hypothesized links had significant factor loadings.

Our findings suggested that emotion regulation difficulties play a role in the relationship between poor sleep and psychopathology. Future research should explore how sleep problems contribute to emotion dysregulation. Targeting sleep problems and emotion regulation difficulties as areas of intervention may prevent psychological disorders.

11:45 - 12:00

## The relationship of dispositional compassion for others with depressive symptoms over a 15-year prospective follow-up

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<sup>5</sup>University of Tampere, Finland

<sup>6</sup>Turku University Hospital, Finland

<sup>7</sup>University of Turku, Finland

**Background:** The aim of this study was to investigate (i) the direction of the relationships between dispositional compassion for others and depressive symptoms over a 15-year follow-up in adulthood and (ii) the longitudinal associations of dispositional compassion with total depressive symptoms and various depressive subsymptoms (i.e. negative attitude, performance difficulties, and somatic complaints) from early adulthood to middle age.

**Methods:** The participants (N=1676) came from the prospective Young Finns Study. Dispositional compassion was assessed with the Temperament and Character Inventory and depressive symptoms with a modified version of the Beck Depression Inventory. The measurements were conducted between 1997 - 2012 including three measurement points. The data was analyzed using structural equation models and multilevel models for longitudinal Design:

**Findings:** The predictive relationships were more likely to proceed from high dispositional compassion for others to lower depressive symptoms than in the opposite direction (Model fit:  $\chi^2(82) = 506.453$ ,  $p < 0.001$ , RMSEA = 0.056, CFI = 0.963). Additionally, high dispositional compassion predicted a lower total score of depressive symptoms ( $\beta = -0.32$ ,  $p < 0.001$ ) and also lower scores of various depressive subsymptoms in early adulthood. These associations, however, weakened over years and became non-significant in middle age. All the findings were sustained after controlling for age, gender, and socioeconomic factors in childhood and adulthood.

**Discussion:** When tailoring psychiatric interventions, it is necessary to be aware that compassion for others may lower the risk for the onset and maintenance of depressive symptoms, especially in early adulthood.

12:00 - 12:15

## Difficulties in Emotional Regulation and Mental Health among Young Adults with History of Homelessness

S. Semborski<sup>1</sup>, B. Henwood<sup>1</sup>

<sup>1</sup>University of Southern California, United States

**Background:** Many young adults with history of homelessness have experienced trauma that contribute to elevated rates of mental health issues, including increased difficulty with emotional regulation. Study aims include examining mental health correlates of emotional regulation among young adults with histories of homelessness.

**Methods:** Data come from a study of HIV risk among currently and formerly homeless young adults, funded by the National Institute of Mental Health. 222 young adults ages 18-29 were recruited from drop-in centers or housing programs located in Los Angeles, CA between June 2017 and January 2019. Six separate OLS Regression Models assessed the association of demographics and clinical cutoff scores for anxiety (GAD-7), depression (PHQ-9), and PTSD (Primary Care Screener) with sub-scales of the Difficulties in Emotional Regulation Scale (DERS-18). Chi-square and t-tests examined differences in mental health items and DERS scores among formerly homeless participants and those currently housed.

**Findings:** No differences in anxiety, depression, or PTSD scores were found between those formerly and currently homeless. Previously homeless participants scored, on average, 1.35 points higher regarding lack of awareness of emotional responses. Anxiety was the only mental health condition associated with increases in DERS-18 subcategories, indicating a greater deficit in emotional regulation in areas regarding goal achievement, non-acceptance of emotions, impulsivity, regulation strategies, and clarity of emotional states.

**Discussion:** Results have implications for the development of behavioral health interventions for homeless young adults. As emotional dysregulation has been linked with increased risk behavior, service providers may want to target anxiety to mitigate risk.

12:15 - 12:30

## Fear of physical activity predicts objectively assessed physical activity in patients with heart failure

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<sup>3</sup>Rhein-Maas Klinikum Würselen, Germany

<sup>4</sup>Universitätsklinikum Aachen, Germany

<sup>5</sup>Universitätsklinikum des Saarlandes, Germany

**Background:** Heart failure (HF) guidelines recommend moderate-intensity aerobic physical activity (PA), e.g., walking for 2h30 per week. However, fear of physical activity (FoPA) has been discussed as a barrier to PA in cardiac patients. This study aimed at evaluating the impact of FoPA on moderate-intensity PA and step counts in outpatients with HF.

**Methods:** The multicenter study sample consisted of 80 HF outpatients (74% male; mean age 61±11 years) with preserved or reduced ejection fraction (LVEF). Patients wore accelerometers for seven consecutive days to objectively assess PA. FoPA was measured by the Fear of Physical Activity in Situation – Heart Failure questionnaire (FActS-HF 15; Cronbach's  $\alpha=.96$ ). Demographics, anxiety, and depression were assessed by self-reports. Medical data were retrieved from patient records. Multiple regression analyses were applied to estimate the association of FoPA with covariate-adjusted duration of moderate-intensity PA/week and mean steps/d.

**Findings:** Patients showed on average 4h09 ( $\pm 3h20$ ) of moderate-intensity aerobic PA/week (of those, 43% did not reach recommended 2h30/week) and walked 5795 ( $\pm 3039$ ) steps/d. Fewer steps and less moderate-intensity PA were explained by higher FoPA, both accounting for 23% of its variation, whereas anxiety and depression were unrelated to PA. FoPA significantly predicted daily steps ( $\beta=-.41$ ,  $p<.001$ ) and moderate-intensity PA/week ( $\beta=-.38$ ,  $p=.001$ ), even when controlling for age, gender, LVEF, comorbidity, previous hospitalization, and (cardiac) exercise attendance.

**Discussion:** FoPA contributes substantially to low PA levels in patients with HF, independent of medical factors, anxiety, and depression. Thus, FoPA constitutes an important target for interventions promoting PA in this population.

12:30 - 12:45

## Psychological interventions for re-injury anxiety among athletes injured at ACL, a randomized controlled trial study.

B. Caumeil<sup>1</sup>, E. Laboute<sup>2</sup>, E. Verhaeghe<sup>2</sup>, S. Pérez<sup>2</sup>, G. Décamps<sup>1</sup>

<sup>1</sup>University of Bordeaux, France

<sup>2</sup>Centre Européen de Rééducation du Sportif, France

**Background:** This study is a replication of Cupal and Brewer (2001) experiment. This study aims to assess the efficacy of Visual Motor Behavior Rehearsal (VMBR) on reinjury anxiety, and mood disturbance.

**Methods:** A longitudinal and prospective study involved 182 injured athletes who underwent ACL reconstruction, were enrolled in CERS in Capbreton, France and randomized in two groups. Intervention consisted of 6 individual sessions of relaxation and imagery from VMBR, lasting 4 hours for 3 weeks. Baseline, mid-intervention and post-intervention measures of reinjury anxiety (RIAI), stress (PSS-10), coping (WCC), fear of reinjury (ACL-RSI), knee confidence (IKDC), depression and anxiety (HADS), and pain (VAS) were collected by self-report scales. We conducted MANOVA and T-tests to analyse differences between groups and during time.

**Findings:** One hundred eighty-two athletes (mean age: 24.3 years; 122 males) were enrolled at baseline. Athletes' mean scores on dependent measures were not significantly different between groups at baseline. After the intervention, athletes in the experimental group had significantly greater scores on coping (problem and seeking social support,  $p < .01$ ) and lower scores on subscales of stress ( $p < .01$ ). There were tendential results for depression, stress and pain and no significant difference between control and experimental groups in other measures.

**Discussion:** VMBR technique can be useful as a training strategy to help athletes cope and seek social support for their injury. Coping could be a mediator of the relation between intervention and reinjury anxiety. However, these hypotheses need to be confirmed by other repeated measures.

12:45 - 13:00

## Problematic use and QoL of online video game players: identification of motivational profiles.

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<sup>1</sup>University of Bordeaux, France

**Background:** Competitive practice of video games (e-sport) has recently known a significant worldwide expansion. However, this practice can lead to problematic use and deterioration of QoL depending on multiple determinants, among which motivation is central. The purpose of this study was to identify motivational clusters amongst e-sport players and to compare them regarding quality of life, problematic uses of video game and personality.

**Methods:** Participants (N=256) in this cross-sectional study were recruited through websites to complete self-reported questionnaires assessing motivation (MOGQ), personality (BFI-Fr), QoL (WHOQOL-BREF) and problematic use (IGD-Scale). A hierarchical classification analysis and intergroup comparative analyses were conducted.

**Findings:** Three motivational clusters were identified ("recreational", "competitive" and "avoidant"). "Competitive" and "avoidant" clusters reported higher IGD scores than the "recreational" cluster ( $p < .001$ ). However, participants in the "avoidant" cluster had lower psychological health scores ( $p < .001$ ), were more neurotic ( $p < .001$ ) and less extroverted ( $p < .001$ ) than the others. Therefore, IGD scores didn't differentiate between engaged and problematic players: "competitive" and "avoidant" players were detected as problematic albeit only "avoidant" players exhibited a deterioration of their QoL.

**Discussion:** IGD scores were insufficient to differentiate between players with a high risk of evolution toward pathological states ("avoidant" players) and those whose strong engagement in e-sports isn't detrimental to their QoL ("competitive" players). Taking into account both psychological health and motivation is thus necessary to assess the problematic nature of competitive practice. Better definitions and assessment tools are essential in order to avoid over-diagnosis of non-pathological behaviors.

ORAL

Health services research:  
Implementation & fidelity

11:30 - 13:00

Karaka, Valamar Argosy

Elaine Cameron

11:30 - 11:45

## Self-management support for breast cancer survivors in France: mapping current practices on behaviour change theory

A. Dima<sup>1</sup>, M. Ganem<sup>1</sup>, E. van Ganse<sup>1</sup>, M. Preau<sup>2</sup>, A. Schott<sup>1</sup>

<sup>1</sup>University Claude Bernard Lyon 1, France

<sup>2</sup>University Lumiere Lyon 2, France

**Introduction:** Self-management after breast cancer treatment involves multiple behaviours, e.g. medication adherence, attendance to monitoring appointments, self-monitoring of recurrence symptoms, physical exercise, diet. Healthcare professionals (HCPs) of different specialties intervene in routine care and may provide self-management support (SMaS) independently or collaboratively. Implementation of new SMaS interventions needs to build on existing practices and stakeholder representations, therefore requires evidence on how SMaS is delivered currently in long-term routine care.

**Methods:** We conducted qualitative semi-structured interviews with breast cancer survivors and HCPs involved in cancer care (general practitioners, pharmacists, nurses, specialists, psychologists, physiotherapists) in the Auvergne-Rhône-Alpes region, France, and explored their experiences and representations of SMaS and care coordination, and improvements they envisaged. Thematic analysis is performed on verbatim transcripts to map behaviour change theory on current practices, to identify patients and HCPs behaviours and determinants on which SMaS interventions can build.

**Findings:** Seventeen patients and 30 HCPs reported numerous barriers for medical, social and emotional self-management behaviours after treatment end, and the lack of structured SMaS services for long-term care. Support services and therapeutic education are available in secondary care but with insufficient reach. Barriers to SMaS delivery include the administrative burden for SMaS initiatives, and the limited SMaS training and coordination tools.

**Discussion:** Improvements of SMaS need to focus on transition between secondary and primary care, training HCPs on SMaS interventions, and developing and implementing ehealth SMaS and coordination tools in routine care. Behaviour change theory facilitated structuring the discourse on current practices and identifying gaps in SMaS services.

11:45 - 12:00

## Fidelity assessment of motivational interviewing-based treatment support delivered by nurses

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<sup>1</sup>King's College, United Kingdom

<sup>2</sup>City University of London, United Kingdom

**Background:** The TITRATE trial is a multi-site RCT which compared intensive management with standard care in participants with rheumatoid arthritis (n=335). Intensive management includes tailored treatment support based on motivational interviewing (MI) techniques, which was delivered by rheumatology practitioners (mostly nurses). The objective was to assess fidelity of the taught MI techniques across 10% of the total audio recorded intensive management sessions (n=1,231).

**Methods:** Based on the MITI, a 14-item assessment tool was developed to assess delivery of MI techniques taught during the 2-day training. Fidelity was measured by rating 126 randomly selected intensive management sessions, delivered by 25 nurses. Fidelity scores were calculated using descriptive statistics in SPSS.

**Findings:** More frequently used techniques (evidenced in 75-92 of the 126 sessions) included providing solicited information only, demonstrating listening skills, and asking open questions. Agreement of agenda, patient talk >60% of the time, and the use of importance/confidence rulers, were indicated in just 19-53 sessions. Affirming the patient's strengths and abilities were observed at moderate or high-fidelity levels in 58 sessions. Evoking and reinforcing change talk, identifying one main problem area, and skills relating to exploring ambivalence were observed at moderate or high-fidelity levels in just 16-34 sessions.

**Discussion:** Certain MI techniques were clearly more instinctive, or easier, for nurses to learn and incorporate into clinical care. These findings suggest nurses can learn MI skills via short training courses but highlights that ways of increasing its efficacy are required.

12:00 - 12:15

## Does a national diabetes prevention programme train staff to deliver planned behaviour-change techniques with fidelity?

E. Cameron<sup>1</sup>, R. Hawkes<sup>1</sup>, D. French<sup>1</sup>

<sup>1</sup>University of Manchester, United Kingdom

**Background:** The NHS England Diabetes Prevention Programme (DPP) is a national behaviour-change intervention for people identified as high risk for developing type-2 diabetes. Internationally, there is a dearth of evidence on the extent to which diabetes prevention programmes are delivered with fidelity to specified principles. Aims were to: 1) map behaviour-change content of staff training, 2) evaluate fidelity of behaviour-change training to providers' intervention descriptions.

**Methods:** All core training (seven courses) of four national providers of the DPP in England was audio-recorded, encompassing 10 trainers and 78 staff who will deliver the DPP. Recordings and additional materials were coded for behaviour-change techniques (BCTs) using the Behaviour Change Technique Taxonomy v1. Number and type of BCTs and method of training (e.g., instruction, demonstration, practice) were compared between providers. Fidelity of trained BCTs was checked against providers' programme manuals and service frameworks.

**Findings:** Training duration and delivery style varied between providers. Number of unique BCTs in which staff were trained ranged from 21 to 45 across providers (of which between 77.3% and 93.3% were trained face-to-face). Fidelity to BCTs specified in intervention descriptions was 50.0%, 51.3%, 85.7% and 90.3% for the four respective providers, and between one and eight BCTs were included in training courses that had not been specified in intervention descriptions.

**Discussion:** Fidelity varied between national service providers, with some training staff in only half of BCTs to be delivered. This has implications for fidelity in intervention delivery and is likely to impact on effectiveness of the DPP.

12:15 - 12:30

## Health care professionals' views of screening for depression and anxiety in long-term conditions

J. Hudson<sup>1</sup>, Z. Moon<sup>1</sup>, K. Hulme<sup>1</sup>, M. Van Vliet<sup>2</sup>, A. Allen<sup>1</sup>, A. Husbands<sup>1</sup>, R. Moss-Morris<sup>1</sup>

<sup>1</sup>King's College London, United Kingdom

<sup>2</sup>Leiden University, Netherlands

**Background:** Depression and anxiety are common in physical long-term conditions (LTCs); efforts are needed to increase access to psychological therapies for this population. Screening for distress during outpatient hospital appointments may help identify people in need of support and facilitate healthcare access. This study aimed to identify healthcare professionals' (HCPs) perceptions of screening for distress in outpatient clinics.

**Methods:** Semi-structured interviews were conducted with nineteen HCPs who had screened patients for distress using self-report mood questionnaires as part of the Integrating Mental and Physical Healthcare Care, Research and Training (IMPARTs) initiative. An inductive thematic analysis was performed first. Identified themes were then deductively mapped to four constructs of implementation defined by Normalisation Process Theory (NPT; coherence, cognitive participation, collective action, and reflexive monitoring).

**Findings:** Two overarching themes were inductively identified: i) intrapersonal factors and ii) organisational/practical factors. Intrapersonal factors included HCPs adoption of models of integrated care, confidence in asking about distress, and knowing what to do should distress be identified. Organisational/practical factors included: lack of time, infrastructure, and technology problems. Mapping inductive themes onto NPT constructs identified that, whilst HCPs understood the purpose of screening (coherence), there was a lack of "buy-in" from some HCPs (cognitive participation) because they lacked confidence and skills to address mood (pre-training) and/or onward referral care pathways were not explicitly defined/available (collective action).

**Discussion:** To increase the uptake of screening for distress in outpatient hospitals interventions are needed to increase HCP confidence and skills whilst ensuring clearly defined care pathways are in place.

12:30 - 12:45

## What affects whether physical activity is recommended to cancer patients?

A. Haussmann<sup>1,2</sup>, N. Ungar<sup>2</sup>, A. Tsiouris<sup>3,4</sup>, M. Sieverding<sup>2</sup>, J. Wiskemann<sup>3</sup>, K. Steindorf<sup>1</sup>

<sup>1</sup>German Cancer Research Center, Germany

<sup>2</sup>Heidelberg University, Germany

<sup>3</sup>University Clinic Heidelberg, Germany

<sup>4</sup>University Medical Center Mainz, Germany

**Background:** Although physical activity (PA) is beneficial for cancer patients, healthcare professionals (HCP) still scarcely recommend it. The goal was to investigate how HCP' sociodemographic and professional characteristics and their subjective assessments of patient characteristics are associated with their PA recommendation to cancer patients.

**Methods:** Our cross-sectional survey was completed by 541 physicians and 388 oncology nurses. These HCP indicated sociodemographic and professional characteristics, rated their PA recommendation behavior, and judged whether patient characteristics (13 items on 7-Point Likert scale) are reasons for or against recommending PA to their patients. It was tested whether patient characteristics explain PA recommendation frequencies in addition to HCP' sociodemographic and professional characteristics using hierarchical multiple regressions.

**Findings:** A high proportion of HCP indicated recommending PA often or routinely (79.3%) and giving PA recommendations proactively (76.5%). Only a few HCP' characteristics, e.g. their professional experience, were associated with PA recommendation rates. The patient characteristics 'medical side effects' and 'low affinity for PA' were mostly judged by HCP as reasons for recommending PA, 'indicators of poor general health' as reasons against it. Patient characteristics were significant predictors for PA recommendation rates, explaining 8-13% additional variance.

**Discussion:** HCP reported frequent PA recommendation behavior to cancer patients. Recommendation rates seem to be hardly determined by their sociodemographic or professional characteristics. Instead, HCP consider characteristics of cancer patients to determine whether or not to recommend PA. To increase PA recommendation rates, interventions should aim for enabling HCP to individually advise PA, also to cancer patients in poor health.

12:45 - 13:00

## Implementing the Positive Aging Policy in Challenging Healthcare Contexts: Views and Practices of Romanian doctors

C. Craciun<sup>1</sup>

<sup>1</sup>Babes Bolyai University, Romania

**Background:** Health professionals' views on aging affect health communication with their aging patients and positive aging policy implementation. The present qualitative study examined perceptions of old age and old patients among Romanian health practitioners. In addition, it explored how health professionals perceive their role as implementers of active aging policy recommendations. Potential discrepancies between positive aging discourse and doctors' aging views and actions were examined.

**Methods:** Semi-structured interviews were conducted with 40 Romanian general practitioners (20 female and 20 male doctors, aged between 35 and 55 years old), who represent the gate keepers of the Romanian health system. Data were analyzed with thematic coding.

**Findings** revealed the existence of negative aging stereotypes. Old age was represented as a state of illness and dependency, while aging was perceived as a process of decline and disability. Old people were represented as irresponsible patients, as victims of social circumstances or of the health system. Doctors perceived themselves either as helpless helpers, as social workers, performing duties that are outside the range of medical services, and as heroes of health systems in transition. Health professionals experience a cognitive dissonance between their negative views on aging and the positive aging ideals they must promote. Romanian doctors felt they lacked the skills to promote positive aging.

**Implications:** The implementation of active aging policies constitutes a challenge for Romanian health practitioners and shows a need for culturally tailored interventions.

ORAL

## Digital health promotion

11:30 - 13:00

Galijun, Valamar Argosy

Max Western

11:30 - 11:45

## Leveraging social media to understand the treatment needs of individuals with opioid use disorder

P. Cavazos<sup>1</sup>

<sup>1</sup>Washington University Medical School, United States

**Background:** Individuals who abuse illicit drugs often struggle with comorbid psychiatric disorders which can compound barriers to seeking treatment. This population can be difficult to find and engage into research. This study explored the utility of recruiting individuals on social media who were networking about opioid abuse and investigated the associations between psychiatric comorbidity and barriers to treatment.

**Method:** Opioid-related forums within a popular social media venue (Reddit) were used to recruit non-treatment engaged individuals ( $\geq 15$  years) who had misused opioids and had desire for treatment to take an online survey (N=144; 66% male; median age 28). Logistic regression was used to assess the association between psychiatric comorbidity and treatment barriers adjusting for demographic covariates and dependence symptoms.

**Results:** All participants met criteria for opioid use disorder (OUD). Approximately 72% of participants met criteria for either depression or anxiety. The most common types of barriers reported were attitudinal barriers toward treatment (89%) and OUD (82%). A majority of participants reported stigma (82%), structural (76%) and financial (63%) barriers as well. After adjusting for demographic variables, those with a psychiatric comorbidity had greater odds of reporting stigma as a barrier (OR=4.87, 95% CI: 1.32-18.01).

**Conclusions:** These findings suggest that social media can be used to recruit hard-to-reach non-treatment engaged individuals who misuse illicit drugs. Individuals struggling with opioid misuse experience barriers that are complex, multifaceted, and potentially compounded by a comorbid mental illness. Future interventions should consider using social media for targeted interventions that promote prosocial norms about recovery.

11:45 - 12:00

## Information Architecture: A Design Feature to Improve Patients' Satisfaction with Online Health Education Interventions

T. Dekkers<sup>1</sup>, M. Melles<sup>1</sup>, S. Vehmeijer<sup>2</sup>, H. de Ridder<sup>1</sup>

<sup>1</sup>Delft University of Technology, Netherlands

<sup>2</sup>Reinier de Graaf Hospital, Netherlands

Online health education interventions can improve patients' health by incorporating many unique engaging features (e.g. tailoring, interactive exercises). Yet, little is known about how certain features actually improve intervention effectiveness. To help health psychologists make informed choices in intervention design, we investigated how one defining feature, Information Architecture (i.e. the organization and structure of websites; IA) influences patients' knowledge and satisfaction with online health education.

Participants (N=215, Mage=57.2, 72% female) randomly viewed the same content in a matrix IA (less structure/more user control), hierarchical IA (medium structure/medium user control), or tunnel IA (more structure/less user control). Knowledge and satisfaction were assessed using an objective test and the Website Satisfaction Scale (WSS). Structural Equation Modelling (SEM) was used to determine if participants' perceptions of engagement, novelty, trustworthiness, relevance, and control mediated the relationships between IA and satisfaction/knowledge.

Participants were more satisfied with emotional support of content presented in a tunnel IA (M=3.22, SD=0.67) or matrix IA (M=3.17, SD=0.69) compared to a hierarchical IA (M=2.86, SD=0.60,  $p=.002$ ). IA also had indirect effects on satisfaction through increased perceptions of active control (Matrix;  $\beta=0.11$ ;  $p=.017$ ) and personal relevance (Tunnel;  $\beta=0.18$ ;  $p=.004$ ). No significant direct or indirect effects of IA on knowledge or time spent on the website were found.

The type of IA affects patients' satisfaction with online health education but not their knowledge gain. Depending on whether intervention designers want to improve the perceived relevance of educational material or promote patient empowerment and control, they may use or combine these IA designs.

12:00 - 12:15

## Real-time multidimensional feedback from wearable physical activity monitors supports positive behaviour change in inactive adults.

M. Western<sup>1</sup>, M. Standage<sup>1</sup>, O. Peacock<sup>1</sup>, T. Nightingale<sup>2</sup>, D. Thompson<sup>1</sup>

<sup>1</sup>University of Bath, United Kingdom

<sup>2</sup>University of British Columbia, Canada

Wearable monitors provide users with an opportunity to self-monitor progress across several health-harnessing dimensions of physical activity (PA) in real-time. Providing such feedback could enhance an individuals' motivation for PA and their sense of PA-related autonomy, competence, and self-efficacy. This study aimed to investigate whether personalized real-time, multidimensional PA feedback supported changes in distinct dimensions of objectively-measured PA behaviour.

Participants (n=51; mean age=51 years; 28 females) were randomized to either a 12-week self-monitoring intervention or a waiting-list control group. Intervention participants received a monitor, personalized web-application, and real-time display with personal targets to use for 6-weeks. A 6-week follow-up period was used. The primary outcome was objectively-measured physical activity at 12-weeks. Secondary outcomes were various health and psychosocial variables. One-to-one, semi-structured interviews were conducted with intervention participants after the follow-up assessment. Quantitative data were analysed via ANCOVA, and qualitative data analysed thematically.

Intervention participants significantly improved their PA level (12-week mean difference [95%CI]=0.09[0.02-0.15], $p=0.011$ , $\eta^2=0.13$ ), daily moderate PA (23.6[-0.1-45.4] minutes, $p=0.047$ , $\eta^2=0.08$ ), weekly moderate-to-vigorous PA bouts (195.2[58.1-330.8] minutes, $p=0.013$ , $\eta^2=0.13$ ) and steps (1545[581-2553] steps/day, $p=0.021$ , $\eta^2=0.11$ ) but not sedentary time or vigorous activity. These effects were more pronounced in females and in those with lower baseline activity. The intervention groups' perceived competence, autonomous motivation and barrier self-efficacy significantly improved relative to control participants while their extrinsic motivation decreased. Via rich qualitative data, intervention participants championed the impact of receiving personal targets and real-time data.

Real-time feedback coupled with personalised multidimensional visual feedback appears to be a promising strategy for motivating positive changes in PA behaviour in inactive adults.

12:15 - 12:30

## Supporting Behavior Change in Older Adults: A Blended Approach to Increase Physical Activity

S. Mehra<sup>1</sup>, J. van den Helder<sup>1</sup>, B. Visser<sup>1</sup>, R. Engelbert<sup>1</sup>, P. Weijs<sup>1</sup>, B. Kröse<sup>1</sup>

<sup>1</sup>Amsterdam University of Applied Sciences, Netherlands

Physical activity is vital to a healthy life. It decreases the chance of various diseases. Furthermore, it can prolong the ability of older adults to live independently. Community-based programs typically offer weekly group exercises for older adults. Exercising once a week is, however, not enough to achieve health benefits. Additional home-based exercises can increase the exercise frequency. A tailored intervention supported by a tablet and e-coaching was developed to deliver instructions and motivate older adults to achieve higher levels of physical activity.

A pilot study showed that older adults were able to operate the tablet in an effective and efficient manner. A follow-up clustered randomized controlled trial was conducted to assess the long-term effects. The study included 224 older adults (>55 years) who either participated for six months only in weekly community-based group exercises (control) or an additional program with home-based exercises that was supported by a tablet and e-coaching. Before and after the six months intervention period the physical activity levels of the participants were measured with a combination of a wearable accelerometer sensor and a diary that described their activities over the past three days. Furthermore, the daily use of the tablet was tracked during the six months intervention.

The results show that older adults that participated in the additional home-based exercise program achieved significant higher physical activity levels than control participants who only followed the weekly group exercises. A blended intervention can successfully increase physical activity and facilitate health-related behavior change in older adults.

12:30 - 12:45

## Development of smartphone applications for promoting healthy dietary choices in young adults

S. Salmon<sup>1</sup>, S. Schipper<sup>1</sup>, G. Kloek<sup>1</sup>

<sup>1</sup>The Hague University of Applied Sciences, Netherlands

**Background:** Unhealthy dietary behaviors are common in young adults and these behaviors may lead to a higher risk of non-communicable diseases later in their lives. As youth and smartphones have become synonymous, smartphone applications may enhance the delivery of health behavior change interventions if they meet the needs of the target population. This study describes the design process of two mobile app prototypes to promote healthy eating in young adults.

**Methods:** The iterative design process involved: (1) seven focus group interviews to explore attitudes towards healthy eating in young adults (60 females and 7 males, aged 16-22 years); (2) creating two paper prototypes in co-creation with the target audience; (3) evaluating the paper prototypes with the target audience (n=10).

**Findings:** The focus group discussions showed that healthy eating is not a priority and they were not motivated to change their behavior. For this reason, both apps are directed at goals that do matter for the target population, namely “developing muscles” and “improving one’s energy level”. One way to achieve these goals in these apps is to eat healthier. Issues in the prototype evaluation sessions were: lack of personalization and doubts on continued use.

**Discussion:** Young adults may be willing to learn how to make healthy food choices if they can link them to a goal that matters to them. Apps may be a medium to promote health behaviors, however developers and researchers should consider personalization, sustainable use and in the long-term the app’s effectiveness to promote healthy eating.

12:45 - 13:00

## A systematic review of just-in-time adaptive interventions (JITAs) to promote physical activity

W. Hardeman<sup>1</sup>, J. Houghton<sup>1</sup>, K. Lane<sup>1</sup>, A. Jones<sup>1</sup>, F. Naughton<sup>1</sup>

<sup>1</sup>University of East Anglia, United Kingdom

**Background:** Progress in mHealth technology has enabled the design of just-in-time adaptive interventions (JITAs). We define JITAs as having three features: behavioural support that directly corresponds to a need in real-time; content or timing of support is adapted or tailored according to input collected by the system since support was initiated; support is system-triggered. We conducted a systematic review of JITAs for physical activity to identify their features, feasibility, acceptability and effectiveness.

**Methods:** We searched ten databases, including Scopus and ACM Digital Library. We included primary studies of any design reporting data about JITAs, irrespective of population, age and setting. Outcomes included physical activity, engagement, uptake, feasibility, acceptability. Paper screening and data extraction were validated; synthesis was narrative.

**Findings:** We screened 2,200 titles, 840 abstracts, 169 full-text papers, and included 19 papers reporting 14 unique JITAs, including six randomised studies. JITAs prompted breaks following sedentary periods and/or suggested activities during opportunistic moments, typically over 3-4 weeks. Feasibility challenges related to technology, sensor reliability and timeliness of just-in-time messages. Participants found JITAs acceptable. We found mixed evidence for intervention effects on behaviour, but no study was sufficiently powered. Common behaviour change techniques were goal setting (behaviour) and prompts/cues. Five studies reported a theory-base. We found lack of evidence about cost-effectiveness, uptake and sustained engagement.

**Discussion:** Research into JITAs for physical activity is in its infancy. Consistent use and a shared definition of the term 'JITA' will aid evidence synthesis. We recommend robust evaluation of theory and evidence-based JITAs in representative populations.

ORAL

# Ageing: Understanding social and psychological diversity

11:30 - 13:00

Asimon, Valamar Lacroma Dubrovnik

Christine Stephens

11:30 - 11:45

## A lifecourse approach to understanding unequal trajectories of healthy ageing.

C. Stephens<sup>1</sup>, Á. Szabó<sup>1</sup>, M. Breheny<sup>1</sup>

<sup>1</sup>Massey University, New Zealand

**Background:** A life course approach challenges assumptions of homogeneity while recognising that ageing occurs in social and material environments. In this paper, we describe a longitudinal study of healthy ageing in New Zealand, which, drawing on the WHO definition, includes physical, psychological and social health. We captured diversity in this holistic assessment of health by drawing attention to subgroups of older adults who often remain undetected in research focusing on average findings.

**Methods:** The sample included 787 New Zealanders 65-80 years old (52% female, 40% of Māori descent), who participated in both 10-years of longitudinal surveys and life course history interviews. Longitudinal path analysis was used to test predictions about the pathways from socioeconomic inequalities in childhood to disparities in healthy ageing trajectories across the 10 years.

**Findings:** Poorer childhood socioeconomic status predicted lower educational outcomes. Both childhood SES and education were associated with fewer economic resources in adult life. Lack of economic resources was predictive of poorer physical, mental and social health in older adulthood. Differences in these trajectories were found based on gender and Māori descent.

**Discussion:** These findings support recent growth in interest in the environment and healthy ageing and provide a focus for future research. Inequalities in health in older age may be more usefully explained by environmental resources across the life course, rather than by individual behaviours in older age. Policies to offset health inequalities would focus on social and physical environmental support for all individuals' abilities to meet their material and participatory needs.

11:45 - 12:00

## What motivates older adults to attend a falls prevention program: Anticipated health or social benefits?

G.M.A. Steckhan<sup>1</sup>, L. Fleig<sup>1</sup>, L.M. Warner<sup>1</sup>

<sup>1</sup>MSB Medical School Berlin, Germany

**Background:** According to Carstensen's socioemotional selectivity theory older adults strive for more positive affect than younger adults. Older adults may, therefore, be more motivated by social rather than health motives to join a group-based falls prevention program. Rather than focussing on the health benefits through participation in a group-based falls-prevention program, older adults might therefore be more motivated by social aspects such as perceived group identity, group cohesion or social support.

**Methods:** This one-arm intervention study had two measurement points in time (T1, T2, 6 months apart). At T1 we assessed group identity, self-efficacy, health status social support and form of housing. At T2, training attendance was assessed. N=172 participants completed T1. Of those, n=90 remained for T2 (51-95 years of age, M=76,23, SD=7,55, 88% women). To predict training attendance, we conducted moderated multiple regression analyses.

**Results:** Group identity at T1 predicted training attendance at T2, but only for participants living alone (B=.99, p=.003; controlled for age, gender, subjective health status, support by trainer, intention).

**Discussion:** Understanding older adults' motives to participate in a group-based falls prevention program can help to increase the reach of future programs. Instead of focussing on health benefits, recruitment strategies for group-based health promotion programs should highlight the social benefits of joining a program. This might be particularly important among older adults who are less socially integrated.

12:00 - 12:15

## Loneliness and increased healthcare use in older adults – is health a mediator?

A. Burns<sup>1,2</sup>, G. Leavey<sup>2</sup>, R. O'Sullivan<sup>1</sup>

<sup>1</sup>Institute of Public Health in Ireland, Ireland

<sup>2</sup>Ulster University, United Kingdom

**Background:** Research on the associations between loneliness and increased healthcare use is limited, with few studies and frequent failure to account for key potential confounders. We investigated the associations among loneliness, healthcare use and general health status in the older Irish population.

**Methods:** Secondary analysis of The Irish Longitudinal Study on Ageing (TILDA), which surveyed people of 50 years and older (n=8,175), was conducted. Primary outcomes were: self-reported GP and emergency department (A&E) visits in past 12 months. Poisson regression analysis was used to investigate associations between loneliness (mean scores on the 5-item UCLA loneliness scale), general health status and outcomes, adjusting for age, sex and education.

**Findings:** Preliminary analyses from wave 1 indicated that self-reported visits to GP and A&E were higher in those with increased loneliness (IRR = 1.08, 95%CI 1.06–1.10) (IRR = 1.07, 95%CI 1.03–1.11). Among health status variables explored, self-reported general health fully mediated the association with A&E visits but not with GP visits. Associations will now be explored in later waves, with additional health status variables, potential confounders and interaction effects also considered.

**Discussion:** Healthcare use appeared higher in lonelier individuals. Results suggest that health status has a mediating role in the association between loneliness and A&E presentations but not GP visits. Linking patients to a social prescriber via their primary care physician may represent a promising approach to both targeting older adults at high risk of loneliness as well as more effectively addressing loneliness through dedicated interventions carefully matched to their needs.

12:15 - 12:30

## Depression and anxiety as risk factors for cardiac rehabilitation outcomes

T. Bermudez<sup>1</sup>, W. Bierbauer<sup>1</sup>, M. Hermann<sup>2</sup>, U. Scholz<sup>1</sup>

<sup>1</sup>University of Zurich, Switzerland

<sup>2</sup>University Heart Centre, Department of Cardiology, University Hospital Zurich, Switzerland

There is a high prevalence of depression and anxiety among cardiac disease patients. This can have a negative impact on the prognosis of cardiac disease. In order to better understand this issue, the purpose of this study was to investigate whether depression and anxiety are negatively associated with the improvement of quality of life and physical capacity during stationary cardiac rehabilitation.

The sample comprised patients taking part in stationary cardiac rehabilitation (N=1'119, 69.2% men, age range: 18-94, M=68.5, SD=12.6). Depression and anxiety were measured using the Hospital Anxiety and Depression Scale (HADS). Quality of life and physical capacity were assessed with the MacNew Heart Disease Quality of Life Questionnaire and the Six Minute Walking Test accordingly. All constructs were measured at the beginning and end of rehabilitation.

After controlling for age, gender and initial outcome scores, depression and anxiety showed a highly significant negative relationship with the change in emotional, physical, social and overall quality of life during rehabilitation. Whereas anxiety was unrelated to the change in physical capacity during rehabilitation, depression showed a highly significant negative effect.

The detrimental effects of depression and anxiety found on important outcomes of cardiac rehabilitation could, in turn, have a negative impact on the cardiac prognosis. The results emphasize the importance of assessing and treating depression and anxiety in cardiac disease patients.

12:30 - 12:45

## Walking to primary care in older adults' shoes. E-learning for GPs evaluated through patients experience

M. Rzakiewicz<sup>1</sup>, J. Chylińska<sup>1</sup>, M. Jaworski<sup>1</sup>, D. Włodarczyk<sup>1</sup>

<sup>1</sup>Medical University of Warsaw, Poland

**Background:** Internet based continuous education for physicians focused on non-technical skills, although increasingly popular, is hardly evaluated through actual patients experiences. So is the experience of a growing population of older adults concerning their visits in primary care. This study examines the effect of e-learning, aiming at improving general practitioners (GPs) communication skills with elderly patients, on older patients experiences related to the actual visit.

**Method:** We used data from PRACTA – activating the elderly in medical practice project. Based on random assignment, three research conditions for GPs (n=165) were introduced: e-learning, pdf-based and control. Two independent waves of patients (n=1527), with about a 12 months gap between waves for delivery of the intervention for GPs, filled in PRACTA Patient Expectations Scale - post-visit (PES-post). The scale encompasses 6 dimensions of experience related to the visit. Generalized Linear Model was used to compare the change from wave1 to wave2 between the three study conditions.

**Results:** PRACTA intervention was found effective for patients on most of dimensions (Wald's  $\chi^2$  from 8.67 to 61.29; all  $p < 0,02$ ). The effect of e-learning on the dimensions of emotional support and health promotion was visible for participants' experience in older groups (Wald's  $\chi^2 = 10,97$ ;  $p = 0.027$  and  $\chi^2 = 19.72$ ;  $p = 0.001$  respectively).

**Discussion:** The Internet based intervention for GPs evaluated through patient's experience is an effective form of continuous education. Older patients experiences in primary care might be improved through physicians' e-learning, thus fostering active attitude toward health and treatment, and patient satisfaction.

12:45 - 13:00

## Impact of Cognitive Reserve in Elderly Outpatients with Reduced Cognitive-Motor Functions

A. Sardella<sup>1</sup>, G. Basile<sup>1</sup>, V. Lenzo<sup>1</sup>, G. Martino<sup>1</sup>, N. Barberis<sup>1</sup>, M.C. Quttropani<sup>1</sup>

<sup>1</sup>Department of Clinical and Experimental Medicine, University of Messina, Italy

**Background:** Aging is the product of interaction between multiple bio-psycho-social factors. The progressive decline of cognitive functions and the reduction of motor and functional performance represent outcomes commonly associated with aging.

The aim of this cross-sectional study was to investigate the association of cognitive reserve with cognitive, functional and motoric outcomes in a sample of elderly outpatients.

**Methods:** Seventy outpatients aged  $\geq 65$  were consecutively evaluated. Patients unable to undergo the execution of required tasks due to severe cognitive-functional impairment or severe sensory deficits were excluded.

MMSE, Cognitive Reserve Index Questionnaire and Short Intelligence Test were administered. Handgrip and gait speed were measured; a Frailty Index was also calculated for each patient.

**Findings:** Cognitive reserve was significantly correlated with MMSE ( $r = 0.529$ ,  $p < 0.05$ ), handgrip ( $r = 0.471$ ,  $p < 0.05$ ) and gait speed ( $r = 0.278$ ,  $p < 0.05$ ). Furthermore, cognitive reserve was inversely correlated with the FI ( $r = -0.554$ ,  $p < 0.05$ ). Significant correlations were found between TIB and MMSE ( $r = 0.310$ ,  $p < 0.05$ ) and between TIB and CRlq ( $r = 0.531$ ,  $p < 0.05$ ). The TIB was inversely correlated with the FI ( $r = -0.269$ ,  $p < 0.05$ ).

**Discussion:** Patients with higher cognitive reserve and higher pre-morbid IQ presented better overall cognitive functioning, better functional performances and lower degree of frailty.

The assessment of cognitive reserve and pre-morbid IQ in elderly may offer the opportunity to track possible trajectories of aging which are related to cognitive status as well as to functional outcomes and frailty.

## ORAL

# Managing cancer and long term conditions: Role of interventions

14:00 - 15:30

Elafiti 2, Valamar Lacroma Dubrovnik

Rona Moss Morris

14:00 - 14:15

## Efficacy of a Stepped Collaborative Care Intervention for Patients Diagnosed with Comorbid Cancer and Depression

J. Steel<sup>1</sup>, G. Richards<sup>1</sup>, J. Miceli<sup>1</sup>, C.L. Hecht<sup>1</sup>, J. Lee<sup>1</sup>, M. Antoni<sup>2</sup>, S. Peddada<sup>1</sup>, C. Flaig<sup>1</sup>, D. Olejniczak<sup>1</sup>, D. Geller<sup>1</sup>

<sup>1</sup>University of Pittsburgh, United States

<sup>3</sup>University of Miami, United States

**Background:** The aims of this study were to share the interim analyses examining the efficacy of a stepped collaborative care intervention for patients diagnosed with cancer.

**Methods:** Patients were screened for clinical levels of depressive symptoms, pain, and fatigue and were enrolled in the study. Patients completed a battery of instruments prior to randomization to the stepped collaborative care intervention or the screening and referral arm. Patients were assessed for post-treatment outcomes at 6- and 12-months follow-up.

**Findings:** Of the first 100 patients, the mean age was 64.0 years (SD=10.3), the majority were male (51%), Caucasian (89%), and diagnosed with liver cancer (47%) and stage III or IV cancer (60%). Patients randomized to the stepped collaborative care intervention reported significant reductions in depressive symptoms ( $F(1,92)=6.22$ ,  $p=0.014$ ; Cohen's  $d=0.547$ ) and improvements in quality of life ( $F(1,92)=7.36$ ,  $p=0.008$ ; Cohen's  $d=0.652$ ) with moderate effect sizes. We observed that patients randomized to the collaborative care intervention had lower rates of surgical complications [ $\text{Chi-square}=5.45$ ,  $p=0.02$ ] and 90-day readmissions [ $\text{Chi-square}=4.0$ ,  $p=0.046$ ] than patients in the screening and referral arm. Patients randomized to the collaborative care intervention arm had lower median loss of work force productivity (\$2340 versus \$3001;  $p=0.07$ ), hospital costs (\$13,008 versus \$21,109,  $p=0.09$ ), and cost per hospital registration (\$1158 versus \$2219,  $p=0.07$ ) when compared to the screening and referral arm.

**Discussion:** This promising evidence-based, scalable intervention to treat comorbid cancer and depression was shown to be effective at the time of interim analyses.

14:15 - 14:30

## Using intervention mapping to develop and test a tamoxifen adherence intervention in breast cancer survivors

Z. Moon<sup>1</sup>, R. Moss-Morris<sup>1</sup>, M. Hunter<sup>1</sup>, L. Hughes<sup>1</sup>

<sup>1</sup>King's College London, United Kingdom

**Background:** Non-adherence to tamoxifen is common in breast cancer survivors and is associated with poor clinical outcomes. Several psychosocial variables associated with non-adherence have been identified, yet interventions to improve adherence are currently lacking. This study followed MRC guidelines to develop and test a psychoeducational intervention to support women prescribed tamoxifen.

**Methods:** A series of studies were conducted identifying factors associated with tamoxifen non-adherence to develop an intervention following a five step process of; i) needs assessment; ii) identifying objectives and behavioural determinants; iii) selecting methods; iv) organising programme; v) implementing and evaluating. The intervention was tested in a pre-post feasibility and acceptability study of 33 women prescribed tamoxifen. Acceptability was assessed via qualitative interviews.

**Findings:** A self-directed intervention manual was developed, with information on how tamoxifen works, how to take it and managing side-effects, utilising goal setting, implementation intentions, addressing concerns and symptom management. A range of written and visual aids were used. 87% of eligible participants agreed to participate. Paired samples t-tests showed small improvements in adherence, necessity and concern beliefs, personal control, coherence, distress, symptom experience and self-efficacy for managing side-effects. Qualitative interviews showed that participants found the materials acceptable and helpful.

**Discussion:** Intervention mapping ensures that the intervention is grounded in theory and empirical evidence. This self-management intervention has the potential to improve both adherence and quality of life in breast cancer survivors taking tamoxifen. The intervention appears to be acceptable and feasible in this population. Larger trials are needed to establish efficacy of the materials.

14:30 - 14:45

## Brief relaxation training intervention reduces social disruption over 12 months in non-metastatic breast cancer patients

C. Taub<sup>1</sup>, H. Fisher<sup>1</sup>, M. Ream<sup>1</sup>, J. Polakoff<sup>1</sup>, C. Carver<sup>1</sup>, S. Lechner<sup>1</sup>, M. Antoni<sup>1,2</sup>

<sup>1</sup>University of Miami, United States

<sup>2</sup>University of Miami School of Medicine, United States

**Background:** Breast cancer (BCa) treatment imposes significant challenges which can result in substantial life disruption including disengagement from social activities. These psychosocial challenges have been effectively targeted with stress management interventions, such as group-based cognitive-behavioral stress management, which combines cognitive-behavioral (CBT) techniques and relaxation training (RT). However, shorter interventions may be optimal during primary treatment.

**Methods:** A randomized controlled dismantling study enrolled 183 women with stage 0-III BCa 2-10 weeks post-surgery to test the impact of three 5-week group interventions: CBT, RT, and a health education control (HE). Hierarchical linear modeling controlling for age, stage, and time since surgery was conducted to assess trajectories of change over time in social disruption using the Sickness Impact Profile-Social Interaction subscale (SIP-SI) over 4 points: baseline, 2 months (post-intervention), 6 months, and 12 months.

**Findings:** Models revealed a significant interaction on SIP-SI between condition and time for RT compared to HE ( $B = -19.94$ ,  $SE = 10.08$ ,  $p=0.049$ ) and RT compared to CBT ( $B = -20.24$ ,  $SE = 10.24$ ,  $p=0.05$ ). There was no difference between CBT and HE.

**Conclusions:** Modeling stress management intervention effects over the 12-month primary treatment period for BCa demonstrates significantly greater reductions in social disruption with a brief 5-week RT-based stress management intervention compared to attention-matched HE or CBT. The proactive behavioral strategies taught in RT may help activate patients to be more engaged in life during cancer treatment. Understanding of the mechanisms through which such strategies function will aid the development of more concise and targeted interventions.

14:45 - 15:00

## Illness Perceptions and psychological distress as HRQoL predictors in Head-Neck cancer patients after radiotherapy

V. Siafaka<sup>1</sup>, M. Prodromou<sup>2</sup>, K. Katinioti<sup>2</sup>, D. Tafiadis<sup>1</sup>, P. Tsekeris<sup>1</sup>, T. Hyphantis<sup>1</sup>

<sup>1</sup>University of Ioannina, Greece

<sup>2</sup>University Hospital of Ioannina, Greece

**Background:** Several factors have been investigated as prognostic of HRQoL in Head and Neck Cancer (HNC) patients mainly in cross-sectional studies. The aim of this study was the prospective assessment of illness representations, coping strategies, anxiety, depression and HRQoL and the investigation of correlations between these factors and HRQoL outcomes after radiotherapy.

**Methods:** 50 HNC patients were evaluated before radiotherapy (T1), during it (T2) and in follow-up 3 months afterwards (T3). The patients completed the questionnaires: IPQ-R, Brief COPE, HADS, EORTC-QLQ-C30 and H&N35.

**Findings:** Controlling for the factors, as measured in T1, that were affecting HRQoL in the follow-up, it was found that HADS-D was the most important factor as was correlated with GHS ( $p=.004$ ), QLQ-C30 Function Sum ( $p=.007$ ) and QLQ-C30 Symptoms Sum ( $p=.024$ ), while Denial was correlated with QLQ-C30 Symptoms Sum ( $p=.042$ ).

Considering the effects of all measurements throughout the whole follow-up on the HRQoL in T3, it was shown that psychological distress, beliefs and strategies adopted 3 months after treatment had stronger effect on HRQoL at the given period of time. Specifically, HADS-A was correlated with GHS ( $p=.019$ ), QLQ-C30 Function Sum ( $p=.006$ ) and QLQ-C30 Symptom Sum ( $p=.004$ ), while perceived Controllability was correlated with GHS ( $p=.039$ ), QLQ-C30 Function Sum ( $p=.009$ ) and H&N35 Symptoms Sum ( $p=.028$ ). Emotional Representations were correlated with QLQ-C30 Symptom Sum ( $p=.003$ ) and Behavioral Disengagement with QLQ-C30 Function Sum ( $p=.014$ ).

**Discussion:** HRQoL three months after radiotherapy is mainly affected by anxiety, perceived Controllability, Emotional Representations and Behavioral Disengagement as measured at the given period of time.

15:00 - 15:15

## A Systematic Review on the Usage of Self-Compassion-Based Interventions for Chronic Diseases

A. Kilic<sup>1</sup>, R. Ruperelia<sup>2</sup>, L. Hughes<sup>1</sup>, J. Hudson<sup>1</sup>

<sup>1</sup>King's College London, United Kingdom

<sup>2</sup>University of Birmingham, United Kingdom

**Background:** Self-compassion (a mindful way of dealing with pain and failures by showing kindness, care, and concern towards the self) can be a useful tool for treating the comorbid psychological problems of people with a chronic disease besides the current treatment approaches. Various correlational studies illustrate that self-compassion resulted in positive outcomes for psychological and physiological wellbeing. Therefore, this review aims to synthesise the current literature relating compassion-based interventions and its delivery for psychological well-being of people with chronic conditions.

**Methods:** Five electronic databases were searched with using “compassion” AND “chronic disease” AND “psychological outcomes” and their synonyms. Sixteen randomized controlled trials included in the review from the last fifteen years. 597 participants from eight different chronic diseases and nine type of interventions were included in the study. Effect sizes were calculated for study outcomes with using the pre-post change scores.

**Findings:** Nearly all intervention methods increased self-compassion in statistically significant levels for this participant group. When the effect sizes considered the most promising method seems to be Mindful Self-Compassion Course (MSC) and other intervention methods showed medium effect sizes for the change in self-compassion. Also, these interventions were associated with better psychological outcomes.

**Discussion:** Results show promising findings as included interventions increased self-compassion and positive psychological outcomes which may be beneficial for patients' well-being and illness management. However, there is a need for more research to understand how self-compassion might help and what would be the best delivery method.

15:15 - 15:30

## Using person-centred intervention mapping to develop an online cognitive-behavioural treatment for distress in long-term conditions.

K. Hulme<sup>1</sup>, J. Hudson<sup>1</sup>, Z. Moon<sup>1</sup>, R. Moss-Morris<sup>1</sup>

<sup>1</sup>King's College London, United Kingdom

**Background:** Online cognitive behavioural therapy (CBT) has been shown to be effective in reducing primary anxiety/depression, however, current treatment programmes do not address these issues in the context of long-term conditions (LTCs). Our aim was to: i) use intervention mapping alongside a person-centred approach to create an online, guided CBT programme (Compass) for managing distress in LTCs; and ii) use normalisation process theory (NPT) to maximise acceptability for people with LTCs and service providers.

**Methods:** A systematic review of adjustment models in LTCs was conducted, including nineteen papers. A preliminary transdiagnostic model of LTC adjustment was created and refined in expert consensus meetings. Intervention mapping was used to translate the model into proposed content and intervention techniques. The person-centred approach, including patient groups and ThinkAloud, was used for co-development and gathering feedback. Qualitative methods based on NPT were used to explore therapist insights.

**Findings:** The resulting intervention consists of 11 sessions, e.g. 'Managing uncertainty', which patients work through with therapist support. A key patient finding was the need to put LTCs at the core of the programme, moving away from 'anxiety' and 'depression' labels. Therapist feedback highlighted time pressure, so reducing burden was a priority, e.g. automating emails, flexibility around contact frequency/mode.

**Discussion:** This transdiagnostic, self-management intervention has the potential to improve patient wellbeing, increase access to LTC-specific psychological support and increase service efficiencies. Compass is being piloted in local 'Improving Access to Psychological Therapies' and hospital services. Findings will inform condition-specific iterations and integrated mental-physical healthcare pathways.

## ROUNDTABLE

# Interdisciplinary approaches to health and sustainability in low- and middle- income countries

14:00 - 15:30

Elafiti 3, Valamar Lacroma Dubrovnik

Joanna Hale

14:00 - 15:30

## Interdisciplinary approaches to health and sustainability in low- and middle-income countries

J. Hale<sup>1</sup>, K. Muindi<sup>2</sup>, S. Michie<sup>1</sup>, J. Inauen<sup>3</sup>, L. Byrne-Davis<sup>4</sup>

<sup>1</sup>University College London, United Kingdom

<sup>2</sup>African Population and Health Research Centre, Kenya

<sup>3</sup>University of Bern, Switzerland

<sup>4</sup>University of Manchester, United Kingdom

**Purpose:** The discussion will address the dual challenges of health and sustainability in low- and middle-income countries (LMICs), with a focus on advantages, challenges and future directions of interdisciplinary research in this area, and recommendations for practice.

**Rationale:** This roundtable builds on a meeting of researchers interested in health psychology in LMICs at EHPS 2018. To meet the UN SDGs we will need to take new approaches to health challenges in LMICs, recognising that health is directly influenced by threats to environmental sustainability. The complexity of these dual challenges means that we need to develop interdisciplinary and participatory ways of working, which bring together those 'on the ground' with researchers in social, behavioural and environmental sciences and engineering. For research to contribute to changes in health and sustainability, it also needs to be actionable by local and national policymakers. Therefore it is important to consider policy implications at the start of the research process and to communicate effectively with policymakers.

ORAL

# Contemporary issues in work and health

14:00 - 15:30

Olipa 4, Valamar Collection Dubrovnik President

Martin Dempster

14:00 - 14:15

## Organisational sexist climate: its effects on mistreatment and illegitimate tasks in the workplace

C.P. Garcia Johnson<sup>1</sup>, K. Otto<sup>1</sup>

<sup>1</sup>Philipps-Universität Marburg, Germany

**Background:** Workplace mistreatment and illegitimate tasks (IT) are work-related stressors that negatively affect individuals' health and occupational well-being. This study deals with the effects of organisational sexist climate (OSC) on stress, burnout, and job-satisfaction, mediated by interpersonal mistreatment and IT in the workplace.

**Methods:** A questionnaire-based cross-sectional study was conducted (N>200). The constructs measured included OSC, workplace mistreatment, IT, stress, burnout, and job satisfaction. Gender, age, and socioeconomic status were included as controls. Mediation analyses were undertaken utilising the Hayes' (2013) PROCESS macro for SPSS.

**Findings:** The data reflected significant direct effects of OSC on IT ( $b = .62$ ,  $t[198] = 5.28$ ,  $p < .001$ ) and workplace mistreatment ( $b = .71$ ,  $t[198] = 8.81$ ,  $p < .001$ ). Furthermore, workplace mistreatment mediated the relationship of OSC with job satisfaction, burnout, and stress, and IT mediated the relationship of OSC with job satisfaction and burnout.

**Discussion:** The findings underscore the role that sexism plays in determining the exposure to work-related stressors. This study uncovers disguised forms of gender-based harassment such as illegitimate tasks and interpersonal mistreatment, contributing to the development of interventions to create health-promoting, respectful and integrative organisations.

14:15 - 14:30

## Occupational burnout, stress and life satisfaction among groups of surgical and psychiatric nurses.

E. Wilczek-Ruzyczka<sup>1</sup>, I. Zaczyk<sup>2</sup>

<sup>1</sup>Cracow University A.F.Modrzewski, Poland

<sup>2</sup>The State Higher Vocational School in Nowy Sącz, Poland, Poland

**Background:** In nursing profession commitment, concern for the welfare of the patients, high sense of responsibility for the life and health of another person causes an excessive both psychological and physical burden, which in many cases lead to broadly defined stress and in consequence to burnout syndrome. **The aim:** The analysis of burnout, stress and life satisfaction and demonstrating the relationship between these variables in the group of surgical and psychiatric nurses.

**Methods:** The research included 200 nurses (100 surgical and 100 psychiatric nurses). **Research tools:** occupational burnout - Maslach Burnout Inventory, stress - the Stevan Hobfoll's Self-Assessment Questionnaire to measure stress, life satisfaction - Satisfaction with Life Scale, questionnaire of socio-demographic data.

**Findings:** Stress and occupational burnout show to have an impact on life satisfaction of surgical nurses. Only some of the demographic variables demonstrate a relationship with the occurrence of burnout syndrome and stress, but they do not show a significant linkage to life satisfaction of the surveyed nurses. The lowered sense of personal achievement corresponds to higher life satisfaction among the participants of the study. In the context of work, stress plays a role of a mediator in the relationship between the life satisfaction and the occupational burnout - depersonalisation.

**Discussion:** The obtained results clearly indicate that some action need to be taken in order to prevent professional burnout. It is therefore sensible to start action already at university and include the subject of occupational burnout, its causes, and ways of coping with it in the curriculum.

14:30 - 14:45

## Identification of stress factors in ICU: need for a specific stress scale?

A. Fournier<sup>1,2</sup>, A. Laurent<sup>1</sup>, F. Lheureux<sup>3</sup>, M.C. Martin Delgado<sup>4</sup>, M.G. Bocci<sup>5</sup>, A. Prestifilippo<sup>5</sup>, A. Anota<sup>6</sup>, P. Aslanian<sup>7</sup>, G. Capellier<sup>8</sup>

<sup>1</sup>University of Burgundy, Dijon, France

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<sup>3</sup>Université Bourgogne Franche-Comté, France

<sup>4</sup>Hospital Universitario de Torrejón, Torrejón de Ardoz, Madrid, Spain

<sup>5</sup>Department of Anesthesiology and Intensive Care Medicine, Catholic University of the Sacred Heart, Rome, Italy

<sup>6</sup>Methodology and Quality of Life Unit in Oncology of the University Hospital of Besançon, Besançon, France

<sup>7</sup>Service de Soins Intensifs et Centre de Recherche, Centre Hospitalier de l'Université de Montréal, Montréal, QC, Canada

<sup>8</sup>Service de Réanimation Médicale–SAMU 25, Hôpital Jean Minjoz–CHU de Besançon, Besançon, France

**Background:** Intensive care units (ICUs) are a health environment particularly affected by suffering at work. These units treat patients with serious medical conditions with an immediate life-threatening risk in an emergency situation. As a result, caregivers are confronted intensively and repeatedly with an extreme clinic. Currently, many tools used to assess caregiver stress are not as close as possible to the professional experience and do not take into account the subjective perception of stressors. The objective of this qualitative study is to rely directly on the way professionals perceive their work, and to identify the specificity of stress factors in ICU.

**Methods:** We conducted individual clinical interviews with 166 intensive care providers (84 nurses and 81 physicians) in four countries (France, Italy, Spain, Canada). During the interview, they were asked to express their work experiences. The interviews were recorded, and then fully transcribed, and analysed using interpretative phenomenological analysis.

**Findings:** The qualitative analysis identified 99 stressors divided into eight main stress source themes. The identification of these stress factors highlights stress dimensions that seem more specific to ICU such as dealing with ethical and moral-related situations, risk management issues.

**Discussion:** All dimensions of stress are not well represented in the stress scales most commonly used in ICU (e.g. JCQ, ERI, NSS, NWI). This study shows us the need to develop a stress tool specific to ICU.

14:45 - 15:00

## A Systematic Review of Infectious Illness Presenteeism: Prevalence, Reasons and Risk Factors

R. Webster<sup>1,2</sup>, R. Liu<sup>1</sup>, K. Karimullina<sup>1</sup>, I. Hall<sup>3</sup>, R. Amlot<sup>4</sup>, J. Rubin<sup>1</sup>

<sup>1</sup>King's College London, United Kingdom

<sup>2</sup>University of Oxford, United Kingdom

<sup>3</sup>University of Manchester, United Kingdom

<sup>4</sup>Public Health England, United Kingdom

**Background:** Workplace presenteeism is common and leads to the spread of infectious diseases. Previous reviews have focused on presenteeism in relation to general physical or mental ill health. In this systematic review we identified the prevalence of, and reasons and risk factors for, presenteeism in relation to an infectious illness.

**Methods:** We searched Medline, Scopus, Web of Science, PsycINFO and PsycARTICLES with terms relating to infectious illnesses and presenteeism at the work place or school; reference lists of relevant articles were also hand-searched.

**Findings:** Our search yielded 3580 papers after deduplication. After title, abstract and full text screening, 24 studies were included. Twenty-three studies were cross-sectional and one was prospective. Presenteeism prevalence ranged from 35% to 97%. Self-reported reasons for presenteeism fell into three main themes: 1. Organisational factors, 2. Job characteristics, and 3. Personal reasons. Statistical risk factors fell into four themes: 1. Sociodemographic, 2. Health, 3. Influenza-related behaviour, and 4. Employment characteristics. Most risk factors had insufficient evidence to draw any firm conclusions, apart from occupation type, which suggested that healthcare sector employees, and specifically physicians, were at a higher risk of infectious illness presenteeism.

**Discussion:** Infectious illness presenteeism is common. To address the public health consequences, organisations should focus on promoting a positive working culture and developing sickness absence policies that reduce presenteeism. Further research is needed in non-health sector organisations and schools to identify risk factors related to different organisations, which can then be used to tailor interventions at the organisational and individual level.

15:00 - 15:15

## Correlates of desire to work in persons visiting psychiatric outpatient clinics

M.L. Elfström<sup>1</sup>, C. Wulff Hamrin<sup>1</sup>, G. Östlund<sup>1</sup>

<sup>1</sup>Mälardalen University, Sweden

Persons with mental health problems often express a clear desire to work, although what factors that contribute to this healthy aspiration are less clear. The purpose of this study thus was to explore person, healthcare, and work-related factors in relation to desire to work in persons visiting psychiatric outpatient clinics. The sample consisted of 272 persons visiting one of four psychiatric outpatient centres from two county councils in the south of Sweden. The possible participants were asked if they wanted to participate in research while waiting for their scheduled appointments. A comprehensive questionnaire consisting of factors in the research literature as well as factors advocated by patient organisations was used. The participants' ratings were analysed using non-parametric group comparisons and logistic regressions. Free-text answers were analysed by content. Higher education, better mental health self-efficacy, and more experiences of demands and conflicts at the workplace were all significantly related to desire to work in bivariate analyses. However, fighting spirit and social support at work had the strongest associations with desire to work in the multivariate logistic analyses. The Nagelkerke R<sup>2</sup> was .34. Free text answers indicated the importance of managers' role for the psychosocial work climate, and for receiving help with structuring the workday to allow recovery after sickness absence. In contrast to the traditional pre-vocational rehabilitation approach, and in line with a supportive work environment approach, the results points to the possibility to influence a further improved desire to work through supportive leadership and an open and communicative psychosocial climate.

15:15 - 15:30

## Coping, burnout and resilience among UK medical doctors

M. Dempster<sup>1</sup>, N. McKinley<sup>1</sup>, S. McCain<sup>2</sup>, L. Convie<sup>1</sup>, M. Clarke<sup>1</sup>, S. Kirk<sup>2</sup>

<sup>1</sup>Queen's University Belfast, United Kingdom

<sup>2</sup>Dept of General Surgery, Ulster Hospital, Belfast, United Kingdom

**Background:** Medical doctors are known to be at an increased mental ill-health when compared with the wider population. Since 2014, the General Medical Council has introduced resilience training to the medical school curriculum across the UK. This national study aims to assess the relationships between resilience, burnout and coping among medical doctors in the UK, to determine whether resilience is likely to be a useful target for this type of intervention.

**Methods:** Invitations from Royal Colleges and other medical organisations resulted in 1382 doctors completing a cross-sectional online survey. The survey included the: Connor-Davidson Resilience Scale, Professional Quality of Life Scale (PROQOL) (measuring burnout, compassion satisfaction and secondary traumatic stress), Brief COPE and demographic variables. The three scales from the PROQOL were regressed on all other variables.

**Findings:** Burnout and secondary traumatic stress were considerably higher than the norm values for these scales. The regression models explained 55%, 44% and 37% of the variance in burnout, compassion satisfaction and secondary traumatic stress, respectively. Resilience was the strongest predictor of burnout and compassion satisfaction but the coping strategy self-blame was the strongest predictor of secondary traumatic stress.

**Discussion:** Two out three UK doctors surveyed are burned out and suffering from secondary stress. Resilience appears to offer some protection from burnout but not from secondary traumatic stress. However, whether resilience can be 'trained' is open to question. Therefore, further work is required to determine the most appropriate intervention that could be introduced to address this concerning problem.

ORAL

# Mechanisms and outcomes of behavior change

14:00 - 15:30

Galijun, Valamar Argosy

Sharon Simpson

14:00 - 14:15

## Neutralizing the false-balance effect - How media can support rebuttal of misinformation about vaccination

P. Schmid<sup>1,2</sup>, M. Schwarzer<sup>1</sup>, C. Betsch<sup>1,2</sup>

<sup>1</sup>Media and Communication Science, University of Erfurt, Germany

<sup>2</sup>Center for Empirical Research in Economics and Behavioral Sciences, University of Erfurt, Germany

**Background:** Media are criticized for falsely balancing scientific and unscientific perspectives. For example, debates with one denier and one advocate for vaccination suggest a false 50:50 proportion of evidence. Recent findings show that false balance can damage individuals' positive attitude towards vaccination, while rebuttal of misinformation as well as inoculating people against misinformation can have positive effects. We thus assess whether working against false balance and pre-emptively inoculating the audience against it reduces the negative effects of misinformation.

**Methods:** In two pre-registered lab experiments (Exp1: N = 101, Exp2: N = 390) participants watched fictitious public television debates with vaccine deniers. Interventions to counter misinformation were manipulated in a 2×2 between-subjects design (rebuttal: absent vs. present; proportion advocates vs. deniers: 50:50 (false balance) vs. 50:10). Participants indicated their attitude towards vaccination before and after the debate. Inoculation was added as a factor in Experiment 2 (inoculation: absent vs. present).

**Findings:** Variance analyses reveal that rebuttal mitigated the damage of the denier on individuals' attitude (Exp1:  $p = .002$ ,  $\eta^2p = .092$ ; Exp2:  $p = <.001$ ,  $\eta^2p = .059$ ). Likewise, inoculating the audience mitigated the damage (Exp2:  $p = .006$ ,  $\eta^2p = .019$ ). Analyses reveal no interaction effect of inoculation and rebuttal (Exp2:  $p = .495$ ). Inviting a higher proportion of advocates was ineffective (Exp1:  $p = .753$ ; Exp2:  $p = .607$ ).

**Discussion:** Pre-emptively inoculating an audience against the false balance effect is an effective method to support rebuttal of misinformation in public debates. Psychological mediators and moderators will be discussed.

14:15 - 14:30

## Effectiveness of behaviour change interventions in promoting breastfeeding: A systematic review and meta-analysis

P. Davie<sup>1</sup>, J. Chilcot<sup>1</sup>, Y. Chang<sup>2</sup>, S. Norton<sup>1</sup>, L. Hughes<sup>1</sup>, D. Bick<sup>3</sup>

<sup>1</sup>Institute of Psychiatry, Psychology and Neuroscience, King's College London, United Kingdom

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<sup>3</sup>Faculty of Life Sciences and Medicine, King's College London, United Kingdom

**Background:** Evidence for the health benefits of breastfeeding is well substantiated and public health guidelines recommend exclusive breastfeeding for the first six months of life. Breastfeeding initiation and duration rates remain low worldwide. Individual level breastfeeding promotion programmes are forms of behavioural interventions, targeting malleable social and psychological processes to induce behaviour change. This systematic review aims to investigate whether such interventions are effective at improving breastfeeding uptake, duration and exclusivity.

**Methods:** The full search strategy found nine controlled-clinical trials and 11 quasi-experimental randomised-controlled trials eligible for inclusion.

**Results:** Random-effects meta-analyses were conducted. Results show significant improvements in rates of breastfeeding uptake (N= 2,213; OR= 2.32, 95% CI[1.33, 4.03], p= .003; I<sup>2</sup>= 0%, p= .966) and exclusive breastfeeding rates at monthly intervals across the first 6 months postpartum (Overall effect: N= 3,671; OR= 1.84, 95% CI[1.38, 2.45], p <.001; I<sup>2</sup>= 68.7%, p <.001). Rates of 'any' (i.e. non-exclusive) breastfeeding maintained across the postpartum period were not significantly improved (N= 4,153; OR= 0.88, 95% CI[0.72, 1.09], p= .253; I<sup>2</sup> = 48.1%, p= .016). Sub-group analyses suggest interventions delivered postnatally to first-time mothers, may be effective at supporting breastfeeding uptake and maintenance of exclusive breastfeeding.

**Discussion:** Quality of evidence included is low with a high risk of bias. Interventions included did not outline or test mechanisms of action, limiting evidence available for effective processes in inducing breastfeeding behaviour change. Future breastfeeding promotion efforts should consider evidence from behaviour change research and incorporate process evaluation to form high-quality evidence to use in practice.

14:30 - 14:45

## Reducing Red and Processed Meat Consumption by Daily Text Messages on Environment or Health

V. Carfora<sup>1</sup>, D. Caso<sup>2</sup>, M. Conner<sup>3</sup>, P. Catellani<sup>1</sup>

<sup>1</sup>Catholic University of the Sacred Heart, Italy

<sup>2</sup>University of Naples Federico II, Italy

<sup>3</sup>University of Leeds, United Kingdom

**Background:** Scientific evidence shows environmental and health benefits of reducing red and processed meat consumption (RPMC). In the present study, we contribute to this debate by testing different messaging interventions to reduce RPMC delivered by chatbots.

**Methods:** At T1 participants (N = 261; mean age = 20.7, SD = 1.96; F = 203; M = 58) were randomly allocated to conditions and completed a questionnaire on their RPMC and attitudes. Then, for two weeks participants received daily text messages on reducing RPMC for health (health condition), for the environment (environment condition), or for both (health + environment condition). Participants in the control condition received no messages. At T2 and T3, participants completed the questionnaire again.

**Results:** An ANCOVA showed that messaging intervention changed attitude,  $F(3,252) = 3.65$ ;  $p = .013$ ,  $\eta^2 = .04$ . Mediation analyses found that attitude at T2 fully mediated the impact of both health messages,  $B = -.35$ , 95% CI:  $[-.89; -.08]$ , and environment messages,  $B = -.62$ , 95% CI:  $[-1.17; -.26]$  on RPMC at T2. Mixed model MANOVA did not find interaction between condition and time (T2 versus T3),  $F(2,472) = .44$ ;  $p = .85$ ,  $\eta^2 = .06$ , showing that intervention impact remained stable over time.

**Discussion:** Finding showed that health and environmental messages were equally effective in reducing RPMC, whereas multiple-framed messages were not. Our research offers suggestions about how to adopt innovative solutions to prompt healthy life habits, taking advantage of the potential of persuasive messages delivered by new communication technologies.

14:45 - 15:00

## AAP intervention effects on miscarried helping and parent and youth self-efficacy in asthma management

K. Durkin<sup>1</sup>, G. Harrah<sup>1</sup>, L. Hynes<sup>2</sup>, T. Ewell<sup>1</sup>, D. Williford<sup>1</sup>, D. Skoner<sup>3</sup>, C. Lilly<sup>1</sup>, C. Duncan<sup>1</sup>

<sup>1</sup>West Virginia University, United States

<sup>2</sup>National University of Ireland, Galway, Ireland

<sup>3</sup>Department of Pediatrics, WVU Medicine, United States

**Background:** In pediatric chronic illness, "miscarried helping" includes well-intended parental support that youth may perceive as excessive, untimely, or inappropriate. We evaluated asthma action plan (AAP) intervention effects over time on parental miscarried helping, and parent and child self-efficacy in asthma management.

**Method:** Youth (n = 46; ages 8-17) with persistent asthma and prescribed a daily controller inhaler were recruited to participate in a pilot RCT to investigate the acceptability and feasibility of pictorial vs. written AAPs for pediatric asthma management. Participants and parents completed the assessments at enrollment and 6-month follow-up: the Parent Asthma Management Self-Efficacy (PAMSE), the Youth Asthma Management Self-Efficacy (YAMSE), and Helping for Health Inventory (HHI; measure of miscarried helping).

**Results:** For each repeated linear models analysis, the outcome (PAMSE, YAMSE, HHI) was evaluated for group, time, group\*time, and age. For the PAMSE model, a significant main effect of time ( $p < 0.0001$ ), marginal interaction effect ( $p=0.21$ ), significant effect of age ( $p=0.01$ ) were found; main effect for group, NS ( $p=0.60$ ). Analyses for the YAMSE revealed a significant main effect of time ( $p < 0.00$ ), no real interaction effect ( $p=0.61$ ), no significant effect of age ( $p=0.36$ ), and marginal main effect for group ( $p=0.07$ ). For HHI model, only the group\*time interaction approached significance ( $p=0.24$ ).

**Conclusion:** These findings will be elaborated upon, as they suggest structuring asthma care education through APPs may impact parental and youth self-efficacy in disease management and characteristics of parental involvement. The impact of these changes on outcomes should be a focus of future research.

15:00 - 15:15

## Disentangling perceived capability from motivation using vignettes: Examination of self-efficacy measures applied to physical activity

S.J. Grant<sup>1</sup>, A. Lithopoulos<sup>1</sup>, C.J. Husband<sup>1</sup>, D.M. Williams<sup>1</sup>, R. Rhodes<sup>1</sup>

<sup>1</sup>University of Victoria, Canada

**Background:** Self-efficacy (SE) has been established as an important construct in health behaviour theories and is commonly used to predict behaviour, yet it has been contended that traditional SE measures capture both motivation and capability. The purpose of this study was to examine whether alternative approaches to SE measurement can parse motivation from perceived capability (PC) for regular physical activity. It was hypothesized that SE scores derived from measures that exclude motivation would be higher, particularly among less active individuals, because people typically can do more than what they are willing to do.

**Method:** A sample of 444 undergraduate students (M age=21.10 years, SD=3.73, female=230) in Victoria, Canada was randomly assigned to one of three SE measurement groups: standard (traditionally measured barrier SE; Bandura, 2006), vignette (distinguishes 'can do' from 'will do'), and controlled motivation (with the qualifier 'if you really wanted to'). All groups indicated weekly moderate-to-vigorous physical activity (MVPA). ANOVA was used to compare conditions, with MVPA guidelines ( $\geq 150$  minutes of weekly MVPA) as a second fixed factor.

**Results:** The group (standard vs. vignette vs. controlled motivation) by MVPA adherence (below guidelines vs. above guidelines) analysis revealed an interaction ( $p=.036$ ; partial  $\eta^2=.019$ ): respondents below guidelines in the vignette condition had higher scores compared to standard ( $p=.043$ ;  $d =.571$ ) and controlled motivation ( $p = .001$ ;  $d =.739$ ) conditions.

**Conclusions:** The findings support theorizing that traditional SE measures may confound motivation and capability within their measurement, and support the use of vignettes for researchers looking to parse motivation from PC.

15:15 - 15:30

## A randomised controlled feasibility trial of a safety planning intervention to reduce suicidal behaviour.

S. Simpson<sup>1</sup>, R. O'Connor<sup>1</sup>, J.M. Lundy<sup>1</sup>, S. Smillie<sup>1</sup>, C. Stewart<sup>1</sup>, H. McClelland<sup>1</sup>, S. Syrett<sup>1</sup>, M. Gavigan<sup>1</sup>, A. McConnachie<sup>1</sup>

<sup>1</sup>University of Glasgow, United Kingdom

**Background:** There are no evidence-based interventions that can be administered in hospital settings following a general hospital admission after a suicide attempt. The study aimed to determine whether a safety planning intervention with follow-up telephone support (SAFETEL) is feasible and acceptable to patients admitted to hospital following a suicide attempt.

**Method:** The study was a feasibility trial with embedded process evaluation (including patient and staff interviews). Participants were recruited from four NHS hospitals in Scotland and randomised to receive either the SAFETEL intervention + treatment as usual (n=80) or treatment as usual only (n=41). The primary outcomes were feasibility outcomes and included recruitment rates, acceptability of the intervention to participants and intervention staff, feasibility of delivery in this setting, intervention adherence and feasibility of collecting self-harm readmission to hospital outcome data.

**Findings:** 121 patients were recruited. The intervention was feasible to deliver and acceptable to patients and outcome data were feasible to collect. 79/80 safety plans were completed and 82.5% of participants completed the minimum intervention dose (SP+1 Follow up call). Thematic analysis of participant interview data revealed 3 overarching themes: importance of intervention flexibility (in how it is used by participants); 'Bridging the Gap' - continuity of support between hospital and longer term care; and autonomy in the self-directed nature of the intervention and the importance of ownership of care.

**Discussion:** The intervention and trial methods were acceptable and feasible. The trial achieved pre-set progression criteria. These results will inform the design of the future definitive trial.

**ORAL**

**Individual differences in stress  
processes**

14:00 - 15:30

Asimon, Valamar Lacroma Dubrovnik

Daryl O'Connor

14:00 - 14:15

## Higher trait loneliness predicts reduced vagal reactivity and vagal recovery to cognitive demand

C. Roddick<sup>1</sup>, F. Chen<sup>1</sup>

<sup>1</sup>The University of British Columbia, Canada

**Background:** Loneliness is associated with increased risk of cardiovascular disease and early death. Altered parasympathetic (i.e., vagal) functioning, indexed by high-frequency heart rate variability (HF-HRV), may represent a pathway linking loneliness and adverse health outcomes. This study examines the effect of loneliness on vagal responding to cognitive demand, while controlling for gender and other factors known to influence HF-HRV.

**Methods:** A sample of 167 young women (Mage = 19.98 years) participated in this between-subjects study. Participants completed the 20-item UCLA questionnaire assessing trait loneliness. Next, they attended a lab session in which HF-HRV was measured before, during, and after cognitive challenge (a multiple-object tracking task on a computer). Regression analyses were conducted to assess associations between loneliness and changes in HF-HRV (i.e., vagal activity).

**Findings:** On average, participants experienced decreased vagal activity during cognitive challenge,  $t(166) = -7.27$ ,  $p < .001$ ,  $d = 0.56$ , and vagal recovery following cognitive challenge,  $t(166) = 7.89$ ,  $p < .001$ ,  $d = 0.61$ . Higher trait loneliness was associated with blunted vagal reactivity to cognitive challenge,  $\beta = .16$ ,  $t(163) = 2.33$ ,  $p = .021$ , and blunted vagal recovery following cognitive challenge,  $\beta = -.17$ ,  $t(163) = -2.37$ ,  $p = .019$ , even after statistically controlling for covariates.

**Discussion:** This research suggests that lonely women have reduced vagal activity in response to cognitive demand. Our findings extend previous work on vagal reactivity in lonely individuals by providing the first evidence that vagal recovery can be used as a biomarker to assess parasympathetic functioning in lonely individuals.

14:15 - 14:30

## Shyness and heart rate variability during everyday life social interactions

A.R. Schwerdtfeger<sup>1</sup>, C. Rominger<sup>1</sup>, P.D. Obser<sup>1</sup>

<sup>1</sup>University of Graz, Austria

**Background:** Heart rate variability (HRV) is discussed to signal social engagement and social safety. Shyness on the other hand, might be accompanied by increased stress and attenuated feelings of social safety. The aim of this study was to examine if shy individuals show compromised HRV in everyday life and if social interactions with close others (both face to face and via social media) might be accompanied by feelings of social safety and consequently, increased HRV.

**Methods:** Overall, 50 individuals participated in this ecological momentary assessment study. Subjective reports on social interactions and perceived stress and HRV (RMSSD) were recorded across three consecutive days and analyzed using Bayesian multilevel modeling.

**Findings:** HRV was lower in shy as compared to non-shy individuals indicating extreme evidence toward the hypothesis (Bayes-factor = 1,665.7). Moreover, when interacting with close others, HRV in shy individuals increased considerably, while there was no effect for non-shy individuals (Bayes factor = 53.8; very strong evidence for the hypothesis). Exploratory analyses confirmed that effects were more reliable for face-to-face interactions as compared to computer-mediated interactions. Analyses on perceived stress largely confirmed the pattern of result.

**Discussion:** Findings suggest that shyness is associated with a compromised social engagement system as indicated by lower HRV. However, shy individuals seem to benefit from interactions with close others especially during face-to-face interactions, thus supporting previous research on depression and rumination in showing a buffering effect of social interactions with close others on cardiac function.

14:30 - 14:45

## Are trait emotional competencies protective for heart rate variability in stress conditions?

E. Batselle<sup>1</sup>, C. Fantini-Hauwel<sup>1</sup>

<sup>1</sup>Université Libre de Bruxelles, Belgium

The link between stress and heart rate variability (HRV) has been extensively studied, considering this biomarker an objective measure of stress responses because it reflects autonomic nervous system characteristics. Indeed, HRV indexes the balance between the sympathetic nervous system and the parasympathetic nervous system, which are both impacted in stress responses. Due to the neurobiological structures involved in HRV, it has often been associated with emotion regulation, a component of a broader emotion management concept: emotional competencies. Some researchers have proposed a protective role of emotional competencies on physiological reactivity to stress, such as cortisol secretion, but HRV has received much less attention despite its utility to assess stress responses. Thus, the aim of this study was to explore the links between HRV and emotional competencies under stress conditions. Sixty-eight participants fulfilled the criteria of the Profile of Emotional Competence, and HRV was measured during 5 minutes in resting, reactivity to, and recovery from an interpersonal stressor induced in a laboratory. Contrary to our expectations, we did not find any associations between HRV measures and trait emotional competencies scores. Interestingly, we highlighted that subjects with higher trait emotional competencies scores returned to the same HRV level as in the resting measure, but those with lower scores continued to exhibit a reduced HRV. In conclusion, our study is one of the first to evidence that trait emotional competencies might have a positive influence on the capacity and the rapidity of the autonomic nervous system to recover from a stressor.

14:45 - 15:00

## Exploring resilience factors and daily cortisol levels in individuals vulnerable to suicide

D. O'Connor<sup>1</sup>, D. Branley-Bell<sup>2</sup>, E. Ferguson<sup>3</sup>, R. O'Carroll<sup>4</sup>, R. O'Connor<sup>5</sup>

<sup>1</sup>University of Leeds, United Kingdom

<sup>2</sup>Northumbria University, United Kingdom

<sup>3</sup>University of Nottingham, United Kingdom

<sup>4</sup>University of Stirling, United Kingdom

<sup>5</sup>University of Glasgow, United Kingdom

**Background:** Suicide is a global health issue. Dysregulated hypothalamic-pituitary-adrenal axis activity, as measured by cortisol levels, has been identified as one potential risk factor. Evidence is emerging to suggest that different trait factors may be associated with increased resilience in this context. The current study investigated whether trait resilience, social support, social perfectionism, worry and impulsivity influenced diurnal cortisol levels over a 7-day study in individuals vulnerable to suicide.

**Methods:** 154 participants were categorized according to their suicidal history into three groups: suicidal attempt, suicidal ideation or control group. Participants completed questionnaires before commencing a 7-day study. Cortisol samples were provided immediately upon waking, at 15 mins, 30 mins, 45 mins, 3 hours, 6 hours, 9 hours and 12 hours on 7 consecutive days. Measures of daily stressors, mood, defeat and entrapment were completed at the end of each day.

**Findings:** Higher levels of trait resilience, lower levels of social perfectionism, trait worry and impulsivity were associated with significantly higher cortisol upon awakening (CAR). Trait resilience and worry were also associated with steeper wake-peak to 12 hour (WP-12) cortisol slopes.

**Discussion:** These results extend findings from the laboratory into naturalistic settings and indicate that particular psychological traits may help protect against dysregulated hypothalamic-pituitary-adrenal (HPA) axis activity in individuals vulnerable to suicide. Researchers ought to elucidate the precise causal mechanisms linking these traits, cortisol and suicide risk in order to develop interventions to help build resilience in vulnerable populations.

15:00 - 15:15

## The effects of hunger on variability of stress in homeless and formerly homeless young adults

E. Dzibur<sup>1</sup>, S. Semborski<sup>1</sup>, B. Redline<sup>1</sup>, D. Madden<sup>1</sup>, B. Henwood<sup>1</sup>

<sup>1</sup>University of Southern California, United States

**Background:** The relationship between perceived hunger and stress is thought to be non-linear, although literature has generally focused on the relationship between these two states in the context of eating. Less is known about how this association varies among individuals experiencing food insecurity. The objective of this study was to examine the variability and relationship between momentary hunger and momentary stress in a sample of homeless and formerly homeless young adults.

**Methods:** Participants (n = 152) were recruited as part of a 7-day ecological momentary assessment (EMA) study querying affect, hunger, risky behaviors, and other variables in adults experiencing homelessness (ages 18-29, 53% sexual orientation or gender minority). A mixed-effects location and scale model was used to examine the effects of hunger on within- and between-subject variability of stress and the variability of the relationship between stress and hunger.

**Findings:** Hunger was positively associated with stress (b=0.22, p < 0.001). Participants with greater mean levels of hunger had a stronger relationship between hunger and stress (b=0.04, p<0.001), and those with greater levels of hunger had increased variability in their levels of stress (b=0.17, p<0.001). Lastly, the variability in stress decreased as the relationship between hunger and stress increased (b=-0.16, p<0.001).

**Discussion:** The study shows, in situ, the extent to which food insecurity results in erratic stress among vulnerable populations and how high levels of hunger may lead to a stronger and more consistent stress response. Findings reinforce the need for more mental health services and food programs for homeless adults.

15:15 - 15:30

## Assisting University Students Self-Manage Stress: A Randomized Controlled Trial of Mindfulness Meditation Tools

R. Acabchuk<sup>1</sup>, J. Kustra<sup>1</sup>, S. Low<sup>1</sup>, K. McCloskey<sup>1</sup>, E.A. Hennessy<sup>1</sup>, B.T. Johnson<sup>1</sup>

<sup>1</sup>University of Connecticut, United States

**Background:** Practical and acceptable self-guided programs are required to assist university students in coping with high levels of stress, anxiety, and depression. This study aimed to determine (1) if a 30-day self-guided meditation protocol using a mindfulness meditation app is acceptable and effective at improving well-being, (2) if a portable EEG- neurofeedback device offers added benefits, and (3) to explore potential self-regulatory mechanisms of action.

**Methods** (trial NCT03402009): 140 university students (mean age=20, 29% male, 45% non-white, 17% non-US born) were randomly assigned to meditate 10 minutes/day for 30 days using either 1) the guided meditation app 10% Happier, or 2) 10% Happier plus the Muse neurofeedback device. Participants attended a 1 hour orientation, completed validated questionnaires and a satisfaction survey.

**Results:** Both intervention groups showed significant reductions in anxiety, stress and depression (DASS-21:  $d=-0.62$ , 95% CI: -0.90, -0.34). Self-esteem, cognitive reappraisal, decentering, mindfulness and emotion stability all increased significantly in both groups ( $p<.05$ ); resilience and expressive suppression did not change. Satisfaction results suggest high acceptability: 94% said meditation helped to self-manage stress, 87% said app was helpful, 72% said Muse was helpful. 34% also reported reduced risk behavior.

**Conclusion:** The 30-day self-guided meditation protocol using the meditation app 10% Happier is a feasible and acceptable method to help university students self-manage stress, which may work through self-regulatory pathways. The neurofeedback tool Muse did not provide added benefits. Future studies should test this practical, app-based meditation protocol for large-scale implementation to improve mental well-being at university campuses.

## Posters

# Health-risk behaviour

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Barbara Mullan

15:30 - 17:00

## Motivational and momentary influences on adult smoking: An application of Temporal Self-Regulation Theory

C.M. Jones<sup>1</sup>, B. Schüz<sup>1</sup>

<sup>1</sup>University of Bremen, Germany

**Background:** Smoking remains one of the leading causes of preventable disease and death, but as a repetitive and strongly habitual behavior with tempting short-term gains and only long-term harms appears to be resistant to change through only good intentions. Temporal Self-Regulation Theory expands the considered temporal frame to encompass the timing of costs and benefits of a behavior and proposes a complex interplay of more stable motivational factors (cognitions and temporal valuations forming intentions) and momentary contingencies (social and physical environment). In this study, we therefore predict smoking behavior both from stable motivational factors and momentary contingencies.

**Methods:** Ecological Momentary Assessment with mixed time- and event-contingent design in 50 regular adult smokers (> 10 cigarettes per day) over three weeks. Cognitions, trait self-regulation, past smoking behavior and temporal valuations are assessed at baseline, momentary cognitions and external and internal cues are assessed during smoking as well as random logs during the day.

**Findings:** We will use multilevel logistic regression to show associations of external and internal momentary cues, as well as personal-level factors and smoking. Data collection is expected to be completed in spring, analysis and discussion in summer 2019.

**Discussion:** This study will help to distinguish effects of more stable motivational factors and momentary contingencies in the internal and external environment for smoking, a repetitive and strongly habitual behavior. This potentially adds to our understanding of the lasting reciprocal connection between individual and environment, informing future interventions.

15:30 - 17:00

## Determinants of nicotine replacement therapy use in pregnancy: mixed methods systematic review

K. Campbell<sup>1</sup>, T. Coleman-Haynes<sup>1</sup>, K. Bowker<sup>1</sup>, S. Cooper<sup>1</sup>, L. Vaz<sup>1</sup>, T. Coleman<sup>1</sup>

<sup>1</sup>University of Nottingham, United Kingdom

**Background:** Adherence to nicotine replacement therapy (NRT) in pregnancy is low; this may partially explain why NRT appears less effective in pregnancy. This study aimed to identify the determinants of NRT use for stopping smoking in pregnancy.

**Methods:** Systematic searches of electronic databases and grey literature were conducted between 1990 and March 2017. Qualitative and quantitative studies reporting data on potential determinants of NRT use in pregnancy were sought; quantitative data were codified into qualitative data, to allow a unified evidence synthesis. Data were then analyzed using a thematic synthesis.

**Results:** Twenty-three studies (8 qualitative, 15 quantitative) were included. Five themes that could potentially influence pregnant women's use of NRT were identified: familiarity with NRT; beliefs about effectiveness; safety concerns; side-effects and cravings management. Women reported concerns regarding permissibility and safety of NRT in pregnancy, and tended to develop patterns of NRT use which were inconsistent with cessation advisors' recommendations.

**Conclusions and implications:** Women's knowledge of effectiveness and safety of NRT in pregnancy is lacking and their low levels of familiarity with and readiness to use NRT while pregnant are potential barriers to adherence. To increase women's confidence and ability to use NRT to quit in pregnancy and to minimize chances of NRT being discontinued prematurely, interventions to increase women's NRT use should include clear, evidence-based information about the relative safety of NRT, stress the importance of adherence to treatment and prepare women for possible side effects.

15:30 - 17:00

## A conceptual model for understanding tobacco- and nicotine-containing product transition and switching behaviors

E. Spies<sup>1</sup>, E. Afolalu<sup>1</sup>, E. Clerc<sup>1</sup>, C. Chrea<sup>1</sup>

<sup>1</sup>PMI R&D, Philip Morris Products S.A., Switzerland

**Background:** Tobacco harm reduction aims at preventing the use of tobacco- and nicotine-containing products (TNP) among non-users and encouraging cigarette smokers to quit or adopt safer options. Hence, there is a need to understand the determinants of these health behaviors (i.e., switching from cigarettes to alternative TNPs, such as e-cigarettes, or smokeless or heated tobacco products).

**Methods:** We carried out a literature review to identify behavioral change theories and existing frameworks and models that propose explanations for TNP use and switching behaviors. We also identified articles on transitions in patterns of TNP use behaviors over time and associated factors. From this, we propose a framework incorporating key concepts underlying TNP transition and switching behaviors.

**Findings:** The proposed framework applies a social-ecological lens whereby individual, product, and environment factors and their interactions are associated with TNP transition and switching behaviors in adult populations. Individual factors include personal traits (e.g., sociodemographic, dependence), attitudes and beliefs toward TNPs (e.g., perceived risk and social norms), response to TNPs (e.g., satisfaction), and self-reported TNP behavior (e.g., use history, intention to use/quit); product factors encompass intrinsic (e.g., product design) and extrinsic (e.g., marketing and advertising) characteristics, and environment factors are organized into four categories (policy, industry, interpersonal communication, and para-social interactions).

**Discussion:** Our findings provide a new framework for understanding factors that influence TNP transition and switching behaviors. In addition, we propose preliminary recommendations on valid outcome measures to enhance the standardization of survey instruments used in population-based studies examining TNP use behaviors over time.

15:30 - 17:00

## Student identity, group norms and alcohol consumption: Testing a social identity model of behavioural associations

E. Hughes<sup>1</sup>, J. Smith<sup>1</sup>

<sup>1</sup>University of Exeter, United Kingdom

**Background:** The social identity approach has long alluded to an explicit interplay among the group-level constructs of social identification, group norms, and individual health behaviour. More recently, socio-cognitive theories such as the Balanced Identity Design have branched into modelling and conceptualising interactions among other, individual-level social psychological constructs as implicit ‘associations’ in a cognitive sense. The current research presents a theoretical and methodological integration of the two theories, testing a novel social identity model of behavioural associations (SIMBA) that proposes associations among identification, norms and behaviour—with a particular focus on alcohol consumption and the student identity.

**Methods:** Through an online survey platform, 120 undergraduate students completed three implicit association tasks, one for each construct, as well as corresponding explicit questionnaire measures.

**Findings:** Students demonstrated highly significant associations among compatible self-group, group-behaviour, and self-behaviour constructs. Moreover, significant interaction terms highlighted that the strength of any one association in SIMBA could be predicted by the combined strength of the remaining two associations, both implicitly and explicitly.

**Discussion:** Given the dynamic relations between constructs, altering the strength of one associative link should have consequences for other links within the triad. Consequently, SIMBA may provide a unique perspective on not only measuring, but changing maladaptive associations at the group-level—adopting a more personalised approach to devising interventions in the health domain. In doing so, the model could provide both an explanation of and a solution to health-risk behaviour that, most importantly, is supported by empirical theory in a way that many solutions are currently not.

15:30 - 17:00

## The effect of television advertising on soft drink consumption: A dual-process models approach

E. Kemps<sup>1</sup>, M. Tiggemann<sup>1</sup>, A. Tuscharski<sup>1</sup>

<sup>1</sup>Flinders University, Australia

**Background:** The continual exposure to soft drink cues in the environment is thought to be a major contributor to the rising consumption of soft drinks. This study investigated the effect of one such cue, television advertising, on soft drink choice and intake. Within the context of dual-process models, we further examined whether any such effects would be stronger for individuals with an automatic tendency to reach for soft drinks (approach bias) or a difficulty resisting soft drinks (poor inhibitory control).

**Methods:** Young adults (N=127; 18-25 years) viewed television advertisements of either soft drinks or other non-sugar sweetened beverages (control). Soft drink choice was assessed by a beverage choice task and intake by an ostensible taste test. Approach bias and inhibitory control were assessed by soft drink versions of the approach-avoidance and go/no-go tasks, respectively.

**Findings:** Participants who had viewed soft drink advertisements were more likely to choose a soft drink as their first drink than those who had viewed control advertisements. This effect was stronger for participants with an approach bias for soft drinks. In addition, participants with poorer inhibitory control chose more soft drinks overall when they had viewed the soft drink advertisements. Exposure to soft drink advertisements did not affect soft drink intake.

**Discussion:** In line with dual-process models, individuals with strong automatic tendencies or poor self-regulatory control were more responsive to television advertising for soft drinks. At a practical level, these cognitive vulnerabilities provide potential targets for intervention to help resist soft drink cues.

## Posters

# Behavior change interventions and prevention

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Sara Hoffman

15:30 - 17:00

## Lessons from implementing a factorial experiment within the MOST framework: The Opt-IN weight loss study

S. Hoffman<sup>1</sup>, A. Pfammatter<sup>1</sup>, H.G. McFadden<sup>1</sup>, L. Collins<sup>2</sup>, B. Spring<sup>1</sup>, C. Pellegrini<sup>3</sup>

<sup>1</sup>Northwestern University Feinberg School of Medicine, United States

<sup>2</sup>The Pennsylvania State University, United States

<sup>3</sup>University of South Carolina, United States

**Background:** Opt-IN was a 6-month weight loss study testing which of five behavioural components contributed to weight loss, and was a fractional factorial experiment conducted in the optimization phase of the Multiphase Optimization Strategy (MOST). This abstract describes lessons learned while implementing such a complex behavioural intervention with up to 32 randomized conditions.

**Methods:** Participants (n=562) were randomized to receive a combination of components: coaching call intensity, physician progress reports, texts, meal replacement recommendations, and “Buddy” support training. All participants self-monitored on the Opt-IN smartphone app.

**What went wrong:** A copy/paste error resulted in the implementation of the incorrect set of conditions in the fractional factorial experiment. Given the design, there was high likelihood for contamination and breach of treatment fidelity.

**Possible solutions:** The error was discovered halfway through the study; we concluded that switching to a full factorial design, utilizing 32 total experimental conditions, was warranted. All hypothesized main effects could be tested, as well as additional higher order interactions not possible in the original Design: The remaining participants (n=271) were randomized to 16 remaining conditions and because of the full factorial, no additional participants were needed. Within factorial experiments, systematic checks are necessary to avoid transposition errors.

**Conclusions:** Factorial designs are adaptable, and can reveal important information about effects of particular components, along with antagonistic and synergistic interactions. Even if no components are set to the highest level in optimized treatment packages, one can still learn something via a reduced reliance on ineffective components.

15:30 - 17:00

## Effectiveness of computer-tailored interventions targeting evolution of dietary behaviors: a systematic review

A. Schoumacker<sup>1</sup>, C. Martin<sup>1</sup>, L. Muller<sup>1</sup>

<sup>1</sup>Université de Lorraine, France

**Background:** The evolution of dietary behaviors is a target of many lifestyle programs for chronic diseases, such as diabetes or obesity. “Computer-tailoring” (CT) is a promising strategy to deliver personalized interventions at a population-level by using information and communication technologies. It relies on a motivational and volitional diagnosis to deliver personalized messages to support the user in his change process.

**Objective:** This research aims to (i) determine the effectiveness of CT to change dietary behaviors, (ii) identify the potential key success factors of these interventions and (iii) suggest recommendations for future research.

**Methods:** Databases searching were conducted on PsychInfo, Pudmed and Web of Science and ranging from 2000 to 2017. After duplicates removal, 145 articles were screened on title and abstract, and then selected for integral read-through and analysis. In addition, using the snowball sampling technique, references of the included articles were also screened to identify supplementary articles. **Results:** On the 24 studies retained in the analysis, 19 have shown a positive and significant effect on the evolution of dietary behaviors or psychosocial determinants. However, many limitations have been highlighted by the authors, including: impossibility to generalize the results, insufficient sample size, intervention dose, high dropout rate, lack of objective measurements and long-term follow-up.

**Discussion:** While the literature shows that CT has a relative efficiency in promoting health behavior change, future research should focus on describing how the intervention is constructed and how the messages developed and identifying the underlying mechanisms that can contribute to the effectiveness of these interventions.

15:30 - 17:00

## Workplace health promotion intervention for raising influenza vaccination coverage in healthcare workers

N. Dernovšček Hafner<sup>1</sup>, T. Urdih Lazar<sup>1</sup>

<sup>1</sup>University Medical Center Ljubljana, Slovenia

**Background:** The seasonal influenza vaccination is one key for preventing the spread of this disease. It is especially important for healthcare workers, who have a significantly greater risk of catching influenza than the rest of the working population.

**Methods:** Based on the results of a 2017 survey conducted at the Ljubljana University Medical Center (n = 1,320 participants) on factors that motivate or discourage employees regarding vaccination, an intensive in-house social marketing campaign promoting influenza vaccination was launched at the end of 2017 and 2018 with the slogan "I don't pass on the flu! So I get vaccinated to protect myself and others."

**Findings:** The campaign encouraged all employees to receive a free vaccination during working hours, especially groups that had lower vaccination rates over the past years (licensed practical nurses and care assistants). Support from the institution's executive staff and the heads of divisions and other organizational units was key to securing the necessary funds and conditions for carrying out the campaign. The communication tools used in the campaign, accompanied by lectures, included a special logo, visual reminders, badges, and symbolic gifts for vaccinated employees. The promotion strategy significantly increased vaccination coverage at the medical center from 13.9% to 20.1% in 2017, and to 23% in 2018.

**Discussion:** Workplace health promotion makes a difference. Good practice of the social marketing campaign will be taken into account in planning and organizing vaccination activities during future influenza seasons. This practical model can also be used in other hospital settings.

15:30 - 17:00

## Use of graphic narratives and health behaviour concepts in cancer screening leaflets: A content analysis

L. Gattung<sup>1</sup>, B. Slade<sup>1</sup>, L. Grove<sup>1</sup>, K. Robb<sup>1</sup>

<sup>1</sup>University of Glasgow, United Kingdom

**Background:** The early diagnosis of cancer, through screening programmes, improves survival and patient quality of life. Leaflets remain an integral part of communications in cancer screening. A priority for screening programmes is to have invitees making an informed decision before attending – to ensure informed consent and achieve participation from people most likely to benefit.

Using images and stories in health information have both, individually, been shown to improve knowledge and recall – prerequisites of informed decision-making. Graphic narratives are the fusion of these two communication devices, possessing unique methods of representation and message transmission and are likely to impact a leaflet's success in supporting informed decision making.

Additionally, leaflet design decisions aimed at targeting constructs from models of health behaviour will impact engagement with, and processing of, health-related messages.

The aim of this study is to describe and evaluate how graphic narratives and health behaviour constructs have been used in cancer screening leaflets.

**Methods:** A content analysis of printed cancer screening information for invitees, selected based on the following criteria; (i) a folded piece of paper or multiple sheets bound together, (ii) produced between 1988 and 2019, (iii) available in English. The following dimensions will be coded for; production (who, where, when, how), type of cancer and screening method(s), design features (visual, narrative, behavioural), and reception achieved.

**Current stage of work:** Data collection has begun.

**Discussion:** I will use the findings to inform the development of a theory-based lung cancer screening information leaflet that is accessible and supportive.

15:30 - 17:00

## Implementation Mapping: Using Intervention Mapping to develop implementation strategies

M.E. Fernandez<sup>1</sup>, G. ten Hoor<sup>2</sup>, S. van Lieshout<sup>3</sup>, S.A. Rodriguez<sup>1,4</sup>, R.S. Beidas<sup>5</sup>, G. Parcel<sup>1</sup>, R.A. Ruiter<sup>2</sup>, C.M. Markham<sup>1</sup>, G. Kok<sup>2</sup>

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<sup>4</sup>University of Texas Southwestern Medical Center, United States

<sup>5</sup>University of Pennsylvania, United States

**Background:** The ultimate impact of health innovations depends not only on the effectiveness of the intervention, but also on its reach in the population and the extent to which it is implemented (completeness and fidelity). Implementation science has emerged as a solution to the failure to translate evidence from research into practice. Implementation scientists have developed many implementation frameworks, theories, and models, which describe determinants of implementation, the implementation process or implementation outcomes. However, there is little guidance on how these can inform the development and selection of implementation strategies. To move the field forward and to provide a practical tool to apply the implementation science knowledge, we suggest a systematic protocol for planning or selecting implementation strategies: Implementation Mapping.

**Methods:** Implementation Mapping is based on Intervention Mapping and expands on Intervention Mapping step 5. It includes insights from both the implementation science field and Intervention Mapping. Implementation Mapping involves four specific tasks: 1) conducting a needs assessment and identifying program adopters and implementers 2) stating adoption and implementation outcomes and performance objectives, identifying determinants, and creating matrices of change objectives; 3) choosing theoretical methods (mechanisms of change) and selecting or designing implementation strategies; and 4) producing implementation protocols and materials. These tasks are iterative and require circling back to previous steps throughout the process to ensure all adopters and implementers, outcomes, determinants, and objectives are addressed.

**Discussion:** Implementation Mapping provides a systematic process for developing theory- and evidence-based implementation interventions to ensure adoption and implementation of evidence-based interventions.

## Posters

# Individual differences in health perceptions

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Gill ten Hoor

15:30 - 17:00

## Associations of low health literacy with increased blood pressure in ESRD patients in Slovakia

I. Skoumalova<sup>1</sup>, P. Kolarcik<sup>1,2</sup>, J. Rosenberger<sup>2,3</sup>, A. Madarasova Geckova<sup>1,2</sup>

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<sup>3</sup>FMC-dialysis services, Trieda SNP 1, Kosice, Slovakia

**Background:** Health literacy (HL) as ability to gain access, understand, and use information to promote and maintain good health is considered as an important factor for understanding and improving health of chronic patients. Low health literacy is related to poorer adherence, worse health outcomes and mortality. The aim of our study is to examine the associations of HL with high blood pressure, as an indicator of non-adherence with prescribed medication in end stage renal disease (ESRD) patients in Slovakia.

**Method:** Cross-sectional study on 558 ESRD patients (mean age = 63.61, SD = 13.99, male = 60.06%) was conducted in 20 dialysis clinics in Slovakia from January to November 2018. Socio-demographic data and data on 9 domains of HL (Health Literacy Questionnaire, HLQ) were collected by questionnaire. Clinical data on blood pressure were dichotomized as normal-0 and high-1. Association of HL with blood pressure adjusted for gender and age was analysed using binary logistic regression.

**Findings:** We found that 3 domains of HLQ were significantly associated with high blood pressure in dialysed patients: Navigating the healthcare system, Ability to find good health information and Understanding health information well enough to know what to do (Odds ratios from 0,716 to 0,739,  $p < 0.05$ ).

**Discussion:** Our analysis shows that lower health literacy is a significant predictor of increased blood pressure in dialysed patients and indicates non-adherence to medication. These findings might be considered in improving adherence and reducing mortality in this patients' group.

15:30 - 17:00

## Wanna Look Bigger: Psychosocial correlates of muscle dissatisfaction among male college students in Hong Kong

N.C.Y. Yeung<sup>1</sup>, K. Massar<sup>2</sup>, K. Jonas<sup>2</sup>, G. ten Hoor<sup>2</sup>

<sup>1</sup>The Jockey Club School of Public Health and Primary Care, The Chinese University of Hong Kong, Hong Kong

<sup>2</sup>Maastricht University, Netherlands

**Background:** Muscle dissatisfaction is increasingly prevalent among young men. Western studies have suggested that exposure to muscularity-related media coverage is associated with higher internalization of such ideals and other psychological processes (e.g., body shame, social comparison), which in turn increase muscle dissatisfaction. However, how such findings have not been extended to other cultural contexts. Guided by the Objectification Theory, this study examined the psychosocial correlates of muscle dissatisfaction among male college students in Hong Kong.

**Method:** Chinese male college students (N=319) completed an online survey measuring their levels of muscle dissatisfaction, exposure to muscularity media images, body-related social comparison, internalization of muscular ideal from the media, body shame, and self-compassion.

**Findings:** Hierarchical regression results showed that lower self-compassion ( $\beta=-0.20$ ), higher exposure to muscularity-related media coverage ( $\beta=0.22$ ), perceived media pressure to be more muscular ( $\beta=0.09$ ) plus higher levels of body-related social comparison, internalization of muscular ideals, and body shame ( $\beta$ s from 0.10 to 0.24) were associated with higher muscle dissatisfaction (all  $p$ s<.05). We also found that self-compassion moderated between exposure to muscularity-related media coverage and muscle dissatisfaction ( $\beta=-0.19$ ,  $p<.001$ ), such that exposure was associated with higher muscle dissatisfaction only among those with lower self-compassion ( $\beta=0.41$ ,  $p<.001$ ), suggesting that self-compassion may buffer the negative effect of media exposure on muscle dissatisfaction.

**Discussion:** Applicability of previous findings to the Chinese context was supported. Our findings implied that helping Chinese male college students to cope with muscularity-related media influence, reduce body-related social comparison, overcome body shame, plus cultivate self-compassion may decrease their muscle dissatisfaction.

15:30 - 17:00

## French validation of ORTO 15 and its links with body image disorder

N. Plasonja<sup>1</sup>, G. Décamps<sup>1</sup>

<sup>1</sup>Labpsy EA 4139, University of Bordeaux, France

**Background:** The present study was designed to investigate orthorexia nervosa, defined as a pathological obsession over the consumption of healthy food. There is a serious lack of French tools for the assessment of this behavior. Therefore, the aim of this study was to validate the French version of the ORTO 15 test, explore its psychometric properties and the relationships between orthorexia and body image.

**Methods:** A cross-sectional study was conducted. A total of 415 young people (368 women), aged from 18 to 25, completed the online versions of the following tests: the French adaptation of ORTO 15, the Multidimensional Body Self Relations Questionnaire-Appearance Scale (MBSRQ-AS), the Eating Attitudes Test (EAT-26) and the Binge Eating Scale (BES). Exploratory and confirmatory factor analysis,  $\chi^2$ test, mean comparisons and ANOVA were performed in this study.

**Findings:** The exploratory and the confirmatory factor analysis performed on the initial 15 items suggested a single-factor nine items structure of the test. The test showed good reliability ( $\alpha = .69$ ).

When compared to the healthy controls, the orthorexic participants seemed less satisfied with their appearance and had more overweight and appearance preoccupations ( $p < .001$ ). They also had higher scores on the EAT-26 test, meaning they are more at risk to suffer from an eating disorder than the healthy controls ( $p < .001$ ).

**Discussion:** The French version of the test demonstrated statistically correct properties. The findings support the idea that body image disorder needs to be further investigated in orthorexia.

15:30 - 17:00

## When the health it is no the more important. Addicted runners training and recovering

A. Nogueira López<sup>1</sup>, D. Garita Campos<sup>2</sup>, C. López Mora<sup>3</sup>, J. González Hernández<sup>2</sup>

<sup>1</sup>University of León, Spain

<sup>2</sup>University of Granada, Spain

<sup>3</sup>Univ. de Missouri, EEUU; Seneca Foundation, Spain, Spain

Practice of regular physical activity brings with health benefits on a physical, mental and social level. However, sport context is a really demanding area, that requires invest a lot of resources, time and effort to maintain or improve physical condition. Fatigue, a multifactorial state that appears when there is an imbalance between the demands of sport and the physical and psychological abilities of those who practice it, is one of the first harmful effects. For that reason, making the best possible recovery (Invisible Training-IT) is considered of vital importance to avoid higher consequences. Nevertheless, when the athletes, among other symptoms, they don't worry for that, they are boosting the probabilities of suffer consequences more serious (e.g., exercise addiction-REA), it is, all physical activity that is carried out excessively and without control. With a descriptive methodology, this work pretends to know the relationship among the different methods of recovery and exercise addiction, in a sample of 514 Spanish runners, (407 men and 107 women). The results suggest the existence a positive relationship between IT and REA, where the athletes who train more days, hours and kilometres, they show more obsessive and controlling behaviours towards the recovery strategies. Besides, according to the regular distance in which they participate, the tendency of use of IT is less and oriented towards those that improve performance above health. It would be interesting develop programs to educate the amateur athletes towards a healthy practice of the sport.

15:30 - 17:00

## Health literacy associations with gingivitis among Slovak adults: preliminary results

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**Background and aim:** Gingivitis causes inflammation of the gums and is reversible with good oral hygiene; otherwise, it can progress to a periodontitis. Oral hygiene might be related to patient's health literacy (HL), defined as ability to gain access, understand, and use information to promote and maintain good health. The aim of our study is to examine the associations of HL with indicator of gingivitis in Slovak adults.

**Methods:** Cross-sectional study on 1117 adults (36.2% of males, mean age=36.4, SD=14.2) attending dental hygiene treatment was conducted as a part of preliminary data analysis. Data on demographics, socioeconomic status, 9 domains of health literacy (Health Literacy Questionnaire, HLQ) were collected by questionnaire and Community Periodontal Index of Treatment Needs (CPITN) was established by the dental hygienist. The effects of HL on gingivitis were analysed using t-test and logistic regression.

**Results:** We found that respondents with gingivitis (N=152) has statistically significantly lower levels of HL in 7 out of 9 HLQ domains compared to intact patients (N=818) (t from 3.03 to 4.75, p<0.01). Association of higher HL in 7 domains with lower chance of diagnosed gingivitis remain significant even after adjustment for age, gender, respondent's education attainment and employment status (adjusted odds ratios from 0.55 to 0.67, p<0.05).

**Conclusion:** Our findings confirm that individual's lower health literacy is significantly associated with higher chance of gingivitis incidence what indicates problematic oral health. Health literacy might be promising factor in improvement of populations' oral health worthy to consider in intervention and preventive activities.

15:30 - 17:00

## Visual Dynamic Scale of Mind-Body Relationships (VDS-MBR): assessing perceived relationships between mind-body

K. Naivelt<sup>1</sup>, R. Jacoby<sup>1</sup>, A. Konichezky<sup>1</sup>

<sup>1</sup>Tel-Aviv Yaffo Academic College, Israel

For centuries, the issue of Mind - Body relationships have been a bone of contention among different fields such as philosophy, medicine, psychology, physics and more. While the Monistic approach argue that we cannot separate between them, the Dualistic approach regards Mind and Body as two separate entities representing different components of the self.

Surprisingly little has been written on individuals' subjective perceptions of their Mind- Body relationship, and consequently how these affect their health behaviors. We believe that one of the reasons for this is the lack of a reliable method to measure subjective perception of Mind-Body relationships.

In the proposed lecture, we will describe, the development of a computerized Visual Dynamic Scale, which has been developed in order to assess the subjective perception of individuals' Mind - Body relationships as well as the nature and the intensity of the interaction between them. This novel method is based on principles derived from the visual analog scale (VAS) as well as other graphic assessment tools like the Inclusion of Other in the Self (IOS) (Aron and Smollan, 1992) and PRISM (Büchi et al. 1998)

The presentation is based on a research conducted by the first author among 209 volunteers randomly selected from the general population in Israel. The results of the study demonstrate a wide spectrum of subjective views regarding Mind - Body relationships that can be measured and analyzed using the Visual Dynamic Scale of Mind-Body Relationships (VDS-MBR).

15:30 - 17:00

## FOODLIT-PRO: “What determines food literacy, what are institutions doing?” Mixed-method analysis on Portuguese experts’ perspectives

R. Rosas<sup>1</sup>, M.J. Mota<sup>2</sup>, F. Pimenta<sup>1</sup>, I. Leal<sup>1</sup>, R. Schwarzer<sup>3</sup>

<sup>1</sup>WJCR - William James Center for Research; ISPA - Instituto Universitário, Portugal

<sup>2</sup>ISPA - Instituto Universitário, Portugal

<sup>3</sup>Freie University Berlin, Germany

**Background:** Obesity-related health problems are increasingly prevalent, so a change in eating behaviours is urgent. Therefore, researchers are concentrating on the construct of food literacy. Although its definition is not yet consensual, it can be defined as inter-related knowledge, skills, and/or behaviours needed to have healthy eating habits. However, the determinants to these competencies are yet to be studied. Thus, the aim of this study is to explore these determinants identified by Portuguese experts and examine if their institutions are working towards these determinants’ development.

**Method:** This cross-sectional comparative study adopts a mixed methodology, with qualitative and quantitative approaches. Semi-structured interviews were conducted with 30 experts (20 females and 10 males) from fields related (in)directly to food (Education, Health, Agricultural and Commercial Industry, and Food Policy), which were later transcribed and analysed through directed content analysis. Differences between experts’ fields concerning identified determinants was assessed through Kruskal-Wallis test.

**Findings:** Significant differences were found in two categories: Professional Sensitiveness (to the individual food-related context) was higher amongst health professionals; Industry Influence (e.g., packaging details, supermarket placement) scored higher among educational professionals. Health-related institutions currently invest on patient-education and provide healthier options. Education-related institutions invest on both students’ and parents’ education.

**Discussion:** Institution’s approaches demonstrate to be alert to their users’ needs, given that health professionals identify the need for messaging-deliver to be tailor-made, and educators seem to enlighten families for industry’s marketing strategies. This demonstrates the need for a food literacy intervention with both individuals and professionals from diverse food-related fields.

## Posters

# Living with chronic illness

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Aleksandra Luszczynska

15:30 - 17:00

## A qualitative exploration of persistent fatigue among women with endometriosis in South Africa

Z.N. Sibande<sup>1</sup>, R. Roomaney<sup>1</sup>, V. Thomas<sup>1</sup>

<sup>1</sup>Stellenbosch University, South Africa

Endometriosis is chronic gynaecological disease that can impact women mentally, emotionally and physically. Approximately 15% of females of reproductive age have endometriosis. Fatigue is said to be one of the most commonly reported symptoms, yet there is limited research on the impact that fatigue has on patients and coping strategies employed by patients to mitigate this impact. Fatigue can negatively affect individuals in several domains such as physical functioning, mental well-being and social functioning. In this presentation, we will report on data collected from 22 South African women diagnosed with endometriosis regarding their experiences of persistent fatigue and management of fatigue. Data was collected using semi-structured interviews with patients who were recruited at a public, tertiary hospital and via social media. The interviews were recorded and transcribed. A thematic analysis was conducted and the following themes will be reported on: (1) painting a picture of fatigue, (2) fatigue and diet/lifestyle, (3) planning and pacing and, (4) knowledge and information seeking. Women in this study shared how fatigue can be disabling in the workplace, at home and socially. Interestingly, most participants did not know that their fatigue may have been related to their endometriosis and did not seek assistance from healthcare professionals to reduce their fatigue. The data presented will illustrate the need for the development of interventions for fatigue in patients with endometriosis.

15:30 - 17:00

## The lived experience of self-management within T2D, using a combination of IPA and photo-elicitation.

S. Harris<sup>1</sup>, C. Uytman<sup>1</sup>

<sup>1</sup>Queen Margaret University, United Kingdom

**Background:** Type 2 diabetes (T2D) is a chronic health condition, increasing in prevalence. Treatment involves diagnosed individuals maintaining a series of self-management measures to reduce glucose levels, thereby decreasing the risk of complications. Nevertheless, self-managing T2D has been found to affect psychological health and reducing quality of life, together with the risk of depression and anxiety. Self-management is complex, due to both positive and negative influences of psychosocial factors. Seldom does research focus on how the facilitating and impeding factors manifest in day-to-day life. This study seeks to explore self-management within T2D from an individual's perspective, using a novel method combining IPA in conjunction with photo-elicitation. The aim is to gain a subjective understanding of the lived experience of self-management within T2D, focusing on the factors facilitating and impeding successful self-management.

**Methods:** 6-8 individuals diagnosed with T2D will be recruited to capture photographs reflecting their day-to-day experiences of T2D self-management. The photographs will be integrated with the participants' interviews to prompt discussions of living with T2D self-management. Data will be analysed using IPA to gain a greater understanding of the lived experiences of self-management within T2D.

**Results:** A pilot study using 5 participants generated key themes, including diagnosis, management and support. This study is expected to expand these results with a focus on self-management within T2D.

**Current Stage of work:** Recruiting (Completion by March 2019)

**Discussion:** This in-depth understanding of T2D self-management could be invaluable to health professionals in terms of better support to individuals in managing their condition.

15:30 - 17:00

## Burden of living with HIV as a chronic disease among individuals diagnosed in recent years

H. Zimmermann<sup>1</sup>, W. van Bilsen<sup>1</sup>, U. Davidovich<sup>1,2</sup>

<sup>1</sup>Department of Infectious Diseases, Public Health Service Amsterdam, Netherlands

<sup>2</sup>Amsterdam University Medical Center, Netherlands

Nowadays that HIV is no longer a deadly disease but rather an easily treated chronic illness, the question arises what is still experienced as a burden in having HIV in its chronic form.

We conducted 18 semi-structured interviews (based on thematic saturation) among men who have sex with men (MSM) diagnosed between 2014-2018 from urban and non-urban settings. Interviews focused on both temporary and more permanent aspects of HIV-related burden. Interviews were analyzed following flexible content analysis.

All participants described the burden of HIV within their personal situation of having easy treatment and undetectable viral load, hence being un-infectious (Undetectable=Untransmittable, U=U). Practical issues related to clinical management (daily pill taking, hospital visits) were habituated to. Initial feelings of anger, guilt, shame and future uncertainty became less intense or disappeared over time. Several burdensome aspects persisted. All participants recurrently struggled with disclosure: many feared stigmatizing reactions or rejection, or struggled with self-image in case of non-disclosure, which led to difficulties initiating sex and engaging in relationships. Despite sufficient knowledge of U=U, some persistently feared infecting others. Some participants described difficulties with accepting the "HIV identity", and felt inferior or isolated. Despite getting used to life-medicalization, some participants remained feeling physically more vulnerable, disliked feeling dependent on pills and felt restricted in their freedom.

Primarily aspects related to stigma and interpersonal and social experiences remain burdensome among MSM infected in recent years. Further quantitative research is needed to corroborate the findings on a larger sample with longer follow-up time.

15:30 - 17:00

## Living with multiple sclerosis (MS) in South Africa: How is MS experienced in the workplace?

H. Kruger<sup>1</sup>, B. Coetzee<sup>1</sup>

<sup>1</sup>University of Stellenbosch, South Africa

**Background:** Multiple sclerosis (MS) is a debilitating neurological disease that has been estimated to affect 30 of every 100 000 South Africans. While much is understood about the general experience of living with MS, little is known about how MS is experienced in the work environment and the implications on well-being. In this study, we explored how individuals living with MS experience their illness in the workplace.

**Methods:** We purposively recruited 7 participants who have been diagnosed with MS in the last 5 years. Following procedures for informed consent, participants were interviewed telephonically in their first language. Interviews were guided by a semi-structured interview schedule which was supplemented with additional probes where necessary. Interviews were analysed thematically using ATLAS.ti v8.

**Findings:** We identified two major themes, namely “bringing MS into the workplace” and “adapting to MS in the workplace”. The findings demonstrated the diverse manner in which participants chose to disclose their MS and manage co-workers’ perceptions of MS. Participants employed practical strategies and negotiated accommodations to overcome their unique challenges. Participants emphasised the importance of keeping a positive attitude, but showed reluctance to prepare for their future decline.

**Discussion:** Our findings indicate that participants manage their MS disclosure carefully in order to maintain a favourable relationship with the workplace. Further, despite various physical and psychological limitations associated with MS, participants were mostly able to adapt to their work environment. Further research is needed to help participants mitigate work-related challenges as their MS progresses in the future.

15:30 - 17:00

## How do subjective financial resources of temporary disability pensioners relate to their loneliness and life-satisfaction?

L. Ricken<sup>1</sup>, E. Zschucke<sup>1</sup>, N. Schüz<sup>2</sup>, S. Lippke<sup>1</sup>

<sup>1</sup>Jacobs University Bremen, Germany

<sup>2</sup>Deutsche Rentenversicherung Oldenburg-Bremen, Germany

**Background:** In Germany, individuals who are unable to work for more than six hours per day due to their ill health can receive a temporary disability pension. However, this can mean a drastically reduced income, so that recipients are at risk for poverty and social deprivation. This study aimed at improving the understanding of their understudied psychological situation and investigates (1) how temporary disability pensioners' perception of the sufficiency of their income (subjective financial resources), relate to their loneliness and life satisfaction, and (2) whether loneliness mediates the relationship between subjective financial resources and life satisfaction.

**Methods:** Quantitative interview data was collected from N=199 participants. Frequency analysis, regression analysis and path analyses were run.

**Findings:** (1) Consistent with our theoretical prediction, subjective financial resources and loneliness showed a negative relation ( $\beta = -.17$ ;  $p < .05$ ), whereas subjective financial resources and life satisfaction were positively correlated ( $\beta = .32$ ;  $p < .01$ ). Additionally, a negative relation between loneliness and life satisfaction was found ( $\beta = -.23$ ;  $p < .01$ ). (2) Path analyses showed that loneliness partially mediated the relationship between subjective financial resources and life satisfaction ( $\beta = .27$ ;  $p < .01$ ).

**Discussion:** Our findings indicate that temporary disability pensioners with lower subjective financial resources may feel lonely, which in turn is related to lower life satisfaction. Low levels of life satisfaction and high levels of loneliness can have a wide range of negative effects and may hinder return to work. Interventions to improve temporary disability pensioners' life condition and self-regulation should consider including leisure activities and social support to overcome loneliness and social deprivation.

15:30 - 17:00

## Living with scoliosis in individuals over 30: a photovoice study of an individual experience.

M.A. Mulqueen<sup>1</sup>, S. Williams<sup>1</sup>

<sup>1</sup>University of Derby, United Kingdom

**Background:** Scoliosis is a complex spinal deformity caused by an abnormal curvature of the spine, resulting in rib prominence and waist and shoulder asymmetry. It can have a psychological effect on individuals due to the altered body appearance, subsequently affecting quality of life. This qualitative study aimed to explore the individual experience of living with scoliosis in an adult over 30 years and the impact it had on their health, day-to-day life, and quality of life.

**Method:** Data was collected from one participant, a male resident in Ireland, who was recruited via an advert on social networking platforms. Data was collected using Photovoice, including accompanying diary texts and a semi-structured interview. For a period of seven days, the participant was required to take photographs using their personal mobile phone/digital camera and write accompanying diary texts to capture their experiences of living with scoliosis. The participant subsequently attended a semi-structured interview conducted online via Skype. The diary texts and interview were analysed using thematic analysis.

**Findings:** Two themes were identified: The impact of the condition (sub-themes: restrictions and feeling vulnerable), and Perceptions (sub-themes: self-perception, and perceptions of medical professionals).

**Conclusion:** The study explored the effects and perceptions that living with a long-term, and often disfiguring, condition like scoliosis can have on an older individual. The use of photovoice helped increase understanding of the difficulties often faced in daily activities for those with scoliosis, and it highlighted the difficulties in meeting recommended physical activity levels in individuals with diminished mobility.

15:30 - 17:00

## When things go wrong: exploring experiences of women with vaginal mesh complications

B. Dibb<sup>1</sup>, F. Woodgate<sup>1</sup>

<sup>1</sup>University of Surrey, United Kingdom

**Background:** Vaginal mesh implants are treatments for women for pelvic and urinary problems. However, complications with mesh implants have increased dramatically in recent years. Previous research has focused on the physical consequences of these complications yet there is little research on the psychological experiences. The aims of this study were to explore the experiences of these complications in order to further our understanding and raise awareness of the difficulties these women face.

**Methods:** Using a qualitative design, semi-structured interviews were conducted with 18 women (age range: 40 – 67years) who had experienced complications with vaginal mesh. Participants were recruited via a Facebook group, 'Sling the Mesh.' Questions focused on the women's experiences of the mesh, what they found helpful and what they found unhelpful in managing the complications. Thematic analysis was used to code and develop themes.

**Findings:** Five themes were developed: 'the perceived impact of the complications,' 'interactions with medical professionals,' 'support from others' and 'psychological adjustment to living with vaginal mesh complications'. Participants reported they felt the mesh complications impacted negatively on how they felt, with some reporting feeling suicidal as a result. Intimate relationships were also perceived to be affected, with participants reporting reduced sexual functioning and intimacy. Additionally, a lack of trust of the medical professionals negatively influenced subsequent help-seeking behaviour.

**Discussion:** Participants perceived the impact of vaginal mesh complications as wide-reaching and life-changing. Support from the Health Care Professionals could be improved with a better awareness of the experience of the vaginal mesh complications.

## Posters

# Depression, anxiety and PTSD

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Anna Banik

15:30 - 17:00

## Interplay between physical activity and depression: Longitudinal dyadic research in the context of chronic illness

M. Kruk<sup>1</sup>, K. Zarychta<sup>1</sup>, M. Boberska<sup>1</sup>, E. Kulis<sup>1</sup>, Z. Szczuka<sup>1</sup>, A. Luszczynska<sup>1</sup>

<sup>1</sup>SWPS University of Social Sciences and Humanities, Wrocław Faculty of Psychology, Poland

**Background:** Physical activity (PA) is recommended for boosting mental health and well-being as well as for preventing the development of depressive symptoms. Theories of PA engagement and its maintenance indicate that PA may form either an antecedent or a consequence of inactivity. Thus, in this study we examined the patterns of associations between moderate-to-vigorous physical activity (MVPA) and depression in dyads (patients with a chronic somatic illness and their partners). A longitudinal dyadic design and cross-lagged associations were used to explore if these variables are chained in a specific order.

**Methods:** Data were collected among 238 dyads of patients with a chronic illness ( Mage = 47.03; 67.2% women) and their partners (Mage = 45.47; 65.1% women) at Time 1 (T1), whereas at Time 2 (T2; 2-3month follow-up) from 176 full patient-partner dyads. Most frequently, patients were diagnosed with cardiovascular diseases (27%) or diabetes (11%).

Depression and MVPA scales were filled out by participants at T1 and T2. Path analysis was conducted, accounting for the stability of the constructs over time, correlations of all T1 constructs and covariations between all T2 residuals.

**Findings:** Three dyadic associations were found: patient's MVPA (T1) explained partners' MVPA (T2); patients' depression (T1) predicted partners' depression and MVPA (T2).

**Conclusions:** The study provided an insight into the dyadic associations between patients and their partners MVPA level and depression. The results may indicate that interventions aiming at MVPA change in patients and their partners should focus on MVPA and depression symptoms of patients.

15:30 - 17:00

## The influence of mindfulness-based stress reduction on different facets of interoceptive processes in depressive patients

G. Karanassios<sup>1</sup>, O. Pollatos<sup>1</sup>

<sup>1</sup>University of Ulm, Germany

The study was supposed to examine the potentially different influence of a four-week mindfulness-based stress reduction program of clinically depressive patients on the three dimensions of interception, namely interoceptive accuracy, sensibility and awareness. 38 participants of a psychiatric clinic (19 with MBSR, 19 without) participated. They underwent the heartbeat tracking task (Schandry, 1981) measuring the interoceptive accuracy, a self-evaluation measuring the interoceptive sensibility in a 2x2 design using an ANOVA and a 5% level of significance. There was a significant increase in interoceptive accuracy  $F(1,36) = 4.44, p < .04, \eta = 0.11$ , but no significant difference between the treatment- and control group  $F(1,36) = 0.154, p < .697, \eta < 0.01$ . There was no significant increase in interoceptive sensibility overall ( $F(1,36) = 1.26, p < .268, \eta = 0.03$ ). Utilizing the interoceptive accuracy and sensibility to measure the awareness through receiver operator characteristic (ROC) curves and using a z-test for ROC curves showed no significant increase in the treatment ( $z = 0.13, p = .899$ ) or the control group ( $z = 0.03, p = .979$ ). The results expand our understanding of the relation between mindfulness, depression and interoception, while emphasize the relevance of a nuanced view on interception considering its different dimensions.

15:30 - 17:00

## Anxiety and depression in women with breast cancer

I. Poljak<sup>1</sup>, I. Kukec<sup>1</sup>

<sup>1</sup>University Hospital Centre Zagreb, Croatia

**Background:** The purpose of this study was to determine the level of anxiety and depression in female patients with breast cancer and their relation to the patients' age, regimen of the therapy – adjuvant or neoadjuvant and psychosocial variables.

**Methods:** Personal data, depression (BDI), anxiety (BAI) were collected during their regular visit to Clinic of Oncology for their first application of chemotherapy. In the total sample (N = 40) participants' age was  $51,35 \pm 11,051$  years. Majority of them were married (75%), had children (78%) and were of high-school education (52,5%). 50% of them underwent neoadjuvant chemotherapy regimen. Data were collected from November 2017 to October 2018.

**Findings:** Of total sample of 40 women with breast cancer, 37,5% had elevated (moderate to severe) anxiety symptoms and 7,5% had elevated (moderate) depression symptoms. There were no significant differences between women who underwent different chemotherapy regimen in anxiety (chi-square=2,67, p=0,102) and depression (chi-square=3,24, p=0,072).

**Discussion:** According to this data, it has been shown that in the beginning of treatment emotional wellbeing has not been diminished at majority of women with breast cancer. However, for 37,5% of them with elevated anxiety symptoms and 7,5% of them with elevated depression symptoms the need for screening for psychological symptoms at the beginning of oncology treatment is important. It may be an important step to recognize and address psychological problems for patients with breast cancer and to provide additional psychological care in the beginning of their treatment.

15:30 - 17:00

## Posttraumatic stress symptoms, driving phobia, and aberrant driving behaviors. The moderating role of gender

C. Mairean<sup>1</sup>

<sup>1</sup>Alexandru Ioan Cuza University, Romania

**Background:** Posttraumatic stress disorder (PTSD) and driving phobia are two possible consequences of road traffic crashes (RTC). The aim of the present study is to assess the relations between PTSD symptoms, driving phobia, and aberrant driving behaviors, in a sample of Romanian drivers that were involved in an RTC in the last two years before conducting the study.

**Methods:** A sample comprising 162 participants (62.3 % were men, Mage = 29.37) was involved in the study. They completed a set of three scales designed to measure PTSD symptoms, driving phobia, and driving behavior. Objective indicators about the trauma (e.g. the number of deaths caused by the RTC, the number of days of hospitalization for the participant, the presence of physical wounds in the present, as a consequence of the RTC) were also collected.

**Findings:** PTSD symptoms significantly predicted slips and lapses ( $\beta = .21$ ,  $p = .017$ ) and errors ( $\beta = .26$ ,  $p = .003$ ) on the road, but did not predict ordinary and aggressive violations ( $\beta = .01$ ,  $p = .883$ ;  $\beta = .02$ ,  $p = .866$  respectively). Further, driving phobia manifested a non-significant relation with all types of driving behaviors (all  $p > .05$ ).

**Discussion:** In order to increase traffic safety, drivers should be screened for their mental health (e.g. PTSD symptomatology), after an RTC, and should be oriented through specialized treatment, before driving again.

15:30 - 17:00

## Impact of the posttraumatic stress disorder on maternal bonding. Mediation of coping strategies

H. Nawel<sup>1</sup>, E. Spitz<sup>1</sup>

<sup>1</sup>Lorraine University, France

**Background:** There is little knowledge about the effect of traumatic symptomatology on maternal bonding, as well as on the specific dimensions of bonding that would be altered. Most studies conducted to date have discussed the role of coping strategies as predictors of Posttraumatic Stress Disorder (PTSD) and no research has examined the intermediary role of coping strategies between PTSD and bonding.

**Methods:** This study examined the mediating effect of coping strategies on the relationship between PTSD and bonding. Women were initially recruited during birth preparation sessions during their third trimester of pregnancy (n = 420). Two months after childbirth, women were recalled (n = 153) and responded to a questionnaire on PTSD, bonding and coping strategies. Serial mediations were tested between traumatic symptomatology, bonding and coping strategies.

**Findings:** Our results suggest that PTSD increases self-blame, which leads to the use of behavioural disengagement, which impacts overall bonding ( $R^2 = 0.291$ ;  $F(4.302; p = .004)$ ) and alters the relationship between mother and child ( $R^2 = 0.333$ ;  $F(55.759; p < .001)$ ). Our results also show that PTSD increases the mother's anxiety towards her child through the mediation of self-blame, behavioural disengagement and less planning ( $R^2 = 0.289$ ;  $F(4.210; p = .017)$ ).

**Discussion:** This study presents an explanatory model of the impact of PTSD on the mother-child relationship. Future research is needed to support these Results:

15:30 - 17:00

## Diagnostic utility of symptom screening scales for detecting anxiety disorders: Systematic review and meta-analysis protocol

N. Black<sup>1</sup>, S. Memedovic<sup>1</sup>, L. Degenhardt<sup>1</sup>, E. Stockings<sup>1</sup>

<sup>1</sup>National Drug and Alcohol Research Centre, University of New South Wales, Australia

**Background:** Anxiety disorders are highly prevalent and debilitating conditions. They frequently co-occur with other mental disorders and physical health conditions, resulting in greater clinical complexity and healthcare burden. Identifying efficient methods of detecting anxiety disorders is the first step towards linking patients with appropriate treatments.

**Aim:** To identify the symptom screening scales that most accurately diagnose anxiety disorders.

**Methods:** Design: Systematic review and meta-analysis of studies comparing cut-points on symptom screening scales with diagnoses of anxiety disorders made using clinical interviews (PROSPERO: CRD42017065594). Included disorders will be generalised anxiety disorder, panic disorder, phobic disorders (agoraphobia, social phobia, specific phobias), obsessive-compulsive disorder, post-traumatic stress disorder, and acute stress disorder. Study identification. We will search PsycINFO and EMBASE (including Medline) for terms pertaining to (1) anxiety disorders, (2) administration of a reference standard (i.e., diagnostic interviews), (3) screening scales (e.g., 'scale', 'questionnaire'), and (4) disorder identification (e.g., 'identify', 'detect', 'cut-point'). Following acceptable (>80%) agreement during independent double screening, references will be single screened to determine eligibility. Data extraction. We will collect data on outcomes (sensitivity, specificity, positive and negative predictive values), study characteristics, and risk of bias. Analyses. Bivariate meta-analyses of sensitivity and specificity; production of summary receiver operating curves. Heterogeneity explained by study characteristics will be explored through meta-regression analyses.

**Findings and discussion:** Results will identify the most effective screening scales for identifying anxiety disorders across populations and settings. Considering time and costs associated with administering each scale, recommendations for the use/non-use of each scale will be made.

## Posters

# Quality of life at transition points in life

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Winifred Nwosu

15:30 - 17:00

## Predictive factors for psychological distress during BRCA 1/2 testing: a systematic review.

N. Warner<sup>1</sup>, A. Groarke<sup>1</sup>

<sup>1</sup>National University of Ireland, Galway, Ireland

**Background:** The general populations' risk for breast and ovarian cancer fall around 12.5% and 2%, respectively. Breast cancer (BC) genes 1 and 2 (BRCA 1/2) act primarily as tumour suppressors. However, a BRCA 1 mutation increase lifetime BC risk to 60-90%, and ovarian to 40-60%. Similarly, BRCA 2 mutations increase BC risk to 45-85%, and ovarian to 10-30%. Cancer-specific psychological issues arise in over half of patients, and up to a third report long-term distress. Distress does not naturally decrease following BRCA testing, and carriers are frequently advised to undergo often potentially stressful preventative surgeries (e.g. bilateral prophylactic mastectomy/bilateral prophylactic salpingo-oophorectomy). This review aims to assess coping strategies utilised during testing for BRCA mutations.

**Methods:** The protocol will adhere to the PRISMA statement. Databases which to be searched are Ovid MEDLINE, PsycINFO, PubMed, EMBASE, Web of Science and CINAHL. BRCA 1/2, and related terms will be combined with search terms associated with coping and distress. Forward and backward searches will be conducted on all included articles.

**Expected results:** It is expected that distress will increase following a BRCA 1/2 mutation diagnosis. Active coping strategies are expected to promote better psychological adjustment.

**Current stage of work:** The protocol for this review is currently waiting to be published on PROSPERO. Searches will begin following this.

**Discussion:** This review will be the first step toward designing an online intervention for the BRCA 1/2 population. This will aim to provide an evidence based, cost-effective method to alleviate distress during, and after, genetic testing.

15:30 - 17:00

## Clinical psychological evaluation in elderly men with prostatic hypertrophy in treatment with Dutasteride.

F. Bellone<sup>1</sup>, G. Martino<sup>1</sup>, A. Catalano<sup>1</sup>, C. Lasco<sup>1</sup>, A. Sardella<sup>1</sup>, N. Morabito<sup>1</sup>

<sup>1</sup>University of Messina, Italy

**Background:** Clinical psychological investigation is crucial to evaluate subject's mental health. Neuropsychological administration explores mental status and allows to evaluate the effects of neuropathological injuries. Medical treatment of physical or mental diseases exposes subjects to possible adverse effects due to the drugs (e.g. cognitive decline, depressed mood) which could be frequent especially in elderly subjects, whom could experience a worse perceived quality of life.

Benign prostatic hypertrophy (BPH) is a common disease in elderly men. 5 $\alpha$ -reductase (5 $\alpha$ -R) inhibitors are its treatment option and account for neuroactive steroids production. 5 $\alpha$ -reduced steroids play a role in organs and systems function. Whether neuropsychological impairment could be due to dutasteride treatment, a 5 $\alpha$ -R inhibitor affecting the production of dihydrotestosterone (DHT), is still unknown. The aim of the study was to investigate neuropsychological factors in men receiving dutasteride.

**Methods:** To explore cognitive impairment and psychological factors we administered the Mini Mental State Examination, the Clock Drawing Test, the Frontal Assessment Battery, the Hamilton Anxiety Rating Scale, the Beck Depression Inventory second edition and the Short Form-12 questionnaire.

**Findings:** Forty BPH men (mean age 71.4 $\pm$ 7.4 yr.) assuming dutasteride showed no significant differences at the neuropsychological assessment in comparison with an age-matched control group, which was not assuming dutasteride ( $p < 0.05$ ). No significant associations were detected between treatment duration and psychodiagnostic investigation.

**Discussion:** This is the first study which administered a clinical psychological investigation in men with BPH in treatment with dutasteride. Our preliminary data are in accordance with the safety of dutasteride in relation to mental health.

15:30 - 17:00

## Anxiety and Perceived Quality of Life in Patients with Diabetes of Long Duration

G. Martino<sup>1</sup>, V. Lenzo<sup>2</sup>, A. Catalano<sup>1</sup>, N. Barberis<sup>1</sup>, A. Sardella<sup>1</sup>, V. Langher<sup>3</sup>, M.C. Quattropani<sup>1</sup>

<sup>1</sup>University of Messina, Italy

<sup>2</sup>University of Cassino and South Latium, Italy

<sup>3</sup>University of Rome Sapienza, Italy

**Background:** Age-related medical conditions are increasing worldwide. Diabetes mellitus (DM) represents a chronic disease, affecting a large amount of general population; particularly, type 2 (T2DM) exceeds 90%. As psychopathological symptoms frequently occur in chronic medical conditions, our study aimed at exploring whether psychological factors and metabolic control may affect perceived quality of life (QoL).

**Methods:** Twenty-five out-patients with T2DM (65±6 yr.) were consecutively recruited and evaluated through: HAM-A, BDI-II and SF-36. Body mass index, time since DM diagnosis and glycated hemoglobin value were detected.

**Findings:** Participants had a median disease duration of 11(6-15) yrs. and showed a good metabolic control as highlighted by median HbA1c values (%) 7(6.6-7.5)]. Median HAM-A [25(20.7-30.6)], considering both somatic and psychic anxiety, was representative of a high prevalence of anxiety in the recruited subjects. Moderate depressive symptoms were observed [BDI-II: 13(8.3-21.4)]. A multiple regression analysis, after correcting for age, BMI, HbA1c value and BDI-II score, showed perceived QoL, relatively to the role limitations because of physical problems, was related to both disease duration ( $\beta=0.55$ ,  $p=0.03$ ,  $SE=0.25$ ) and HAM-A scores ( $\beta=0.52$ ,  $p=0.04$ ,  $SE=0.24$ ).

**Discussion:** Our study suggests a possible predictive role of both anxiety levels and time since diagnosis in perceived QoL in T2DM. Higher ISF levels, as better perceived QoL, were associated to lower anxiety and less time since diagnosis. Because of its detrimental effects on ISF, treatment management of T2DM should include adequate strategies to prevent and control anxious symptoms for a better perceived QoL, reducing negative effects due to the chronicity of T2DM.

15:30 - 17:00

## Cognitive and motor tests predicting quality of life in patients with Parkinson's Disease-Mild Cognitive Impairment

D.M. Cammisuli<sup>1</sup>

<sup>1</sup>University of Parma, Italy

**Background:** Health-related Quality of Life (Hr-QoL) in patients with Parkinson's disease (PD) is well documented in literature but few investigations have detected variables influencing QoL of mild cognitive impaired patients in this condition (PD-MCI). The aim of the present study was to identify variables influencing Hr-QoL in PD-MCI patients.

**Methods:** 30 PD-MCI patients were assessed by a clinical exam and a wide neuropsychological battery as well as Hr-QoL measure, i.e. 39-item Parkinson's Disease Questionnaire (PDQ-39). Stepwise multiple regression analyses were used to determine motor and neurocognitive variables that best accounted for variance in Hr-QoL scores, entering Geriatric Depression Scale (GDS), Unified PD Rating Scale Section III (UPDRS-III), Hoehn and Yarh (H&Y), Milan Overall Dementia Assessment (MODA), age, education, PD disease duration and premorbid IQ as independent variables.

**Findings:** The most important predictive factors were H&Y accounting for 94% of the variance of the PDQ-Mobility ( $p = .030$ ), MODA accounting for 95% of variance of PDQ-Stigma ( $p = .021$ ), premorbid IQ accounting for 92% of variance of PQD-cognition ( $p = .040$ ) and for 93% of variance in PDQ-bodily discomfort ( $p = .032$ ).

**Discussion:** Motor status, global cognition and premorbid IQ had the greatest impact on Hr-QoL for PD-MCI patients. The improvement of motor functioning and cognitive vitality should therefore become relevant targets in treating PD-MCI patients while premorbid IQ may further explain Hr-QoL drop of this transitional state.

15:30 - 17:00

## A projective tool to face de-structuring life transitions: applications with foreign citizens seeking asylum.

M. Nicolotti<sup>1</sup>, V. Vielmi<sup>1</sup>, I. Colnaghi<sup>1</sup>, M.E. Magrin<sup>1</sup>

<sup>1</sup>University of Milano-Bicocca, Italy

Some life transitions constitute real turning points in people's lives, marking substantial changes in life history and destructuring its course. If on one hand these transitions represent opportunities for positive change and growth, these possibilities are often hidden behind a considerable amount of identity distress: continuity in life history is in fact lost and fragmentation is generated, thus requiring much psychological work to mend the connecting thread.

Our research group has recently developed a tool, consisting of a projective instrument accompanied by a semi-structured interview, to assist this mending process and to identify resources through narration of turning points and projection of oneself in a symbolic life space.

We recently applied this tool in work with foreign citizens seeking asylum, a context in which professionals report a significant lack of tools. Particularly the projective instrument, due to its flexibility, could constitute a useful resource in working in the presence of cultural differences and difficulties in communication or in abstraction processes.

Currently, a pilot interview has been carried out, highlighting strengths and flaws of the tool in the new context. Next steps will include interview administration with a group of asylum seekers, analysis of transcripts to and evaluation of effectiveness in facilitating positive outcomes through follow up sessions and professionals reports.

Development of such instruments is crucial for clinical work with a vulnerable population and for promoting resilient outcomes in facing complicated life transitions; on the other hand it provides common tools for practice and research, thus allowing connection and reciprocal informing.

15:30 - 17:00

## Is depersonalization the missing link in predicting psychological and physical well-being in undergraduates?

J. Egan<sup>1</sup>, M. Madden<sup>1</sup>

<sup>1</sup>NUI Galway, Ireland

**Background:** The third most commonly reported psychiatric symptom across most disorders is depersonalization/derealisation. This is rarely measured as a predictor of well-being in studies of physical and psychological well-being in the community. This study aims to address this lacuna by adding a measure of depersonalization to a prediction model.

**Method:** 172 undergraduates (78% female) were invited to partake in a university research portal, rewarding students credits for each 30 minutes of research participation. Dependent measures included the Depression, Anxiety and Stress Scale and the PHQ-15, a commonly used measure of 15 common somatic concerns in the previous month. Independent measures included the 9-item Cambridge Depersonalization Scale, Experience of Close Relationships Scale, Toronto Alexithymia Scale and Catastrophisation Scale. Three multiple regression models were tested across predictors of anxiety, depression and somatic concerns.

**Findings:** The three regressions accounted for 49.8%, 40.8%, and 41% of the variance for anxiety, depression and somatic concerns respectively. Beta weights for anxiety included- Catastrophisation, .348; Alexithymia, .322, Depersonalization, .232 and Attachment anxiety, .121. Beta weights for depression included- Depersonalization, .35; Alexithymia, .223, Catastrophisation, .19; and Attachment anxiety .145. Beta weights for somatic concerns included- Depersonalization, .337, Catastrophisation, .279 and Alexithymia, .193.

**Discussion:** These results suggest that studies assessing predictors of physical and psychological well-being in young adults should consider adding the missing link of depersonalization in future cross-sectional, and longitudinal designs. The predictive utility of depersonalization across both community and clinical samples also needs to be assessed.

## Posters

# Caregiving in personal and professional relationships

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Theresa Pauly

15:30 - 17:00

## An emotionally perfect caregiver: perfectionism, emotional competencies, and burnout in informal caregivers

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<sup>1</sup>Université catholique de Louvain, Belgium

<sup>2</sup>F.R.S. - FNRS, Belgium

**Background:** Informal caregiving is a demanding role, which can lead to forms of burnout, as highlighted by recent meta-analytic works. Yet, it appears that caregivers come with an additional, personal, demand: their self-standards. The present study proposes to consider the role of perfectionism in the burning out of informal caregivers, with an additional question regarding the potential impact of emotional competence.

**Methods:** A sample of 499 informal caregivers answered an online questionnaire using a caregiving-adapted Maslach Burnout Inventory, the Multidimensional Perfectionism Scale – Hewitt SF, and the Trait Emotional Intelligence questionnaire. Hayes' Process matrix was used to investigate to moderator role of emotional competence.

**Findings:** Regressions analyses showed the threatening role of social perfectionism on burnout where the addition of self-perfectionism led to inconclusive Results: Emotional competencies appeared as a stable protective factor for every caregiving burnout dimension but unlike what was expected, did not moderate the relationship between perfectionism and caregiving burnout.

**Discussion:** The present study has highlighted the independent roles of trait perfectionism and emotional competence in the understanding of burnout among informal caregivers. The absence of interaction between the two and the particular role of social perfectionism will be discussed in light of self-discrepancy research and the social pressure put on informal caregivers. The implications of such results are promising perspectives for research, but also a call for awareness in future interventions regarding emotional training and implied social imperatives towards informal caregivers.

15:30 - 17:00

## Assessing caregivers' adherence to child primary care recommendations: Development and validation of a scale

S. Mourão<sup>1</sup>, S. Bernardes<sup>1</sup>, H. Carvalho<sup>1</sup>

<sup>1</sup>ISCTE-Instituto Universitário de Lisboa (ISCTE-IUL), Portugal

**Background:** Because most current medical adherence measures are mainly focused on pharmacological treatment adherence, with little regard to adherence behaviors in preventive health-related contexts, we developed and validated a new instrument to assess caregivers' adherence to preventive Child Primary Care (CPC) health recommendations – the CPC-Adherence Scale. This is particularly relevant since caregivers' adherence to CPC recommendations contribute to prevent and early detect important health issues (e.g. obesity, asthma, dental caries) that may bear significant impact on children's middle or long term health and quality of life.

**Methods:** 662 parents (93.4% women; 6.6% immigrant) of children aged between 2 and 6 years participated in a cross-sectional study using a paper or electronic protocol. The protocol was composed by: 1) the CPC-Adherence Scale; 2) questions regarding experiences in CPC; 3) the European Task Force on Patient Evaluation of General Practice Care (EUROPEP); 4) socio-demographic information.

**Findings:** The exploratory and confirmatory factor analyses supported a 2-factor solution: 1) Adherence to a safe psychomotor development (n = 14 items; alpha de Cronbach = 0.894); 2) Adherence to nutritional counselling (n = 6 items; alpha de Cronbach = 0.608). The CPC-Adherence Scale showed good content and criterion-related validity. It discriminated levels of adherence of caregivers with different levels of knowledge about CPC recommendations, satisfaction with care and different socio-economic and immigrant status.

**Discussion:** The CPC-Adherence Scale is an innovative and promising measure that may play a relevant role on future research and intervention for the promotion of adherence behaviors in a primary prevention context.

15:30 - 17:00

## Patients facing the choice of renal replacement therapy: What is the role of relatives?

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**Background:** The choice of renal replacement therapy choice is stressful for patients reaching end-stage kidney disease. It appears that family plays an important role during this process but little is known about it. The aim of this study is to explore the role of relatives in the treatment decision-making process for patients with advanced chronic kidney disease (CKD).

**Methods:** Each patient participating in the French cohort CKD-REIN, as well as one of his/her relative, was invited to take part in an individual interview. These semi-structured interviews explored participants' experience of CKD, family communication and involvement in decision-making.

A lexicometric analysis will be performed with Iramuteq software. It will consider categorical variables such as: age, gender, illness stage and the relatives' relationship with the patient (e.g., partner, sibling).

**Expected results:** Results should show how participants consider treatment choice and how relatives participate in the decision-making process according to their sociodemographic and medical characteristics.

**Current stage of work:** 51 patients (57% of men; mean age = 60) and 57 relatives (79% of women; mean age = 60) were interviewed. Among relatives, most were partners (60%) and children (25%). Interviews lasted between 16 and 95 minutes. All interviews (n = 108) are currently being transcribed. Analyses will be performed in March 2019.

**Discussion:** This study will allow to better understand the factors contributing to treatment choice. The results could lead to recommendations to healthcare professionals in order to better guide patients and family members through this decision process.

15:30 - 17:00

## Relationship distress predicts mental health and quality of life among cardiac rehabilitation patients and partners

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**Background:** The purpose of the study is to: 1) assess the prevalence of and changes in relationship quality (RQ) and psychological distress among patients attending cardiac rehabilitation (CR) and their partners; 2) examine patient-partner differences; and, 3) investigate if RQ predicts psychological distress, cardiac risk factors, and quality of life (QoL) among patients.

**Methods:** Participants completed validated assessments at baseline and 3 months, including RQ (Dyadic Adjustment Scale), psychological distress (Hospital Anxiety and Depression Scale) and QoL (SF-36). Clinical data were obtained from patients' medical charts. Repeated-measures ANOVA were used to assess changes in time and by group. Linear regression was used to investigate baseline RQ and 3-month outcomes.

**Results:** 184 couples (N=368 participants) enrolled in the study. Patients were mainly male (78%; Mean age = 65.8 years). Relationship distress was reported by 19% and increased over 3-months ( $p=.001$ ); patient-partner scores were similar ( $p=.87$ ). Depression (12%) and anxiety (28.5%) were evident. Partners reported lower depressive scores than did patients ( $p=0.014$ ) at baseline; however, with patients' mood improvement over time ( $p<.001$ ), differences were not observed at 3 months ( $p=.10$ ). Patients' QoL scores were significantly lower than partners at baseline ( $ps<.05$ ), but differences were only noted for 'role physical' at 3 months ( $p=.001$ ). RQ predicted psychological distress ( $p<.001$ ), QoL ( $ps<.05$ ), diastolic blood pressure ( $p=.04$ ) and HDL ( $p=.019$ ) at 3 months.

**Conclusion:** Relationship distress is prevalent among patients with cardiovascular disease and their partners. RQ predicted mental, physical and QoL outcomes and did not change with traditional CR. Targeted couples-based interventions are required.

15:30 - 17:00

## Investigation of the Mourning Process of Family Members Caring for Patients Hospitalized in Palliative Care

Ö. Yalçınkaya Alkar<sup>1</sup>, Ö. Sarisakal<sup>1</sup>

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The study aims to explore the mourning process of the relative's of the patients in palliative care and related psychological concepts with the mourning. To obtain detailed information related to this phenomenon qualitative research design and thematic analysis has been used. Thus, fifteen people with first-degree family relatives serving the patients in the Palliative Care of Palliative Health Services of hospital were participated in the study. The patients' relatives were asked eleven pre-determined open ended questions, about their feelings, thoughts, and behaviors related to caring process of their relatives in the palliative care unit. In the research, the mourning stages of Kübler Ross and Worden were taken into consideration in the conceptualization of mourning. According to the first analysis of the collected data, it was found that most of the relatives of the family were in the stage of acceptance from Kübler Roos mourning stage. However, it was revealed that the whole of the mourning phases appeared in palliative care, but this was not a linear process. It is assumed that palliative care will help the patients to spend close and quality time with their families. However, in the results of the research, family relatives want their patients to end suffering and the palliative care process should be terminated as soon as possible and their patients die. This thought creates an ambivalent emotions in family members. This situation is often seen as a theme of guilt in our research.

Keywords— caregiver, mourning, palliative care, qualitative research.

15:30 - 17:00

## Association of rumination and social support with recovery experiences among human service professionals

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<sup>2</sup>Ritsumeikan University, Japan

**Background:** Human service professions, such as nursing and caregiving, are stressful. Recently, it has been pointed out that it is important to consider including non-work factors to obtain more comprehensive and effective ideas for workers' stress control and well-being. This study focused on recovery experience, which is defined as the experience leading to recovery from stress in leisure time after work, and examined the effects of rumination related to the work and social support on recovery experience of human service professionals.

**Methods:** A web-based survey was conducted targeted at human service professionals (e.g. nurse, certified care worker, counsellor, dietician, etc.). Four hundred and thirty two participants (179 males and 253 females, ages 22–69,  $M=43.21$ ,  $SD=9.96$ ) answered the questionnaire containing a scale of rumination related to work, social support, and recovery experiences (i.e. psychological detachment, relaxation, mastery and control). Hierarchical regression analyses were conducted to examine the relationship between rumination, social support and recovery experiences.

**Findings:** The effect of rumination were significant for all subscales of recovery experience except mastery. Family and friends' support and their superiors' support had positive and significant effects for recovery experience. An interaction between rumination and social support from family and friends was significant on the score of psychological detachment. An interaction between rumination and social support from superiors was also significant on the score of mastery.

**Discussion:** It is suggested that the rumination interferes with recovery experience among human service professionals, but social support can buffer the negative effects of rumination.

15:30 - 17:00

## Compassion satisfaction, burnout and compassion fatigue among nurses

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<sup>2</sup>Clinical Hospital "Sveti Duh" Zagreb, Croatia

<sup>3</sup>General Hospital "Ivo Pedisić" Sisak, Croatia

**Background:** Studies showed that high levels of nurse caring and compassion have been linked to high levels of patient satisfaction and high levels of nurse burnout have been associated to patient dissatisfaction. Therefore, it is important to address these issues not only because of personal well-being of nurses, but also considering the welfare of patients with whom nurses are in everyday contact. Thus, the aim of this research was to determine the level of compassion satisfaction, burnout and compassion fatigue among nurses.

**Methods:** Subjects are 96 nurses (11 males and 86 females) from two General Hospitals in Croatia, average age 33,9 years. We used The Professional Quality of Life Scale (Stamm, 2005) which consists of three subscales: compassion satisfaction, burnout, compassion fatigue.

**Findings:** The results show that 15,6% nurses scored low on compassion satisfaction, 27,1 % are at risk for burnout and 88,5% of nurses are at high risk for compassion fatigue. Female nurses have higher scores on compassion satisfaction than male nurses. Nurses with children have higher scores on compassion fatigue. Age positively correlates with compassion fatigue. There are no significant differences in subscale scores associated with education, marital status, years of practice and nursing specialties.

**Discussion:** The results can be useful for raising awareness and emphasizing the mental and emotional impact of caring for patients. Special efforts should be taken in developing programs and interventions for reducing risk of burnout and compassion fatigue but also to enhance and maintain caring attitudes among nurses.

## Posters

# Food, eating, and weight

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Emely de Vet

15:30 - 17:00

## Social and personal consumption norms underlying the effect of portion size on later food intake

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<sup>2</sup>University of Liverpool, United Kingdom

**Background:** Exposure to portion sizes (PS) has been shown to affect future portion selection and consumption. This occurs partly because exposure to smaller (versus larger) PS can decrease people's perceptions of what constitutes a 'normal' PS. The present study aims to replicate these findings and elucidate what PS normality exactly entails. We propose that descriptive norms (describing what is done), injunctive norms (prescribing what should be done) and personal norms underlie the effect of exposure to PS on future PS preference.

**Methods:** A between-subject design was used in an online study run across two sessions on consecutive days. First, participants were visually exposed to images of either a small (N=107) or a large food portion (N=117), or non-food objects (control condition, N=105). The next day, participants indicated their ideal PS, perceptions of PS normality, descriptive norms, injunctive norms and personal norms.

**Findings:** There was no significant effect of condition on later PS selection, and the effect was not mediated by any of the proposed norms. Analyses that only included participants who correctly identified the PS they were exposed to (N=204) showed a significant effect of condition on perceptions of PS normality ( $P<.01$ ), descriptive norms ( $P=.01$ ), injunctive norms ( $P<.01$ ) and personal norms ( $P=.03$ ), all in the predicted direction.

**Discussion:** The effect of exposure to PS on later PS selection was not replicated in the current study and might be explained by the online setting that lacks a physical eating experience. Future research in a laboratory setting may overcome this limitation.

15:30 - 17:00

## Self-Efficacy Inventory. Weight control for children and preadolescents

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Obesity is a multifactorial problem easily detected but difficult to treat; accordingly, the best option is to prevent it. The central objective of this study was to adapt and evaluate the psychometric properties of an Inventory to measure Self-Efficacy (ISE) for weight control. The ISE was applied to a non-random sample (N = 1662) of Mexican students: girls (50.4%) Mage = 12.7 years (SD .81) and boys (49.6%), Mage = 11.2 years (SD .92). The variability and normality of the items were confirmed. Factorial analysis exploratory (FAE) and Factorial analysis confirmatory (FAC) were applied, verifying the presence of acceptable values of goodness of fit indexes. Among the main results, the FAE yielded two factors for both boys and girls in the same order: the first related to physical activity and the second to healthy diet. The FAC applied to a new sample confirmed the structure shown by the FAE. The internal consistency values of the total scale were: alpha = .92 both girls and boys;  $\Omega_{girls}=.93$ ,  $\Omega_{boys}=.92$ ; alpha values for factors 1 and 2 ranged from .85 to .91; and  $\Omega=.81$  a. 88. The discussion focused on differences from previous studies, which were attributed to the sample participants being younger. It is concluded that the ISE is an adapted, validated, and reliable instrument for Mexican preadolescents, boys and girls, as well as practical and functional, focused on the most relevant dimensions for prevention of obesity, physical activity and healthy eating.

Keywords: Psychometric properties, self-efficacy, weight control, physical activity, healthy eating.

15:30 - 17:00

## The influence of eating life environment on unhealthy snacking

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<sup>1</sup>Konan Women's University, Japan

**Background:** The current obesogenic environment with the abundance of tasty and high-calorie foods induces unhealthy eating behavior. The study examines the influence of social contexts, such as accessibility of unhealthy foods, and psychological contexts, such as unhealthy eating habits. The model of the study hypothesized that the influence of the social contexts was moderated by the psychological contexts.

**Method:** 310 participants completed an online questionnaire including measures of the previous number of calories consumed snacks (FFQg), snacking habits, motivational factors (willingness and intention), stored foods, and the frequency of visits to fast food restaurants. Two weeks later, the subsequent number of calories consumed snacks, self-restraint, a tendency of savoring foods and BMI were measured.

**Findings:** Bayesian linear regression analysis indicated that previous consumption of snacks, stored foods, visits to fast food restaurants determined the subsequent consumption of snacks. Moreover, the interaction effects of previous consumption of snacks × self-restraint, stored foods × self-restraint, visits to fast food restaurants × self-restraint, and habit × tendency of savoring foods were found. Especially, the influence of habit had no effect on the consumption of snacks for people with a strong tendency of savoring foods ( $b=-.57$ , 95%CI [-2.35, 1.24]), unlike people with a weak tendency ( $b=2.05$ , 95%CI [.02, 3.90]).

**Discussion:** Social and psychological unhealthy contexts promoted the consumptions of snacks. However, these effects were moderated by self-restraint and tendency for savoring foods. The study discussed the improvement of eating lifestyles, such as self-restraint and savoring foods can mitigate the influence of the obesogenic environment.

15:30 - 17:00

## Potential mechanisms explaining how unhealthy visual food cues affect food choice and intake in adults

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<sup>4</sup>University of Kansas Medical Center, United States

**Background:** Previous research has shown that exposure to unhealthy, visual food cues may lead to increased unhealthy food choices and intake in adults. Many previous studies have investigated potential mechanisms that may explain this relation, but an overview of these mechanisms is lacking. The main goal of this review was to provide such an overview.

**Methods:** A systematic review (pre-registered in Prospero, CRD42018115823) was conducted of studies in which the effect of exposure to unhealthy, visual food cues (vs. non-food cues or no cue exposure) on physiological and psychological mechanisms that may affect food choice or intake was experimentally investigated in healthy adults. Six electronic databases were searched (PsychINFO, Medline, Embase, CINAHL, Communication & Mass Media complete, Business Source Premier) for published, peer-reviewed studies. In total, 3504 unique articles were found.

**Findings:** Data screening is still ongoing, but it is expected that 60-80 articles will be eligible for inclusion in the systematic review. So far, several physiological (e.g., skin conductance, salivation, activation of arousal-related brain regions) and psychological mechanisms (e.g., thoughts about food, desire to eat) have been identified.

**Discussion:** It must be noted that the vast majority of studies did not study nor report whether the responses to the food cues actually mediated the effect on food choice or intake, and this should be a topic for future research. Nevertheless, this review may provide a starting point to identify mechanisms to target when aiming to decrease effects of exposure to unhealthy, visual food cues on food choice and intake.

15:30 - 17:00

## Exploring the relationship between stimulus control and BMI

S. Franja<sup>1</sup>, S. Ferguson<sup>1</sup>, K. Elliston<sup>1</sup>

<sup>1</sup>University of Tasmania, Australia

**Background:** Evidence suggests that decisions about when, what, and how much to eat can be influenced by external (e.g. location) and internal (e.g. mood) cues. Such information is crucial for development of tailored interventions. Although the relationship between cue-reactivity (i.e., stimulus control) and obesity is debated, there is some evidence to suggest individuals with a higher BMIs are more driven by cues to eating than individuals with low BMIs. This study investigates the influence of stimulus control on real-world food intake, and whether the degree of stimulus control differs by BMI.

**Method:** 74 participants (n=34 BMI <24.9, n=40 BMI >24.9) recorded their food intake for 14 days using Ecological Momentary Assessment. Participants also responded to 4-5 randomly-timed assessments per day. Known external and internal eating cues were assessed during both assessment types. Within-person logistic regression analyses were used to predict eating vs. non-eating occasions from a set of external (e.g. location) and internal (e.g. affect) cues.

**Findings:** Results were consistent with the hypothesis that eating patterns were influenced by stimulus control: food availability, negative affect, time and location were significant predictors of eating (vs. non-eating) instances (AUC-ROC=.58-.69, all p's<.001). Overall, measures of stimulus control did not differ by BMI (all p-values ns). However, individuals with high BMIs were more guided by the presence of food outlets compared to normal-weight individuals.

**Discussion:** Results support the notion of stimulus control shaping eating decisions. Further, findings indicate that BMI-related differences may be present, highlighting the need for individually tailored weight loss interventions.

15:30 - 17:00

## Exploring the relationship between attentional bias, stimulus control and BMI

S. Franja<sup>1</sup>, S. Ferguson<sup>1</sup>, A. Matthews<sup>1</sup>, K. Elliston<sup>1</sup>

<sup>1</sup>University of Tasmania, Australia

**Background:** Theory suggests that attentional bias (AB) towards food-related stimuli influences eating. As such, there is interest in AB retraining as a potential target for obesity treatments. Although some studies have provided support for AB influencing eating, the literature remains inconsistent. Furthermore, the majority of studies on AB have been conducted in laboratory settings, so the link between AB and real-world eating behaviours remains unclear. Here we examined the relationship between AB, BMI, and real-world eating.

**Method:** 54 participants (n=25 BMI < 24.9, n=29 BMI > 24.9) recorded their eating in real-time over 14 days using electronic diaries. Additionally, participants responded to 4-5 randomly-timed assessments per day. During both assessment types, known external (e.g. location) and internal (e.g. affect) eating cues were assessed. Within-person logistic regression analyses were used to predict eating vs. non-eating occasions from external and internal cues, providing individual measures stimulus control. Participants also completed two laboratory tasks assessing attentional bias: Visual Probe and modified Stroop.

**Findings:** Performances on behavioural tasks did not differ between normal weight and high BMI groups (both t-test p values > .05). Further, analyses revealed that real-world stimulus control did not relate to levels of AB (Visual Probe correlations ranged from -.21 – .09, all p > .05, Stroop correlations were in similar range).

**Discussion:** The lack of association between AB task indices and real-world eating behaviour highlights the low validity of behavioural tasks measuring AB. This suggests that we need a better understanding of the relationship between AB and real-world eating behaviour.

15:30 - 17:00

## Can we have a second serving? A replication study on the neurobiological mechanisms underlying self-control

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<sup>3</sup>Utrecht University, Netherlands

<sup>4</sup>Erasmus University Rotterdam, Netherlands

**Background:** Self-control is of vital importance for human wellbeing. We performed a preregistered replication attempt of the seminal study of Hare et al. (Science, 2009) on the neural underpinnings of self-control. Their primary finding was that successful self-control involves modulation of the ventromedial prefrontal value signal by the dorsolateral prefrontal cortex. These findings supported a single process model of self-control whereby self-control is the outcome of multiple simple value calculations. This view contrasts with the traditional dual-systems perspective of self-control.

**Methods:** We performed an online (n=61), a lab (n=47) behavioral study and a pre-registered (<https://osf.io/qnpjm/>) fMRI study (n=80). Participants rated 50 foods on health and taste and made incentive-compatible food choices. Primary dependent variable for all studies was self-control success (i.e., rejecting unhealthy yet tasty foods and selecting healthy but less tasty foods) and for the fMRI study neural activation during food choice. In addition, we assessed responses to food temptations in the week after the session to investigate to what extent findings extrapolate to self-control success in daily life.

**Findings:** Participants were successful in self-control in on average 12.8% (online study), 27.6% (lab study) and 23.3% (fMRI study) of the choices posing a self-control dilemma.

**Discussion:** Though sample characteristics (age, gender distribution) and health and taste ratings of stimuli were similar, the level of self-control success was lower than that of the original study (approximately 45%). The results of fMRI and follow-up measures of self-control in daily life will be presented at the conference.

## Posters

# Behavior change interventions: Healthcare professionals

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Wiebke Goehner

15:30 - 17:00

## Systematic review of the effect of social norm interventions on clinical behaviours of health workers

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**Background:** Health workers (HW) perform behaviours in clinical settings which impact on patient diagnoses, care, treatment and recovery. Some methods of supporting health workers in changing their behaviour make use of social norms. We define a social norm intervention as one which seeks to change the clinical behaviour of a target health worker by exposing them to the values, beliefs, attitudes or behaviours of a reference group or person. The aim of the systematic review is to summarise evidence on (i) the effect of social norm interventions on health worker clinical behaviour change and (ii) the contexts, modes of delivery and behaviour change techniques (BCTs) associated with effectiveness.

**Methods and current stage of work:** A systematic search of seven databases yielded 130 randomised controlled trials for inclusion into the review. Intervention content is being double-coded using the BCT taxonomy v1. The primary outcome is compliance with a desired behaviour, e.g. hand washing. We will combine estimates from individual studies using fixed effects meta-analysis on the standardised mean difference and present forest plots. We will investigate variation in results using meta-regression and network meta-analysis, if data meet the requirements.

**Expected results:** This review will identify which BCTs that operate through social norms as its mechanism of change (social comparison, information about others' approval, credible source, social incentive and social reward) could be most effective at changing HWs' clinical behaviours.

**Discussion:** The review is expected to inform the development and theorising of social norms interventions for changing clinical behaviours in HWs.

15:30 - 17:00

## Spanish trainee nurses' skills and attitudes of obesity and behaviour change

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<sup>5</sup>Division of Medical Education, School of Medical Sciences, University of Manchester, United Kingdom

The TEnT PEGS framework is a behaviour change communication toolkit which has been shown to be useful to increase health professional trainees' skills and knowledge about behaviour change techniques. We wanted to translate and apply the framework with a Spanish health professional student population. Therefore, the objectives of this study were 1) to translate the TEnT PEGS framework into Spanish and apply in a Spanish trainee nurses population; 2) To analyse whether an obesity-management session had a positive impact on students' skills to encourage behavioural change. Nursing students (n=95) attended two face-to-face (2 hours per session) obesity management sessions delivered by two health psychologists. Training increased students' attitudes and knowledge about behaviour change talk. Hence, it seems that this adaptation is feasible for Spanish nursing students and to help students to achieve higher knowledge and attitudes in obesity management.

15:30 - 17:00

## Behaviour change strategies for physiotherapists: A one-group pre-post intervention trial in medical rehabilitation

W. Goehner<sup>1</sup>, D. Schagg<sup>1</sup>, R. Küffner<sup>2</sup>, A. Reusch<sup>2</sup>

<sup>1</sup>Catholic University of Applied Sciences, Germany

<sup>2</sup>Department of Medical Psychology, Medical Sociology, and Rehabilitation Sciences, University of Würzburg, Germany

**Background:** This study evaluates a theory-based counselling training for physiotherapists that includes evidence-based behaviour change techniques for the promotion of physical activity after inpatient rehabilitation. The aim was to examine whether physiotherapists have a better understanding of the behaviour change techniques and use them more often after the training.

**Methods:** Physiotherapists of four inpatient rehabilitation clinics (N=51) participated in the 2x8 hour training. Content were 12 evidence-based behaviour change techniques (BCT) as well as 3 communication techniques; the training itself was based on the Theoretical Domains Framework. N=36 filled out questionnaires before (t1) and after (t2) the education as well as three (t3) and six (t4) months later. With regard to BCT use, we examined pre-post differences of primary (knowledge, theoretical understanding, self-efficacy) and secondary outcomes (intention, action and coping plans, behaviour) via one-way repeated-measures ANOVA.

**Findings:** Between t1 and t4 physiotherapists (women n=29; mean age 45.3 years, range 26-62) indicated increasing values of knowledge (t1-t3:  $p = .01$ ,  $\eta^2 = .20$ ; t1-t4:  $p = .01$ ,  $\eta^2 = .23$ ), theoretical understanding (t1-t3:  $p = .004$ ,  $\eta^2 = .24$ ; t1-t4:  $p = .004$ ,  $\eta^2 = .23$ ), and self-efficacy (t1-t4:  $p = .02$ ,  $\eta^2 = .16$ ). No further effects were found.

**Discussion:** The results suggest an improvement of cognitive aspects, indicating that the training was successful. We did not find changes for the secondary outcomes that represent volitional aspects of behaviour change and behaviour. Therefore, some add-on training to specifically support the transfer of BCT into physiotherapists' daily routine should be complemented.

15:30 - 17:00

## Implementation intention and anticipated regret on vaccination behavior against fluensa with healthcare workers.

A. Gauchet<sup>1</sup>, C. Bodelet<sup>1</sup>

<sup>1</sup>Université de Grenoble, France

**Background:** Influenza vaccination coverage among institutional healthcare workers reaches only 21% in France. However, healthcare workers strongly contribute to the spread of infection among people at risk. This contamination can lead to lethal complications. We propose to test the effect of anticipated regret and implementation intentions on influenza vaccination behavior.

**Method:** French healthcare workers (N=1093) were allocated to a four-arm randomized controlled trial. The first group watched an informative video about vaccination. The second group completed a questionnaire on anticipated regret (Abraham & Sheeran, 2003; 2004) and following the implementation intentions: "If I encounter the situation X, then I will do Y". From a list, participants could choose situations impeding the engagement in given behavior and for each of them they chose a solution, among two proposed (Health Action Process Approach; Schwarzer, 1999; 2001). The third group went through the complete intervention (video, anticipated regret and implementation intentions). The fourth group served as a group control. All groups completed a self-assessment questionnaire measuring their motivations, self-efficacy, outcome expectancies, risk perception and knowledge about the influenza vaccine. One month later, they were sent a second questionnaire to them to measure their vaccination behavior.

**Expected results:** We expect that the participants receiving the whole intervention will have significantly higher vaccination rate compared to other groups. **Current stage of work:** We are sending the second questionnaire to healthcare workers.

**Discussion:** Results showing the effectiveness of anticipated regret and implementation intentions could be a way to increase influenza vaccination coverage of institutional healthcare workers.

15:30 - 17:00

## Fit for health-oriented leadership? Evaluation of a multimodal management training program

E.C. Bartel<sup>1</sup>, G. Pracht<sup>2</sup>

<sup>1</sup>FernUniversität in Hagen, Germany

<sup>2</sup>University of Hagen, Germany

**Background:** Purpose of this (quasi-)experimental study was to determine the effect of a management training program on health-oriented leadership and stress management.

**Methods:** 69 managers took part in this longitudinal study (five measuring points). The intervention group (n=36) received a 2x2-day multimodal intervention to target health-oriented leadership, coping, and stress related outcomes. We run linear multilevel analysis and calculated effect sizes to determine the practical impact of the intervention.

**Findings:** The intervention has small to moderate effects on relativising-distancing coping strategies ( $d = 0.39$ ) and negative coping ( $d = -0.38$ ) as well as on the health oriented-leadership outcomes SelfCare awareness ( $d = 0.32$ ), StaffCare awareness ( $d = 0.51$ ) and StaffCare value ( $d = 0.37$ ). We found statistically not significant small medium-term effects on the stress related outcomes irritation ( $d = -0.17$ ), perception of stress ( $d = -0.10$ ), stress reactivity ( $d = -0.12$ ) and burnout ( $d = -0.20$ ).

**Discussion:** We conducted this empirical field study within the area of tension between science and practice. Although there are epistemological and methodological limitations, the study provides increase of knowledge of the practical impact of a management training program on health-oriented leadership, coping and stress related outcomes.

Even though the effects were small and in parts not statistically significant, they could be relevant in practice. It can be assumed that impaired managers' health can affect their staff members' health. So small effects on health-oriented leadership and stress related outcomes may have long-term positive effects on managers' and employees' health.

15:30 - 17:00

## Overweight in Primary Care: Analysing the Problem and Developing an Intervention Objective

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**Background:** Overweight affects more than 50% of adult population in Portugal with serious health implications. It is crucial to invest in reducing prevalence of overweight. In Portugal, the approach to overweight in Primary Care(PC) has not reached the desired outcomes and lacks detailed guidelines. Using a systematic, evidenced based and person centered approach to intervention development, we aim to develop and pilot test with process evaluation an intervention for weight loss in overweight PC adult users. Here we present work conducted on the first step of intervention development.

**Methods:** To increase acceptability and feasibility, an intervention development team will be formed with researchers, clinicians and users. In the first step of this intervention development process (overall 6steps), we will analyse the problem and develop an intervention objective. We will conduct several pieces of research:1) review of national/international PC interventions designed for overweight users;2) evaluation of the needs, barriers and facilitators perceived by PC professionals in targeting overweight -a national survey; 3)identification of PC users weight-loss strategies and support needs – quantitative cross-sectional study targeting those with a BMI on the range of 25-30, in 2PC units.

**Expected results:** This intervention development process based on evidence and theory will allow us to pilot an intervention with good chances of success,and viable for implementation in the context of PC.

**Current Stage:** Data is currently being collected to inform this first step of intervention development.

**Discussion:** We hope to contribute to the development of an intervention adjusted to Portuguese PC, with financial and organizational viability, and potential for sustainability.

## Posters

# Personality differences, Identity and health

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Jowinn Chew

15:30 - 17:00

## Treating impulsivity with synbiotics in adults: a multicentre, double-blind, randomized, placebo-controlled trial

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**Background:** Impulsivity and compulsivity are related to emotional and social maladjustment and often underlie psychiatric disorders. Alterations in microbiota composition demonstrated implications for brain development and social behaviour via the microbiota-gut-brain axis. Recent evidence suggests the modulatory effect of synbiotics on gut microbiota which could ameliorate symptoms of psychiatric diseases. No randomized-controlled trial has been performed yet to investigate effects of synbiotics on impulsivity and compulsivity.

**Methods:** In a prospective, multicentre, double-blind, randomized-controlled trial patients receive either a synbiotic formula or placebo treatment. Primary outcomes include Clinical Global Impression-Improvement (CGI-I) score of 1 or 2=very much or much improved, and Affective Reactivity Index (ARI-S) score reduction of minimally 30% compared to baseline. N=180 highly impulsive participants, 18 – 65 years old, diagnosed with attention deficit/hyperactivity disorder (ADHD) and/or borderline personality disorder (BPD), are screened at three study centres. Secondary outcome measures include changes in general psychopathology, ADHD symptoms, neurocognitive functions, somatic parameters, physical activity, nutritional intake and health-related quality of life. Intervention effects on microbiome, genetics and several blood biomarkers will be also assessed.

**Expected results:** We hypothesize that the supplementation with synbiotics is an effective treatment in adults with high levels of impulsivity, compulsivity, and aggression, ameliorating these symptoms.

**Current stage of work:** Beginning of data collection.

**Discussion:** This first randomized-controlled trial investigating synbiotics effects on reducing impulsive, compulsive and aggressive behaviour can help explain the crosstalk between intestinal microbiome and brain. If improvement effects are demonstrated, new cost-effective treatments might be available to these patients.

15:30 - 17:00

## The differences in functioning domains between patients with alcohol use disorder and non-clinical group

J. Kolesnikova<sup>1</sup>, V. Perepjolkina<sup>1</sup>, A. Stepens<sup>1</sup>

<sup>1</sup>Riga Stradins University, Latvia

Studies indicated that those with alcohol use disorders (AUDs) have impairments in the domains of functioning. The aim of this study was to compare scores of the functioning domains between the clinical group with AUDs and non-clinical group.

Method: The clinical group consisted of 48 patients aged from 20 to 65 years (M = 37.5, SD = 12.08 years, 36 (75%) male) with diagnosed AUDs. The non-clinical group included 186 respondents (aged from 19 to 82 (M = 40.82, SD = 15.64 years, 73 (39.2%) male) who did not show problematic alcohol use (based on the evaluation made with the MINI 6.0.0) and any other mental health problems as well. After getting the informed consent from all participants, they were interviewed by trained research assistants using MINI protocol and then were asked to complete WHODAS 2.0 and the preliminary version of the Latvian Clinical Personality Inventory (LCPI version 2.1.).

Results of the Mann-Whitney U-Test show that clinical group indices were statistically significantly higher in LCPI Sleep problems, Communication problems, Intimate relationship and Problem solving scales ( $p < .01$ ), as well as WHODAS Cognition, Self-care, Getting along, Life activities and Participation ( $p < .01$ ) and Mobility scales ( $p < .05$ ) compared with the non-clinical group.

Conclusions: The patients with AUD have noticeable impairment in all domains of functioning that impact the quality of life. Results of this study can be helpful for psychologist and other professionals to plan public health therapeutic and psychological interventions.

Keywords: alcohol use disorders, functioning impairment, WHODAS.

15:30 - 17:00

## Investigating anxiety surrounding illness uncertainty in multiple sclerosis

J. Chew<sup>1</sup>, R. Moss-Morris<sup>1</sup>, C. Hirsch<sup>1</sup>

<sup>1</sup>King's College London, United Kingdom

**Background:** Multiple Sclerosis' (MS) unpredictable symptomology and trajectory can result in patients experiencing high levels of anxiety and illness uncertainty (IU). Previous research has discovered a strong association between heightened anxiety surrounding IU with poorer psychological outcomes and quality of life. Within other health populations, research suggests that this may be maintained by unhelpful thinking habits, such as the tendency to attend towards threatening information, or to interpret benign information in a threatening way. However, the relevant thinking habits remains unknown in an MS population. The aim of this research is to identify the thinking habits responsible for the maintenance of anxiety surrounding IU within MS using a cross sectional Design:

**Methods:** Eighty persons with MS will complete self-report questionnaires of anxiety, worry and IU, as well as 3 tasks developed to assess attentional and interpretation bias, as well as cognitive flexibility.

**Expected results:** Through regression analysis, it is predicted that, 1) Anxiety and uncertainty will be associated with biases in attention, interpretation, and cognitive flexibility, and 2) These biases will predict unique variance in self-reported levels of anxiety, worry, and IU.

**Current stage of work:** The research team has worked closely with PwMS to develop and pilot novel tasks. Recruitment and testing is currently underway. Findings will be presented.

**Discussion:** A better understanding of the cognitive mechanisms associated with anxiety and IU has important implications for developing targeted interventions aimed at enhancing adaptive processing in PwMS, including an increased tolerance for uncertainty, threatening information, and reduced anxiety levels.

15:30 - 17:00

## Food-deprivation induced changes in interoceptive accuracy are moderated by personality traits

C. Rominger<sup>1</sup>, A. Schwerdtfeger<sup>1</sup>

<sup>1</sup>University of Graz, Austria

Interoceptive accuracy is an important health relevant skill. Nevertheless, it is not as stable as most of us might think and there are situations when we tend to perceive organismic cues better. However, do people differ in these situations? Recently, it has been shown that short-term food-deprivation may increase interoceptive accuracy. However, it is still unanswered if between-subjects variables may moderate this enhancing effect. The present experimental study investigated potentially moderating variables using a within-subjects design with 24 participants. All participants randomly started with one of two conditions: (1) interoception and food-deprivation (2) interoception without food-deprivation. Two well established tasks – the heartbeat detection task and the heartbeat tracking task – were used to assess interoceptive accuracy. During both tasks, the electrocardiogram, respiration, and electrodermal activity were recorded. Additionally, participants' self-rated emotional skills and aspects of positive schizotypy were assessed. As hypothesized, the food-deprivation condition went along with better interoceptive accuracy; however, this effect was moderated by the emotional skills and the personality trait of positive schizotypy. Participants with higher emotional skills (intrapersonal) showed a higher increase of interoceptive accuracy from the control condition to the fasting condition ( $r=.40$ ). The moderation effect of positive schizotypy showed a reversed pattern ( $r=-.48$ ). Taken together, firstly, food-deprivation can improve the ability to adequately monitor health relevant internal processes. Secondly, however, the increase of accuracy was moderated by these two variables, thus supporting the assumption that state-dependent changes in interoceptive awareness may depend on stable personality traits.

15:30 - 17:00

## Personality predictors of flexibility in coping with stress in adults

I. Grzankowska<sup>1</sup>, M.A. Basińska<sup>2</sup>, A. Kruczek<sup>2</sup>

<sup>1</sup>Kazimierz Wielki University in Bydgoszcz, Poland

<sup>2</sup>Uniwersytet Kazimierza Wielkiego w Bydgoszczy, Poland

**Objectives:** Coping flexibility applies to individual's readiness to attentively monitor the effects of their actions and to examine their coping assumes some level of reflexivity. The ability to reflect on one's actions in a critical way is important for ultimately abandoning any ineffective strategies. It is important to note that a prerequisite for flexible coping is having a relatively wide range array of coping strategies at one's disposal. It was assumed that the flexibility in coping is related to the personality characteristics of the individual.

**Method:** Participants in the study were 216 adults (126 women and 90 men) aged 18 to 75. The average age in the study group was 37.30 (SD=13.34) years. Women (M=37.79, SD=12.81) and men (M=36.60; SD=14.08) did not differ significantly in their age ( $t=0.65$ ,  $p=0.518$ ).

The following methods were used: demographic-psychosocial questionnaire developed for the purposes of this study, The Flexibility of Coping with Stress Questionnaire, NEO Personality Inventory.

**Results:** Women were characterized by a smaller repertoire of strategies and weaker conviction that they will manage difficult situations compared to men. Analysis showed, that neuroticism and openness to experience were predictors of flexibility in coping with stress. The less neurotic the individuals were, the more they tended to flexibly cope with stress. The more open to the experiences they were, they had a greater tendency to cope with stress in an flexible way.

**Conclusions:** Personality traits were important predictors of flexibility in coping with stress. The dimensions of flexibility in coping differ according to gender.

15:30 - 17:00

## The relationship between personality and fatigue among patients with multiple sclerosis

I. Matesic<sup>1</sup>, I. Marcinko<sup>2</sup>

<sup>1</sup>Primary school Julije Kempf Požega, Croatia

<sup>2</sup>Faculty of Humanities and Social Sciences Osijek, Croatia

**Background:** The purpose of this study was to examine the relationship between personality structure and fatigue among patients suffering from multiple sclerosis.

**Methods:** A cross-sectional design was employed. By random sampling 201 adults diagnosed with multiple sclerosis were selected to take part in this study. The investigated parameters were temperament and character measured by Revised temperament and character inventory and the presence of fatigue was measured with Modified fatigue impact scale. Data have been analysed via hierarchical regression analysis in which the effects of subject's sociodemographic background and depression have been controlled.

**Findings:** The results have shown that temperament and character contribute to a sense of fatigue. It has been found that high Harm avoidance ( $\beta=.335$ ,  $p<.01$ ), high Novelty seeking ( $\beta=.129$ ,  $p<.05$ ) and low Self – directedness ( $\beta=-.261$ ,  $p<.01$ ) directly contribute to a higher fatigue. Also, the indirect effects of temperament via character on fatigue have been found. High Harm avoidance and high Novelty seeking via low Self – directedness contribute to a sense of fatigue.

**Discussion:** Findings indicate that both, inherited and genetically predetermined dispositions as well as environmentally conditioned characteristics contribute to fatigue among patients with multiple sclerosis. Therefore, the identification of personality structure of patients is essential for understanding fatigue levels of this secondary neuropsychological symptoms among patients with multiple sclerosis as well as to find the most effective way of coping with it while taking into consideration their individual differences.

15:30 - 17:00

## Dual usage of traditional and e-cigarettes and its relationship to users' identities

J. Ahmed<sup>1</sup>, A. Coyle<sup>1</sup>, T. Vandrevalla<sup>1</sup>

<sup>1</sup>Kingston University, United Kingdom

**Background:** Research on the relationship between smoking behaviour and self-concept/identity has shown that 'smoker identity' is influenced by a number of (social, behavioural and psychological) factors in interaction. The present study focused on dual users of traditional cigarettes and e-cigarettes. It aimed to elaborate the relationship between dual usage and users' identities as smokers/vapers and to shed further light on whether e-cigarettes can legitimately be thought of as aids to smoking cessation or smoking-related harm reduction.

**Method:** Ten participants, aged 18-40, were recruited via social media and interviewed individually. Interview transcripts were analysed using a combination of inductive and deductive (theoretically-informed) thematic analysis.

**Findings:** The present study found that dual users could experience a threat to their identity, which could inhibit attempts at smoking cessation/harm reduction. Furthermore, the study found that different social evaluations of smokers and vapers could influence how individuals identify as smokers, vapers and/or dual users. Subsequently, individuals' identifications were found to potentially inhibit or facilitate attempts at smoking cessation. In view of this, the study proposed that smoking cessation interventions and therapies should consider how dual users' self-concepts could inhibit or facilitate successful attempts at smoking cessation.

## Posters

# Clinical health psychology interventions

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Frank Doyle

15:30 - 17:00

## Network meta-analysis of pharmacological, psychotherapeutic, exercise and collaborative-care interventions for depression in coronary patients: Protocol

F. Doyle<sup>1,2</sup>, K. Freedland<sup>3</sup>, R. Carney<sup>3</sup>, P. de Jonge<sup>4</sup>, C. Dickens<sup>5</sup>, S. Pedersen<sup>6</sup>, J. Sorensen<sup>1</sup>, M. Dempster<sup>2</sup>

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<sup>6</sup>University of Southern Denmark, Denmark

**Background:** Depression is common in patients with coronary artery disease (CAD) and is associated with poorer outcomes. Several randomized controlled trials (RCTs) targeting depression, of various modalities, have been conducted and summarized in pairwise meta-analytic reviews. No study has considered the cumulative evidence within a network, which provides valuable information about the relative efficacy of interventions. We are therefore conducting a network meta-analysis (NMA) of depression interventions for depression post-CAD.

**Methods:** Databases will be searched for systematic reviews of RCTs of depression treatments for people with CAD, supplemented with searches for recent or ongoing studies. We will extract data from individual RCTs, including participants, study characteristics, outcome measures, adverse events. RCTs that compare depression treatments (grouped as: pharmacological, psychotherapeutic, combined pharmacological/psychotherapeutic, exercise, collaborative care) to placebo, usual care, waitlist control or attention controls, or directly in head-to-head comparisons, will be included.

Primary outcomes will be change in depressive symptoms at 8-weeks (summarised with standardised mean difference) and treatment acceptability (treatment discontinuation: % people who withdrew). Secondary outcomes will include change in 6-month depression outcomes, health-related quality of life, mortality, cardiovascular morbidity, health services use, adverse events. Frequentist random effects multivariate network meta-analysis will synthesize the evidence and achieve a ranking of treatments.

**Expected Results:** Results will address uncertainties about evidence for depression management in CAD, and may allow for a ranking of treatments.

**Current stage of work:** Some preliminary data extraction conducted.

**Discussion:** Ranking of treatments in terms of efficacy and acceptability is vital when comparing interventions.

**Registration:** PROSPERO CRD42018108293

15:30 - 17:00

## Effectiveness of an intervention based on acceptance and commitment therapy in patients living with HIV.

R. Rodríguez-Rey<sup>1</sup>, F. Montesinos<sup>1,2</sup>, A. Hernando<sup>3,4</sup>, M. Páez<sup>2</sup>, M.J. Álvarez<sup>5</sup>, A. González-Baeza<sup>6</sup>, L. Bermejo<sup>4</sup>, M. Santacreu<sup>4</sup>, F. Pulido<sup>4</sup>

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<sup>6</sup>HIV Unit. Instituto de Investigación Hospital Universitario La Paz (IdiPAZ), Spain

**Background:** This study analyzed the effect of an intervention based on acceptance and commitment therapy in patients with HIV and explored the associations between psychological distress, experiential avoidance (EA), and cognitive fusion (CF) after an HIV diagnosis.

**Methods:** Pilot clinical trial. Patients (n=58) who had been diagnosed with HIV in the previous 12 months were randomized to an educational + psychological intervention (n=30) or only the educational intervention (n=28). Psychological intervention consisted of three individual sessions delivered along 6 weeks. Data were collected at baseline, and 12, 24- and 48-weeks post-intervention. The following variables were assessed: Quality of life (MOS 36-item short-form health survey), anxiety and depression (Hospital Anxiety and Depression Scale), EA (Acceptance and Action Questionnaire-II), CF (Cognitive Fusion Questionnaire) and stress (Impact of event scale). Between-groups differences were analyzed by Student t-tests or Mann-Whitney U-tests.

**Findings:** At baseline, 10.3% and 3.4% of the patients showed clinically significant depression and anxiety respectively. EA and CF scores were significantly and positively associated with anxiety, depression and stress scores, and negatively associated with quality of life. Patients' distress decreased post-intervention but there were no significant differences between the intervention and the control group.

**Discussion:** Psychological distress after an HIV diagnosis is associated with EA, and CF levels. The absence of differences between the intervention and the control group may be explained by the low levels of distress at the baseline, the difficulties in integrating the psychological intervention in the established healthcare for HIV-patients and the patients' irregular adherence to the intervention.

15:30 - 17:00

## Resonant Breathing based HRV - Biofeedback training facilitates recovery of depressive symptoms.

J. Tatschl<sup>1</sup>, A. Schwerdtfeger<sup>1</sup>

<sup>1</sup>KFU Graz, Austria

**Introduction:** New treatment options for affective disorders (AD) are warranted, considering the insufficiency of the current, primarily pharmaceutical oriented treatment paradigm. Vagus nerve stimulation (VNS) has shown promise in improving depression, although invasive methods are costly and burdensome.

**Objective:** The aim of this study was to examine whether Resonant Breathing (RB), a non-invasive natural way of VNS, has additional benefits in improving depressive symptoms in adults, receiving conventional treatment.

**Method:** 92 inpatients of a psychiatric rehabilitation program were randomly assigned to either the experimental (EG) or a waitlist control (WL) group. Additionally, to the standard rehabilitation protocol the EG received six 35 minutes long, guided breathing sessions over a period of 5 weeks and was instructed to practice RB twice daily for 10 minutes. RB was supported by a portable biofeedback device (Qiu, Biosign GmbH), aiming at facilitating breathing training quality and compliance. Participants filled out the Beck-Depression-Inventory II and completed a short-term heart rate variability (HRV) recording before and after the 5-week period.

**Results:** Depressive symptoms correlated negatively with various indicators of HRV, including  $\ln RMSSD$ ,  $\ln SDNN$ ,  $\ln PNN50$ ,  $\ln SD1$ ,  $\ln SD2$ , and  $\ln LF$  ( $p$ 's < .05), thus suggesting autonomic nervous system dysfunction. The EG showed a greater improvement in depressive symptoms than the WL ( $p$  < .05,  $\eta^2 = .056$ ) and an increase in  $LF/HF$ -HRV and  $SD1/SD2$  ratio ( $p$ 's < .05) from pre to post assessment.

**Conclusion:** RB seems to improve the efficacy of a psychiatric rehabilitation program regarding depression recovery. Additionally, further evidence supporting the interplay between the autonomic nervous system and depression is provided.

15:30 - 17:00

## Interest of horse-assisted therapy in the evolution of emotional disorders of addicted patients in aftercare

C. Hilbert<sup>1</sup>, E. Spitz<sup>1</sup>

<sup>1</sup>University of Lorraine, France

Presentation of the results of a horse-assisted therapeutic intervention aimed at improving the emotional regulation abilities of patients suffering from addictive disorders in aftercare.

Method: 84 patients divided into 2 distinct groups: "intervention" group (n=47) and "usual care" group (n=37). Patients in the "intervention" group participate each week in a session of equine-assisted therapy for 2 hours during their stay (various from 5 to 13 weeks). We conducted quantitative assessments based on questionnaires: DERS (Emotional Regulation Difficulties) and SECS (Anger Management) administered at the beginning and end of the stay.

Statistical analyzes: repeated measures ANOVA.

Results: For all patients, we observe a decrease in their emotional regulation difficulties ( $F=16.38$ ,  $p=.001$ ), as well as an increase in their ability to manage the expression of their anger towards others ( $F=8.01$ ,  $p=.006$ ). The two groups do not differ significantly for the variables studied. However, we observe a significant interaction effect "Time\*Groups". The intervention group benefits from a faster evolution during the stay for two sub-dimensions of the DERS: faster decrease in difficulties in engaging in goal-directed behaviors ( $F=5.74$ ,  $p=.01$ ) and lack of emotional awareness ( $F=5.41$ ,  $p=.02$ ). Following the horse-assisted therapy, patients feel less anger in them ( $F=5.04$ ,  $p=.02$ ) than that patients in the control group.

Thus, we found evidence that this approach to horse-assisted therapy may be an effective treatment for reducing emotional regulation difficulties. Future research should include larger groups, random assignment, and longer term follow-up.

15:30 - 17:00

## Evaluating the NICE guidelines for post stroke depression in low resource settings: A systematic critique

M. Salie<sup>1</sup>

<sup>1</sup>Stellenbosch University, South Africa

The National Institute for Health and Clinical Excellence (NICE) guidelines are the gold standard for clinicians in providing appropriate treatment. The NICE guidelines for psychological care after stroke were developed in the UK due to the alarming absence of psychological care during medical treatment for stroke patients. These guidelines are for the management of mood and cognitive disorders, prevalent in patients who have suffered a stroke.

The NICE guidelines stepped care model centers around the integral role of clinical psychologists in the multi-disciplinary team approach. They are the professionals providing psychological assessment and care, either themselves or through supervision of other care workers. These guidelines premise though, the availability of adequate psychology resources.

The feasibility of these guidelines have not been evaluated in low resourced settings, such as the public healthcare system in South Africa. This healthcare system is burdened with disproportionate health care providers to patients.

In this presentation, I will systematically evaluate the feasibility of these guidelines within the current setting. Firstly, I will conduct a literature review on Cognitive Behavioral Therapy (CBT) in low resource settings, as this is the recommended psychological modality. Thereafter I will review current CBT practices in South Africa. This research will thus aim to begin developing guidelines for South Africa through suitable adaptations.

15:30 - 17:00

## Impact of nurse-led patient education on patients' quality of life: A systematic review

W. Nwosu<sup>1</sup>, L. Hughes<sup>1</sup>, R. Rajani<sup>1</sup>, T. McDonough<sup>1</sup>

<sup>1</sup>King's College London, United Kingdom

**Objective:** Heart failure (HF) is a syndrome associated with high mortality and morbidity. These patients tend to be at a high risk of poor clinical and psychosocial outcomes. This study aimed to identify the impact of nursing education on the quality of patients with heart failure and to explore and assess the various patient education interventions that are used in heart failure management to help improve patient outcomes and positively impact clinical practice.

**Methods:** A systematic review of randomised controlled trials was undertaken. Four databases (MEDline, CINAHL, PsycINFO and Web of Science) were searched up to July 2018. Only trials with nurse-led education that was either face-to-face or at home were included.

**Results:** 15 trials were included (n=2202) (mean age 59.3-79.0) with 1206 participants randomised to the intervention group and 996 to the control group. There were significant differences in physical health outcomes in the intervention group between baseline and follow-up. Other findings were associated with improved mental health, reduced hospitalisation and mortality rate.

**Conclusion:** The effectiveness of nurse-led patient education in HF is clearly demonstrated and has been shown to improve patient quality of life and reported outcomes. Despite improvements in knowledge, there were varied findings in the outcomes which could have been related to the level of heterogeneity in the educational interventions. Clinical practice can be improved if nurses endeavour to provide patients with HF with consistent, reliable and accurate education and information about their condition to empower them to manage their condition at home independently.

## Posters

# Recent perspectives on pain, adaptation and medication adherence

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Sónia Bernardes

15:30 - 17:00

## Towards a deeper understanding of adherence to medication in pain patients

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<sup>2</sup>Hochschule Magdeburg-Stendal, Germany

<sup>3</sup>Paracelcus Clinic Bad Gandersheim, Germany

**Background:** Non-adherence to medication is wide-spread and causes serious problems in health care. To develop more effective interventions to improve adherence, there is a need for a better understanding.

**Objective:** To analyze different types of non-adherence to medication in pain patients and to evaluate the influence of psychological distress, coping with disease, and personality factors.

**Methods:** 260 pain patients of three German rehabilitation centers answered the Stendal Adherence to Medication Score (SAMS), the Brief Symptom Checklist (BSI), the Essen Coping Questionnaire (EFK), and a short version of the NEO-FFI.

**Findings:** For the 260 pain patients, the mean age was 57 years (SD = 13, 19-88), 73% were female. According to the SAMS total score 25 (10%) patients were fully adherent, 172 (66%) showed moderate and 63 (24%) clinically significant non-adherence. Younger patients were less adherent ( $p < .01$ ). 65% of the non-adherent, 45% of the moderate adherent and 20% of the fully adherent patients suffered remarkably from psychological distress ( $X^2 = 15.91$ ,  $p < .001$ ). Predictors of non-adherence to medication (stepwise analysis of regression,  $R = 0.41$ ,  $\text{corr } R^2 = 0.15$ ) were age (Beta Weight, BW = -0.13), higher depression (BW = 0.22; BSI) and higher obsessive-compulsiveness (BW = 0.18; BSI), higher trivialization, wishful thinking and defence (BW = 0.12; EFK), lower agreeableness (BW = -0.19; NEO-FFI), and higher neuroticism (BW = 0.26; NEO-FFI).

**Discussion:** Interventions should focus on younger patients, suffering from remarkable psychological distress. It should be investigated, if a reduction of psychological distress goes along with higher adherence.

15:30 - 17:00

## Explicit and implicit self-esteem, social exclusion and pain tolerance among women training CrossFit.

E. Wojtyna<sup>1</sup>, M. Hyla<sup>1</sup>, T. Król<sup>2</sup>, W. Janeczek<sup>1</sup>

<sup>1</sup>University of Silesia, Poland

<sup>2</sup>Medical University of Silesia, Poland

Fear of judgment is one of the most common emotional states experienced by modern man. A negative assessment can lead to exclusion from the social group. With the growing fear of negative judgment, the need to create the desired impression as a compensatory response to a threat increases. The reason for the increased level of social anxiety is discrepancies in Self-evaluation and its components. Group training is a situation in which the desire to show in a better light can increase the risk of injury due to overload. The aim of the study was to determine the role of explicit and implicit self-esteem in pain tolerance threshold change under the social exclusion conditions.

**Material and methods:** The study included 60 women. Self-esteem was measured using Rosenberg's SES and Implicit Association Test (implicit self-esteem). The pain tolerance threshold was determined using the pain stimulus generated by the TSA-II and PainMatcher devices. The feeling of social exclusion was obtained by using the Cyberball game. The threshold of pain tolerance was determined twice - before and after introducing the Cyberball condition.

**Results:** After introducing the Cyberball conditions, an increase in the pain tolerance threshold was observed in women who had fragile self-esteem (high explicit and low implicit self-esteem). A positive correlation was found between implicit self-esteem and a number of contusions.

**Conclusions:** The increase of pain tolerance threshold may be a compensation strategy for women with fragile self-esteem, especially under social exclusion conditions.

15:30 - 17:00

## Motives behind pain behaviour: the perspective of patients and spouses

F. Akbari<sup>1</sup>, M. Dehghani<sup>2</sup>, S. Mohammadi<sup>3</sup>, L. Goubert<sup>4</sup>, R. Sanderman<sup>5</sup>, M. Hagedoorn<sup>5</sup>

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<sup>3</sup>University of British Columbia, Canada

<sup>4</sup>Ghent University, Belgium

<sup>5</sup>University of Groningen, Netherlands

**Background:** Patient's pain behaviour is an important component of the interaction between patients and their partners indicated in different models of pain such as operant models of pain. However, despite the growth in studying pain behaviours, their functions are still unclear. Understanding motives of pain behaviours is important in that accurate perception of the patient's intended message plays a key role in effective communication between patients and spouses. The current study explores the motives behind pain behaviors and possible discrepancies between patients and spouses in the perception of those behaviors.

**Method:** Participants were 27 patients (15 females) with chronic low back pain and their spouses. They were recruited through purposive sampling at two pain clinics located in Tehran, Iran. We conducted semi-structured interviews in which we used open-ended questions and videos of pain behaviours as an eliciting technique to facilitate participants' reflection on their own experience.

**Expected results:** Based on the first analyzed interviews, the motives of pain behaviours, as indicated by patients and perceived by spouses, include illness exhaustion, validation seeking, pain management, attention seeking, help seeking, communicating pain, and marital conflicts.

**Current stage of work:** We are currently in the stage of coding and in the process of building the final emerging themes.

**Discussion:** The current research helps in having a better understanding of complexities of patient-spouse interactions. The results of the current study will help to develop more elaborate models of pain, and improve existing interventions in terms of effective pain communication between patients and spouses.

15:30 - 17:00

## Assessment Methods for the Identification of Pain for Individuals with Autism: A Systematic Review

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<sup>3</sup>Centre for Pain Research, Ireland

A systematic review was conducted to investigate the current methods available for assessing pain in individual with autism spectrum disorder (ASD). The review aimed to establish the most commonly used tools and their psychometric properties. The review identified 17 different methods of assessment. The majority of studies used pain scales with select studies employing other methods such as facial activity, functional magnetic resonance imaging or heart rate. While the most commonly used method was the Non-Communicating Children's Pain Checklist Revised and had excellent psychometric properties, no one method was identified as being the best for use with this population. This review highlights the need for more research with a wider variety of individuals with ASD under different pain conditions across several settings as was as the potential for a multi-dimensional tool to be developed that is suitable for use with all individuals with ASD.

15:30 - 17:00

## Exploring persistent inflammation and symptoms in Inflammatory Arthritis: Patient & Professional experiences

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<sup>10</sup>Sheffield Teaching Hospitals NHS Foundation Trust, United Kingdom

<sup>11</sup>Barbara Ansell National Network of Adolescent and Young Adult Rheumatology, United Kingdom

**Background:** Frustrations can arise from discordance in definitions/terms describing patients with Inflammatory Arthritis who do not adequately respond to anti-inflammatory treatment and display persistent symptoms. The objective was to qualitatively explore patients and professionals' experiences of persistent inflammation and symptoms.

**Methods:** Semi-structured interviews were conducted with 16 patients living with Inflammatory Arthritis attending four UK Rheumatology clinics. Thirty-two multi-disciplinary professionals were interviewed across 11 UK hospitals comprising rheumatologists, nurses, physiotherapists, occupational therapists, psychologists, pharmacist, podiatrist, and social worker. Inductive thematic analysis was carried out.

**Findings:** Six key themes emerged for both patients and professionals' experiences of persistent inflammation and symptoms: 1) Frustrations with the disease, non-response to medication and side effects, 2) Importance of aspects not captured by disease activity measure, 3) Patient-centred targets/care, 4) Role of other clinical/AHP specialties, 5) Role of comorbidities, infections and/or joint damage, and 6) Patient acceptance, adjustment and resilience.

Five main themes were identified by patients: 1) Disease not controlled fully but manageable, 2) Drugs ineffective from outset versus over time, 3) Persistent pain, fatigue and restricted mobility most problematic/dominant symptoms, 4) Life-limiting impact: practically, psychologically/emotionally and socially, and 5) Appropriate support from rheumatology team but holistic approach needed.

Professionals grouped refractory disease into: 1) Refractory Inflammation versus Refractory Symptomology, 2) Biological processes, 3) Drug inefficacy/tolerability, and 4) Patient health beliefs/behaviours.

**Discussion:** There is a potential need for a broader definition for those with persistent inflammation and symptoms, and holistic approaches to treatment to better support patients, and professionals, in managing their Inflammatory Arthritis.

15:30 - 17:00

## Prevalence and predictors of medication non-adherence among patients with multimorbidity: A systematic review and meta-analysis.

L. Foley<sup>1</sup>, G.J. Molloy<sup>1</sup>, A.W. Murphy<sup>1</sup>

<sup>1</sup>National University of Ireland, Galway, Ireland

**Background:** Multimorbidity is defined as two or more chronic conditions in one individual. Patients with multimorbidity may experience treatment burden, potentially leading to medication non-adherence. The review aims to describe the prevalence of medication non-adherence among patients with multimorbidity, and to identify potential determinants of non-adherence in this population.

**Methods:** Relevant databases will be searched using a predefined search strategy. Articles considered for inclusion will be available in English full-text up to February 2019. Participants will be adults with multimorbidity. The primary outcome is medication non-adherence. Studies will be screened in order of title, abstract, and full-text by two independent reviewers. Quality and risk of bias assessment will be conducted. A qualitative synthesis and, if feasible, meta-analysis will be carried out. Subgroup analysis will be conducted using method of medication adherence measurement as a moderator.

**Expected results:** Prevalence of non-adherence is expected to vary according to the complexity of multimorbidity due to the associated treatment burden and the presence of known risk factors. Prevalence of non-adherence may decrease, however, when a patient has so many morbidities that an informal or formal caregiver is responsible for administering medication.

**Current stage of work:** Planning search.

**Discussion:** Understanding prevalence and predictors of non-adherence among patients with multimorbidity will contribute to existing knowledge, which is presently dominated by a single-disease model. By exploring adherence from a multimorbidity perspective, the review aims to inform the development of an intervention for patients prescribed multiple medications.

## Posters

# Social support and resilience in adolescence

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

David Hevey

15:30 - 17:00

## Social support and it`s relation to adolescent emotional and behavioral outcomes.

I. Danila<sup>1</sup>, R. Balazsi<sup>1</sup>, A. Baban<sup>1</sup>

<sup>1</sup>Babes-Bolyai University, Romania

**Background:** A growing number of studies have focused on identifying factors that foster adolescents` positive and healthy development, with results supporting the idea that parental and peer support are both essential to adolescents` well-being and life satisfaction. Regardless, many adolescents lack peer support. It is suggested that perceived peer support has primary significance for adolescents` emotional and behavioral outcomes. This study examines the relationship between peer support, life satisfaction and violent behavior, and the moderating effect of parental support.

**Methods:** Data from the Health Behavior in School-aged Children study conducted in 2018 in Romania were used. The final sample consisted of 4567 adolescents, with ages between 11 and 15 years old. Data will be analyzed using moderated multiple regression (MMR).

**Expected results:** We expect to find an effect of peer support on violent behavior, mediated through life satisfaction and well-being. We posit that this effect will be moderated by parental support.

**Current stage of work:** We are conducting data analysis.

**Discussion:** This approach could help create interventions to increase parental support and foster positive parent adolescent relationships in order to promote quality of life and healthy development in adolescents.

15:30 - 17:00

## Do discriminated children report higher excessive Internet use- does social support from friends mediate this?

L. Urbanová<sup>1,2</sup>, J. Holubcikova<sup>1,2</sup>, A. Madarasova Geckova<sup>1,2</sup>, J.P. Van Dijk<sup>2,3</sup>, S.A. Reijneveld<sup>2,3</sup>

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<sup>3</sup>Department of Community and Occupational Medicine University Medical Center Groningen University of Groningen, Netherlands

**Background:** The Internet can serve as a suitable environment for children experiencing difficulties in their social life. Adolescents facing discrimination may consider the online space as a place that allows them to manage their self-presentation and to create an alternative social network. The preference for online communication can then turn into Excessive Internet Use (EIU). The aim of this study was to explore the association between discrimination by peers because of body image and EIU, and whether social support from friends mediates this association.

**Methods:** We used data from the Health Behaviour in School-aged Children study conducted in 2018. Our sample consisted of 8,405 Slovak adolescents (mean age=13.43; 50.9% boys). Data were collected by using online self-report questionnaires. We assessed the associations between discrimination by peers because of body image and EIU using linear regression, and mediation by social support from friends.

**Findings:** Almost 18% of Slovak adolescents reported being discriminated against by peers because of their body image and tend to be at higher risk of EIU ( $B=1.11$ , 95% confidence interval= 0.87;1.36). Social support mediated the association between discrimination and EIU; 19% of this association went via social support from friends.

**Discussion:** Adolescents exposed to discrimination because of body image with low social support from friends were more likely to report higher EIU. Prevention strategies to raise adolescents' awareness of the benefits and risks of Internet use should focus on adolescents who feel discriminated against, as these seem to be a vulnerable group.

15:30 - 17:00

## Exploring resilience in adolescents exposed to violence – the role of developmental assets

X. Sui<sup>1</sup>, K. Massar<sup>1</sup>, P. Reddy<sup>2</sup>, R. Ruiter<sup>1</sup>

<sup>1</sup>Maastricht University, Netherlands

<sup>2</sup>Human Sciences Research Council, South Africa

**Background:** Violence exposure is associated with adverse health consequences in adolescents, such as psychological problems and risk behaviours (e.g., substance use). However, not all adolescents exposed to violence experience negative (mental) health outcomes – some have resilience to adaptively cope with violence and grow up to be individuals with healthy functioning. This study explores the factors that positively influence resilience to the negative effects of violence from the perspectives of adolescents.

**Methods:** Semi-structured individual interviews were conducted with adolescents (n=33) in Cape Town, South Africa. Convenience sampling was used to recruit participants from three schools in violence-prone areas. Adolescents talked about coping and the protective factors from major developmental domains (home, school, community) that help them overcome the challenges of violence exposure. Data were analysed using thematic analysis, guided by the developmental assets framework.

**Findings:** All adolescents have experienced violence either directly (personal experience) or indirectly (witnessing). Common experiences were sexual violence, gangsterism, property crime, and bullying. Internal assets that buffer the negative impact of violence on adolescents' health and functioning include positive self-image, emotion regulation, being hopeful about future, sense of humour, hobbies/activities, and religion. External assets include availability, support from- and open communication with peers, family, and teachers.

**Discussion:** The findings may inform targeted youth health promotion interventions in the context of violence. In addition to individual skills trainings, parents and schools may be involved in these interventions so that a holistic approach is used to enhance adaptive coping and resilience in adolescents at risk for violence exposure.

15:30 - 17:00

## Adverse childhood experience as predictors for anxiety in adolescence

D. Jordanova Peshevska<sup>1</sup>, F. Tozija<sup>2</sup>, T. Mitanovska<sup>3</sup>

<sup>1</sup>University American College Skopje, Macedonia

<sup>2</sup>Ss. Cyril and Methodius University, Skopje, Macedonia

<sup>3</sup>Labyrinth-Skopje, Macedonia

**Background:** Adverse childhood experiences have great impact on mental health in adolescence. The main objective of the study was to examine the relationship between the adverse childhood experiences and anxiety in adolescence and to reveal the main predictors for anxiety. The ecological model and public health approach was applied in the study.

**Methods:** Cross-sectional study including 622 of students-adolescents at first- and second-year university students from the 12 faculties at the main public university "Ss Cyril and Methodius, Skopje", Skopje in the academic year 2016/2017. A representative two stage quota sample of students has been applied. The measurements included: International Adverse Childhood Experiences Questionnaire measuring abuse, neglect and family dysfunction, and Spence Anxiety Scale was used for measuring anxiety.

**Findings:** Findings show statistically significant positive correlation between anxiety and adverse childhood experiences ( $r=0,6$ ;  $p<0,0001$ ). Uni-variate logistic regression has confirmed 5 out of 12 adverse childhood experiences as predictors for anxiety such as: physical abuse (OR: 1,795, 95% CI 1,074 – 2,999  $p=0,026$ ); psychological abuse (OR: 4,95, 95% CI 1,043 – 2,328  $p=0,03$ ); living with household members who is mentally ill or suicidal (OR: 2,032, 95% CI 1,127 – 3,663  $p=0,018$ ); community violence (OR: 8,318, 95% CI 1,927 – 35,904  $p=0,005$ ), and collective violence (OR: 1,813, 95% CI 1,157 – 2,841  $p=0,009$ ).

**Discussion:** Adverse childhood experiences as serious health problem influence mental health at adolescents. Coordinated and sufficient response on all levels of the system is needed. Revising the predictors influencing mental health of children will enable establishing effective preventive programmes.

15:30 - 17:00

## Family crisis and positive youth development: the role of gender and hopelessness in early adolescence

J. Mackova<sup>1</sup>, Z. Dankulincova Veselska<sup>1</sup>, D. Filakovska Bobakova<sup>1</sup>, A. Madarasova Geckova<sup>1,2</sup>, J.P. van Dijk<sup>3,4</sup>, S.A. Reijneveld<sup>3</sup>

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<sup>4</sup>Graduate School Kosice Institute for Society and Health, Medical Faculty, PJ Safarik University, Kosice, Slovakia

**Background:** The theory of positive youth development (PYD) approaches adolescents as having potentials that can be developed in various contexts and environments. The family is a source for healthy development, i.e. PYD, but this source can be restricted by a family crisis. PYD regards the moral development, and next, the self and social development of adolescents. We aimed to assess the association of family crisis and both these aspects of PYD and further if this relation differs between boys and girls. Finally, we assessed experienced hopelessness as a mediator of this relation.

**Methods:** Adolescents (N=445, 48.1% boys, mean age=13.21) completed questions on experienced family crises, hopelessness and Very the Short Version of PYD questionnaire in the baseline measurement of the Care4Youth cohort study. We used linear regression models to assess the association between family crisis and moral, and self and social development, and whether gender modified this association. Finally, we assessed mediation by hopelessness.

**Findings:** The family crisis was significantly associated with worse self and social development but not with moral development. This association was moderated by gender (B=-0.32 (-0.62; -0.01), p<0.05) and it was significant only for girls (B=-0.43 (-0.73; -0.14), p<0.01). Moreover, this association was mediated by hopelessness (t=-3.98, p<0.001) in girls.

**Discussion:** In case of family crisis, self and social development are worse, especially in girls, and hopelessness may mediate this. Addressing hopelessness may be a way to support positive youth development, of the self and socially, in case of family crisis, especially in girls.

15:30 - 17:00

## Body Norms among French and Luxembourgish's adolescents: Outcome of National Health Promotion Programs.

F. Regnier<sup>1</sup>, E. le Bihan<sup>2</sup>, C. Tichit<sup>3</sup>, M. Baumann<sup>2</sup>

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<sup>2</sup>Institute for Research on health Sociology and Economical Inequalities IRSEI- University of Luxembourg, Luxembourg

<sup>3</sup>Institut National de la Recherche Agronomique INRA – Centre Maurice Halbwachs, Paris, France

To combat overweight and obesity, governments have launched nutritional plans under which nutritional recommendations were disseminated. Among 329 adolescents attending an international school in Luxembourg, coming from affluent and intermediate social milieus, and 281 from Paris, coming from modest milieus, our aim was to analyze the teenagers' body norms.

Relationships between BMI, ideal body, current declared body shape, and associations that these have with social and cultural factors among adolescents between 11 and 15 years were investigated. A cross-sectional survey using an online questionnaire was conducted. Gap between ideal and declared body shape and BMI were related to the other variables using a multiple regression model.

Regardless of the school, young adolescents who stated that body shape is important to be considered attractive is associated with a negative GIDB, which means that they wished to be slimmer than they reported being. But in Luxembourg, students who said they wanted to change their height wished to have a slimmer body, as those who wished to resemble media personalities. In France, the wish to have a slimmer body is associated with the desire to change weight and with the perception that beauty facilitates success in love.

The attitudes towards health are present among the two participants, in a context of similar nutritional recommendations dissemination, which could be a positive outcome of the French PNNS and Luxembourg GIMB's health promotion programs. To better implement preventive interventions, new instruments and approaches adapted to psychological and physical changes in younger generations should be suggested.

## Posters

# Health issues in pregnancy and infancy and opportunities for intervention

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

15:30 - 17:00

## The impact of psychosocial factors on the duration of breastfeeding of Mums in Stoke-on-Trent

S. Dean<sup>1</sup>, S. Thurgood<sup>1</sup>, J. Boot<sup>1</sup>

<sup>1</sup>Staffordshire University, United Kingdom

**Background:** Breastfeeding is an important health behaviour that has substantial health benefits for both the mother and baby. However, breastfeeding rates in Stoke-on-Trent are poor and are substantially lower than the average for England. The current research explores the relationship between pre-natal intention to breastfeed, self-efficacy, perceived stress, level of social support and actual breastfeeding duration. It also compares characteristics of women who breastfed their babies and those who did not.

**Methods:** The aim is for a minimum of 90 first time Mums living in Stoke-on-Trent to complete the survey, which includes three established survey instruments: The Perceived Stress Scale, The Social Support Scale and The General Self-Efficacy Scale. Additional breastfeeding questions including intention to breastfeed and demographic questions have been replicated or adapted from the Infant Feeding Survey.

**Expected results:** Survival analysis using Cox's regression will be run to assess the links between pre-natal intention to breastfeed, self-efficacy, perceived stress, level of social support and breastfeeding rates at 1 week, 6 weeks and 6 months. t-tests will be used to statistically compare the difference between the mean scores of the psychosocial factors for those who breastfed their children with those who did not.

**Current stage of work:** Data collection has now ended and analysis will be conducted over the next three months.

**Discussion:** Increased knowledge about breastfeeding practices and challenges in Stoke-on-Trent should allow for interventions to be developed to increase breastfeeding rates and for recommendations to be made to local services.

15:30 - 17:00

## Safe to vape whilst breastfeeding? Postpartum women's opinions on e-cigarettes, using online forum discussions

E. Johnston<sup>1</sup>, K. Campbell<sup>1</sup>, s. Cooper<sup>1</sup>, T. Coleman<sup>1</sup>, S. Orton<sup>1</sup>, S. Lewis<sup>1</sup>

<sup>1</sup>University of Nottingham, United Kingdom

**Background:** E-cigarettes are an increasingly popular alternative to smoking, with potential for harm reduction as they are likely to be safer than smoking. Many women return to smoking in the postpartum period, and this can affect their decisions about breastfeeding. So far, very little is known about women's opinions on using e-cigarettes during this period.

**Objectives:** To explore online forum users' current attitudes, motivators, and barriers to using e-cigarettes postpartum, particularly as a breastfeeding mother.

**Methods:** Data were collected via publicly accessible online forum discussions, and a priori codes identified. All transcripts were entered into NVivo for analysis; a template approach to thematic analysis was used to code all transcripts from which themes were derived.

**Results:** Four themes were identified: Use, Perceived risk, Social Support and Evidence. Women were using e-cigarettes to prevent postpartum return to smoking, however opinions on the safety of e-cigarettes was conflicting. Women were concerned about possible transfer of harmful products from e-cigarettes via breastmilk and second hand exposure. Women were actively seeking and sharing information on e-cigarettes from a variety of sources. Although some women were supportive of e-cigarette use, others provided harsh judgement for mothers who use them.

**Conclusions:** E-cigarettes have potential to reduce the number of women who return to smoking in the postpartum period, and potentially improve breastfeeding rates, if breastfeeding mothers have access to relevant and reliable information. Health care providers should consider discussing e-cigarettes with mothers at risk of returning to smoking in the postpartum period.

15:30 - 17:00

## A Survey on Drinking Alcohol for Parents of Infants and Pregnant Mothers in Japan

K. Eto<sup>1</sup>, N. Kamba<sup>2,3</sup>, M. Hayakawa<sup>4</sup>, R. Ishikawa<sup>5</sup>, K. Mori<sup>5</sup>

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<sup>3</sup>Ritsumeikan University, Japan

<sup>4</sup>Graduate school of Medicine, Yokohama City University, Japan, Japan

<sup>5</sup>J. F. Oberlin University, Japan

**Background:** The purpose of this study is to see the motivation for drinking in young family by investigating drinking habit and experiences of requirement (demand) for drinking.

**Methods:** Nine hundred participants who were pregnant women, their husbands and parents with three to four-month-old babies in Japan answered the questionnaire containing The Alcohol Use Disorders Identification Test (AUDIT) and questions about experiences that they were required to drink alcohol by their parent(s) in their childhood or that they required their children to drink alcohol to their children.

**Findings:** 74(24.7%), 14(4.7%), 7(2.3%) mothers were classified as "Low-Risk Drinkers", "High-Risk Drinkers", "Probable Alcohol Dependence" respectively from AUDIT. 76(25.3%) were recommended alcohol by their parent(s) in their childhood, and 18(6.0%) recommended alcohol to their children. Meanwhile, 177(59.0%), 43(14.3%), 8(2.7%) fathers were classified as "Low-Risk Drinkers", "High-Risk Drinkers", "Probable Alcohol Dependence" respectively. 83(27.7%) were recommended alcohol by their parent(s) in their childhood, and 34(11.3%) recommended alcohol to their children.

**Discussion:** It is necessary to enlighten parents and provide correct knowledge about drinking alcohol.

15:30 - 17:00

## Correlates of quality of life in pediatric cancer survivors

M. Sedmak<sup>1</sup>, A. Bogdanic<sup>1</sup>, M. Grubić<sup>1</sup>

<sup>1</sup>University Hospital Center Zagreb, Croatia

Pediatric survivors of childhood cancer are at increased risk of poor quality of life and social-emotional outcomes following treatment.

Aim of the research was to assess the quality of life of pediatric cancer survivors and to examine the association of quality of life with posttraumatic stress disorder (PTSD), posttraumatic growth (PTG), health consequences and social functioning. Another aim was to explore possible predictive factors of Quality of life in pediatric cancer survivors.

Participants were 83 pediatric cancer survivors at age 16 to 29 who were off-therapy for more than one year. They filled out the Impact of Event Scale-Revised Questionnaire (IES-R, Weiss & Marmar, 1997), Quality of life scale (QOLS, Flagan 1970) and social adjustment scale (SAS-SR; Weissman, 1999). Demographic data including child health status information were also collected.

Results show that young survivors reported an average score on Quality of life questionnaire similar to healthy population. We found a significant association between Quality of life and social adjustment, PTG, health consequences and PTSD. Regression analysis showed that PTG, social functioning and treatment consequences are significant predictors of Quality of life in pediatric cancer survivors.

The findings highlight the importance of key factors associated with quality of life in pediatric cancer survivors. Interventions aimed at strengthening social support and highlighting positive changes following trauma of cancer treatment (PTG) could improve quality of life.

15:30 - 17:00

## Multi-modal program evaluation for pediatric brain tumor survivors and their families.

K. Lucille<sup>1,2</sup>, C. Lopez<sup>1,2</sup>, C. Pouchepadass<sup>2</sup>, A. Longaud<sup>2</sup>, C. Da-Fonseca<sup>2</sup>, C. Flahault<sup>1,2</sup>

<sup>1</sup>Paris Descartes, France

<sup>2</sup>Psycho-oncology Unit, Gustave Roussy's Hospital, Villejuif, France, France

**Background:** Pediatric brain tumor survivors face treatment-induced sequelae of all sorts. These directly impact their schooling, social relations, and quality of life. The literature highlights the role of family functioning, parental experience, and early stage integrated care in child disorders' reduction.

This research aims to evaluate the effect of a multi-modal program on children survivors' emotional, cognitive and behavioral skills and family adjustment.

**Methods:** The program includes 6 modules proposed to the children of RISK-N cohort (N=250).

The program waiting list provides for the natural randomization and control group. Four evaluation periods are planned (program entry, compulsory modules end, program end, 6 months post-program period).

**Quantitative:** Children's depression, anxiety, behavior, executive functioning, quality of life, neurocognitive and social skills, emotional regulation will be measured as well as family functioning, and parental distress. Data will be analyzed in a pilot study based upon single case experimental design, using an intra-subject setting where subject is his own control and collected with a subgroup through Ecological Momentary Assessment.

**Qualitative:** 15 children and 15 parents are interviewed to explore their experience with the program. A thematic analysis will be performed.

**Expected results:** A quantitative and qualitative improvement in children skills and families' adjustment.

**Current stage of work:** Patients will be contacted end of February for program initiation.

**Discussion:** This study aims to evaluate the validity of a global support improvement program for pediatric brain tumor survivors and their family; to reduce inequality in care access and brain tumor's long term impact.

15:30 - 17:00

## Exploring cross-condition experiences of caring for a child with appearance-altering conditions or injuries.

M. Thornton<sup>1</sup>, H. Williamson<sup>1</sup>, D. Harcourt<sup>1</sup>, J. Kiff<sup>1</sup>, T. Deave<sup>1</sup>

<sup>1</sup>University of the West of England, United Kingdom

Psychosocial difficulties can arise in parents and carers of children and young people (CYP) with visible differences. The relatively little existing research is confined to condition-specific explorations of common conditions and injuries that alter appearance (e.g. cleft and burns research). This study aims to expand this understanding by exploring the cross-condition challenges, experiences and support needs of parents and carers of CYP with any visible difference. This study will collect qualitative data via interviews and focus groups with parents and carers of CYP with a visible difference and professionals who support them. Public Involvement will inform the development of research materials. Thematic analysis will be used to identify patterns within the data. Existing literature suggests that some of the difficulties parents experience are psychological distress, concerns around social stigma, treatment related decision making and increased burden of care for the child. Findings will increase understanding of the cross-condition challenges and support needs of parents, and may indicate directions for future intervention development. Recruitment and data collection is currently in progress and data will have been collected and analysed by September 2019. Findings will be discussed in the context of current visible difference literature, whilst drawing on theories of stress and coping and parenting theory. The discussion will reflect on the value of public involvement in increasing meaning and relevance in research. Findings may have implications for the promotion of wellbeing in parents and carers and development of future support.

## Posters

# Self-regulation and health-related behaviors

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Valerie Morrison

15:30 - 17:00

## Psychological needs satisfaction moderates the relationship between BMI and body dissatisfaction in children.

I. Taylor<sup>1</sup>, C. Plateau<sup>1</sup>, H. White<sup>1</sup>

<sup>1</sup>Loughborough University, United Kingdom

**Background:** Body dissatisfaction in childhood, and specifically the desire to be thinner, is a risk factor for poor physical and mental health. A relationship exists between higher weight status (i.e., body mass index; BMI) and body image concerns, however, this relationship is complex and potentially moderated by a range of factors. This study aimed to explore whether children's psychological need satisfaction, as conceptualized within self-determination theory, can moderate the relationship between BMI and body dissatisfaction.

**Methods:** Participants were 333 11- and 12-year old children (205 females). BMI was objectively calculated at the beginning of the study. Body dissatisfaction and psychological need satisfaction were reported three times over an eighteen-month period. Multilevel modelling was used to examine the data.

**Findings:** The expected positive relationship between BMI and body dissatisfaction was observed ( $b = 5.50$ ;  $p < .001$ ). In turn, psychological need satisfaction moderated this relationship ( $b = -2.42$ ;  $p < .001$ ). Simple slopes analysis revealed that the relationship between BMI and body dissatisfaction was weaker when psychological needs were satisfied ( $b = 2.39$ ;  $p = 0.01$ ), compared to when psychological need satisfaction was low ( $b = 7.24$ ;  $p < .001$ ).

**Discussion:** The findings of this study are novel in indicating that psychological need satisfaction is an important moderator of the BMI-body dissatisfaction relationship in children. Psychological needs may be an important target to incorporate into interventions designed to reduce body dissatisfaction among children, particularly among those with higher BMI.

15:30 - 17:00

## Uptake of planning as a self-regulation strategy: Adolescents' reasons for (not) planning physical activity

E. Renko<sup>1</sup>, K. Kostamo<sup>1</sup>, N. Hankonen<sup>1</sup>

<sup>1</sup>University of Helsinki, Finland

**Background:** Although action planning is an effective self-regulation strategy, not all intervention participants take up planning. Thus, we need to understand how to best promote the uptake and use of planning. To answer this question, the use of planning needs to be understood as a behavioral target in itself. This study investigates how people explain their (non) use of planning for physical activity (PA).

**Methods:** Follow-up interviews 14 months post-baseline of the Let's Move It (LMI) trial participants (n=19; from intervention (n=14) and control schools (n=5)). In the LMI intervention, action planning was one of several techniques to promote PA.

**Findings:** The reasons for planning were that the plan helps: (1) clarify what to do and stick with it, (2) strengthen the feeling of autonomy as well as (3) a sense of progress, ability and control over one's PA. The reasons for not planning were that the plan may: (1) feel forced and like an unpleasant duty, (2) take away the spontaneity and freedom, (3) fail, resulting in anticipated annoyance and bad mood, (4) be an effective strategy for others but not for the respondent. Reasons for (not) planning were similar in intervention and control groups.

**Discussion:** Planning may not only affect behavioral control but also the feeling of autonomy, and thus motivation. Based on these results, possible strategies to promote planning in interventions are: challenge non-planner identity, emphasize the variety of ways to plan, take into account the social dimension of planning and support planning self-efficacy.

[repository: <https://osf.io/rvj43/>]

15:30 - 17:00

## Understanding vocational students' motivation for physical activity and eating behaviours

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<sup>1</sup>The Hague University of Applied Sciences, Netherlands

**Background:** Insufficient physical activity (PA) and unhealthy eating behaviours are a health threat for Vocational Education and Training (VET) students. Therefore theory-based interventions that enhance a healthy lifestyle in VET students are urgently needed. The present study examined whether controlling or autonomous forms of motivation could predict VET students' PA and dietary behaviours.

**Methods:** We used baseline data from a health promotion intervention of 810 VET students (303 males, 507 females) aged 16-33 years (mean 17.8, SD 1.9). They completed a self-administered online questionnaire including questions on socio-demographic factors, PA and eating behaviour and self-determination theory (SDT) constructs for regular PA and healthy eating behaviours. Logistic regression was used to assess the predicted value of SDT constructs on meeting Dutch PA and dietary guidelines.

**Findings:** Students reported moderate levels of autonomous motivation for regular PA as well as for healthy eating and low levels of controlled motivation for these behaviours. Achieving the PA guideline was associated with controlled regulation (OR 1.4) and inversely associated with amotivation (OR 0.7). Eating sufficient fruit was associated with autonomous regulation (OR 1.5). A high consumption of snacks was inversely associated with autonomous regulation (OR 0.5).

**Discussion:** VET students show different forms of motivation for PA and eating behaviours. Therefore, interventions grounded in SDT should take care to include strategies that enhance more autonomous forms of motivation as well as controlled motivation depending on the behavioural outcome of interest.

15:30 - 17:00

## A test of the temporal order of self-regulatory processes

D. Brown<sup>1</sup>, K. Hamilton<sup>1,2</sup>

<sup>1</sup>Griffith University, Australia

<sup>2</sup>Curtin University, Australia

**Background:** The Health Action Process Approach (HAPA) outlines hypotheses regarding the temporal order of self-regulatory processes; however, research has provided mixed evidence regarding these hypotheses. We tested the temporal order of self-efficacy, action planning, and action control on two health behaviours (daily dental flossing and using sun-safety behaviours on children aged 2 – 5 years).

**Methods:** Participants in the flossing survey comprised Australian adults aged 18+ years old (N = 177). Participants in the sun-safety survey comprised Australian parents of at least one child aged between 2 and 5 years (N = 100). The study used an online survey, adopting a cross-lagged panel design with two waves of data collection six weeks apart.

**Findings:** Structural equation modelling revealed two patterns of effects. For the flossing data, self-efficacy predicted action planning while action planning predicted action control. For the sun-safety data, self-efficacy predicted action control while action control predicted action planning.

**Discussion:** We found support for self-efficacy beliefs influencing action planning and action control, perhaps because the number and quality of plans and ability to self-monitor are dependent on one's perceived confidence and experience. Further, having well-elaborated plans may result in closer self-monitoring, implying that planning is needed before action control, as was found in the flossing sample. However, it is possible that actions can be monitored before making plans, as was found in the sun safety sample. These two distinct temporal order patterns are intuitively meaningful. Experimental research is needed to confirm the temporal or causal order of these mediators.

15:30 - 17:00

## Self-determination, happiness and somatic health

I. Marčinko<sup>1</sup>, Ž. Rački<sup>2</sup>, L. Cakić<sup>2</sup>

<sup>1</sup>Faculty of Humanities and Social Sciences Osijek, Croatia

<sup>2</sup>Faculty of Education, University of J. J. Strossmayer in Osijek, Croatia

**Background:** The positive effects of autonomy have been established by the research under the umbrella of self-determination theory. The goal of this study was to investigate the mediating role of happiness on the relationship between self-determination and somatic health.

**Methods:** A cross-sectional design was employed. By using cluster sampling 486 subjects were selected who took part in this study. The degree of self-determination was assessed by using Personal goal measure and Perceived locus of causality inventory. Positive Affect Negative Affect Schedule along with a modified version of one-item satisfaction with life scale were used for purposes of measuring happiness while somatic health was measured with Short Form-36 Health Survey physical health scales. Regression analyses have been used for analyzing the data.

**Findings:** The results showed that the effects of self-determination on somatic health were mediated by happiness. High self-determination via high level of happiness contributes to better somatic health. When data were analyzed on the component level of happiness it has been shown that the relationship between self-determination and somatic health is mediated by negative affect. That is, high self-determination contributes to somatic health through low negative affect.

**Discussion:** Present study indicates that happiness, which arises from development of one's potential, is the missing link between autonomous behaviors and optimal physical health. In terms of targets for intervention, practitioners may provide a choice of autonomous activities which should initiate happiness raised from self-realization, and that in turn, will initiate positive somatic activation of organism.

## Posters

# Implementation and health services research: Screening and clinical practice

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Susan Carroll

15:30 - 17:00

## Implementing a psychosocial screener in an outpatient burn clinic

D. Williford<sup>1,2</sup>, B. Thomas<sup>1</sup>, C. Ford<sup>1</sup>, S. Addicks<sup>1</sup>, E. Manegold<sup>1</sup>, C. Randall<sup>1</sup>, A. Aballay<sup>2</sup>, G. Hajduk<sup>2</sup>, C. Duncan<sup>1,2</sup>

<sup>1</sup>West Virginia University, United States

<sup>2</sup>West Penn Hospital Burn Centre/Allegheny Health Network, United States

**Background:** Burns are associated with psychosocial distress, which can negatively impact recovery (e.g., Hudson et al., 2017). Identifying psychosocial concerns is important to promote adjustment. Few studies have examined broad psychosocial screening in outpatient burn care settings, despite advances in healthcare shifting the majority of burn treatment to outpatient clinics (e.g., Jackson & Lauderback, 2015).

**Methods:** Developed from validated instruments (PC-PTSD, PHQ-4, & CAGE questionnaire), our psychosocial screener assessed for symptoms of depression, anxiety, PTSD, substance abuse, and suicidality. It was administered to 179 adult burn survivors (Mage = 39.6) over a 1-year period.

**Findings:** Responses were categorised as: (A) acute psychosocial risk, requiring immediate contact with the physician to determine need for services (n = 2, 1.1%); (B) moderate risk, requiring psychological follow-up, but not urgently (n = 52, 29.2%); or (C) low/no risk, requiring no further action (n = 124, 69.7%). Outcomes included: (a) patient was provided more information about symptoms and accepted referrals (N = 11; 20%); (b) patient was already receiving services (N = 11; 20%); (c) patient was given referral information, but declined (N = 12; 21.8%); (d) patient indicated he/she was no longer experiencing concerns (N = 9; 16.4%), or; (e) patient was unable to be contacted (N = 12; 21.8%).

**Discussion:** Routine screening was easily implemented with relatively limited resources. Approximately one-third of patients indicated significant signs of psychosocial distress and one-fifth accepted referrals, suggesting many individuals experience psychosocial struggles post-burn and may desire support services or need guidance in accessing such care.

15:30 - 17:00

## Combining theory and usability testing to inform optimization of a primary care depression management tool

N. McCleary<sup>1,2</sup>, D. Green<sup>2,3</sup>, B. Mutsaers<sup>2</sup>, C. Kendall<sup>2,4</sup>, J. Yamada<sup>5</sup>, K. Gillis<sup>2,3</sup>, J. Presseau<sup>1,2</sup>

<sup>1</sup>Ottawa Hospital Research Institute, Canada

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<sup>4</sup>Bruyère Research Institute, Canada

<sup>5</sup>Ryerson University, Canada

**Background:** The Ottawa Depression Algorithm is a new online tool developed to support primary care professionals in caring for adults with depression. We aimed to identify barriers and enablers to its use and usability.

**Methods:** We conducted semi-structured interviews with primary care professionals in Ottawa, Canada. To evaluate usability, participants used a patient scenario to work through the algorithm while thinking aloud. Participants were then asked questions based on the Theoretical Domains Framework (TDF) to investigate factors influencing algorithm use. We used directed content analysis to assign statements to pre-specified codes (TDF domains/aspects of usability), and thematic analysis to develop themes pertaining to barriers/enablers and usability.

**Findings:** We interviewed 20 professionals from seven practices. Usability testing highlighted needs for improvement in: understandability of language, completeness of information, visibility of medication guidance, and navigation. Key barriers to algorithm use were: lack of knowledge and practice, with familiarization requiring time commitment (Knowledge; Skills; Environmental context and resources); and concerns about how the algorithm will be kept up-to-date in accordance with evidence (Environmental context and resources). Key enablers were: the algorithm improves access to disparate evidence-based resources (Beliefs about consequences); and can be used by a range of professionals with the potential to streamline care (Social/professional role and identity; Beliefs about consequences).

**Discussion:** Modifications to the algorithm could improve usability, and an implementation strategy could include training, with persuasive communication emphasizing potential positive outcomes. Combining the TDF with usability testing allowed for a fuller assessment of factors influencing use of a new tool.

15:30 - 17:00

## Exploring the benefits of co-production for health professional behaviour change in mental health nursing handovers

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<sup>2</sup>Greater Manchester Patient Safety Translational Research Centre, United Kingdom

**Background:** In mental health nursing, a lack of predetermined content for handovers has resulted in inconsistent communication of variable quality. Previous research developing a surgical handover tool found co-production to be the most influential variable for successful behaviour change. Therefore, it would seem that co-production of a handover tool would be an evidenced-based method for improvement.

**Methods:** A novel tool was developed during a workshop based on the principles of co-design, within a single NHS trust. The 22 attendees (various professional cadres) agreed on core information categories for handover, whilst existing tools were critiqued. During implementation the tool was piloted on one ward. Evaluation, informed by PDSA, involved observation of 27 handovers, within 145 hours of ethnographic style research and 26 interviews. Thematic analysis was used.

**Findings:** The tool included novel information expected to be communicated. One nurse from the pilot ward was involved in the co-production. Observations suggest that despite capturing additional information on paper, the majority of staff used the same habitual communication method, novel information categories were rarely verbalised. Interviews revealed pilot ward nurses were largely unaware of the purpose of the tool as a means of information sharing, but instead considered it record-keeping.

**Discussion:** Despite the growing literature advocating for co-production as method of eliciting behaviour change in health professionals, findings suggest that co-production might not always increase implementation. In this study, the specific co-producers were not the implementers of the tool. Future research should consider such variables when developing co-production/co-designed tools.

15:30 - 17:00

## Therapists' perceptions of barriers and facilitators to uptake and engagement with therapy in Long-Term Conditions

S. Carroll<sup>1</sup>, J. Hudson<sup>1</sup>, K. Hulme<sup>1</sup>, R. Moss-Morris<sup>1</sup>

<sup>1</sup>King's College London, United Kingdom

**Background:** Improving access to psychological therapies for people with long-term conditions (LTCs) has been increasingly prioritised in recent years. For psychological care pathways for people with LTCs to work effectively, it is important to understand factors that influence uptake and engagement with therapy in this context. This study aimed to explore therapists' perceptions of barriers and facilitators to uptake and engagement with therapy in people with LTCs.

**Methods:** Semi-structured interviews were conducted with fifteen therapists recruited from primary and secondary care. Interviews were primarily analysed using inductive thematic analysis. A deductive approach was then taken to map themes onto normalisation process theory (NPT) constructs to guide steps towards improving implementation.

**Results:** Four key themes highlighted patient, therapist and service level factors related to uptake and engagement: Working flexibly with barriers, Acceptability of "embedded" versus "separate" psychological care, Confidence in working with people with LTCs, and Navigating implementation of online therapies. Therapist and service-related factors mapped onto NPT constructs of "coherence", reflected in participants' conceptualisation of therapy for LTCs, "cognitive participation", reflected in therapists' knowledge of available therapies and views of online therapies, and "collective action", reflected in participants' discussions of the role of psychologists and multidisciplinary teams in implementing stepped-care.

**Discussion:** Findings demonstrated the importance of offering flexible, tailored therapy to people with LTCs and normalising the role of psychology in overall patient care. When implementing interventions, it is imperative to work at a patient, staff and system level to maximise access and effectiveness of therapy for people with LTCs.

15:30 - 17:00

## Process evaluation of a behaviour change approach to improving clinical practice for detecting hereditary cancer

N. Taylor<sup>1,2</sup>, J. Long<sup>3</sup>, T. Winata<sup>3</sup>, D. Debono<sup>4</sup>, K. Phan-Tien<sup>5</sup>, C. Zhu<sup>3</sup>

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<sup>5</sup>St George and Sutherland Clinical School, University of New South Wales,, Australia

**Background:** This retrospective process evaluation reports on the application of a one-year implementation program to increase identification and management of patients at high risk of a hereditary cancer syndrome. The project used the Theoretical Domains Framework Implementation (TDFI) approach at two large Australian public hospitals.

**Methods:** Semi-structured interviews explored participants' perceptions of the TDFI approach and health services researchers wrote structured reflections. Interview transcripts and reflections were coded initially against implementation outcomes for the various TDFI approach activities: acceptability, appropriateness, feasibility, value for time cost, and adoption. On a second pass, themes were coded around challenges to the approach.

**Results:** Interviews were held with nine key project participants including pathologists, oncologists, surgeons, genetic counsellors and an administrative officer. Two health services researchers wrote structured reflections. The first of two major themes was 'Theory-related challenges', with subthemes of accessibility of theory underpinning the TDFI, commitment to that theory-based approach, and complexity. The second theme was 'Practical challenges' with subthemes of stakeholder management, navigating the system, and perceptions of the problem. Health services researchers reflected on the benefits of bridging professional divides and facilitating collective problem solving but noted frustrations around the lack of influence to effect change themselves.

**Conclusions:** Mixed success of adoption as an outcome was attributed to the complexity and highly nuanced contexts. This made identifying the target behaviour, a key step in the TDFI approach, challenging. Strategies to address challenges are presented, including using an internal health system facilitator trained in how to apply a theory-based implementation approach.

## Posters

# Implementation and health services research: Children, parents and providers

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Zuzana Dankulincova Veselska

15:30 - 17:00

## Adolescents without problems but involved in care system: how do parental characteristics relate to this?

K. Paclikova<sup>1</sup>, Z. Dankulincova Veselska<sup>2,3</sup>, A. Madarasova Geckova<sup>1,2</sup>, J. P. van Dijk<sup>1,4</sup>, S. A. Reijneveld<sup>4</sup>

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<sup>3</sup>Department of Health Psychology, Medical Faculty, PJ Safarik University in Kosice, Kosice, Slovakia

<sup>4</sup>Department of Community and Occupational Medicine, University Medical Center Groningen, University of Groningen, Groningen, Netherlands

**Background:** Previous research indicates that care for children with emotional and behavioural problems might be unevenly distributed and not at all provided to some. Parents may have an important role in this. Therefore, the aim was to explore parental characteristics of adolescents who have problems and enrol in the system of care or not (i.e. no problems and no care provided, no problems but care provided, problems but no care provided, and problems and care provided).

**Methods:** We used data from the baseline of the Care4Youth cohort study. Sample consisted of 446 adolescents aged from 10 to 16 years (mean age 13.22 years, 48% boys) and 382 parents (mean age 41.24 years, 14% males). We used one-way analyses of variance (ANOVA) with post hoc tests to assess differences in parental characteristics between the groups of enrolment in the system of care.

**Findings:** Largest differences regarded parents of children with no problems but care provided vs. not provided. The former had a significantly lower subjective socioeconomic position ( $p < 0.01$ ), more psychological distress ( $p < 0.001$ ), poorer supervision ( $p < 0.001$ ), and lower family social support ( $p < 0.05$ ).

**Discussion:** Parental factors are associated with the enrolment of children into the care system. Parents with lower socioeconomic position, lower parenting skills, lower family social support and more psychological problems in particular deserve attention regarding the reasons for entering care, which might be connected with a more effective enrolment of children into care.

15:30 - 17:00

## "An Adventure at the Hospital - The surgery's Day"

S. Fernandes<sup>1</sup>, F. Esteves<sup>1,2</sup>, P. Arriaga<sup>3</sup>

<sup>1</sup>CIS-IUL; ISCTE-IUL, Portugal

<sup>2</sup>MidSweden University, Sweden

<sup>3</sup>ISCTE-Instituto Universitário de Lisboa; CIS-IUL, Portugal

Pediatric surgery and hospitalization are stressful life events for children and family. The preoperative period is the most critical moment of the surgical process, which involves negative emotions, cognitions and stress overload.

The present project aimed to develop preoperative educational programs, called "An Adventure at the Hospital – The Surgery's Day", in different formats.

In a second phase, the project aimed to evaluate the efficacy of these materials on children's cognitive responses that undergoing to outpatient surgery. The samples were composed by 190 children aged 8 to 12 (and their parents), randomly assigned to one of the conditions: 1) experimental group, in which children received educational preoperative materials to provide them information about surgery, hospitalization and medical procedures; 2) comparison group, in which children use distractive materials intended to entertain; and 3) control group (no intervention).

According to the main results, there was a statistically significant and positive effect of the preoperative educational intervention on children's cognitive responses about surgery ( $p < 0.001$ ). In more detail, children in experimental group reported less worries (in all worries dimensions), compared to those in both comparison and control groups. Similarity, there was also a statistically significant decrease in parental anxiety in both experimental and comparison groups.

In conclusion, we will present in the EHPS2019 conference some of the educational materials' developed (ie., board-game, activities book, giant game), whose effectiveness tests have demonstrated the need and relevance of their implementation in the pediatric services, functioning as important tools to improve the entire surgical and hospitalization experiences.

15:30 - 17:00

## Predictors of parental satisfaction with healthcare in pediatric hospital setting

M. Grubić<sup>1</sup>, A. Bogdanic<sup>1</sup>

<sup>1</sup>University Hospital Centre Zagreb, Croatia

**Background:** Patient satisfaction with healthcare is an important component in assessment of service quality. It improves adjustment to health condition which results in better treatment adherence and improved health outcomes.

**Aim:** To explore factors associated with parental satisfaction with healthcare in pediatric hospital settings.

**Methods:** Before child's discharge from hospital parents (8 fathers and 44 mothers) filled in the „Parental perception of quality of healthcare questionnaire“ which consisted of five sub-scales that measured their perception of different aspects of healthcare (information provision, attitude of staff towards patients, health professionals' competence, attitude towards work obligations and working conditions) and a questionnaire which consisted of questions regarding child health status, demographic data and parental level of stress. The overall satisfaction with healthcare was measured as a global satisfaction rating on a five degree Likert-type scale.

**Results:** We did not find significant association between satisfaction with care and demographic data, child health status and parental level of stress. Significant associations have been found between satisfaction with healthcare and all measured aspects of healthcare of which working conditions and perceived health professionals' competencies have been shown to be significant predictors and explained 71% of variance of parental satisfaction with healthcare.

**Conclusion:** Our results have shown that parental satisfaction with healthcare is mostly based on their assessment of health professional's competence and adequate work organization. The results suggest these variables should be considered in the context of initiatives that are designed to improve parent experiences and satisfaction with pediatric care.

15:30 - 17:00

## Barriers and facilitators to midwives' health promotion practice behaviours: Theoretical Domains Framework based survey

J. McLellan<sup>1</sup>, R. O'Carroll<sup>1</sup>, H. Cheyne<sup>1</sup>, S. Dombrowski<sup>2</sup>, P. Rackow<sup>1</sup>

<sup>1</sup>University of Stirling, United Kingdom

<sup>2</sup>University of New Brunswick, Canada

**Background:** midwives are expected to perform various health promotion practice behaviours (HePPBes) such as informing pregnant women about the benefits of physical activity or measuring carbon monoxide levels. This research investigated perceived barriers and facilitators to midwives' implementing HePPBes.

**Methods:** an online survey, informed by the Theoretical Domains Framework, assessing demographics, HePPBes, cognitions about HePPBes, self-regulation strategies to carry out HePPBes and perceived support needs. Hierarchical multiple regression predicted the influence of demographics, health status and cognitions about HePPBes on the number of HePPBes performed.

**Findings:** midwives and student midwives (n=505), mean age 39.2±12.1 years, 94.3% based within the UK participated. Significant predictors of the number of HePPBes performed, when controlling for years of experience and midwifery occupational status, were: belief that HePPBes were outwith the professional role (Beta= -.105, p <.05), confidence (Beta= .182, p <.01), intrinsic drive (Beta= .145, p <.05) and support from colleagues and resources (Beta= .170, p <.01). The self-regulation strategy most strongly favoured was focusing on topics midwives themselves perceived as important. The majority of midwives (72.5%) strongly disagreed that no further support with performing HePPBes was necessary.

**Discussion:** performance of HePPBes was predicted by the belief that health promotion practice behaviours were outwith the role of the midwife, confidence, intrinsic drive and perceived support from colleagues and resources. Midwives reported using a variety of strategies in carrying out HePPBes, however, support needs were identified. Interventions addressing the barriers and facilitators identified in this study are warranted.

15:30 - 17:00

## From inquiry to child maltreatment policy- lesson learnt

D. Jordanova Peshevska<sup>1</sup>, T. Mitanovska<sup>2</sup>

<sup>1</sup>University American College Skopje, School of Political Sciences and Psychology, Macedonia

<sup>2</sup>"Labyrinth"-National Association for the improvement of the health and right of person with mental illnesses and other vulnerable groups", Skopje, Macedonia

**Background:** Child maltreatment is a major public health problem in the Republic of North Macedonia. Studies on adverse childhood experiences conducted in the country suggest that around 65-67% of children unnecessarily suffer some form of child maltreatment. Ecological framework has been applied into the analysis.

**Methods:** A qualitative study include thematic analysis on the whole-of the- government and whole-of-society approaches of intervention. Evidence from the preliminary findings of the Survey of adverse childhood experiences among young people in 2011 together with the awareness raising campaigns led to setting a national policy dialogue and legal landscape for child maltreatment prevention actions, as contributing factor for successful story. National Action Plan for Prevention, Protection Child Abuse and Neglect adopted in 2013 for the first time addressed child maltreatment strategically in the country.

**What went wrong:** Despite the significant progress made in child maltreatment prevention and safety promotion further efforts and a more strategic approach is needed in the years ahead. Special efforts should be made for addressing violence and reinforcing the legal and policy framework, including implementing evidence based preventive programmes.

**Possible solutions:** Governmental commitment with clear budget allocations from all relevant ministries and realistic indicators are needed. Defined indicators in reducing child mortality and burden of child maltreatment will be addressed in the upcoming national policy on preventing adverse childhood experiences.

**Conclusions:** Setting up child maltreatment on the government agenda and monitoring the progress can contribute in reduction of the negative impact on health and enable healthy growing for future generations.

## Posters

# Digital solutions and youth health

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Lucrezia Ferrante

15:30 - 17:00

## Adolescents' perceptions towards using a health promotion app: preferences, context and motivation

C. Peuters<sup>1</sup>, L. Maenhout<sup>1</sup>, G. Cardon<sup>1</sup>, G. Crombez<sup>1</sup>, A. DeSmet<sup>1</sup>

<sup>1</sup>Ghent University, Belgium

**Background:** Mobile applications for promoting health behaviours have many advantages particularly in the younger, more technically savvy, generation; however, a disadvantage remains the poor adherence and low user engagement. Despite a general consensus on the importance of involving the user in the development process, little is known about adolescents' preferences for using a health promotion app. This study aims to shed light on what features and techniques would motivate healthy adolescents to (continued) use of a mobile application for health promotion.

**Methods:** Ten focus groups with 6 to 8 adolescents (aged 12-15 years) are conducted in May 2019. A focus group guide was developed covering three main topics: contextual health promotion app usage, motives and goals for health behaviour change, and desired health app features and behaviour change techniques. Participants are also shown examples of health promotion apps and encouraged to discuss their perceptions and preferences. Thematic analysis of the transcribed audio recordings of the discussions are performed in NVivo.

**Findings:** The identified themes are mapped onto theories such as the Self-Regulation Theory, the Theory of Planned Behaviour, and the Self-Determination Theory. The results will be available at the time of the conference. We expect to find youth specific technology usage patterns of health promotion apps, and will identify barriers as well as motivators for using such apps.

**Discussion:** A better understanding of adolescents' implementation intentions for health behaviour change together with their mobile usage preferences can inform the design and improve the effectiveness of mobile health promotion programs.

15:30 - 17:00

## Piloting a novel online international learning project on employability for postgraduate health psychology students.

C. Percy<sup>1</sup>, J. Mc Sharry<sup>2</sup>

<sup>1</sup>Coventry University, United Kingdom

<sup>2</sup>National University of Ireland, Galway, Ireland

**Background:** We piloted an 8 week project offering health psychology students 'international' experiences via online interaction. We tested the feasibility of running collaborative activities in an online platform. Students were invited to participate from health psychology programmes at one Irish and one British university.

**Methods:** Learning activities included: posting to online discussion forums, a live video discussion on 'global health psychology', and shared digital presentations on international employability, including e.g. qualification requirements across countries, continuing professional development, digital fluency, and intercultural competence. An evaluation questionnaire asked how important each of the learning outcomes were to students and how much progress they had made.

**What went wrong:** 21 students volunteered to take part in the project (13 from one university, 8 from the other). There was varied participation across the learning activities. The live video discussion was most popular (21 students participated), followed by posting personal pictures/biographies (n=14) and discussion forums (n=7). Only 3 students contributed to the digital presentation. Only 2 students completed the evaluation questionnaire, providing positive but very scant data. Student engagement decreased as the semester progressed. Informal feedback suggests that competing coursework deadlines may have reduced engagement.

**Possible solutions:** Engagement might be enhanced by including fewer activities, or offering course credit for participation or evaluation activity.

**Conclusions:** It is feasible for health psychology training courses in different countries to collaborate in online learning projects. Learning collaboratively with students in other countries may broaden international perspectives and employment prospects. We hope future collaborations may be facilitated through EHPS.

15:30 - 17:00

## The role of positive and negative emotions on risky adolescents' photo self-disclosure on SNS

U. Paluckaitė<sup>1</sup>, K. Žardeckaitė-Matulaitienė<sup>1</sup>

<sup>1</sup>Vytautas Magnus University, Lithuania

Photo disclosure becomes to be a widely spread phenomenon among adolescents on social networking sites (SNS). However, sharing inappropriate or more intimate photos online might be called as risky of adolescents, where emotions play an important role. The aim of this study is to find out how positive and negative emotions are related to adolescent's risky photo disclosure on SNS. To reach this aim, a pilot study was organized. Adolescents' risky photo disclosure was measured by asking adolescents' how often do they share different types of photos (e.g., semi-nude photos) on SNS (Cronbach's  $\alpha$ .62); positive and negative emotions towards risky photo disclosure on SNS were measured by asking adolescents if they share certain types of photos while feeling exact 5 positive and 5 negative emotions (Cronbach's  $\alpha$  for positive emotions .94, Cronbach's  $\alpha$  for negative emotions .91). Seventy seven adolescents participated in the pilot study. Participants' age varied from 12 to 18 years ( $M=15.48$ ,  $SD=2.11$ ): 63% of them were females and 37% - males. The conducted multiple linear regression model of positive and negative emotions on adolescents' risky photo disclosure was statistically significant ( $F(2,72)=23.95$ ,  $p<.001$ ). The results of the study have shown that positive and negative emotions towards sharing photos on SNS explain 39% of adolescents' photo self-disclosure. However, only positive emotions towards sharing risky photos on SNS ( $\beta=.68$ ) are statistically significant predictor of adolescents' risky photo disclosure. Thus, those adolescents, who feel positive emotions while sharing photos on SNS, are more likely to engage in risky photo disclosure.

15:30 - 17:00

## Assessing the feasibility of a novel app-delivered stress management intervention for distance-learning students in Germany

L. Fritsche<sup>1</sup>, J. Apolinário-Hagen<sup>1</sup>, J. Kemper<sup>1</sup>, M. Drüge<sup>2</sup>, C. Salewski<sup>1</sup>

<sup>1</sup>University of Hagen, Germany

<sup>2</sup>University of Zurich, Switzerland

**Background:** Distance-learning students are at high risk to experience multiple stressors due to the vital compatibility of study, work and family. Easily accessible, app-delivered stress management interventions could provide support for this group. The aim of this project is to evaluate a self-guided stress management app tailored to the needs of distance-learning students.

**Methods:** A sequential mixed-methods design is used: in phase 1, a randomized controlled trial (intervention group vs. waitlist control group; at least 86 distance-learning students enrolled at the University of Hagen) will investigate the efficacy and usability of a six-week app-delivered, evidence-based stress training; in phase 2, focus groups will be conducted to explore participants' preferences and potential barriers. Baseline-, post- (six weeks after randomization), follow-up-assessments (11 weeks after randomization) and feedback on the six modules will be conducted online. The primary outcome is perceived stress. Secondary outcomes include physical and mental stress symptoms, self-efficacy, resilience, life satisfaction and usability of the app. Data will be analyzed using mixed ANOVAs, mediation and moderation analyses.

**Expected results:** We predict a significant reduction of stress-related outcomes and improvements in self-efficacy, resilience and life satisfaction in the intervention group compared to the control group. The results of the focus groups will provide evidence for improvement of the app.

**Current stage of work:** Phase 1: recruitment.

**Discussion:** The study will contribute to a deeper understanding of distance-learning students' stress management and will provide information on the feasibility of a group-tailored stress management app.

15:30 - 17:00

## Potential predictors of physical activity in young adults: a preliminary accelerometer-based study

K. Czepczor-Bernat<sup>1</sup>, A. Modrzejewska<sup>1</sup>, A. Brytek-Matera<sup>1</sup>

<sup>1</sup>SWPS University of Social Sciences and Humanities, Poland

**Background:** The purpose of the present study was to identify predictors of physical activity (accelerometer-based metabolic equivalent, MET; physical activity energy expenditure, PAEE) in young adults. Body satisfaction, compensatory behaviours and anthropomorphic indicators (Body Mass Index, BMI; Waist-Hip Ratio, WHR; Body Fat Percentage, BFP) were pre-selected as potential predictors of above mentioned variables.

**Methods:** Thirty five young adults wore an ActiGraph GT3X-BT accelerometer at their waist 24 h/days for 7 consecutive days. All participants completed self-report questionnaires concerning body satisfaction and compensatory behaviours. Anthropometric indicators were assessed by bioelectrical impedance analysis (JAWON MEDICAL X-contact 350F).

**Findings:** We found that BMI ( $\beta = 0,49$ ;  $p = 0,004$ ), WHR ( $\beta = 0,42$ ;  $p = 0,02$ ), BFP ( $\beta = 0,38$ ;  $p = 0,03$ ) were significant predictors of MET. Similar results have been received for PAEE: BMI ( $\beta = 0,533$ ;  $p = 0,001$ ), WHR ( $\beta = 0,43$ ;  $p = 0,01$ ), BFP ( $\beta = 0,32$ ;  $p = 0,07$ ). Body satisfaction was a predictor of MET ( $\beta = -0,36$ ;  $p = 0,03$ ) and PAEE ( $\beta = -0,421$ ;  $p = 0,01$ ). Compensatory behaviors did not predicted both MET and PAE.

**Discussion:** Our findings shown that daily objective physical activity was predicted by health-related anthropometric measures and lower body satisfaction in young adults.

15:30 - 17:00

## The effect of young adults' food-related Instagram use on their fruit & vegetable intake

M. Kilb<sup>1</sup>, J. Mata<sup>1</sup>

<sup>1</sup>University of Mannheim, Germany

**Background:** Up to 85% of pictures posted on Instagram contain food. Yet, research examining underlying motives and health effects is lacking. This study addresses this gap and examines young adults' uses and gratifications for food-related Instagram use (UG) and its effect on fruit and vegetable intake (FVI). We additionally tested whether this potential effect was mediated by four overarching health behavior theory constructs: FVI-related attitude, norms, social support and self-efficacy.

**Methods:** In a cross-sectional survey, young adults (N = 244) reported their food-related Instagram use, UG and FVI. We used t-tests to compare the different UG. The effects of food-related Instagram use (posting; passive use) on the four eating-related theory constructs and FVI were examined using structural equation modeling.

**Findings:** The relevance of the different UG varied significantly. The motives food identification, inspiration, aesthetics, health identification and entertainment were significantly more important than information, norm, and social motives (M = 3.85 vs. M = 2.44,  $p < .001$ ). The structural equation model showed that food-related Instagram use had a strong positive effect on perceived social support for FVI ( $\beta = .52$ ,  $p < .001$ ) as well as FVI itself ( $\beta = .58$ ,  $p < .001$ ). However, the effect of food-related Instagram use on FVI was not mediated via perceived social support for FVI ( $p > .05$ ).

**Discussion:** Young adults' food-related Instagram use had a direct positive effect on FVI, independent of proposed theoretical constructs. Analysis of longitudinal data of the upcoming follow-up survey will clarify the directionality of this relationship.

## Posters

# Occupational stress and helping professions

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Taru Feldt

15:30 - 17:00

## Occupational well-being of mental health care providers: are occupation, tenure and stigmatization the risk factors?

A. Endriulaitiene<sup>1</sup>, R. Markšaitytė<sup>1</sup>, K. Žardeckaitė-Matulaitienė<sup>1</sup>, A. Pranckeviciene<sup>2</sup>, D.R. Tillman<sup>3</sup>, D.D. Hof<sup>3</sup>

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<sup>2</sup>Lithuanian University of Health Sciences, Lithuania

<sup>3</sup>University of Nebraska at Kearney, United States

Well-being of mental health care providers is an important public health issue that contribute to the quality of services and optimal functioning of mental health care system. Therefore it needs special attention from research and policy implementers. The possible reasons for lower levels of well-being are still under investigated, especially in the group of non-medical mental health care staff. The purpose of the current study is to investigate if occupation (psychology vs. social work), work tenure and stigmatizing attitudes towards mentally ill clients (negative community inclusion attitudes) of employees contribute to the risk of poorer well-being (lower job satisfaction and higher burnout). The study involved 234 non-medical mental health specialists (123 psychologists and 111 social workers) employed in different mental health care institutions in Lithuania. Self-reported Maslach burnout inventory, community attitudes questionnaire, one item scale of general job satisfaction and socio-demographic questions were used for measurement of study variables. The results showed that social workers had poorer well-being in terms of job satisfaction when compared to psychologists. The burnout differences were statistically non-significant. Regression analysis revealed that negative community inclusion attitudes are the risk factor for burnout and job satisfaction in both professions, whereas work tenure had no predictive value. The conclusion was made that stigmatizing attitudes might be the risk factor for poorer occupational well-being of non-medical mental health care providers despite the particular profession or years at work. The preventive efforts aiming at better well-being should be planned to deal with stigmatization in this group of professionals.

15:30 - 17:00

## Relationships between humour styles and chronic fatigue in Polish teachers

A. Kruczek<sup>1</sup>

<sup>1</sup>Kazimierz Wielki University in Bydgoszcz, Poland

**Background:** Working in the teaching profession is considered to be very stressful. The experience of chronic stress and low ability to meet challenges can lead to the development of chronic fatigue in teachers. Personal resources are important for coping with stress, especially humour. The purpose of the study was to assess, firstly, the level of sense of stress at work, chronic fatigue, dominant humour style in teachers and secondly, the mediating role of the sense of stress at work in a relationship between humour styles and chronic fatigue. **Methods:** Participants in the study were 166 teachers (145 women and 21 men) aged 23 to 67. The average age in the study group was 43.02 (SD=9.98) years.

The following methods were used: Perceived Stress at Work Scale (PSS10P) by Cohen, Kamarck and Mermelstein in modification by Kruczek and Basińska, Humour Styles Questionnaire by Martin et al., Checklist of Individual Strength (CIS20R) and a demographic-psychosocial questionnaire.

**Findings:** Polish teachers were characterized by medium severity of sense of stress at work and chronic fatigue. An affiliative humour style and self-enhancing humour style dominated in the group of teachers. Teachers used the positive dimension of humor more often (affiliative humour style and self-enhancing humour style were less chronically tired). There were no statistically significant relationships between the negative dimensions of humour and chronic fatigue in teachers.

**Discussion:** The practical implications of the conducted research concern, among others inclusion of humour as an effective coping strategy dedicated to teachers.

15:30 - 17:00

## Tendency to risk, job satisfaction, work experience and the professional burnout among police officers.

P. Stawiarska<sup>1</sup>

<sup>1</sup>SWPS University of Social Sciences and Humanities, Poland

The subject of the research is the connection between the tendency to risk (understood as a personality trait), job satisfaction, work experience in police and the professional burnout among police officers in Poland. Police officers are one of the professional groups particularly exposed to burnout syndrome due to the high level of stress related to the professional role, low level of decision making at work and high requirements from superiors, and society. 109 police officers have been examined by questionnaire Methods: It has been proved that the professional burnout is a relevant problem in the group of police officers. Work experience in police and job satisfaction are related to the level of professional burnout in the analyzed group. The results indicated a significant relationship between the level of tendency to risk and the police officer's job satisfaction and a significant relationship between work experience in police, job satisfaction and the professional burnout in the analyzed group. On the other hand the tendency to risk had no significant relation to the professional burnout in the examined group of police officers. These results can be considered to be particularly inspiring for further research. The obtained results have important practical implications and can be the basis for the development of prevention programs aimed at optimizing the psychosocial working conditions in the analyzed group of police officers.

15:30 - 17:00

## Emotional exhaustion among German health care workers – A focus on resources

L. Lindert<sup>1</sup>, K. Choi<sup>1</sup>, S. Zeike<sup>1</sup>, C. Kowalski<sup>2</sup>, H. Pfaff<sup>1</sup>

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<sup>2</sup>German Cancer Society, Germany

**Background:** Demands of health care work are often perceived as a burden and can cause several mental health problems. Burnout in health care workers is accompanied by less patient orientation and safety and less quality in care. The present study focuses on the resources that might help to improve mental health of health care workers in disability institutions and reduce the negative impact of disadvantageous work demands. The aim of this study was to investigate the associations between emotional exhaustion, social support through colleagues (SoC) and supervisors (SoS), and work-life-balance (WLB) for German health care workers in disability institutions.

**Method:** This study is based on the data of an employee survey among German health care workers in six disability institutions: 175 participated (response rate: 56.8%). As dependant variable emotional exhaustion was measured by the subscale of the Maslach Burnout Inventory-General Survey, as independent variables SoC, SoS and WLB were used. Data was examined by a binary linear regression analysis.

**Findings:** The analysis demonstrated the effects of SoS (OR, 2.903; CI, 1.532-5.499) and WLB (OR, 2.447; CI, 1.481-4.043) on emotional exhaustion. Nagelkerke's Pseudo-R<sup>2</sup> was .406 (large effect according to Cohen). The effect of SoC was not apparent.

**Discussion:** The findings support the hypothesis, that SoS and WLB can positively influence emotional exhaustion and therefore should be considered when conducting interventions to improve mental health of health care workers. The fact that the effect of SoC was not apparent in this sample needs to be discussed and examined in further research.

15:30 - 17:00

## The associations of recovery experiences with wellbeing at work and health in teachers

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<sup>3</sup>University of Helsinki, Medical Faculty, Dept of Psychology and Logopedics, Helsinki, Finland

**Background:** A recent meta-analysis about the Job Demands-Resources model and the recovery experiences concludes that both work characteristics and recovery experiences play a role in employee wellbeing. We examined the relationship of recovery experiences with work-related factors and mental health among teachers.

**Methods:** The cross-sectional study was conducted among 76 teachers. Recovery experiences were measured with Recovery Experiences Questionnaire. Health was assessed with self-reported health and mental health with the General Health Questionnaire and BDI. Work stress was measured with the Job Content Questionnaire and Effort-Reward Imbalance Questionnaire. Burnout was measured with Maslach Burnout Inventory (MBI-GS). We analyzed the data with correlation analysis.

**Findings:** Psychological detachment was linked to higher level of self-reported health ( $r=0.31$ ,  $p=0.007$ ), lower depressive symptoms ( $r=-0.39$ ,  $p<.001$ ), psychological problems ( $r=-0.33$ ,  $p=0.004$ ), job strain ( $r=-0.25$ ,  $p=0.029$ ), burnout ( $r=-0.30$ ,  $p=0.009$ ) and exhaustion ( $r=-0.40$ ,  $p<.001$ ). Relaxation was related to higher self-reported health ( $r=0.28$ ,  $p=0.015$ ), lower depressive symptoms, psychological problems, job strain, ERI, burnout and all its dimensions ( $r$ s from  $-0.28$  to  $-0.36$ ). Mastery was linked to lower job strain ( $r=-0.25$ ,  $p=0.031$ ), burnout ( $r=-0.26$ ,  $p=0.022$ ) and decreased professional efficacy ( $r=-0.29$ ,  $p=0.010$ ). Control was related to lower depressive symptoms ( $r=-0.25$ ,  $p=0.027$ ), psychological problems ( $r=-0.29$ ,  $p=0.012$ ), job strain ( $r=-0.28$ ,  $p=0.016$ ) and burnout ( $r=-0.23$ ,  $p=0.048$ ).

**Discussion:** We conclude that of the recovery experiences, psychological detachment and relaxation seem to be most widely linked to wellbeing and health. Mastery experiences seem to be linked only with work-related wellbeing. Control may be most important way to recover in regard to depressive symptoms and burnout.

15:30 - 17:00

## Professional stressors, emotional dissonance and burnout among midwives: the moderating effect of compassion satisfaction.

D. Truchot<sup>1</sup>, A. Morel<sup>1</sup>

<sup>1</sup>University of Bourgogne Franche-Comté, France

**Purpose:** To investigate the effects of job stressors, emotional dissonance, and compassion satisfaction on job burnout in midwives. In particular, we hypothesized that emotional dissonance mediates the association between stressors and burnout, while compassion satisfaction would moderate the effects of emotional dissonance.

**Methodology:** 1845 French midwives filled out a survey evaluating:

- Burnout: French version (Dion & Tessier, 1994) of the MBI-HSS (Maslach & Jackson, 1981).

- Stressors: based on the existing literature and interviews with midwives, we designed a scale containing 46 items that was included in the questionnaire. Factor analysis EFA and CFA revealed 4 factors: conflict with hierarchy; workload; emotional load; organizational climate.

- Compassion satisfaction: French version of the ProQOL (Stamm, 2010)

- Emotional dissonance (Andela, Truchot, & Borteyrou, 2015).

**Results:** Regression analyses indicated that:

- The 4 stressors were significantly associated to burnout.

- Emotional dissonance mediated the association between the stressors and burnout.

- Compassion satisfaction moderates the link between stressors, emotional dissonance and burnout.

**Discussion:** To our knowledge, this is the first research studying emotional dissonance and compassion satisfaction among midwives. This finding indicates the relevance of recommending the development of strategies that facilitate compassion satisfaction among midwives.

## Posters

# Methodology: nuanced understanding and new insights

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Jo Brooks

15:30 - 17:00

## The Generation suffering related items: a process integrating consensus experts and Sorensen's similarity analysis

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Health psychology and public health aspire to find ways for evaluating the suffering of patients. Quantitative assessment of pain-related suffering exists, but methodological frameworks implying qualitative approach based on a direct communication with participants are missing. Our aim was to analyse the procedure generating pain and suffering-related items and explore the validity of their content.

Volunteers were all right-handed and of European origin. After received information concerning the aims of the study, they signed a consent to accept the experimental pain stimulation protocols and to receive financial compensation. Descriptors of pain-related suffering were gathered through 106 semi-structured interviews of 31 participants (16 men ;15 women), age 18-33 years. A thematic categorical content analysis on the transcriptions was conducted. Verbatim were extracted and classified under categories. Cluster analysis on word of verbatim using the index of Sorensen was performed with N'Vivo12.

The content of each category was validated through consensus by multidisciplinary experts (some have lived the experimental pain stimulation). Then they formulated 70 items to capture the overall pain-related suffering experience. In accordance to theories and with the help of the Sorensen's similarity analysis, a conceptual framework with different dimensions (physical, mental, etc.) has been discussed and elaborated.

The list obtained constitutes a first classification for laboratory use and a basis for the development of a routine clinical suffering assessment tool. This generation process should guarantee that the items are acceptable, comprehensive and relevant (reflecting the lived experience of the participants) ensuring a content validity of the future questionnaire.

15:30 - 17:00

## Sensitivity and specificity of screening tools for cancer related symptoms

J. Steel<sup>1</sup>, E. Jang<sup>1</sup>, M. Antoni<sup>2</sup>, B. Gunsalius<sup>3</sup>, S. Peddada<sup>3</sup>, R. Jones<sup>3</sup>, R. Cowan<sup>1</sup>, D. Olejniczak<sup>1</sup>, Q. Chen<sup>3</sup>, D. Geller<sup>1</sup>

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<sup>2</sup>University of Miami, Afghanistan

<sup>3</sup>University of Pittsburgh, Afghanistan

**Background:** Brief instruments to screen patients for clinical levels of cancer-related symptoms are needed to facilitate the targeting of interventions to patients with the greatest severity of symptoms. The aims of this study were to examine the sensitivity and specificity of screening tools used to assess cancer-related symptoms.

**Methods:** Patients were screened for cancer-related symptoms with brief instruments and then assessed again approximately 2-3 weeks later using widely used reliable and valid instruments to assess cancer-related symptoms. Sensitivity and specificity analyses and Area Under the Receiver Operator Curve (AUROC) analyses were performed.

**Results:** A total of 507 patients were screened for symptoms of pain, depression, and fatigue. No differences by gender [Chi-square=1.51, p=0.469], race [Chi-square=11.2, p=0.509], or diagnosis [Chi-Square=2.5, p=0.92] with regard to those who enrolled in the clinical trial, however younger patients were more likely to enroll in the intervention [F(1,362)=4.8, p=0.03]. Good to poor sensitivity and excellent specificity was observed for the screening of depressive symptoms (0.77 and 0.85), pain (0.47 and 0.91), and fatigue (0.11 and 0.91). The AUROC for depressive symptoms=0.86 (95% CI=0.80-0.92), pain=0.75 (95% CI=0.67-0.83) were good but the AUROC for fatigue=0.40 (95% CI=0.31-50) was poor. The best cut point for depressive symptoms was 15.5 (Sensitivity=0.85; Specificity=0.77), for pain was 4.5 (Sensitivity=0.81; Specificity=0.662); and for fatigue was 2.5 (Sensitivity=0.91; Specificity=0.11).

**Conclusions and Clinical Implications:** The 20 item CES-D and a 0-10-point scale for pain were adequate to screen patients diagnosed with cancer. However, the use of a 0-10-point scale for fatigue was not recommended.

15:30 - 17:00

## Predictors of recruitment and attrition in randomised controlled trials of smoking cessation: meta-regression analyses.

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<sup>1</sup>University of Aberdeen, United Kingdom

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<sup>4</sup>University College London, United Kingdom

<sup>5</sup>Radboud University Medical Centre, Netherlands

**Background:** To identify predictors of eligibility and recruitment rates in smoking cessation randomised controlled trials (RCTs).

**Methods:** We identified RCTs with at least 6 months follow-up and an objective outcome published between 1996 to 2018 in the Cochrane Tobacco Addiction Group Specialized Register (CTAGSR). The study is described in a published IC-SMOKE protocol (de Bruin et al.2016; Syst Rev) on PROSPERO (CRD42019121453), and detailed analyses plans are available at <https://osf.io/5er49/>. From the literature and experts, we identified 22 predictors related to participant, trial, and intervention characteristics that may influence eligibility and recruitment in smoking cessation RCTs. We planned meta-regression analyses with logit-transformed eligibility ( $[\#randomised + \#declined] / \# assessed for eligibility$ ) and recruitment rates ( $\#randomised/\#eligible$ ) as the outcomes.

**Findings:** We included 173 RCTs and in preliminary linear regression analyses (111 trials) we found that increasing age (OR 1.04; 95%CI 1.01 to 1.08; p-value 0.03), broad base recruitment strategy (OR 2.28; 95%CI 1.04 to 5.01; p-value 0.04) and studies with longer follow-up (OR 5.60; 95%CI 1.44 to 21.84; p-value 0.01) predicted higher recruitment rates. We found no evidence for predictors of study eligibility rates.

**Discussion:** Our preliminary findings suggest that participants' characteristics, recruitment strategy and trial design may play a role in the success of the recruitment process of smoking cessation RCTs. Due to data collection being only recently completed, appropriate meta-regression analyses are now being conducted for predictors of both recruitment and attrition.

15:30 - 17:00

## Learning from a wait-list controlled feasibility trial of mindfulness for people experiencing late-effects of cancer

J. Brooks<sup>1</sup>, K. Bartlett<sup>1</sup>, L. Riste<sup>1</sup>, A. Wearden<sup>1</sup>

<sup>1</sup>University of Manchester, United Kingdom

**Background:** Our aim was to determine the acceptability and feasibility of providing mindfulness-for-health (MfH) courses for people experiencing late-effects of cancer (LEC), and to examine a range of health-related outcomes.

**Methods:** This was a wait-list controlled feasibility trial. 30 people with LEC attending a support centre for people with cancer were randomly allocated to one of three MfH groups. Questionnaire measures assessing a range of outcomes were completed at four time points, and descriptive analyses undertaken. Participants (n=16) and staff involved in facilitating the study (n=3) took part in telephone interviews reflecting on their study experiences. Interview data were analysed thematically.

**What went wrong:** Outcome measures were incomplete and experienced as burdensome. Imposed timelines were tight. One group could not run as planned due to illness and UK statutory holidays. The workload required of staff from collaborating organisations to support the research was not insignificant, and there were some misunderstandings around their roles and specific research procedures, including recruitment processes and criteria.

**Possible solutions:** Employing a researcher independent of the collaborating organisations would address many problems encountered.

**Conclusions:** The study established good relationships with research collaborators which are ongoing. Findings suggest it will be feasible and useful to undertake much larger scale work in this area, but highlight the need for sufficient funding to support employing research staff. Identifying appropriate relevant outcomes and developing recruitment procedures acceptable to the research team and collaborating organisations will require careful consideration.

15:30 - 17:00

## Characterising cancer survivors who were interested in participating in a trial of a lifestyle intervention

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<sup>1</sup>UCL, United Kingdom

<sup>2</sup>University of Leeds, United Kingdom

**Background:** This study is the first to explore demographics and health behaviours associated with interest in a lifestyle intervention for cancer survivors.

**Methods:** ASCOT is an RCT in breast, colorectal and prostate cancer patients diagnosed in 2012/2013 (Beeken, 2016). Patients who answered a survey could provide contact details if they were interested in information about a trial of a "lifestyle programme". The survey data included age, gender and ethnicity (White British and other), BMI, PA (GLTEQ, Godin, 1985), fibre and fat intake (questions adapted from the DINE, Roe et al, 1994), average daily fruit and vegetable consumption, smoking (from Craig et al, 2009), and units of alcohol consumed (adapted from the AUDIT-C, Bush et al, 1998). Logistic regressions tested which variables described above were associated with interest (contact details provided).

**Findings:** In Wave 1 (N=2035) 58% of the sample were interested. Age and ethnicity were significantly associated with interest in unadjusted analyses. With both variables included in the regression, age remained significant with those interested being younger (OR 0.96, 95% CI 0.96, 0.97). Regressions, adjusted for age, show weekly hours of moderate-vigorous PA (OR 1.02, 95% CI 1.0, 1.05), fibre consumption (OR 1.01, 95% CI 1.00, 1.02) and average daily portions of fruit and vegetable intake (OR 1.07, 95% CI 1.02, 1.12) were associated with interest.

**Discussion:** Understanding the characteristics of those who choose to participate in trials of interventions targeting physical activity and diet will enable better interpretation of study results and inform the design of studies (Adams, 2015).

15:30 - 17:00

## Creating ontologies relevant to behaviour change: Development and refinement of a novel method

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**Rationale:** Synthesising evidence about the effectiveness of behaviour change interventions depends on reliably grouping similar evidence together. It is hampered by the diversity of terms in study reports and lack of shared vocabularies. Ontologies provide controlled vocabularies for describing key phenomena and the inter-relationships between them, in a fashion understandable to both humans and computers. They can therefore facilitate both conventional and automated evidence syntheses. However, there is no existing, well-tested method for developing ontologies relevant to behaviour change.

**Aim:** To develop and refine a method for creating ontologies relevant to behaviour change.

**Methodology:** The initial method was based on three principles of good ontology development: appropriate reuse of terms from existing ontologies/typologies; bottom-up data driven approaches, and stakeholder consultation. It was tested and iteratively refined in developing the Population and Setting elements of the Behaviour Change Intervention Ontology (<https://osf.io/efp4x/>).

**Results:** The testing process resulted in several improvements to the method, which includes: (a) how to critically appraise existing ontologies to prioritise reuse of terms from highest quality, most relevant ontologies; (b) optimal methods for refining ontologies through applying them to code reports; (c) guidance on selecting sources for data-driven approaches (d) optimal methods and timing for seeking stakeholder feedback. The method is being used to develop >12 ontologies which are part of the Behaviour Change Intervention Ontology.

**Conclusions:** This tried and tested method to develop ontologies facilitates more efficient evidence synthesis. It will be reported in sufficient detail for others to develop ontologies relevant to their areas of interest.

15:30 - 17:00

## An international, Delphi consensus study to identify priorities for methodological research in behavioural trials

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**Background:** Effective behaviour change interventions are needed. However, uptake and impact of these interventions is limited by methodological challenges. We aimed to identify and achieve consensus on priorities for methodological research in behavioural trials among an international behavioural science community.

**Methods:** An international, Delphi consensus study was conducted. Fifteen core members of the International Behavioural Trials Network (IBTN) were invited to generate methodological items they consider important. From these, the research team agreed a 'long-list' of unique items. Two online surveys were administered to IBTN members (N=306). Respondents rated the importance of items on a nine-point scale, and ranked their top five priorities. In the second survey, respondents received feedback on others' responses, before rerating items and re-selecting their 'top five'.

**Results:** Nine experts generated 144 items, which were condensed to a long-list of 33 items. The four most highly endorsed items, in both surveys 1 (n=77) and 2 (n=57), came from two thematic categories: 'Intervention development' ('Specifying intervention components' and 'Tailoring interventions to specific populations and contexts') and 'Implementation' ('How to disseminate behavioural trial research findings to increase implementation' and 'Methods for ensuring that behavioural interventions are implementable into practice and policy'). 'Development of novel research designs to test behavioural interventions' also emerged as a highly ranked research priority.

**Conclusions:** From a wide array of identified methodological issues, intervention development, implementation and novel research designs are key themes to drive the future behavioural trials research agenda. Funding bodies should prioritize these issues in resource allocation.

## Posters

# Rapid Communication: Pain and chronic conditions

15:30 - 17:00

Elafiti 4, Valamar Lacroma Dubrovnik

Lauren Kelada

15:30 - 15:45

## Personalised interventions promoting health-related behaviour changes: A transdisciplinary approach to prevent or mitigate chronic diseases

V. Feck<sup>1</sup>, K. von dem Berge<sup>2</sup>, A. Schäfer<sup>2</sup>, J. Klammer<sup>1</sup>, D. Schaffner<sup>1</sup>

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<sup>2</sup>Lucerne School of Business, Lucerne University of Applied Sciences and Arts, Switzerland

**Background:** Diabetes and other lifestyle related chronic diseases are on the rise. A large body of medical studies confirms that sustainable lifestyle changes can prevent their onset. However, research on interventions effectively supporting the maintenance of health-related lifestyle changes is still scarce. Based on a transdisciplinary approach, the study connects scientific evidence from health psychology with service design and design thinking, aiming at identifying interventions for maintaining behaviour change. From a theoretical viewpoint, the study departs from a framework that combines the transtheoretical model (TTM) with the self-determination theory (SDT).

**Methods:** The study features as mix-methods approach, combining evidence from three qualitative studies: First, we conduct expert interviews with six healthcare professionals. Second, following a user-centred approach, 10-15 patients are involved in the study using in-context research. Thirdly, design-thinking workshops are held with stakeholders in the healthcare-ecosystem &#40;e.g. health insurance, pharmacies&#41;.

**Findings:** Using strategic coding, we identified 13 effective behaviour change techniques (BCTs) and corresponding practice examples. Most important, observed effectiveness of interventions depends on a personalisation that is based on patients' motives (e.g. competences vs competition) and lifestyles (e.g. working, household). Furthermore, the study reveals the role of a supportive ecosystem in the process of maintaining lifestyle change.

**Discussion:** Results of this study extend existing knowledge, providing empirical qualitative support for the effectiveness of interventions that are personalised regarding patients' lifestyles and motivation. Based on the findings we develop a catalogue of personalised interventions that is offered in an ecosystem of connected healthcare providers.

15:45 - 16:00

## Attentional engagement to pain-related information among chronic pain patients: Comparison between linguistic and visual stimulus

J. Lee<sup>1</sup>, J. Lee<sup>1</sup>, J. Beom<sup>2</sup>, S. Choi<sup>1</sup>, S. Lee<sup>1</sup>

<sup>1</sup>Chung-Ang University, South Korea

<sup>2</sup>Chung-Ang University Hospital, South Korea

**Background:** Attentional bias and information processing model explained that individuals who interpret values of pain stimulus as threatening may increase their attention toward pain-related information (Quartana, Campbell, & Edwards, 2009). Previous studies (Lee, et al, 2018; Vervoort et al, 2013) found the preference toward pain-related information among chronic pain individuals, however, these studies investigated non-clinic population and also utilized only visual stimuli. Therefore, the present study investigated attentional preference to pain-related information among chronic pain patients by utilizing both linguistic and visual stimulus.

**Methods:** Forty chronic pain patients were recruited from the rehabilitation center, the back pain clinic, and the rheumatology department of University Hospital in Seoul, Korea. Patients observed pictures of faces and words displaying pain, presented simultaneously with neutral expressions, while their eye movements were measured using the eye tracking system.

**Findings:** T-test was conducted to compare stimulus pairs (pain word vs. neutral word; pain face vs. neutral face) for initial fixation duration and total gaze duration. Results revealed that chronic pain patients demonstrated initial attentional preference toward pain words and pain faces, however, the same pattern was only observed for linguistic stimuli when examining the total gaze duration. For facial stimuli, patients showed an attentional preference toward neutral facial stimuli.

**Discussion:** The results of the present study found attentional preference toward pain-related information, however, the different pattern was observed between linguistic and visual stimulus. These results have clinical implications and future research suggestions as linguistic stimuli may be more relevant when detecting threat among chronic pain patients.

16:00 - 16:15

## Pain, fatigue, and fear of cancer recurrence among adult survivors of childhood cancer

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<sup>5</sup>Royal Children's Hospital, Melbourne, Australia

<sup>6</sup>The Children's Hospital, Westmead, Australia

**Background:** Pain and fatigue are under-researched late effects of childhood cancer and its treatment which have profound impacts on survivors. Moreover, pain and fatigue may be interpreted by survivors as indicating potential cancer recurrence, contributing to increased fear.

**Methods:** We surveyed adult survivors of any form of childhood cancer. We investigated the prevalence of self-reported pain and fatigue since treatment completion and anticipated future pain and fatigue, and how these factors related to demographic and medical characteristics, information needs, and fear of cancer recurrence.

**Findings:** 404 survivors participated (M=16.82 years since treatment completion). Many survivors reported experiencing pain (28.7%) and fatigue (40.3%) since treatment completion, and anticipated future pain (19.3%) and fatigue (26.2%). Bone or soft tissue sarcoma diagnoses were associated with pain since treatment completion (compared with leukemia; OR=4.27, CI=1.21-15.02). Having received radiotherapy was associated with future anticipated fatigue (OR=3.68, CI=1.56-7.34). Bone marrow transplants were associated with fatigue (OR=2.83, CI=1.13-7.08) and anticipated future fatigue (OR=2.54, CI=1.01-6.36). Survivors who reported pain, fatigue, anticipated future pain, and anticipated fatigue had greater needs for information about managing these late effects. Survivors with unmet needs for information about managing pain and fatigue reported higher fear of cancer recurrence than survivors with no reported need for information.

**Discussion:** Medical professionals and specialized long-term follow-up clinics should assess pain and fatigue, especially among survivors of bone and soft tissue sarcomas and recipients of bone marrow transplant. Information provision about pain and fatigue may be an important tool to help manage fear of cancer recurrence.

16:15 - 16:30

## Negotiating good parenthood in relation to children with chronic kidney disease.

A. Bruno de Sousa<sup>1,2</sup>, A. Wickström<sup>1</sup>

<sup>1</sup>Linköping University, Sweden

<sup>2</sup>Escola Nacional de Saúde Pública - Universidade Nova de Lisboa, Portugal

This paper addresses the perspective of primary caregivers supporting the child to manage chronic kidney disease (CKD). Focusing on the (inter)dependence between caregivers and children, it highlights the dilemma of transferring the responsibility for the treatment to the child and at the same time engage in securing the child's medical and social needs. The aim is to examine how the parents make meaning of the challenges and how their practices relate to the normative layers of parenthood.

Theoretically, the paper is informed by the concept of parenthood and the interest in how parenthood is done in interaction with other agents such as professionals, other parents and relatives. It combines narrative phenomenology with a medical sociology approach to chronic kidney disease. The study draws from six months of ethnographic fieldwork in Portugal including observations and 21 in-depth semi-structured interviews carried out in a pediatric hospital and in the families' home environment.

Using thematic analysis, the paper demonstrates that the caregivers seek ways to attain freedom for themselves as well as for their child through sending the child to school, sports practices, outings such as field trips, birthday parties and summer camping. Thus, it requires the parents to give their child the responsibility for the "chronic homework" while at the same time it involves educating the child about unavoidable limitations and restrictions that the child must adjust to.

16:30 - 16:45

## Can't touch this! Exposure and reappraisal reduce sexual and contamination disgust-based avoidance in physical health

N. Consedine<sup>1</sup>, N. Schoombie<sup>1</sup>, C. Borg<sup>2</sup>, P. Powell<sup>3</sup>

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<sup>3</sup>University of Sheffield, New Zealand

**Background:** Although disgust evolved to protect from disease, the avoidance it engenders is often detrimental in contemporary physical health settings. How to reduce disgust remains unclear. The current study investigated how reappraisal – a cognitive technique for changing the way stimuli are interpreted – and exposure compared to a control condition in reducing subjective and behavioural disgust responses to sexual and contamination stimuli.

**Methods:** 90 participants (63% female; mean age 29 years) completed online questionnaires before being gender block randomised to reappraisal, exposure, or control conditions. In a laboratory session, participants completed eight-counterbalanced behavioural avoidance tasks designed to elicit sexual and contamination disgust. Following each task, self-report and degrees of behavioural avoidance were assessed.

**Results:** MANOVA revealed that while reappraisal and exposure groups reported less disgust than the control group overall, reductions felt disgust were greater for the exposure group in response to the sexual tasks. Similarly, while reappraisal and exposure participants had greater behavioural engagement overall, reductions in avoidance were greater in response to sexual stimuli. Finally, a marginal interaction suggested that those with a greater dispositional disgust propensity derived greater benefit from the exposure manipulation.

**Conclusions:** Reappraisal and exposure have potential as interventional strategies to reduce disgust-driven avoidance in physical health. Given increasing evidence of disgust's relevance to avoidance in cancer screening, sexuality, and treatment settings, the current study may be useful in developing treatments and interventions.

## SYMPOSIUM

# Daily health behaviour in close relationships

9:30 - 11:00

Galijun, Valamar Argosy

Mariët Hagedoorn

9:30 - 9:45

## The effect of dyadic planning to quit smoking in single-smoking couples: a randomized controlled trial

A. Buitenhuis<sup>1</sup>, M. Tuinman<sup>1</sup>, M. Hagedoorn<sup>2</sup>

<sup>1</sup>University Medical Center Groningen, Netherlands

<sup>2</sup>University of Groningen, Netherlands

**Introduction:** Tobacco smoking is still a pressing health issue. Smoking cessation interventions that use implementation intentions show promising Results: Implementation intentions are if-then plans that specify a certain behaviour within a situational context. This study examines whether involving a non-smoking partner improves a planning intervention (i.e. higher quit rate and relationship satisfaction).

**Methods:** This single-blind randomized controlled trial has a longitudinal design with a baseline questionnaire, end-of-day measurements for three weeks, and a follow-up questionnaire after three months. Single-smoking couples, who are living together and in a relationship for more than one year, are randomized to either a dyadic or individual planning condition. After the intervention, the smoker attempts to quit smoking and the diary measurements start.

**Results:** At follow-up, 16% of the participants in the individual group remained successfully quit, compared to 19% in the dyadic group ( $\chi^2 = 0.335$ ,  $p = .563$ ). People that relapsed reported significantly less cigarettes smoked at the follow-up measurement than at baseline (decrease from 16 to 7,  $F = 131.637$ ,  $p < .001$ ), and both intervention group showed similar declines ( $F = 2.855$ ,  $p = .093$ ). Relationship satisfaction did not differ between groups at follow-up ( $t(560) = 0.803$ ,  $p = .423$ ), while the satisfaction of all partners dropped significantly by 0.22 over time ( $t(160) = 3.211$ ,  $p = .002$ ).

**Conclusion:** The intervention was as effective as expected, but involving the partner in the planning did not increase its effectiveness nor couples' relationship satisfaction.

9:45 - 10:00

## Better together? Daily companionship, support, and control in couples facing health behavior change

G.Stadler<sup>1,2</sup>, E. Hunter<sup>1</sup>, J. Lüscher<sup>3</sup>, N. Knoll<sup>4</sup>, U. Scholz<sup>3</sup>

<sup>1</sup>University of Aberdeen, United Kingdom

<sup>2</sup>Columbia University, United States

<sup>3</sup>University of Zurich, Switzerland

<sup>4</sup>Freie Universität Berlin, Germany

**Background:** While social support has been studied extensively during health behavior change, other social exchange processes such as companionship and social control have been studied less and rarely in daily life. In this study, we investigate how companionship is related to social support and social control in everyday life when one partner tries to change a health behavior.

**Methods:** Both partners in committed romantic couples (N = 99 smokers and their nonsmoking partners) filled out daily online diaries for over a month. We used a mean-difference approach to investigate the associations of companionship with support and control on the couple level and on the daily level.

**Findings:** Couples with higher companionship showed higher levels of support but not higher levels of social control around a smoking quit attempt. On days with higher companionship, support and positive control were higher as well, while negative social support showed no such link.

**Discussion:** Companionship co-occurs with social support and positive social control on a daily basis, and studying them concurrently with a dyadic longitudinal approach seems promising for understanding the social interactions surrounding health behavior change in daily life.

10:00 - 10:15

## Longitudinal Correlates of Physical Activity Synchrony in Older Couples

T. Pauly<sup>1</sup>, V. Michalowski<sup>1</sup>, D. Gerstorf<sup>2</sup>, M. Ashe<sup>1</sup>, K. Madden<sup>1</sup>, J. Keller<sup>3</sup>, N. Knoll<sup>3</sup>, C. Hoppmann<sup>1</sup>

<sup>1</sup>University of British Columbia, Canada

<sup>2</sup>Humboldt-Universität zu Berlin, Germany

<sup>3</sup>Freie Universität Berlin, Germany

**Background:** Hour-by-hour levels of moderate-to-vigorous physical activity (MVPA) and sedentary behaviour are both linked within romantic partners. However, not much is known about long-term implications of such physical activity synchrony. The current study correlates MVPA and sedentary synchrony with change in overall physical activity levels and relationship functioning over time.

**Methods:** Hip-worn accelerometers recorded physical activity data from 70 older adult couples aged 60 to 87 years (M age = 72 years; 57% Caucasian) during two 7-day periods one year apart. At both assessments, participants also provided information regarding their relationship quality. Hourly dyadic covariation (i.e., synchrony) in MVPA and sedentary behavior was estimated using multilevel modeling and longitudinal analyses were conducted using a cross-lagged multi-level model.

**Findings:** MVPA and sedentary synchrony were moderately stable over time (MVPA synchrony:  $r = .50$ ; sedentary synchrony:  $r = .56$ ). Analyses show that greater MVPA and sedentary synchrony at baseline were associated with greater overall individual MVPA levels one year later. MVPA and sedentary synchrony were not associated with sedentary levels at the 1-year follow-up. Furthermore, greater MVPA and sedentary synchrony at baseline were related to greater relationship support and satisfaction as well as lower relationship conflict one year later.

**Discussion:** Findings underpin that physical activity synchrony may facilitate physical activity engagement and promote better relationship functioning in older couples. Individual-level physical activity interventions may benefit from capitalizing on social partners.

10:15 - 10:30

## Physical Activity Synchrony in Couples Following a Dyadic Planning Intervention

J. Keller<sup>1</sup>, D.H. Hohl<sup>1</sup>, T. Pauly<sup>2</sup>, C. Hoppmann<sup>2</sup>, N. Knoll<sup>1</sup>

<sup>1</sup>Freie Universität Berlin, Germany

<sup>2</sup>University of British Columbia, Canada

**Background:** Levels of moderate-to-vigorous intensity physical activity (MVPA) are partially synchronized within couples and this MVPA synchrony may be positively associated with long-term physical activity and relationship functioning. In this study, couples' MVPA synchrony following a dyadic planning intervention, in which both partners planned a designated target partner's behaviour change, and within-couple support exchange as a potential intervention mechanism were examined.

**Methods:** Secondary data analyses of a randomized controlled trial with n=338 German couples (aged 18 to 80 years) were conducted. Couples were randomly assigned to a dyadic planning condition (DPC), an individual planning condition (IPC), or a no-planning dyadic control condition (CC). At baseline (T0) and at a 1-week follow-up (T2), MVPA synchrony was assessed using accelerometers during 7-day periods. Both partners reported how much support they received from each other and a couple-level reciprocal support exchange indicator was created. Manifest path models controlling for baseline MVPA synchrony were fit.

**Findings:** DPC couples did not differ from IPC or CC couples in their T2 MVPA synchrony. However, DPC couples reported enhanced T2 support exchange (vs. IPC couples:  $\beta=0.17$ ,  $p=.002$ ; as a trend vs. CC couples:  $\beta=0.11$ ,  $p=.059$ ), which, in turn, was linked with T2 MVPA synchrony ( $\beta=0.22$ ,  $p<.001$ ). Indirect effects were statistically significant.

**Discussion:** In accordance with the operational definition of dyadic planning, no direct effect of the DPC on MVPA synchrony was observed. However, more reciprocal support exchange following the intervention appeared to facilitate synchrony. Findings highlight the complexity of effects of dyadic planning on dyadic behaviour change.

10:30 - 10:45

## Interplay of intra- and interpersonal emotion regulation for daily adjustment in couples: rumination and disclosure

A.B. Horn<sup>1</sup>, S. Holzgang<sup>2</sup>, V. Rosenberger<sup>2</sup>

<sup>1</sup>URPP "Dynamics of Healthy Aging", University of Zurich, Switzerland

<sup>2</sup>University of Zurich, Switzerland

**Background:** Maladaptive emotion regulation strategies are mostly seen as an individual risk factor. However, they might be associated with relational behavior that is important for communal or interpersonal regulation. The goal of this study is to investigate the interplay between intrapersonal rumination and interpersonal disclosure quality in couples.

**Methods:** N = 45 couples facing the transition to retirement reported their daily rumination and disclosure their partner in the run of two weeks. Furthermore, perceived quality of disclosure like authenticity, redundancy, coherence, and openness for input by the partner and psychological availability for the relationship was assessed.

**Findings:** Multilevel Actor Partner Interdependence Models revealed that on days with higher levels of rumination, disclosure is more redundant, and perceived as less authentic and less open for input by the partner. In general, perceived relationship quality and psychological availability is lower on days with higher levels of rumination.

**Discussion:** Maladaptive intrapersonal emotion regulation seems to spill over into interpersonal behavior that is important for the communal adjustment to adverse health situations. Interventions fostering positive couple processes in the context of health and disease need to acknowledge the interplay of intra- and interpersonal processes and offer support at both levels.

## SYMPOSIUM

# Measuring the content validity of psychological constructs and health outcome measures

11:30 - 13:00

Elafiti 1, Valamar Lacroma Dubrovnik

Diane Dixon

11:30 - 11:45

## Why do we need good content validity? An introduction to discriminant content validity

M. Johnston<sup>1</sup>

<sup>1</sup>University of Aberdeen, United Kingdom

**Background:** Health psychologists use a wide variety of theoretical constructs and studies typically report reliability and some evidence of validity of measures. However there has been little emphasis on content validity, perhaps due to lack of a readily accessible, systematic and transparent method of reporting content validity. The aim of this presentation is to introduce the purpose and methods discriminant content validity.

**Methods:** Two content validation methods are described and illustrated with evidence from five studies. Judges rate items included in measures against construct definitions, resulting in scores for each item that can be evaluated statistically for extent of content validity. Comparison of scores obtained by an item for each of two constructs indicates whether it has discriminant content validity.

**Findings:** Some commonly used measures in health psychology have been found to have good discriminant content validity (e.g. IPQ-R), while others (e.g. measures of perceived control) are failing to measure the target construct or are tapping more than one construct.

**Discussion:** The results from the illustrative studies indicate that some currently used measures (which may have good internal reliability) are not measuring what is intended. On some occasions they are contaminated by other theoretical constructs making it impossible to investigate the relationship between constructs. The methods illustrated are simple, take little time and involve few participants but can enable selection of items and measures with good, explicit, evidence-based content validity appropriate to the context of the study.

11:45 - 12:00

## Catastrophizing about pain: what's in a name?

A. De Paepe<sup>3</sup>, D. Van Ryckeghem<sup>1</sup>, E. Veirman<sup>3</sup>, C. Eccleston<sup>2</sup>, G. Crombez<sup>3</sup>

<sup>1</sup>Maastricht University, Netherlands

<sup>2</sup>University of Bath, United Kingdom

<sup>3</sup>Ghent University, Belgium

Concerns have been raised about whether self-report measures of pain catastrophizing actually reflect the construct as defined in the cognitive-behavioral literature. We investigated the content validity of self-report measures of pain catastrophizing. We first identified six questionnaires, comprising of 58 items. To investigate content overlap with related constructs and pain outcomes, 34 additional items were selected from pain severity, pain-related worrying, vigilance, distress and disability scales. Via an online tool, 94 participants rated to what extent each item was relevant for assessing pain catastrophizing, related constructs, and pain outcomes. Data were analyzed using linear mixed effects models. The results revealed that items from pain severity, pain-related worrying, vigilance, distress and disability scales were distinctively related to their respective construct. This was not the case for the items from the pain catastrophizing measures. The content of the pain catastrophizing measures was equally well, or even better captured by pain-related worrying or pain-related distress. This pattern was robust, and did not differ as a function of pain, age or gender. Based upon current findings a recommendation may be to develop a novel catastrophizing questionnaire. However, we argue that true pain catastrophizing cannot be assessed by self-report measures. Pain catastrophizing, defined as “to view or present pain or pain-related problems as considerably worse than they actually are”, requires contextual information, and expert judgment, which cannot be provided by self-report questionnaires. We argue for a person-centered approach, and propose to rename ‘pain catastrophizing’ measures in line with what is better measured: ‘pain-related worrying’.

12:00 - 12:15

## Measuring outcome in back pain: Using existing instruments to measure ICF defined outcomes

D. Dixon<sup>1</sup>

<sup>1</sup>University Of Strathclyde, United Kingdom

**Background:** The WHO model of health outcomes, namely the International Classification of Functioning Disability and Health (ICF), identifies three outcomes for any given health condition: bodily impairments, activity limitations and participation restrictions. The Oswestry Disability Index (ODI) and the Roland Morris Disability Questionnaire (RDQ) are the recommended condition specific outcome measures for use in back pain. This study aimed to establish the content validity of the ODI and RDQ in relation to the ICF, i.e. whether the ODI and the RDQ can be used to measure each of the three health outcomes identified in the ICF.

**Methods:** Ten judges used the method of discriminant content validation to allocate each item from the ODI (v1 and v2 both with 60 items) and the RDQ (24 items) to the theoretical definition of impairment, activity limitation and participation restriction. One sample t-tests identified items measuring impairment, activity limitation, participation restriction, or a combination thereof. Intraclass correlation coefficient (ICC) measured consistency between judges.

**Findings.** The ODI and the RDQ contain items that measure each health outcome. The ODIv2 and the RDQ contain multiple items with discriminant content for each health outcome; the ODIv1 contains only one item classified to the impairment outcome. Ten items in the ODIv2, 7 items in the ODIv1 and 5 items in the RDQ were not classified to any of the three outcomes. ICC=0.94, indicating good agreement between judges.

**Conclusion:** The ODI and RDQ can be used to measure the three health outcomes identified by the ICF with discriminant validity.

12:15 - 12:30

## Assessing content validity of a brief video intervention using discriminant content validity methodology.

C. Schroder<sup>1</sup>, M. Willems<sup>1</sup>

<sup>1</sup>ecare4you, Netherlands

**Background:** 'My Life 2.0' is a brief theory based intervention consisting of a series of 5 videos, in which people with physical disabilities explain how they cope with their disabilities and is based on self-determination theory (SDT). 'My Life 2.0' aims to increase self-efficacy about their capabilities to regain psychological wellbeing despite their physical disability. Prior to the evaluation of the effectiveness of 'My Life 2' an assessment of its content validity relative to the constructs within SDT would be useful.

**Objective:** To investigate whether discriminant content validity (DCV) methodology can be used to assess the content validity of the 'My Life 2.0' videos.

**Method:** Five steps of the DCV methodology will be applied to the 5 videos. Definitions of psychological needs as defined by SDT and a sample of 5 video's which were created in accordance to SDT will be provided to the judges. Five judges who are experts in the field of (rehabilitation) psychology and SDT were selected. A scale was constructed to assess the 5 videos, each judge will be asked to consider whether each scene match the definition of the three psychological needs. A confidence rating for each judgment will be asked. Finally, a single-sample t-test will be conducted to establish the content validity of each scene of the videos.

**Results:** After conducting these 5 steps of the DCV methodology we will be able to evaluate if the DCV methodology can be used to assess and quantify the content validity of a video intervention.

## SYMPOSIUM

# Tailoring digital health interventions: different strategies, different effects

11:30 - 13:00

Elafiti 3, Valamar Lacroma Dubrovnik

Eline Smit

11:30 - 11:45

## A Smoker's Choice? Identifying the most autonomy-supportive message frame in online computer-tailored smoking cessation communication

M. Altendorf<sup>1</sup>, E. Smit<sup>1</sup>, R. Azrout<sup>1</sup>, C. Hoving<sup>2</sup>, J. van Weert<sup>1</sup>

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<sup>2</sup>Maastricht University, Department of Health Promotion, School for Public Health and Primary Care (CAPHRI), Maastricht, Netherlands

This study tests the effect of autonomy-supportive message framing on people's perceived autonomy-support while considering the individual need for autonomy as a potential moderator. Also, we investigated whether autonomy-supportive message frames – through an increased sense of autonomy-support – lead to more self-determined motivation, and subsequently to an increased intention to quit smoking.

We conducted an online experiment among Dutch adult smokers who were motivated to quit using a previously developed (cost-)effective online computer-tailored smoking cessation programme. A 2(autonomy-supportive vs. controlling language) x 2(providing choice vs. not providing choice) between-subjects design with control condition (generic advice) was employed. Outcome: Intention (TPB). Intermediate outcome: Perceived autonomy-support (Virtual Climate Care Questionnaire). Moderator: Need for autonomy (Health Causality Orientations Scale). Mediators: Self-determined motivation (Treatment Self-Regulation Questionnaire), attitudes, self-efficacy, social influence (I-Change Model). Hypotheses were tested using structural equation modelling in AMOS.

Analysis of 626 Dutch smokers revealed no significant effect of autonomy-supportive message frames on perceived autonomy-support or self-determined motivation. Neither did the need for autonomy moderate these effects. However, self-determined motivation had a positive, significant effect on intention to quit, mediated by self-efficacy, attitudes and social influence about smoking cessation. On average, smokers had a high need for autonomy and also perceived high levels of autonomy-support.

Results suggest that online smoking cessation interventions might attract mostly smokers with a high need for autonomy. To draw more definite conclusions, future studies need to sample more heterogenic participants with regards to their need for autonomy, such as by means of a real life RCT.

11:45 - 12:00

## Text, images, video? Tailoring the modality of presentation in online health information for older patients

M.H. Nguyen<sup>1,2</sup>, J. van Weert<sup>2</sup>, N. Bol<sup>2</sup>, E. Loos<sup>2</sup>, K. Tytgat<sup>3</sup>, H. van Laarhoven<sup>3</sup>, D. Geijsen<sup>3</sup>, M. van Berge-Henegouwen<sup>3</sup>, E. Smets<sup>3</sup>

<sup>1</sup>University of Zurich, Netherlands

<sup>2</sup>ASCoR / University of Amsterdam, Netherlands

<sup>3</sup>Amsterdam University Medical Centers, Netherlands

**Background:** Due to age-related decline (e.g., impaired vision and/or hearing, reduced processing speed), older patients have varying needs regarding presentation modality of online cancer information (e.g., textual, visual or audiovisual). This study tested the effectiveness of a mode-tailored website (vs. non-tailored websites) and examined the benefit for older ( $\geq 65$ ) and younger ( $< 65$ ) patients.

**Methods:** A randomized controlled trial (N = 232) tested the effectiveness of a mode-tailored website (i.e., by self-selecting text, images and/or videos) versus non-tailored websites. Patients received the website as preparation before their hospital consultations to discuss diagnosis and treatment. Data was collected before (T1), during (T2) and after their visit (T3) to assess website involvement and satisfaction, communication self-efficacy and anxiety, and knowledge and information recall. Patients' question-asking was coded from videotaped consultations.

**Results:** All websites were well used (M = 34 min). The mode-tailored website positively affected website satisfaction (T1) and anxiety (T2) in younger patients, but not in older patients. Overall, higher website involvement and satisfaction were associated with higher knowledge (T1). Knowledge, together with time spent on site and viewing online patient videos (T1) predicted information recall from consultations and the website (T3).

**Conclusion:** Providing patients with preparatory online information can improve patients' processing of medical information. Furthermore, offering this information in a tailored manner can improve health-related outcomes in younger patients. Future research is warranted to disentangle the active ingredients of preparatory websites for different patient populations, and further explore when, how, and for whom mode tailoring has added value.

12:00 - 12:15

## Customizable digital environments: can customization in mobile apps support physical activity?

N. Bol<sup>1</sup>, N. Hoie<sup>2</sup>, M.H. Nguyen<sup>3</sup>, E. Smit<sup>4</sup>

<sup>1</sup>Tilburg University, Netherlands

<sup>2</sup>University of Amsterdam, Netherlands

<sup>3</sup>University of Zurich, Switzerland

<sup>4</sup>University of Amsterdam/ASCoR, Netherlands

**Background:** Mobile health apps could provide autonomy support in health-related decision making. Given the widespread adoption and technical possibilities of mobile technology, health apps may be especially suitable to intervene in people's daily routines and stimulate physical activity. The motivational technology model suggests that health behavior change can be promoted by allowing users to customize mobile health apps. However, we know little about why and for whom such customization is most effective.

**Methods:** Using a between-subjects experimental design, we tested the effects of a customizable health app (vs. non-customizable app). Structural equation modeling (N = 203) was employed to assess the effects of customization on perceived active control over mobile health apps, autonomous motivation to use mobile health apps, and intention to engage in physical activity, as well as the moderating effect of need for autonomy.

**Findings:** Customization in mobile health apps did not increase perceived active control, autonomous motivation, and the intention to engage in physical activity. However, a significant interaction showed that customization increased physical activity intentions for those with a greater need for autonomy, but not for those with a smaller need for autonomy.

**Discussion:** Our results showed differentiating patterns in need for autonomy; those with a higher need for autonomy increased their intention to engage in physical activity after engaging with a customizable health app, whereas those with a lower need for autonomy did not. Our findings suggest that differences in need for autonomy could be considered to optimize the impact of mobile health communication efforts.

12:15 - 12:30

## Quality assessment of artificial intelligence to tailor a digital health intervention for smoking cessation.

S. Hors-Fraile<sup>1,2</sup>, F. Schneider<sup>3</sup>, H. de Vries<sup>3</sup>

<sup>1</sup>University of Maastricht, Netherlands

<sup>2</sup>Salumedia Tecnologías, Spain

<sup>3</sup>Maastricht University, Netherlands

**Background:** Health recommender systems based on Artificial Intelligence (AI) learn from users' feedback to compute precise health recommendations over time, instead of using traditional static decision rules. To validate this innovative approach, our study assesses the quality of an AI algorithm which tailor motivational messages for people willing to quit smoking.

**Methods:** Between October 2016 and November 2018 a total of 109 subjects willing to quit smoking were provided with a mobile app in the Virgen del Rocío University Hospital in Seville, Spain. A hybrid health recommender algorithm provided them with tailored motivational text messages. Participants were followed-up for 1 year. The system objective quality was assessed with the algorithm precision and time-to-read metrics. The perceived quality was assessed with an 18-question survey conducted after the intervention.

**Findings:** The preliminary results show the system precision increased from 79,62% to 96,30%, the time-to-read increased from 71 minutes to 115 minutes, and participants perceived quality ranked 4.14 out of 5 points.

**Discussion:** This study shows that machine learning-based health recommender systems can be used to provide relevant messages to support smoking cessation patients. The used algorithm learnt from patients' preferences to recommend and tailor health messages. However, it did not minimize the elapsed time to read messages. We theorize this fact may be related to the participant's interest span of the participants across the intervention. However, they stated high levels of satisfaction with the system. This study opens the door to further research exploiting AI for health psychology.

12:30 - 12:45

## A systematic review of tailored eHealth interventions for weight loss: a focus on tailoring methodology

K. Ryan<sup>1</sup>, S. Dockray<sup>1</sup>, C. Linehan<sup>1</sup>

<sup>1</sup>University College Cork, Ireland

Tailoring is a process whereby the provision of information, advice and support is individualised to the user. The aim of this study is to review the evidence for tailored eHealth weight-loss interventions, describing in detail: 1. how tailoring was implemented in these studies and 2. whether these tailored approaches were effective in producing weight loss compared with generic or inactive controls.

**Methods:** A systematic review was carried out. Five databases were searched up until 15 March, 2018, including: EBSCO, Science Direct, Pubmed, EMBASE and Web of Science, using combinations of the concepts 'tailoring', 'eHealth' and 'overweight'.

**Results:** Eight articles relating to six interventions were accepted. Tailoring was carried out in a number of ways, based on, for example, anthropometric data, health-related behaviours (e.g. dietary intake, physical activity), goals (e.g. weight goal), theoretical determinants (e.g. confidence/willingness to change behaviours), psychosocial factors (e.g. social support) and participant location. Systems acquired data using strategies that ranged from online questionnaire administration, to the dynamic gathering of data from web-based diaries, websites, mobile applications and SMS messaging. Tailored interventions were more effective in supporting weight loss than generic or waitlist controls in four of the six articles. Effect sizes were very small to moderate, with evidence for fluctuations in effect sizes and differences of effect between tailoring and non-tailoring interventions, and between tailoring types, over time.

**Conclusions:** We contribute an enhanced understanding of the variety of methods used for the tailoring of eHealth interventions for weight loss and propose a model for categorising tailoring approaches.

## SYMPOSIUM

# Current challenges in blood and organ donation

11:30 - 13:00

Karaka, Valamar Argosy

Ronan O'Carroll

11:30 - 11:45

## Organ donation - health impact, prevalence, correlates and interventions.

R. O'Carroll<sup>1</sup>

<sup>1</sup>University of Stirling, United Kingdom

**Background:** Organs for transplantation save and transform lives. Organ donation behaviour, e.g. registering as a posthumous organ donor is a decision and behaviour that has been relatively neglected in the field of health psychology and behavioural medicine. Donations are acts of generosity that are traditionally seen as altruistic, and accordingly, interventions to recruit and retain blood and organ donors, have often focused on altruism.

**Methods:** Narrative review focusing on organ donation, considering the predictors, prevalence and correlates and how effective interventions have been.

**Findings:** We highlight that both recipients and donors benefit, and as such neither blood nor organ donation is purely altruistic. In evaluating interventions, a move to an opt-out default for organ donation may not be the simple fix it is often believed to be, with wide variation in outcomes following a move to opt out. We review other important factors that are associated with increases in organ donor registration. We show that incentives, text messaging, feedback and a focus on prosocial emotions (e.g., 'warm-glow', 'gratitude') may be effective interventions for increasing organ donation.

**Discussion:** We conclude that emotion and affect are key to understanding donation and in designing effective interventions.

11:45 - 12:00

## Assessing medical mistrust in organ donation across countries: what does item response theory tell us?

F. Doyle<sup>1</sup>, R. O'Carroll<sup>2</sup>, L. Shepherd<sup>3</sup>, S. Doherty<sup>4</sup>, K. Morgan<sup>5</sup>, M. Mathew<sup>6</sup>

<sup>1</sup>Royal College of Surgeons in Ireland, Ireland

<sup>2</sup>University of Stirling, United Kingdom

<sup>3</sup>Northumbria University, United Kingdom

<sup>4</sup>RCSI MUB, Bahrain

<sup>5</sup>Perdana University, Malaysia

<sup>6</sup>Kasturba Medical College, India

**Background:** Medical mistrust (MM) is prevalent and has been associated with lower rates of organ donation, lower probability of using vaccinations or sunscreen. However, the appropriate measurement of MM, across populations and contexts, has been given relatively little attention. We therefore used item response theory to analyse the usefulness or otherwise of MM items across countries.

**Methods:** We conducted a secondary analysis of combined data on 4 medical mistrust items (with 7-point rating options) from randomised trials of attitudes to organ donation that were conducted in the United Kingdom, Ireland, Malaysia and India (Doherty et al, 2017; Doyle et al., submitted; O'Carroll et al, 2016; N=1,475). Mokken scaling and graded response item response theory (IRT) modelling were used to establish the dimensionality, trait coverage, item discrimination values, and generalisability across countries.

**Results:** The 4 MM items formed a strong Mokken scale ( $H=.51$ ), indicating unidimensionality. Moderate to strong unidimensionality with the 4 items was repeated for all countries, except India, where Mokken scale analysis included 3 items only in the unidimensional scale. In overall data, the graded response IRT analysis indicated that the items had differing levels of discrimination across the MM latent trait, but provided little information at lower levels of MM.

**Conclusion:** By exploring advanced psychometrics of MM items we provide the highest quality evidence of the unidimensionality and robustness of MM, including consistency of assessment across countries and cultures. Further item development for low levels of MM may be needed.

12:00 - 12:15

## “The state has no right to assume consent”: a qualitative study of organ donation decisions.

J. Miller<sup>1</sup>, S. Currie<sup>1</sup>, R. O'Carroll<sup>1</sup>

<sup>1</sup>University of Stirling, United Kingdom

**Background:** There is a worldwide shortage of donor organs for transplantation. To overcome this, several countries have introduced opt-out consent. This system automatically presumes consent for donation unless individuals opt-out of the register. This study explored the reasons underpinning donor choices (opt-in, deemed consent, opt-out and not sure) in a presumed consent donation system.

**Methods:** Thematic analysis of qualitative data obtained from an online survey of intentions towards opt-out legislation in Scotland, England and Northern Ireland (n =1202). Thematic analysis was used to explore the reasons participants gave for planning to: opt-in (n =646), follow deemed consent (n =205), opt-out (n =32) or were not sure (n=40).

**Findings:** A key theme for people planning to opt-in is that it ensures one's donor choice is explicitly clear and unequivocal. This was viewed as a way of protecting against family interference and uncertainty. For the deemed consent group, a key theme is that it represents a simple effortless choice. Key themes for those planning to opt-out concern fears around bodily integrity and medical mistrust. Notably, both participants who plan to opt-out and opt-in perceived presumed consent as “authoritarian” and a method of increasing Government control of organs. In response, registering an active decision protected their freedom of choice.

**Discussion:** The findings highlight the importance of registering deliberate active consent for people who choose opt-in, due to concerns over family refusal under deemed consent. These findings could inform the development of communication campaigns that encourage family communication before the implementation of opt-out legislation.

12:15 - 12:30

## Who gives? Blood, plasma and stem cell donation willingness in Europe

E. Merz<sup>1,2</sup>, E. Huis in 't Veld<sup>1,3</sup>, W. de Kort<sup>1,4</sup>

<sup>1</sup>Sanquin Blood Supply, Netherlands

<sup>2</sup>Vrije Universiteit Amsterdam, Netherlands

<sup>3</sup>Tilburg University, Netherlands

<sup>4</sup>Amsterdam University Medical Center, Netherlands

**Background:** Willingness to donate blood, plasma and stem cells depends on personal characteristics, beliefs and motivations, but also on the cultural context. The aim of this study was to examine whether willingness to donate is associated with attitudes towards transfusion and transplantation, personal motivators and incentives, and whether these factors vary across countries in Europe.

**Methods:** The sample consisted of 27,868 participants from 28 EU member states, interviewed about donation and transfusion related issues for the 2014 round of the Eurobarometer, a country-comparative survey, collected on behalf of the European Commission. Participants were asked whether they would be willing to donate blood, plasma and stem cells for which reasons (motivators), and which incentives are appropriate to receive in return for a donation.

**Findings:** Willingness to donate varied significantly across countries and was positively associated with perceived blood transfusion safety. Furthermore, helping family or people in need were the most powerful motivators for blood donation willingness in almost all countries. In contrast, the number of participants who were willing to donate in order to alleviate shortages or to contribute to research varied widely across countries. The wish to receive incentives however did not seem to be related to blood donation willingness.

**Discussion:** Perceived blood transfusion safety and personal motivations may be stronger determinants of willingness to donate than receiving certain incentives. EU-wide strategies and guidelines for donor recruitment and retention should take both overall and country-specific patterns into account.

12:30 - 12:45

## The relation between anticipatory emotion and donor return

A. van Dongen<sup>1</sup>, A. Thijssen<sup>2</sup>, L. Williams<sup>3</sup>, T. Davison<sup>2</sup>, B. Masser<sup>4</sup>

<sup>1</sup>University of York, United Kingdom

<sup>2</sup>Australian Red Cross Blood Service, Australia

<sup>3</sup>University of New South Wales, Australia

<sup>4</sup>University of Queensland, Australia

**Background:** Despite recognition that blood donation, like many health-related behaviours, is a highly affective experience, the nature and consequence of donors' emotional experience remains relatively unexplored. This study looks at the impact of anticipatory emotional experiences on return behaviour.

**Methods:** New whole blood donors (N = 777) who donated 6-9 months prior, but had not yet returned for a second donation, reported their level of 18 anticipatory emotions (e.g. "How stressed do you anticipate feeling during your next donation?") on 7-point scales. Exploratory Factor Analysis established the factor structure of the emotion measures. Logistic regression models established relations between emotion factors and participants' return behaviour over the ensuing 6 months.

**Findings:** EFA revealed three anticipatory emotion factors: anticipatory negative emotion, anticipatory positive emotion, and anticipatory calm (model fit statistics:  $\chi^2/df = 4.85$ , CFI = .94, SRMR = .034, RMSEA = .077). Higher levels of anticipatory positive emotion were associated with higher odds of return (OR: 1.330; 95%CI: 1.026 - 1.714); neither anticipatory negative emotion nor anticipatory calm significantly predicted return.

**Discussion:** By identifying the impact of anticipatory emotions on return behaviour, this research paves the way for development of effective emotion-focused interventions to increase retention. We are currently testing the efficacy of two short emotion regulation techniques designed to boost anticipatory positive emotion for increasing return behaviour.

## SYMPOSIUM

# Increasing informed uptake of bowel cancer screening: from understanding determinants to testing interventions

14:00 - 15:30

Olipa 4, Valamar Collection Dubrovnik President

Katie Robb

14:00 - 14:15

## Different emotions predict the avoidance of different types of bowel screening behaviours

N. Consedine<sup>1</sup>, I. Bissett<sup>1</sup>, L. Reynolds<sup>1</sup>

<sup>1</sup>University of Auckland, New Zealand

**Introduction:** Fear, embarrassment, and, more recently, disgust all predict bowel screening. However, because studies typically assess only one emotion, it is unclear which emotions are of greatest relevance to the avoidance of which screens. The current work assessed whether fear, embarrassment, or disgust best predicted the avoidance of faecal and insertion based bowel screenings.

**Methods:** A community sample (N=306) aged 45+ completed measures of bowel screening, perceptions of cancer risk, bowel cancer knowledge, and doctor discussions, provided responses to hypothetical bowel scenarios, and completed a specifically developed scale, the Emotional Barriers to Bowel Screening (EBBS).

**Results:** Regressions showed that delays in the hypothetical presence of bowel symptoms were less likely in people who had discussed risk with their doctor, whereas greater bowel cancer knowledge and greater fear of a negative outcome (Wald= 6.29, p=.012) predicted greater delay; screening embarrassment showed a trend in the same direction (Wald= 3.28, p=.070). Having previously provided a faecal sample was predicted by physician discussions about risk, older age, and greater embarrassment (Wald= 0.49, p=.017), whereas lower risk perceptions predicted a lower likelihood. As expected, greater insertion disgust predicted a lower likelihood of having had an invasive bowel screen in the previous five years (Wald= 8.09, p=.004).

**Conclusions:** Alongside medical and demographic factors, fear, embarrassment and disgust are worthy of consideration in bowel cancer screening. Understanding how specific emotions regarding specific screens impact behaviour is and has the potential to inform screening development and communications in bowel health.

14:15 - 14:30

## Autonomous and informed decision-making in real life: The case of colorectal cancer screening

L.N. Douma<sup>1,2</sup>, E. Uiters<sup>2</sup>, D.R. Timmermans<sup>1</sup>

<sup>1</sup>VU University Medical Centre, Netherlands

<sup>2</sup>National Institute for Public Health and the Environment (RIVM), Netherlands

**Background:** It is increasingly considered important that people make an autonomous and informed decision concerning colorectal cancer (CRC) screening. However, relatively little is known about how the eligible CRC screening population in actuality make their decision and what they consider a 'good' screening decision. Our study aimed to gain more insight into this in order to improve support to people when making their decision.

**Methods:** Firstly, we conducted 27 semi-structured interviews with eighteen CRC screening participants and nine non-participants. Additionally, an online survey was carried out among first-time CRC screening invitees (1282 respondents) to assess people's decision-making style. Respectively, thematic analysis and regression analysis were used to analyse the Results:

**Results:** Most interviewees viewed a 'good' CRC screening decision as one based on both reasoning and feeling/intuition and that is made freely. However, many CRC screening non-participants experienced a certain social pressure to participate. Both a rational and intuitive decision-making style were dominantly present in our survey study. Respondents with more of a spontaneous decision-making style were more likely to have participated in CRC screening, while respondents with more of an avoidant decision-making style were more likely not to have participated in CRC screening.

**Conclusion:** The strong emphasis on making a fully informed and well-considered screening decision partly but not entirely corresponds with how people in reality make their CRC screening decision. Additionally, there might be some concerns regarding the existence of a social norm and the spontaneous and avoidant decision-making styles possibly contributing to making less informed decisions.

14:30 - 14:45

## Identifying barriers and solutions to self-completed FIT bowel screening to develop a volitional help-sheet

M. Kotzur<sup>1</sup>, S. Macdonald<sup>1</sup>, R. O'Connor<sup>2</sup>, R. O'Carroll<sup>3</sup>, A. Irvine<sup>4</sup>, R. Steele<sup>5</sup>, K. Robb<sup>2</sup>

<sup>1</sup>Institute of Health & Wellbeing; University of Glasgow, United Kingdom

<sup>2</sup>University of Glasgow, United Kingdom

<sup>3</sup>University of Stirling, United Kingdom

<sup>4</sup>Bowel Screening Programme; NHS Tayside, United Kingdom

<sup>5</sup>University of Dundee, United Kingdom

**Background:** Screening can reduce deaths from bowel cancer if the people invited participate. In Scotland, uptake of FIT bowel screening is only 64%. We aimed to identify key barriers and solutions people invited to complete the FIT experience to inform the development of a volitional help-sheet (VHS).

**Methods:** We purposively sampled adults (aged 50-74, from deprived and affluent neighbourhoods) who had completed (n=128) and had not completed (n=2,166) FIT bowel screening to be mailed invitations to qualitative interviews. Semi-structured interviews covered recent experiences of being invited to complete the FIT. Transcripts were analysed using Thematic Analysis with a coding framework based on the Health Action Process Approach (HAPA) and the Transtheoretical Model (TTM).

**Findings:** We conducted 38 interviews (aged 50-71, 19 women) with people who had completed (n=20) and had not completed (n=18) FIT bowel screening. We identified 3 key themes: i) completers and non-completers shared barriers like forgetting, but non-completers also reported unique barriers, like feeling disenfranchised from public services; ii) solutions to overcoming barriers, e.g. leaving the FIT in the bathroom as a reminder, align with HAPA's planning constructs and TTM's processes of change, e.g. stimulus control; iii) most respondents described strong self-efficacy to complete the FIT, but non-completers reported weaker self-efficacy to overcome FIT barriers.

**Discussion:** Our results provide in-depth understanding of the key barriers people encounter and of potential solutions for completing FIT bowel screening. Together with the theoretical evidence this study will inform the content of a VHS to improve uptake of FIT bowel screening.

14:45 - 15:00

## Cluster randomised controlled trial of volitional and motivational interventions to improve bowel cancer screening uptake

S. Wilding<sup>1</sup>, A. Tsipa<sup>1,2</sup>, D. Branley-Bell<sup>3</sup>, D. Greenwood<sup>1</sup>, C. Addison<sup>4</sup>, P. Kelly<sup>4</sup>, F. Day<sup>5,6</sup>, K. Horsfall<sup>7</sup>, M. Conner<sup>1</sup>, D. O'Connor<sup>1</sup>

<sup>1</sup>University of Leeds, United Kingdom

<sup>2</sup>University College London, United Kingdom

<sup>3</sup>Northumbria University, United Kingdom

<sup>4</sup>Gateshead Health NHS Foundation Trust, United Kingdom

<sup>5</sup>Leeds City Council, United Kingdom

<sup>6</sup>Leeds West Clinical Commissioning Group, United Kingdom

<sup>7</sup>NHS England, United Kingdom

**Background:** Colorectal cancer is the fourth most common cancer in the UK, yet screening rates remain below 60%. We investigated the influence of a Volitional Help Sheet (VHS) and a Social Norms based (SNA) motivational intervention, to increase uptake of guaiac faecal occult blood testing (gFOBT) screening in the North of England.

**Methods:** 34,633 participants recruited through the North-East of England bowel cancer screening hub into a 2x2 factorial cluster randomised controlled trial. Randomisation occurred between March and April 2018. There were four conditions: (1) Motivational intervention (SNA), (2) Implementation intention based Volitional Help Sheet (VHS), (3) Combined intervention (SNA+VHS), and (4) No intervention control.

**Outcome:** gFOBT kit return rate within 8 weeks of invitation. Data were analysed using a linear mixed effects regression model.

**Findings:** Screening kits were returned by 60% of participants (N = 20,847). A substantial imbalance was observed in participant characteristics. Participants in the combined group were younger and more likely to be first time invitees.

**Analyses** adjusting for age, gender, IMD, screening history and week of invitation found a marginally significant effect of the combined condition on screening uptake (OR, 1.18; 95% CI 0.97-1.44). There was no support for the benefit of the individual interventions alone.

**Discussion:** After adjustment for participant characteristics, the results provide some support for the combined effect of a motivational intervention based on social norms and a volitional help sheet on objectively measured screening uptake. However, issues with cluster imbalance limit the validity of the study findings and replication is required.

15:00 - 15:15

## Next steps for health psychology research in bowel (colorectal) cancer screening: Facing the challenge

L. McGregor<sup>1,2</sup>

<sup>1</sup>University College London, United Kingdom

<sup>2</sup>University of Stirling, United Kingdom

**Background:** Colorectal cancer (CRC) is a common cancer worldwide. Screening for CRC is an important health behaviour that has demonstrated impact on CRC incidence and mortality. However, understanding decision making in relation to CRC screening and how to increase uptake remains a challenge. Applying the knowledge, skills and expertise of symposium attendees and our learning from symposium presenters, we aim to generate conversation and ideas for future exploratory and intervention research in the area of CRC screening.

**Methods:** In groups, attendees will complete tasks to boost creative thinking that react to the presentations provided as part of the symposium. For example, we will use a Pomodoro type technique to give time limits for generated answers or ideas on a specified topic.

**Findings:** Suggestions for future research generated in each group will be fed back verbally and documented.

**Discussion:** Space for creativity is often limited, but this activity will allow open, reflexive responses to be commandeered for further critical and realist interpretation and review. An opportunity to collectively consider the ways forward for CRC screening research aims to inspire future collaborations.

ORAL

# Transitions, adversity and inequalities

9:30 - 11:00

Elafiti 1, Valamar Lacroma Dubrovnik

Irina Todorova

9:30 - 9:45

## Depressive Psychopathology in Black & Minority Ethnic Gay, Lesbian and Bisexual People in the UK

R. Jaspal<sup>1,2</sup>, B. Lopes<sup>3</sup>, Z. Rehman<sup>1</sup>

<sup>1</sup>De Montfort University, United Kingdom

<sup>2</sup>Abo Akademi University, Finland

<sup>3</sup>University of Coimbra, Portugal

**Objectives:** Drawing on the cognitive-behavioral approach to psychopathology, this study identifies the predictors of depressive psychopathology in Black and Minority Ethnic (BME) lesbian, gay and bisexual (LGB) people.

**Methods:** 289 White and BME LGB individuals participated in a cross-sectional survey. They completed measures of situational stressors: discrimination, rejection, victimization; psychological self-schemata: internalized homophobia, concealment motivation and degree of outness; coping: help-seeking, substance misuse; and depressive psychopathology: depression, psychological distress, and suicidality.

**Results:** BME participants exhibited significantly more discrimination, rejection from significant others, ethnic victimization, internalized homophobia and concealment motivation than White participants. They manifested greater internalized homophobia, less outness and greater drug use than White participants. Outness was associated with less, and internalized homophobia and victimization with more, depressive psychopathology. The structural equation model showed a significant effect of ethnicity on depressive psychopathology. This relationship was mediated by the situational stressors, the psychological schemata and coping variables.

**Conclusions:** Consistent with the cognitive-behavioral model, the results indicate that exposure to situational stressors can increase the risk of developing a psychological self-schema, maladaptive coping strategies and depressive psychopathology in BME LGB people. We discuss the implications of poor mental health for physical (and especially sexual) health outcomes for BME LGB people

9:45 - 10:00

## Immigration, acculturation and disordered eating: a study of Georgian immigrants

I. Shekrladze<sup>1</sup>, N. Javakhishvili<sup>1</sup>, K. Tchanturia<sup>1,2</sup>

<sup>1</sup>Iliia State University, Georgia

<sup>2</sup>Kings College London, United Kingdom

**Background:** Immigration and culture change are regarded to effect psychological wellbeing outcomes, including eating behaviors. Study aimed at examining the links between immigration, acculturation strategies, and disordered eating patterns.

**Method:** A quantitative study was conducted on 506 Georgian women, 253 - living abroad (UK and USA) and 253 - living in Georgia. Measures included Eating Disorder Examination Questionnaire (EDEQ) for eating patterns (restriction, eating concern, weight concern, shape concern subscales and global score) and East Asian Acculturation Measure (EAAM) for acculturation strategies (assimilation, integration, separation, marginalization subscales).

**Findings:** Comparisons of immigrant and nonimmigrant groups using MANCOVA with BMI as a covariate found difference in dietary restriction only,  $F(1, 498)=7.53$ ,  $p = 0.006$ ,  $\eta^2 = 0.02$ , with immigrants yielding higher mean score - 1.89,  $SD=1.59$  than nonimmigrants - 1.55,  $SD=1.50$ . Correlations between separation and marginalization and four EDEQ scores were statistically significant and positive, e.g.:  $r= 0.30$ ,  $p < 0.001$ ;  $r=0.28$ ,  $p<0.001$ , and mildly significant and negative between integration and two EDEQ scores,  $r= -0.14$ ,  $p< 0.05$ ;  $r= -0.16$ ,  $p<0.05$ . Regression analysis further showed separation and marginalization as predictors of unhealthier eating on four out of five EDEQ subscales, e.g.:  $\beta=.24$ ,  $p<0.001$ ;  $\beta=.22$ ,  $p<0.001$ .

**Discussion:** Findings suggested that moving to western countries slightly increases a risk of disordered eating effecting only dietary restriction. However, while living abroad, lack of integration in a host culture, as a common denominator of separation and marginalization, may predict poorer eating patterns.

10:00 - 10:15

## Health behaviours related to obesity in refugee children: a qualitative and quantitative systematic review

M. Alsubhi<sup>1</sup>, S. Peters<sup>1</sup>, T. Epton<sup>1</sup>, J. Goldthorpe<sup>1</sup>, S. Khanom<sup>2</sup>

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**Objectives:** Refugee children are likely to engage in negative health behaviours after their resettlement in developed countries. This review aims to identify and synthesise the grey and peer reviewed literature on the factors that influence unhealthy behaviours related to obesity in this population.

**Design:** A systematic review of quantitative and qualitative studies.

**Methods:** Six electronic databases and reference lists of relevant articles were searched to identify studies from 2003 to August 2018. Studies were eligible for inclusion if they 1) included refugee children or parents of refugee children aged 2-16 years who have resettled in a developed country, 2) investigated factors associated with health behaviours related to childhood obesity, and 3) were published between 2003 and August 2018. Study quality assessment was undertaken to assess methodological and cultural quality.

**Results:** 20 studies (qualitative n=8, quantitative n=10, mixed methods n=2) fulfilled the inclusion criteria. The qualitative data were organized into six themes (Acculturation, Environmental, Socioeconomic, Cognitive, and Family), and the quantitative data into five themes (Acculturation, Food insecurity, Family, and Environmental factors).

**Conclusion:** The review found that no studies had been conducted in the UK and areas relating to the role of parents that need further exploration to understand the health behaviour and weight management of children. A deeper understanding of parental views and experiences resettled to the UK can provide insight into the salient factors that need to be focused on in the development of culturally appropriate interventions to reduce health disparities and promote positive health behaviours after resettlement.

10:15 - 10:30

## From perceived to internalized stigma: comparing models to predict physical activity.

A. Rojas-Sánchez<sup>1</sup>, P. Sarrazin<sup>1</sup>, G. Joët<sup>1</sup>, B. Major<sup>2</sup>, A. Chalabaev<sup>1</sup>

<sup>1</sup>Université Grenoble Alpes, France

<sup>2</sup>University of California Santa Barbara, United States

This study compared two structural equation models on samples from two different countries investigating how weight stigma (perceived stigma, weight bias internalization, and stigma concerns) affects people's physical activity. 200 French and 153 Mexican individuals completed an online questionnaire measuring the aforementioned weight stigma processes, physical activity, self-appraised weight, subjective vitality (as a proxy of self-control resources), and motivation to avoid exercise. Two structural equation models corresponding to two different hypotheses were tested. In one the weight stigma processes were presumed independent predictors of physical activity (parallel process hypothesis) and in the other they were presumed to be related to each other serially (serial process hypothesis). The serial process hypothesis in which perceived stigma predicted stigma concerns and stigma concerns predicted weight bias internalization had a better overall fit and was partially invariant between the countries. Weight bias internalization negatively predicted physical activity with motivation to avoid exercise and subjective vitality as mediators of this relationship. These findings suggest that experiences with discrimination are related to concerns about future discriminatory encounters. These, in turn, are related to weight bias internalization, which serves as a deterrent for exercise through motivational mediators. The invariance of processes in countries with very different levels of obesity suggests that increased visibility of the disease in everyday life does not reduce weight stigma.

10:30 - 10:45

## Understanding traditional and modern eating: The TEP10 framework

G. Sproesser<sup>1</sup>, M.B. Ruby<sup>2</sup>, N. Arbit<sup>3</sup>, C.S. Akotia<sup>4</sup>, M. Alvarenga<sup>5</sup>, R. Bhangaokar<sup>6</sup>, I. Furumitsu<sup>7</sup>, X. Hu<sup>8</sup>, S. Imada<sup>7</sup>, G. Kaptan<sup>9</sup>, M. Kaufer-Horwitz<sup>10</sup>, U. Menon<sup>11</sup>, C. Fischler<sup>12</sup>, P. Rozin<sup>13</sup>, H.T. Schupp<sup>1</sup>, B. Renner<sup>1</sup>

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<sup>8</sup>Tsinghua University, China

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<sup>11</sup>Drexel University, United States

<sup>12</sup>Centre National de la Recherche Scientifique, France

<sup>13</sup>University of Pennsylvania, United States

Across the world, there has been a movement from traditional to modern eating, including a movement of traditional foods and eating behaviors from their origin culture to new cultures, and the emergence of new foods and eating behaviors. This trend toward modern eating is of particular significance because traditional eating has been related to positive health outcomes and sustainability. Yet, there is no consensus on what constitutes traditional and modern eating. The present study provides a comprehensive compilation of its various facets. Specifically, 104 facets were compiled through a literature review and expert discussions, combining international and interdisciplinary perspectives. Moreover, the present study provides a framework (the TEP10 framework) systematizing these facets into two major dimensions, what and how people eat, and 12 subdimensions. Hence, reducing traditional and modern eating to single facets is an oversimplification of this complex phenomenon. Instead, the multidimensionality and interplay between different facets should be considered to gain a comprehensive understanding of the trends, consequences, and underlying factors of traditional and modern eating.

10:45 - 11:00

## Building resiliency: Experiences of physical activity treatment among trauma afflicted refugees

H. Nilsson<sup>1,2</sup>, F. Saboonchi<sup>1,2</sup>, C. Gustavsson<sup>1,3</sup>, A. Malm<sup>1,2</sup>, M. Gottvall<sup>1,4</sup>

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<sup>3</sup>Center for Clinical Research Dalarna, Sweden

<sup>4</sup>Uppsala University, Sweden

**Background:** Refugees with prolonged and repeated experiences of trauma, often in combination with post-migration living difficulties, are subjected to severe levels of stress and stress-related ill health. The complex array of post-traumatic and post-migratory stress marks an increasing need of new or adjusted treatment strategies in the healthcare systems. The objective of this study was to explore the experience of physical activity (PA) as part of the treatment for trauma afflicted refugees.

**Methods:** An explorative qualitative research design was used. Six focus group discussions were conducted with 33 male and female participants of PA treatment at the Swedish Red Cross Treatment Centers for persons affected by war and torture. The gathered data were analyzed by qualitative content analysis.

**Findings:** The analysis generated one over-arching theme reflecting the participants overall experience of PA and exercise as part of their treatment: Building resilience through relief and recovery, including four main categories: Physical and mental Health, Empowerment, Relationships and social adjustment, and Treatment characteristics.

**Discussion:** Beyond improvements in both physical and mental health domains, participation in PA treatment was experienced as a process toward building resiliency. The interruption of daily stressors provided a sense of relief and recovery, and the group settings became a vehicle for overcoming social isolation and avoidance, which also carried an empowering and strength-building impact over to participants' family life and social relationships. The results from this study may significantly contribute to the design, implementation and evaluation of future PA interventions in the field of refugees' health.

## STATE OF THE ART

Expanding understandings and  
developing novel approaches in health  
psychology

9:30 - 11:00

Elafiti 2, Valamar Lacroma Dubrovnik

TBD

9:30 - 10:15

## A step-change in the design, reporting, and synthesis of behavioural trials: Addressing control group variability

M. de Bruin<sup>1,2</sup>

<sup>1</sup>Radboud University Medical Center, Netherlands

<sup>2</sup>University of Aberdeen, United Kingdom

In behavioural trials, experimental interventions are usually compared against active control (or: comparator) groups, receiving for example treatment-as-usual or a less intensive version of the experimental intervention. These comparator interventions are often very succinctly reported (e.g., 'controls received treatment-as-usual') and largely ignored by readers and systematic reviewers when interpreting, comparing, or generalising intervention effects observed in trials. I will present a programme of work that demonstrates that this undermines the usability of our intervention literature and the systematic reviews and meta-analyses based on that.

First, I will present two systematic review and meta-analysis projects (34 medication adherence trials, published; 141 smoking cessation trials; under review), both methodologically and conceptually novel, that demonstrate that a) comparator interventions are very poorly reported in published literature, b) comparator interventions vary widely between trials and impact on how well control group participants are doing, and c) variability in comparators impact on trial effect sizes and conclusions about what type of interventions are most effective.

Second, to overcome the challenges with poor reporting of comparator interventions in publications (especially when receiving treatment-as-usual), we developed and examined various tools for assessing treatment-as-usual and other comparator interventions in the context of systematic reviews (i.e., retrospective data collection from study authors) and observational and experimental studies (i.e., prospectively), and in an on-going expert consensus Delphi study.

Combined, this research programme strongly suggests that we must modify the design and reporting of our trials. Additionally, the results show that we must account for incomplete reporting of and variability in comparator interventions when interpreting, comparing, and generalising intervention effects reported in trials - as our findings raise some fundamental questions about the usability of our trial literature and meta-analyses based on those. Finally, I will suggest tools, methods, and a collaborative research programme to move the field forward.

10:15 - 10:30

## Systematic review and synthesis of physical and mental health multimorbidity: Discrete categories or continua?

L. Busija<sup>1</sup>, K. Lim<sup>2</sup>, C. Szoeki<sup>3</sup>, K. Sanders<sup>3</sup>, M. McCabe<sup>4</sup>

<sup>1</sup>Monash University, Australia

<sup>2</sup>Australian Catholic University, Australia

<sup>3</sup>The University of Melbourne, Australia

<sup>4</sup>Swinburne University of Technology, Australia

**Background:** Multimorbidity is the presence of two or more chronic conditions within the same person and is a growing challenge for health professionals worldwide due to the absence of reliable data on which conditions are most likely to occur together. This systematic review synthesised patterns of multimorbidity of physical and mental health conditions reported in the published literature to date with the aim of identifying stable and replicable profiles.

**Methods:** We searched six electronic databases (Medline, EMBASE, PsycINFO, CINAHL, Scopus, Web of Science) for articles reporting multimorbidity profiles. Studies that described disease counts or only assessed bivariate associations between diseases were excluded. The profiles identified in studies were synthesised using multidimensional scaling, stratified by analysis type.

**Findings:** 51 studies met inclusion criteria. The statistical analyses used to identify multimorbidity profiles were exploratory factor analysis, cluster analysis (CA) of diseases, CA of people, and latent class analysis. The discernible groupings of multimorbidity took the form of both discrete categories and continuous dimensions. Mental health conditions grouped along identifiable continua in the synthesised results of all four methods, with anxiety and depression at the one end of the continuum and bipolar and psychotic disorders at the opposite end. Cardio-metabolic conditions also formed discernible groupings in the results of all four statistical Methods:

**Discussion:** The findings that mental health conditions tend to consistently group along a discernible axis indicate that what is currently thought of as discrete mental health disorders might be a manifestation of the same underlying pathology of varying severity.

10:30 - 10:45

## The Multiple Food Test: A new tool to measure food choices and applied nutrition knowledge

M. Schreiber<sup>1</sup>, T. Bucher<sup>2</sup>, C. Collins<sup>2</sup>, S. Dohle<sup>1</sup>

<sup>1</sup>University of Cologne, Germany

<sup>2</sup>University of Newcastle, Australia

**Background:** Assessing food choices in health- and nutrition-related research is a challenging task, and there is a strong need for valid and reliable instruments. Therefore, we developed the Multiple Food Test (MFT) as a new tool for measuring food choices and applied nutrition knowledge.

**Method:** The choice part of the MFT consists of 18 sets of four food items and participants are asked to choose one of the depicted items. In the knowledge part, participants see the same 18 sets and are asked to indicate which of the four items they perceive to be the healthiest. In Study 1 (N = 425), the relationship between answers in the MFT and eating-related variables was assessed. Study 2 (N = 201) tested the validity of the MFT via assessing its relationship to existing scales that measure related constructs. In Study 3 (N = 40), it was tested if choices in the MFT can predict real choice behavior.

**Findings:** Choices in the MFT were associated with implicit theories of health, healthy eating frequency and importance (Study 1), health and taste motives (Study 1 and 2), self-control, and habitual fruit and vegetable consumption (Study 2). Study 3 revealed that choices in the MFT predict real food choices. The knowledge part of the MFT showed an adequate convergent validity with an existing scale to measure nutrition knowledge and was associated with self-control (Study 2).

**Discussion:** The MFT offers new opportunities to study variables or to evaluate interventions that influence food choices and eating behavior.

10:45 - 11:00

## A new item bank for screening and assessing alcohol use and problems in adolescents

P. Toner<sup>1,2</sup>, J. McCambridge<sup>2</sup>, J.R. Böhnke<sup>3</sup>

<sup>1</sup>Queen's University Belfast, United Kingdom

<sup>2</sup>University of York, United Kingdom

<sup>3</sup>University of Dundee, United Kingdom

**Aims:** This programme of work was stimulated by a gap in knowledge identified in research, policy and practice literature and aimed to develop an item bank to screen for and assess the continuum of alcohol risk and harm in adolescents.

**Methods/Results:** The study comprised four stages: 1) a rigorous systematic review and meta-analysis which both identified the best performing existing measures for screening and assessing alcohol use and problems in young people and provided diagnostic and psychometric benchmarks on how well new instruments should perform; 2) semi-structured interviews with 44 adolescents in range of settings to develop and refine item content; 3) 381 young people completed the 65 items produced from stages 1 and 2: exploratory analysis indicates that an item based on heavy episodic drinking is most predictive of full AUDIT score >8 for screening and the new assessment items have an alpha of .92 (adjusted for 10 items), outperforming existing instruments 4) 827 young people have gone through via pen and paper or online administration the 33 items brought forward from stage 3.

**Conclusions:** Confirmatory categorical structural equation modelling results will be discussed with recommendations made for the best performing items to screen for and assess alcohol consumption and problems in adolescents. To conclude, suggestions for further validation work on the item bank and applicability to different practice settings will be made.

## ROUNDTABLE

# Understanding non-reflective behaviour in healthcare professionals to advance implementation research

9:30 - 11:00

Elafiti 3, Valamar Lacroma Dubrovnik

Dominika Kwasnicka and Sebastian Potthoff

9:30 - 11:00

## Understanding non-reflective behaviour in healthcare professionals to advance implementation research

S. Potthoff<sup>1</sup>, D. Kwasnicka<sup>2,3</sup>, B. Gardner<sup>4</sup>, J. Pesseau<sup>5,6</sup>, M. Johnston<sup>7</sup>, P. Lally<sup>8</sup>, D. Johnston<sup>7</sup>, N. McCleary<sup>6,9</sup>

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<sup>2</sup>Faculty of Health Sciences, Curtin University, Australia

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<sup>6</sup>School of Epidemiology and Public Health, University of Ottawa, Canada

<sup>7</sup>Institute of Applied Health Sciences, University of Aberdeen, United Kingdom

<sup>8</sup>Department of Behavioural Sciences and Health, University College London, United Kingdom

<sup>9</sup>Centre for Implementation Research, Ottawa Hospital Research Institute, Canada

**Purpose:** To discuss and conceptualise non-reflective behaviour in healthcare professionals to advance the translation of Health Psychology interventions into routine practice.

**Rationale:** Many healthcare professionals' practices are characterised by repetitive, observable patterns of actions, involving individuals or groups of individuals. For example, a group of healthcare professionals may gather in the same location each day at 8.30 am to start their ward round. Such non-reflective behaviour helps reduce uncertainty, minimise cognitive load and help professionals to deliver care safely in the face of multiple demands on their time. Despite an increased focus on non-reflective behaviour in patients and the general public, this remains an under-researched area in healthcare professionals.

In line with this years' conference theme 'Individuals and Professionals: Cooperation to Health' this roundtable aims to discuss theories developed to better understand behaviour of patients and the general public to deepen our understanding of healthcare professionals' non-reflective clinical behaviour. Focusing on healthcare professional behaviour can serve two important functions: (1) It can help us test and develop theory to develop a cumulative understanding of how non-reflective processes impact behaviour and behaviour change, and (2) it can help us improve quality of care provided to patients by advancing the translation of clinical evidence into routine practice through effective healthcare professional behaviour change.

ORAL

## Nudging and automaticity

9:30 - 11:00

Olipa 4, Valamar Collection Dubrovnik President

Frank Eves

9:30 - 9:45

## Default-name and tasting nudge increase salsify soup choice

O. Luminet<sup>1,2</sup>, V. Broers<sup>1</sup>, S. van den Broucke<sup>1</sup>, C. Taverne<sup>1</sup>

<sup>1</sup>Université Catholique de Louvain, Belgium

<sup>2</sup>Fund for Scientific Research (FRS-FNRS), Belgium

**Background:** Nudging is a popular behavior change technique but the conditions for its effectiveness have not been researched extensively. The current study aimed to research whether the effectiveness of nudging is limited to certain characteristics of the nudged product by aiming to increase a specific product (salsify soup) within a category (soups).

**Methods:** Two parallel studies were conducted in two university sandwich restaurants at which a default-name nudge ("suggestion of the chef") and a tasting nudge were implemented aimed at increasing the choice for salsify soup using a non-randomized study design during 10 and 12 measurement days. An average of respectively 186 and 151 checks, 86.40 and 77.75 servings of soups and 13.40 and 19.08 servings of salsify soups were registered per day by the cash register at both restaurants.

**Findings:** The beta-regression model showed that the default-name nudge increased the proportion of customers that choose the salsify soup during intervention days compared to non-intervention days,  $p < .001$ , OR: 1.70. The tasting nudge also increased the proportion of customers that choose the salsify soup from baseline to intervention,  $p < .001$ , OR: 6.17 and from baseline to post-intervention,  $p < .01$ , OR: 1.87, and decreased from intervention to post-intervention,  $p < .001$ , OR: 0.30. Both nudges did not increase the choice for the overall category of soups.

**Discussion:** The results show that certain types of nudges are able to increase specific products of a category without increasing overall choice of a category in contrast to previous findings.

9:45 - 10:00

## Impact of glass shape on drinking behaviours: a replication study exploring mechanisms

T. Langfield<sup>1</sup>, R. Pechey<sup>1</sup>, M. Pilling<sup>1</sup>, T. Marteau<sup>1</sup>

<sup>1</sup>University of Cambridge, United Kingdom

**Background:** Drinking may be influenced by cues in the drinking environment, including glassware **Design:** A previous study found faster drinking from outward-sloped glasses than straight-sided ones for a soft drink. Proposed mechanisms included micro-drinking behaviours (e.g. sip size) and ability to perceive volume (midpoint-bias) (Langfield et al., 2018). The present study aimed to replicate these findings, and to explore drinking trajectories (the pattern of consumption over time).

**Method:** In a between-subjects design, 200 individuals (50% female) were randomized to consume 330ml of Appletiser® in one of two glass shapes (outward-sloped/straight-sided). Drinking behaviours (total drinking time and micro-drinking behaviours including sip size, sip and interval durations, and drinking trajectories) were coded from video recordings. Midpoint-bias was measured using a task involving pouring liquids.

**Results:** Total drinking times did not differ between glass shapes (0.3% difference, 95%CI: -21.4%, 18.1%,  $p=.98$ ). Drinking trajectories differed, with a more decelerated pattern from outward-sloped glasses ( $p=.023$ ). The directions of effects also indicated larger and longer sips from outward-sloped glasses than straight-sided ones, though confidence-intervals crossed zero. Midpoints were underestimated, with more bias from outward-sloped than straight-sided glasses (mean difference=14.1ml, 95%CI: 9.5ml, 18.7ml,  $p<.0001$ ), though midpoint-bias was not associated with drinking time,  $r(198)=-.09$ ,  $p=.20$ .

**Discussion:** Though total drinking times were equivalent from outward-sloped and straight-sided glasses in this study, micro-drinking behaviours - including drinking trajectories - differed. The extent to which these differences in the micro-structure of drinking might affect how much drink is consumed – potentially important for reducing consumption of health-harming drinks - awaits investigation.

10:00 - 10:15

## Habit based RCT to reduce sugar sweetened beverage consumption: The impact of the substituted beverage

G. Judah<sup>1</sup>, M. Yee<sup>2</sup>, V. Allom<sup>3</sup>, L. Johansson<sup>1</sup>, B. Mullan<sup>3</sup>

<sup>1</sup>Imperial College London, United Kingdom

<sup>2</sup>Ministry of Health, New Zealand

<sup>3</sup>Curtin University, Australia

**Background:** Excess sugar consumption has been linked to negative health outcomes, including obesity and type II diabetes. Reducing sugar-sweetened beverages (SSB) may reduce sugar intake thus improving health. The aim of this study was to determine the effectiveness of a habit based intervention using implementation intentions.

**Methods:** An online randomised, two-arm parallel design was used. Participants (N=158) created implementation intentions to substitute their SSB with either water or diet drink. Measures of SSB and water/diet drink behaviours (portions/week), habit strength (via the Self-Reported Behavioural Automaticity Index (SRBAI)) and hedonic liking were taken at baseline and 2 months. Groups were compared using ANOVA.

**Findings:** At 2-month follow-up, there was a large and significant reduction in SSB consumption ( $F(1,156)=161.08$ ,  $p<.001$ ) and SSB habit strength ( $F(1,156)=58.64$ ,  $p<.001$ ) for both the water and diet drink groups, but no group differences. There were no group differences in hedonic liking for the alternative drink ( $t(156)=1.55$ ,  $p=.122$ ), therefore, no group differences in reduction in SSB behaviour or habit. Reduction in SSB consumption was significantly and positively correlated with reductions in both SSB habit and hedonic liking.

**Discussion:** An implementation intention-based intervention effectively reduced SSB consumption and weakened SSB habits. However, due to no group differences in hedonism, the intervention was equally successful in both groups. Therefore, diet drinks or water may be effective SSB substitutes given an appropriate behaviour change intervention. Water may be preferable as it is healthier, however allowing people to choose their preferred alternative drinks may encourage greater and more sustained changes in behaviour.

10:15 - 10:30

## The working memory account of persuasion: Inducing eye movements influences persuasive outcomes.

A. Dijkstra<sup>1</sup>

<sup>1</sup>University of Groningen, Netherlands

**Background:** The role of the working memory in persuasion is only recently addressed explicitly. One novel paradigm to study the working memory is by inducing regular eye-movements (iEM) during the processing of information. Different types of evidence show that this influences people's perception of internal and external stimuli and iEM can have positive as well as negative influences on persuasion.

**Methods:** Four separately conducted experimental studies will be presented that each apply iEM by asking participants to keep their eyes on a moving dot while listening to a persuasive text on fruit and vegetable consumption (studies 1 and 2) or smoking tobacco (studies 3 and 4). The dependent variables are assessed immediately (negative emotions and intention to change the health behavior), or after a number of weeks (self-reported behavior).

**Findings:** In all four studies iEM influenced measures of persuasion, but under different conditions in participants with different individual characteristics. In one experiment, iEM significantly increased the intention to consume fruit and vegetables while in another experiment iEM increased actual fruit and vegetable consumption. In addition, iEM led to a higher intention to quit smoking but only in smokers with strong disengagement beliefs, and it influenced actual quitting behavior reported one month later.

**Discussion:** On the basis of these results we conclude that iEM "disturb whatever process is dominant in the working memory". When the dominant process supports persuasion, then iEM will lower persuasion; when the dominant process inhibits persuasion, iEM will increase persuasion.

10:30 - 10:45

## Preventing sedentary behavior: An intervention mapping approach for data-driven mhealth consulting

N. Berninger<sup>1</sup>, G. ten Hoor<sup>1</sup>, R. Ruiter<sup>1</sup>, G. Kok<sup>1</sup>, G. Plasqui<sup>1</sup>

<sup>1</sup>Maastricht University, Netherlands

**Background:** Sedentary behavior (SB) is a risk factor for non-communicable diseases and psychological malfunctioning. An Intervention Mapping approach was applied to develop a data-driven, tailored eHealth intervention to reduce SB. In this presentation, the development, evaluation, and preliminary results of a new SB reduction intervention will be discussed: UPcomplish.

**Methods:** The most important determinants for reducing SB were identified (attitudes, perceived behavioral control, perceived susceptibility and norm perceptions), and performance and change objectives were formulated. Subsequently, multiple behavior change methods such as tailoring or reinforcement were pooled to develop UPcomplish.

**Results:** Preliminary results about feasibility, acceptability and effectiveness will be presented from our UPcomplish cluster randomized controlled trial. We evaluate the short term effectiveness of UPcomplish on SB, perceived stress, vitality, performance and mental health.

**Discussion:** SB (as opposed to physical activity) research is still a relatively new field and there is little knowledge about the mechanisms of decreasing SB. We suggest eHealth promotion as potential tool to decrease SB on the long term. This project is a first step to reduce another independent health risk factor.

10:45 - 11:00

## Lift this way; implicit effects of signage on avoidance of stair climbing.

F. Eves<sup>1</sup>

<sup>1</sup>University of Birmingham, United Kingdom

**Background:** Cues in the environment can bias health behaviour implicitly. Perception of the slope of stairs is exaggerated in explicit awareness and the cue of perceived steepness prompts avoidance of stairs by choosing an alternative such as an escalator. This quasi-experimental study investigated the effects of signage that implied slope on avoidance of stairs.

**Methods:** At an outdoor site, the stairs were wrapped around a lift, the entrance of which was hidden from approaching pedestrians. Following the baseline, signs were introduced that pointed to the stairs, "Stairs this way", and the lift, "Lift this way". On the first sign, horizontal arrows pointed to each alternative whereas on the second sign, the arrow pointing to the stairs sloped upwards at 27 degrees. Pedestrian choosing the stairs and the lift (n = 22,965) were coded for direction of travel, sex, weight status, apparent age and the presence of large bags.

**Findings:** When the horizontal signs were introduced, the overweight were more likely to choose the lift for ascent (+5.4%,  $p < .001$ ), with no significant effects on those of healthy weight (+0.9%). In contrast, a sloped arrow pointing to the stairs increased lift choice in those who were of healthy weight (+6.4%,  $p < .001$ ).

**Discussion:** Effects of implied slope in signage, coupled with reduced lift choice in general for females, the overweight, those carrying large bags and older pedestrians, indicate implicit control of pedestrian behaviour when navigating the built environment.

ORAL

Well-being and quality of life during life  
transition periods

9:30 - 11:00

Karaka, Valamar Argosy

Christel Salewski

9:30 - 9:45

## Personality traits and time perspectives: implications for adolescents' well-being

L. Diaconu-Gherasim<sup>1</sup>, C. Mardari<sup>1</sup>

<sup>1</sup>Alexandru Ioan Cuza University of Iasi, Romania

This study investigated the relations between adolescents' Big Five personality traits and well-being (i.e., happiness, depressive symptoms and anxiety), and whether time perspective may explain these relations. The sample included 235 high school students (54.5% girls), aged between 15 and 18 ( $M = 16.87$ ). Adolescents completed scales assessing personality traits, time perspective, and subjective well-being. The results showed that all Big Five personality traits were related to happiness. Adolescents with lower levels of extraversion, conscientiousness or emotional stability experienced higher depressive symptoms and anxiety, and those with lower levels of agreeableness reported higher anxiety. Adolescents with low levels of past negative, present fatalistic or high levels of past positive were associated higher levels of happiness and higher depressive symptoms and anxiety, and those with higher levels of present hedonistic or future time perspectives also reported higher levels of happiness. Further, past negative explained the associations of extraversion and emotional stability with all indexes of subjective well-being. Past positive time perspective mediated the link between extraversion and agreeableness with subjective well-being, and present fatalistic explained the relation between emotional stability and happiness. Finally, present hedonistic mediated the relations of extraversion, agreeableness and conscientiousness with happiness. Our findings revealed that school counselors and psychologists could take into consideration the adolescents' personality traits in order better understand how adolescents cognitively and emotionally evaluate their past and present, and thus may increase adolescents' acceptance of previous experiences and reduce the pattern of negative thoughts, which in turn increase adolescents' subjective well-being.

9:45 - 10:00

## Examination of dispositional forgiveness on mental health outcomes in Greek-Cypriot university students

P. Panayiotou<sup>1</sup>, M. Adonis<sup>1</sup>, X. Georgiadou<sup>1</sup>

<sup>1</sup>University of Nicosia, Cyprus

The rise of the positive psychology movement brought about a wave of research on the dimensions, processes and physical and mental health correlates associated with forgiveness. Dispositional forgiveness, the general tendency to forgive others and ourselves across situations and over time, has been relatively overlooked in forgiveness research. The present study aimed to examine the relationship between dispositional forgiveness and a variety of mental health outcomes, including affect balance, depressive symptomatology and quality of life in Greek-Cypriot University students (N=288). Students were asked to complete a series of questionnaires measuring dispositional forgiveness, affect balance, depression and quality of life. Results showed that dispositional forgiveness was a significant predictor of affect balance, quality of life and depressive symptomatology. Multiple regression analyses indicated that the self-forgiveness component of dispositional forgiveness was a more robust predictor than the other-forgiveness component in predicting variance in all outcome measures. Forgiveness of self was the sole predictor of variance in levels of quality of life, whereas dispositional forgiveness of others exhibited no association. The implications of these findings for forgiveness research and practice are discussed.

Keywords: dispositional forgiveness, QoL, affect balance

10:00 - 10:15

## Orientations to well-being and the good life: beliefs about well-being among young Italian adults.

M. Nicolotti<sup>1</sup>, M.E. Magrin<sup>2</sup>

<sup>1</sup>Università degli studi di Milano - Bicocca, Italy

<sup>2</sup>University of Milano-Bicocca, Italy

Recent literature has highlighted how representations of well-being and consequently the way it is pursued can impact quantity and quality of experienced well-being. The present study aims at expanding such research by exploring well-being representations and their relationship with experienced well-being in a young adult sample.

Participants are 210 young adults aged 19-34. They completed a survey which included a measure for beliefs about well-being (Beliefs About Well-Being Scale; BWBS), measures of experienced well-being (Psychological Well-Being Scale, Positive and Negative Affect Schedule, Satisfaction With Life Scale) and ill-being (General Health Questionnaire).

Results show differences related to socio-anagraphic variables in importance attributed to hedonic and eudaimonic dimensions, particularly unemployed participants attribute more importance to the hedonic dimension of Absence of Negative Experiences. Overall, this dimension also shows negative relationships with psychological well-being and no relationship with measures of subjective well-being, differently from all other dimensions considered, which show a positive relationship with both kind of outcomes.

In an open ended question, participants were also invited to add any dimension they considered essential for well-being which was not included in the BWBS and 37% of participants did. Analysis of their responses shows their well-being representation comprises many other dimensions, referring to life domains and psychological components.

Overall findings suggest the need to deepen our understanding of well-being orientations, in order to uncover its components and intervene in promoting salutogenic dimensions. Present results also lead to consider the peculiar role and placement of the hedonic belief that well-being involves absence of negative experiences.

10:15 - 10:30

## Some determinants of quality of life of pregnant women

E.A. Delale<sup>1</sup>, N. Novokmet<sup>1</sup>, N. Fuchs<sup>1</sup>, I. Dolanc<sup>1</sup>, D. Karelović<sup>2</sup>, S. Janković<sup>2</sup>, S. Musić Milanović<sup>3</sup>, N. Cameron<sup>4</sup>, S. Missoni<sup>1,5</sup>

<sup>1</sup>Institute for anthropological research, Croatia

<sup>2</sup>University Hospital Center Split, Croatia

<sup>3</sup>Croatian Institute of Public Health, Croatia

<sup>4</sup>Loughborough University, United Kingdom

<sup>5</sup>Faculty of medicine University of Osijek, Croatia

**Background:** This study gives insights from the Croatian Islands' Birth Cohort Study (CRIBS) with a focus on health-related quality of life (QoL). The aims of the study were to investigate stress, locus of control, hope and depression as potential predictors of QoL of pregnant women.

**Methods:** The sample consisted of 302 healthy pregnant women (18 to 28 weeks of gestation) who participated in CRIBS from February 2016 to June 2018, using a demographic questionnaire, WHOQOL-bref (4 domains), Multidimensional health locus of control scales, Edinburgh Postnatal Depression Scale, and the perceived stress appraisals.

**Findings:** Subjective QoL of pregnant women appears to be very high in all four domains. The greatest variance was explained in Psychological health domain (42%) and smaller amounts in Physical health (25%), Social relationship (29%) and in Environmental health (29%). Depression and Hope agency were the strongest predictors of all four domains of QoL of pregnant women, but structure of other predictors differs across four domains of QoL.

**Discussion:** The selected set of predictors were significant predictors of QoL in pregnancy, especially for Psychological health domain. Additional variables and predictors of QoL domains need to be regarded further. Identifying predictors of QoL could promote development of prevention, treatment plans and interventions during pregnancy.

10:30 - 10:45

## Optimism and well-being in old age: Mixed results from three German samples

C. Salewski<sup>1</sup>, M. Vollmann<sup>2</sup>

<sup>1</sup>University of Hagen, Germany

<sup>2</sup>Erasmus University Rotterdam, Netherlands

**Background:** It is an often replicated result in Health Psychology that dispositional optimism is a valuable resource for managing stressful situations functionally and thereby sustaining psychological well-being. However, the results of recent studies (e.g., Wrosch et al., 2017) suggest that the benefit of dispositional optimism decreases with advancing older age. Three studies were conducted to gain a closer insight into the relations between optimism, well-being, and (increasing) age.

**Methods:** All studies had a cross-sectional Design: Study 1 comprised n=237 participants (range 50-94 years, 64% female), study 2 n=454 (range 50-97 years, 68% female), and study 3 n=218 (range 50 to 99 years, 57% female). Participants filled in questionnaires assessing dispositional optimism (LOT-R) and well-being (WHO-5). For each sample, a simple moderation analysis with optimism as predictor, well-being as outcome, and age as moderator was conducted. In case of a significant interaction effect, simple slopes at the 10th, 25th, 50th, 75th, and 90th percentiles of age were calculated.

**Findings:** The moderation analyses revealed in Study 1 ( $b=-0.011$ ,  $p=.032$ ) and Study 3 ( $b=0.013$ ,  $p=.006$ ) a significant interaction effect, but not in Study 2 ( $b=0.005$ ,  $p=.17$ ). The simple slopes analyses showed that, with increasing age, the effect of optimism on well-being is decreasing in Study 1 (bs 0.68-0.39), but increasing in Study 3 (bs 0.48-0.89).

**Discussion:** The results suggest that the relation between optimism and well-being in older age may vary depending on additional relevant factors such as the environment (e.g., living in a nursing home or running a household of one's own).

10:45 - 11:00

## The relationship between psychosocial working conditions and depression over time: Disentangling within- and between-person effects

H. Mayerl<sup>1</sup>, U. Kowatz<sup>1</sup>, E. Stolz<sup>1</sup>, W. Freidl<sup>1</sup>

<sup>1</sup>Medical University of Graz, Austria

Empirical evidence supports the notion that negative psychosocial working conditions are associated with more depressive symptoms over time, but the underlying causal mechanisms remain unclear due to methodological limitations in previous studies. Specifically, the failure to separate within- and between-person effects and the negligence of considering reversed causation is critical in this respect. This study aimed to examine the underlying reciprocal process that takes place between effort-reward imbalance (ERI; an indicator of working conditions) and depression at the within-person level, while accounting for stable, trait-like differences at the between-person level.

We used secondary data gathered in the Survey of Health, Ageing and Retirement in Europe (SHARE) from a total of N=457 employed or self-employed individuals aged 50 years or older and including four panel waves (years 2004-2015). We modelled a random intercept cross-lagged panel model with repeated measures for both ERI (based on an abbreviated version of the ERI scale) and depressive symptoms (based on the EURO-D scale).

The results showed neither that ERI levels at an earlier point in time predicted subsequent depressive symptoms nor that the level of depression represented an antecedent of future ERI levels (i.e., within-person level). However, the trait-like levels of ERI and depressive symptoms demonstrated a moderately strong relationship to each other (i.e., between-person level).

In conclusion, the findings did not corroborate the assumption that ERI and depressive symptoms causally influence each other over time. Alternative explanations (e.g., third variable problems) for the relationship between these two constructs should be taken into account.

ORAL

# Positive psychology: The influences of positivity on health

9:30 - 11:00

Olipa 1, Valamar Collection Dubrovnik President

Peter Harris

9:30 - 9:45

## “I HAVE to stay positive”: Understanding Optimistic Bias in Hypothetical End-of-Life Medical Decisions

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**Background:** Humans struggle to make medical decisions for themselves and loved ones because of cognitive filters and biases. One filter, optimistic bias (OB), is the tendency to overestimate the likelihood of positive events occurring. OB has been related to misinterpreting survival estimates and making riskier medical decisions at end-of-life.

**Aim:** This study examined whether OB predicted end-of-life decisions for a) oneself and b) a loved one, in a laboratory-analogue experiment, and whether an OB for survival predicts estimates of risk for surgical complications (e.g., losing consciousness and suffering brain damage).

**Methods:** Participants (161 students; 73% female) were presented with a hypothetical end-of-life scenario and asked to make medical decisions for themselves and a loved one. In subsequent open-ended responses, participants explained their medical decision-making thought processes.

**Results:** Participants who displayed a greater OB for self also displayed a greater OB for their loved one ( $p$ 's < 0.01). When informed about brain damage risks during surgery in the hypothetical scenario, those who displayed OB for self were more likely to choose resuscitation for themselves despite being presented with the risks ( $p=0.005$ ). A similar trend was observed when assessing a loved one's risk of brain damage during surgery ( $p=0.07$ ).

**Discussion:** Those with a greater optimistic bias may make riskier medical decisions for themselves and loved ones. The need to be positive, as a part of one's self-image, may help explain this relationship. Further investigation warrants understanding how to communicate risk more effectively in end-of-life contexts in light of cognitive filters and biases.

9:45 - 10:00

## Laboratory induced positive and negative mood and delay of gratification on sweet-food-choice.

S. Mearns<sup>1</sup>, A. Marchant<sup>1</sup>, C. Civai<sup>1</sup>, I. Albery<sup>1</sup>

<sup>1</sup>London South Bank University, United Kingdom

**Background:** Recent focus and strong arguments have identified excessive sugar consumption as a causal factor contributing to the development and continuation of obesity. The current study investigates the role of affect in relation to sweet-food choice using the delay of gratification paradigm. Controlling for individual differences in additional factors (e.g. impulsivity) will allow for deeper understanding regarding the way in which sweet-food decisions are constructed.

**Methods:** Adult participants (n=48) took part in a standardised mood manipulation procedure to induce positive/negative incidental mood states (i.e. general mood). Participants were then offered a sweet vs. non-sweet choice. A further choice presented the opportunity to keep the initial reward or delay gratification with a later but more desirable reward. Participants also completed questionnaires to measure impulsivity and capture attitudes to chocolate.

**Findings:** Related t-tests showed that participants' moods were successfully altered using the mood manipulation procedure ( $p < .001$ ). Preliminary analyses using a logistic regression model showed mood, impulsivity and chocolate craving to be non-significant predictors of either sweet-food choice; or the ability to delay gratification of sweet-foods. Funnelled debriefing highlighted areas needing improvement.

**Discussion:** The delay of gratification element was strengthened with a development to the sweet vs. non-sweet choice; and the inclusion of an adapted willingness-to-pay task using sweet and non-food items. Following completion, analyses will seek to identify differences both in the ability to delay gratification as well as how much participants are willing to pay for sweet shopping items depending on whether the mood manipulation is either positive or negative.

10:00 - 10:15

## Spontaneous self-affirmation as a positive predictor of responses to health-risk information

P. Harris<sup>1</sup>, D. Griffin<sup>2</sup>, I. Brearley<sup>3</sup>, K. Fox<sup>4</sup>

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<sup>2</sup>Sauder School of Business, University of British Columbia, Canada

<sup>3</sup>Psychology, Sheffield Hallam University, United Kingdom

<sup>4</sup>University of Brighton, United Kingdom

**Background:** In experimental research, self-affirmation has been shown to have positive effects on responses to threatening health-risk information and on subsequent health behaviour. However, little is known about how self-affirmation functions as a spontaneous (i.e., unforced) coping response to health-risk information. The case can be made theoretically for spontaneous self-affirmation to be associated with more adaptive responding, but also with less adaptive responding, which would contrast with the emerging view of self-affirmation as having positive health implications. We are therefore testing how spontaneous self-affirmation predicts responses to health-risk messages.

**Methods:** The tendency to respond to threats with self-affirmation was measured using the Spontaneous Self-Affirmation Measure (SSAM; Harris et al., 2018). We report findings from four studies, two unpublished (targeting alcohol consumption, N = 134 and N = 197) and two published (targeting acrylamide in fried or baked food, N = 198, and fruit and vegetable consumption, N = 248). Measures included indices of defensive versus open-minded responding to the information, of motivation to change, and of subsequent consumption.

**Findings:** Analyses used SEM and linear regression and controlled for trait self-esteem. Across the studies, spontaneous self-affirmation generally predicted message processing and acceptance positively and greater motivation for behaviour change. In some studies spontaneous self-affirmation also predicted consumption at follow-up.

**Discussion:** Overall, spontaneous self-affirmation emerged as a positive predictor, suggesting parallels with the literature on manipulated self-affirmation. Exceptions, limitations, implications, and next steps will be addressed.

10:15 - 10:30

## Profiles of job-related affect: their relationship with emotion-focused coping from a temporal perspective

B. Basinska<sup>1,2</sup>, E. Gruszczynska<sup>3</sup>

<sup>1</sup>SWPS University of Social Sciences and Humanities, Poland

<sup>2</sup>Gdansk University of Technology, Poland

<sup>3</sup>University of Social Sciences and Humanities, Poland

**Backgrounds:** The aim of the study was to identify profiles of job-related affect and examine their relationship with coping in a work context. Palliative coping is aimed to reduce negative affect, whereas salutary coping is aimed to increase positive affect. Moreover, salutary coping may be further divided into eudaimonic and hedonic strategies.

**Methods:** We conducted a three-wave longitudinal study among 238 civil servants. We assessed the job-related affect (van Katwyk et al., 2000), rumination (Treynor et al., 2003), positive reappraisal (Brief COPE, Carver, 1997) and creating positive sensory events (Shiota, 2006). Two-step cluster analysis was applied to the job-related affect measured at the first time point, then ANOVA were used to examine differences between profiles in terms of coping at each time point.

**Findings:** Four affective profiles were identified: satisfied employees (31% of the sample; characterized by a domination of positive affect at work), dissatisfied employees (21%, negative affect), passive employees (30%, low arousal negative affect) and ebullient employees (18%, high-arousal mixed-valence affect). Cross-sectionally, these groups differed significantly on both, palliative and salutary coping. However, one month later only rumination varied significantly between the profiles and after another three months this difference was also no longer observed.

**Discussion:** Results suggest that palliative coping can be a more stable correlate of affective work experience. Salutary coping strategies were only momentarily associated with affect. The findings indicate the need to take into account the temporal perspective when analysing job-related affective well-being and coping with stress at work.

10:30 - 10:45

## The correlates of physical literacy and resilience in children and youth

P. Jefferies<sup>1</sup>, M. Ungar<sup>1</sup>, D. Kriellaars<sup>2</sup>

<sup>1</sup>Resilience Research Centre, Dalhousie University, Canada

<sup>2</sup>Faculty of Health Sciences, University of Manitoba, Canada

**Background:** There is emerging interest in the relationship between physical and psychosocial factors related to resilience in order to better understand the antecedents of health and well-being. To further this understanding, this study shares preliminary findings into the association between physical literacy (PL) and resilience using a trans-disciplinary approach.

**Methods:** Data were collected from 227 school children aged 9-12 in Manitoba, Canada. PL (confidence, motivation, engagement) was measured through a battery of measures from self-report, trained assessors, the physical education (PE) teacher, and parent versions of the Physical Literacy Assessment for Youth tools. Resilience was measured using the self-reported 12-item Child and Youth Resilience Measure.

**Results:** Analyses indicated that resilience was associated with trained assessor perceptions of an individual's motor capacity and competence, with individuals' perceptions of their overall PL and participation in their activity environments, and PE teacher perceptions of motor competence and confidence, overall PL, fitness, and activity level. Binary logistic regressions indicated that resilience could be predicted by PE teacher perceptions of PL and motor competence, parent perceptions of motor competence, and self-reported overall PL and engagement with the environment.

**Conclusions:** These findings, using a constellation of sources, show evidence of the link between resilience and PL among children. Longitudinal studies are required to further examine this relationship and how these two previously unrelated fields may work together for a richer understanding of the interplay between the physical and psychological determinants of mental and physical well-being in children and youth.

10:45 - 11:00

## Connectedness of nature and resilient personality

Z. Kövi<sup>1</sup>, Z. Tanyi<sup>1</sup>, A. Elekes<sup>1</sup>, A. Ferenczi<sup>1</sup>, Z. Mirnics<sup>1</sup>

<sup>1</sup>Károli Gáspár University, Hungary

**Background:** The aim of the study was to examine personality correlates of connectedness to nature. The positive mental health effects have been well studied by many researches, and our aim was to study if positive effects of connectedness to nature can also be related to individual differences in personality. Our main question was to analyze whether people with deeper connectedness to nature do have a more resilient personality.

**Methods:** Our cross-sectional study consisted of 586 participants (34% male, 66% female, mean age: 40, SD=17). Our questionnaires included Connectedness to Nature Scale, the HEXACO personality scale and Zuckerman-Kuhlman-Aluja Personality Questionnaire and we applied discrimination analyses between groups with low and high connectedness to nature scores.

**Findings:** Discrimination analyses revealed five personality scales (positive emotions, fairness, forgiveness, aesthetic appreciation, inquisitiveness) that significantly discriminated between groups (Wilks  $\Lambda$  : .80,  $\chi^2(df=5) = 82.31$ , Sig. < .01) with low and high connectedness to nature scores.

**Discussion:** We can conclude that empirical results confirm that people who are more connected to nature are more inclined to positive emotions, feel little temptation to break rules, forgive the wrongs that they suffered, become absorbed in the beauty of art and nature and are inquisitive about various domains of knowledge. In sum, connectedness to nature is linked to more resilient personality. In order to examine causal relations, longitudinal researches should be planned.

# STATE OF THE ART

## Caregiving in demanding times

11:30 - 13:00

Elafiti 2, Valamar Lacroma Dubrovnik

Rachel Dekel

11:30 - 12:15

## Well-being of military members' spouses: The role of members' health problems

A. Skomorovsky<sup>1</sup>, J. Lee<sup>1</sup>, S. Dursun<sup>1</sup>

<sup>1</sup>Department of National Defence, Canada

**Background:** Military spouses play an important role in enabling military operational effectiveness. Studies show that poor physical and psychological health among military members negatively impacts the well-being of their spouses. However, little is known about the main challenges and protective factors related to the well-being of military spouses.

**Methods:** Recognizing the devotion and the sacrifices of military spouses, a research program was developed to understand the impacts of Canadian Armed Forces (CAF) members' health problems on the well-being of their spouses. The research program included: a qualitative study with spouses of ill and injured military members (N=24), a quantitative study with spouses of military members recently released from the CAF (N=595), and a quantitative study with a matched (member and spouse) sample (N = 130). The aim of the research was to understand the main challenges and protective factors related to the well-being of CAF spouses.

**Findings:** The thematic analysis of the qualitative study demonstrated the impact of military members' illness on the quality of intimate relationships, caregiver burden, and psychological distress and reduced well-being. The quantitative research demonstrated that key challenges among spouses included the beliefs that they should be doing more for the ill spouse and that they were experiencing stress about caregiving. Hierarchical regression analyses demonstrated that members' psychological distress predicted spousal psychological distress and reduced life satisfaction. Analyses also revealed that spousal perception of the relationship quality and CAF social support were the key predictors of spousal life satisfaction.

**Discussion:** The outcomes of the three-year research program highlighted some of the lasting impacts of illnesses or injuries of military members on spouses, including caregiver burden and decreased spousal well-being. These results will assist military organizations and service providers to ensure that their programs are consistent with the needs of spouses of ill or injured military members.

12:15 - 12:30

## Profiles of caregivers most at risk of having unmet supportive care needs in oncology

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<sup>3</sup>University of Lille, Department of Digestive and Oncological Surgery, France

<sup>4</sup>Methodology and Quality of Life in Oncology Unit (INSERM UMR 1098), University Hospital of Besançon, France

<sup>5</sup>French National Platform Quality of Life and Cancer, France

<sup>6</sup>University of Lille, Department of Thoracic Oncology, Albert Calmette University Hospital, France

**Background:** Caregivers play an important role in supporting cancer patients in daily life. However, they report difficulties, health problems, and unmet supportive care needs. Thus, this study aimed to identify the profiles of caregivers at greater risk of having at least one moderately or highly unmet supportive care need based on 1) relevant sociodemographic and medical variables highlighted in the literature and easily identifiable in routine, and 2) anxiety and depression symptoms.

**Methods:** Three hundred and sixty-four main caregivers completed a questionnaire assessing their supportive care needs (SCNS-P&C-F), anxiety and depression symptoms (HADS) during the treatment or follow-up stage. Decision trees (Conditional inference Tree technique) were used to identify profiles at risks.

**Findings:** Different profiles were identified according to the type of supportive care needs. Only the combination of three variables was important to establish these profiles: anxiety and/or depression symptoms, the age of caregivers or patients, and the presence or absence of metastases. Emotional distress has the greatest impact, exceeding that of the sociodemographic and medical variables.

**Discussion:** It is important to consider the combination of variables to predict the risks of unmet needs rather than their effects separately. Emotional processes were particularly important in explaining and predicting caregivers' unmet supportive care needs. It may be important to assess their anxiety and depression symptoms in routine to better identify caregivers at greater risk of unmet supportive care needs, in combination with sociodemographic and medical variables. This study provides recommendations on how to identify caregivers at risk of being vulnerable.

12:30 - 12:45

## Goals and conflicts of informal caregivers of patients in the palliative phase

A. Looijmans<sup>1</sup>, M. Tuinman<sup>1</sup>, M. Hagedoorn<sup>2</sup>

<sup>1</sup>University Medical Center Groningen, Dept. of Health Psychology, Netherlands

<sup>2</sup>University of Groningen, Dept. of Health Psychology, Netherlands

**Background:** This study aimed to explore goals informal caregivers have when their loved-one receives palliative care, conflicts they experience in achieving goals and the kind of support caregivers benefit from in this period. The outcomes form the basis for developing a digital tool to support Dutch caregivers of a loved-one in the palliative phase to reduce caregiver burden and promote positive care experiences.

**Methods:** Semi-structured qualitative interviews were conducted with (former) informal caregivers (N=20) and care professionals serving patients receiving palliative care and their informal caregivers (N=15). Interviews were recorded, transcribed verbatim and analyzed using thematic analyses.

**Findings:** Informal caregivers aimed to “live life as normal as possible”, “comfort their loved-one”, “spend quality time with loved-one/family”, and “continue own activities (work, social life)”. Care professionals experienced the imbalance between caregivers’ wish to intensify professional support/help from the social environment, and loved-ones’ wish to protect their privacy. Caregivers encountered difficulties in balancing caregiving with own activities, i.e. work, social life. Caregivers expressed that the feeling of being supported or acknowledged as individual in this situation supported them in this phase. Caregivers indicated that an overview of the regulations and various options for support would reduce their frustration and help to better balance caregiving tasks and other activities.

**Discussion:** Most caregivers care with unconditional love for their loved-ones, although they experience growing struggles in providing care and their other activities. To support caregivers of patients in the palliative phase pro-actively, guidance in balancing caregivers’ own goals with caregiving demands could be helpful.

12:45 - 13:00

## Fear of illness progression and cardiac- disease- induced – PTSD (CDI-PTSD): A prospective dyadic study

N. Vilchinsky<sup>1</sup>, k. fait<sup>1</sup>, R. Dekel<sup>1</sup>, S. Matetzky<sup>2</sup>, H. Hod<sup>2</sup>

<sup>1</sup>Bar-Ilan University, Israel

<sup>2</sup>Sheba Medical Center, Israel

**Background:** in the field of trauma it is well established that dyadic effects contribute to both partners' PTSD prevalence over time. Yet, no studies to date have focused on the unique dyadic transactions explaining post-traumatic stress symptoms in the context of cardiac illness. The current presentation will focus on fear of illness progression (FoP) as a relevant factor explaining the prevalence of CDI-PTSD among couples coping with an acute cardiac event.

**Methods:** Patients and their partners (N = 117) were interviewed four months post-hospitalization for an acute coronary event via the use of the PSS-SR-5 (to assess PTSD symptomatology), and the FoP-Q-SF (to assess fear of illness progression). Both partners CDI-PTSD prevalence was measured again four months later.

**Findings:** APIM analysis revealed that for both patients and caregivers, each partner's fear of illness progression was significantly associated with his/her own levels of CDI-PTSD, both cross-sectional and over four months. Dyadic effects were also traced. Four months after the event caregivers were found to be more susceptible to patients' fears than patients were, however, this trend had reversed when CDI-PTSD was measured four months later.

**Discussion:** It seems that FoP contributes differently to the prevalence of CDI-PTSD among patients versus caregivers. Applying the dyadic paradigm in the context of PTSD and cardiac illnesses is critical in order to better understand patients' and caregivers' adjustment processes. Ultimately, a comprehensive understanding of these differential effects will be translated into effective interventions for patients and their family members.

ORAL

Communication involving health care  
professionals

11:30 - 13:00

Olipa 4, Valamar Collection Dubrovnik President

Wendy Lawrence

11:30 - 11:45

## “I grew in confidence”: The health-care and communication experience for parents of children with cancer

J. Baenziger<sup>1,2</sup>, K. Hetherington<sup>2,3</sup>, C.E. Wakefield<sup>2,3</sup>, L. Carlson<sup>2,3</sup>, B.C. McGill<sup>2,3</sup>, R.J. Cohn<sup>2,3</sup>, G. Michel<sup>1</sup>, U.M. Sansom-Daly<sup>2,3</sup>

<sup>1</sup>University of Lucerne, Switzerland

<sup>2</sup>Kids Cancer Centre, Sydney Children's Hospital, Australia

<sup>3</sup>School of Women's and Children's Health, University of New South Wales, Australia

**Background:** Following their child's cancer diagnosis, parents have to rapidly familiarise themselves with cancer-specific information and the health-care setting. Previous studies stated a need for theory to help understand and address parents' difficulties when navigating the health-care system. We examined parents' experiences with health-care-professionals (HCPs) during and after the child's cancer treatment.

**Methods:** We recruited parents of children (aged <18 years) who recently completed cancer treatment with curative intent from eight Australian hospitals. We conducted in-depth interviews using the Psychosocial Adjustment to Illness Scale as part of the baseline assessment of the 'Cascade' survivorship intervention. We used grounded theory to explore parents' health-care-experiences.

**Findings:** Fifty-two mothers and six fathers of survivors (mean age at diagnosis=5.1 years, time since treatment=1.9 years) participated. Four themes characterised parents' experiences: 1) positive and negative interactions, 2) attitudes towards doctors and treatment, 3) trust and mistrust in the doctor-parent relationship, and 4) active engagement in care. Parents valued the skills and clear communication of HCPs, which mitigated parents' treatment uncertainty and helped them balance information needs. Trust was built with HCPs who seemed approachable and personable. Parents rationalized negative interactions by the limited medical environment. They felt support ended prematurely. We propose a framework describing potential mechanisms involved in parents' health-care-experience.

**Discussion:** Maintaining contact was essential to parents' positive experiences throughout treatment, and after treatment ended. Acknowledging survivors' continuous needs, including care outside of the range of oncology, and explicit guidance, e.g. tailored survivorship care plans, might benefit parents' engagement in long-term follow-up care.

11:45 - 12:00

## Barriers and enablers to healthcare professionals providing behaviour change interventions: Systematic review of systematic reviews

C. Keyworth<sup>1</sup>, T. Epton<sup>1</sup>, J. Goldthorpe<sup>1</sup>, R. Calam<sup>1</sup>, C. Armitage<sup>1</sup>

<sup>1</sup>University of Manchester, United Kingdom

**Background:** Healthcare professionals are an expected and trusted source of health behaviour change interventions, which patients often welcome even during routine consultations. Previous reviews examining barriers and enablers to this activity focus on defined specialisms, consequently limiting cross-disciplinary comparisons. Therefore, a systematic review of systematic reviews collated all of the available evidence across professional groups.

**Methods:** Eight electronic databases were searched for systematic reviews reporting patient-facing healthcare professionals' (e.g. General Practitioners, nurses, midwives) barriers and enablers to behaviour change interventions (diet, physical activity, alcohol reduction, smoking cessation, and weight management). A narrative synthesis of extracted data was conducted.

**Findings:** Thirty-six systematic reviews were included. There were four unique cross-disciplinary barriers to delivering behaviour change interventions: (1) attitudes towards patients, (2) perceptions of patient motivation, (3) perceived lack of time, and (4) perceived lack of prioritisation. There were three unique cross-disciplinary enablers: (1) attitudes towards delivering interventions, (2) perceived importance of training, and (3) contextual enablers. Four factors acted as both barriers and enablers: (1) healthcare professionals' own health behaviour, (2) perceptions of the healthcare professional role, (3) knowledge and skills, and (4) access to resources and support.

**Discussion:** Findings can be used to inform the design and delivery of training for diverse professional groups, targeting the most prevalent barriers and enablers across disciplines, to enhance healthcare professionals' capacity to deliver opportunistic behaviour change interventions to patients.

12:00 - 12:15

## Exploring shared understanding between patient and prosthetist following limb loss using Interpretative Phenomenological Analysis.

C. Uytman<sup>1</sup>, C. McVittie<sup>1</sup>, K. Goodall<sup>2</sup>

<sup>1</sup>Queen Margaret University, United Kingdom

<sup>2</sup>University of Edinburgh, United Kingdom

**Background:** Loss of limb presents a life-changing circumstance for individuals. The prosthetist, in facilitating rehabilitation, is essential to positive adjustment post-amputation. However, commonalities and differences in the understandings of each of these parties of the experience of limb loss and prosthesis use remain widely unexamined. This comparison and the importance of their shared understanding in this process and beyond provides the focus for this study.

**Method:** 15 post-amputation individuals and 13 prosthetists were interviewed on their perceptions of limb loss and prosthesis use. Data were analysed using Interpretative Phenomenological Analysis (IPA) in order to gain an understanding of the subjective experiences of both parties of the post-amputation process.

**Findings:** Analysis led to identification of four key themes: Personal Identity, Social Identity, The Prosthesis and Communication. These themes were relevant for both groups. The meanings that they held for the two groups, however, differed in relation to key elements of the post-amputation experience.

**Discussion:** The fitting and use of a prosthetic device is not a simple, technical process but rather involves a combination of psychological, social and practical components all of which must be recognized by both parties in the rehabilitation process. Both groups have a shared interest in the process of prosthetic limb fitting and rehabilitation and yet come from very differing perspectives. Communications between members of these groups can provide a central point for addressing differences in their understandings of living with limb loss and might provide a focus for further developments in research and practice.

12:15 - 12:30

## Getting mad or bearing the burden?: Physicians' gendered representations of women with pre-menstrual symptoms

R. Morais<sup>1</sup>, S. Bernardes<sup>1</sup>, P. Verdonk<sup>2</sup>

<sup>1</sup>ISCTE - Instituto Universitário de Lisboa, Portugal

<sup>2</sup>Amsterdam UMC, Vrije Universiteit Amsterdam, department Medical Humanities, APH research institute, Netherlands

**Background:** Studies show that health professionals may be indifferent to women with premenstrual syndromes, and the reasons for this are not systematically studied. Physicians' gendered representations of women with premenstrual symptoms may partially account for their underassessment and undertreatment. However, to the best of our knowledge, the contents of such representations have not yet been investigated.

**Goals:** Drawing upon gender-related theoretical frameworks, this study aimed to explore physicians' gendered representations of women with pre-menstrual syndromes and their association with doctor-patient relationship.

**Methods:** Individual semi-structured interviews were conducted with 32 physicians (11 female/6 male General Practitioners and 10 female/5 male Obstetricians/Gynecologists). Based on their professional experiences, physicians were asked to describe easy and difficult cases of women with premenstrual syndromes, to express their perceptions of those women and their clinical relationships. A thematic analysis was used.

**Findings:** Physicians represent women with premenstrual symptoms in four categories: naturally anxious (or with underlying mood disorders); aggressive; histrionic and stoic. Aggressive and histrionic women were the most difficult cases, bearing negative consequences to the doctor-patient relationship. Stoic women were often depicted as the easy cases.

**Discussion:** These findings suggest that gender representations strongly influence doctors' perceptions of women with premenstrual syndromes and, consequently, their doctor-patient relationships. Implications of these results for the diagnosis and treatment of these women and for health-care professionals' gender awareness training are discussed.

**Keywords:** Premenstrual syndromes; Women; Gender Representations, Physicians

12:30 - 12:45

## Effectiveness of a Virtual Motivational Interviewing Training for Medical Students: Differentiating between pre- and then-testing

A.M. Plass<sup>1</sup>, L. Lohrberg<sup>1</sup>, A. Covic<sup>1</sup>, G. Albright<sup>2</sup>, R. Goldman<sup>2</sup>, N. von Steinbüchel<sup>1</sup>

<sup>1</sup>University Medical Center Göttingen (UMG), Germany

<sup>2</sup>Kognito Interactive, United States

Shifting from paternalistic towards patient-centeredness, medical doctors need patient-centered communication skills, addressing health behavior change and self-management support. Motivational Interviewing is an evidence-based collaborative goal-oriented communication technique to strengthening a person's own motivation and commitment to change. The purpose of this study was to evaluate the effectiveness of a minimal virtual Motivational Interviewing training program on knowledge and skills at an early stage in first year's medical students, making use of both a pretest and a then-test to check for possible testing bias due to response shift in evaluating the educational intervention.

Four 10-15 minutes conversations of the Kognito Conversation Platform<sup>TM</sup> were offered to the students, after which they were asked to fill in two questionnaires: a short one-page questionnaire (pre-test) before starting the game, and a longer one existing of both a posttest and then-test, after completing the virtual conversation.

339 undergraduate medical students filled in at least one questionnaire (RR= 83.1%). The minimal Motivational Interviewing virtual training course proved effective in two ways: participants not only significantly gained knowledge and skills, but they too became better aware of the intrinsic knowledge and skill they already had to communicating in a patient-centered way with their future patients. The retrospective pretest proved more accurate compared to the pretest.

Thus, Motivational Interviewing training courses can be effective even if these are minimal and/ or offered at an early stage during medical education. In evaluating the effect of such an educational intervention, a retrospective pretest should be preferred over a pretest.

12:45 - 13:00

## Healthy Conversation Skills training to “Make Every Contact Count” in Hounslow, London, UK

W. Lawrence<sup>1,2</sup>, D. Watson<sup>3,4</sup>, S. Strömmer<sup>3</sup>

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<sup>3</sup>MRC Lifecourse Epidemiology Unit, University of Southampton, United Kingdom

<sup>4</sup>Human Development and Health, Faculty of Medicine, University of Southampton, United Kingdom

**Background:** Public Health England advocates improving the public health capability of frontline staff to “Make Every Contact Count”. London Borough of Hounslow aimed to meet this agenda and reduce health inequalities in the borough by training staff in Healthy Conversation Skills(HCS) – practical skills to support behaviour change. One aim is to shift practitioners from telling/suggesting to asking open discovery questions to empower individuals to make changes. This study assessed the impact of training on practitioners.

**Methods:** Pre- and post-training 137 trainees completed evaluation sheets, rating from 0-10 confidence, importance and usefulness of conversations in supporting individuals to make changes; and afterwards how valuable they found the training. To assess HCS competence, trainees responded pre- and post-training to four statements. A few months later, follow-up phone calls (n=11) and observations/audio-recorded reflective feedback interviews (n=4) were undertaken and competency scores calculated.

**Findings:** There were significant increases in mean scores for confidence (6.9 to 8.5), importance (8.3 to 8.8) and usefulness (7.3 to 8.6), and significant shifts in response styles; mean value post-training was 8.8/10. For the phone calls/observations/interviews each of four competencies was scored from 0-4(max=16). Trainees demonstrated high levels of HCS competence from the phone calls (12.5) and observations/interviews (12).

**Discussion:** Staff demonstrated increases in all measures, including competence in having healthy conversations. This novel approach to “Making Every Contact Count” highlights the important role that health psychologists have in working with local agencies to equip frontline staff with skills to more effectively support improvements in population health and well-being.

ORAL

# Health inequalities and sustainable consumption

11:30 - 13:00

Olipa 1, Valamar Collection Dubrovnik President

Jennifer Inauen

11:30 - 11:45

## Understanding the social gradient in health and wellbeing: an interdisciplinary scoping study

M. Bal<sup>1</sup>, J. de Wit<sup>1</sup>, K. van den Bos<sup>1</sup>, T. van der Lippe<sup>1</sup>, C. Kamphuis<sup>1</sup>, M. Poelman<sup>1</sup>, J. Smit<sup>2</sup>

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<sup>2</sup>UMC Utrecht, Netherlands

**Background:** Socioeconomic inequities in health and wellbeing persist and may even be growing. Explanations of the link between SES and health and wellbeing vary across disciplines, but have largely been studied in isolation. While extant hypotheses explain differences between the worst-off and the well-off, they mostly do not adequately account for the social gradient in health, that is, differences between every rung on the social ladder. In this study, we synthesize evidence regarding main explanations across disciplines for this social gradient.

**Methods:** We conducted a systematic scoping study and narrative synthesis of English-language research publications on the social gradient in health and well-being, using a variety of search engines (e.g., PubMed, Scopus, CINAHL) covering the fields of public health, human geography, social sciences and behavioral sciences.

**Findings:** Three main types of explanations could be distinguished: those focusing on individual-behavioral explanations (differences in lifestyles), structural-institutional explanations (differences in living conditions, exposure to risk factors, and access to resources), and psychosocial explanations (aversive effects of relative disadvantage). Relative deprivation is a key factor linking SES to differential health outcomes; directly, through cardiovascular responses, and indirectly, through risky behaviors to cope with distress (e.g., tobacco and alcohol use).

**Discussion:** Our scoping study underscores the importance of psychosocial factors, especially relative deprivation, in understanding the social gradient in health and wellbeing. This extends the traditional focus on individual-behavioral and structural-institutional factors, and underscores the importance of addressing lifestyles, systems as well as social processes in interventions promoting health and wellbeing for all.

11:45 - 12:00

## How to eat healthy and save the planet: development and evaluation of an evidence-based app

V. Feck<sup>1</sup>, A. Herrmann<sup>1</sup>, V. Visschers<sup>1</sup>

<sup>1</sup>School of Applied Psychology, University of Applied Sciences and Arts Northwestern Switzerland, Switzerland

**Background:** Food consumption affects individuals as well as our planet. How can a tailored app help people to make healthier and more sustainable meal choices? To answer this question, we contributed to the development of an evidence-based dietary app and evaluated its effects. The app offers personalized recipes and tips in order to reduce food waste and meat consumption, and increase the use of seasonal and plant-based products.

**Method:** Using a mixed-methods approach, app usage data (N=2167) and quantitative data from a longitudinal online questionnaire (T1-T3: N=56) were combined with in-depth interviews with users (N=6) and app-developers (N=3).

**Findings:** In the interviews, users evaluated the personalized recipe-suggestions positively. An additional search (e.g. recipes with certain ingredients) was often no longer necessary to find a suitable recipe. The app metrics showed positive correlations between frequent app usage and the motivation to reduce food waste ( $r=.06$ ,  $p<.05$ ) as well as the motivation to use seasonal products ( $r=.16$ ,  $p<.01$ ). The survey data showed that participants' initial confidence to implement new dietary behavior was a strong predictor of the implementation of new dietary behavior after three weeks of app usage ( $\beta\geq.49$ ,  $p\leq.01$ ,  $R^2 = .66$ ). Last, the development team emphasized the benefits of an iterative approach in which regular user feedback informed the further development process of the app.

**Discussion:** The results of this research show that it can be effective to combine health- and sustainability-focused diet interventions. These interventions should be personalized and aim to increase users' confidence to perform new dietary behavior.

12:00 - 12:15

## FROOD - Framing Food: Promotion- versus Prevention-framed Affective Messages to Increase Vegetable Consumption

A. Jelić<sup>1</sup>, V. Carfora<sup>1</sup>, M. Bertolotti<sup>1</sup>, P. Catellani<sup>1</sup>

<sup>1</sup>Università Cattolica del Sacro Cuore di Milano, Italy

**Background:** The present study is part of our project FROOD – “Framing Food”, which aims to understand how to fit health messages with individual predispositions. Health campaigns based on the affective consequences of healthy eating are a promising strategy to increase vegetable consumption. Specifically, the present study analysed how promotion- and prevention- framed affective messages have a different impact on receivers depending of their individual intention to change and eating self-efficacy.

**Methods:** Participants (N = 98; 49 males, 49 females; mean age = 27.69, SD = 12.17) completed a questionnaire measuring intention to change (non-intenders, demoralized intenders, intenders) and eating self-efficacy. Participants were then presented with different affective messages: promotion-framed messages, focused on the achievement of positive affective consequences, and prevention-framed messages, focused on the avoidance of negative outcome. At the end of the intervention, participants rated their attitude, anticipated regret and intentions towards eating vegetables.

**Results:** Main results showed that demoralized intenders reported more positive affective attitude, higher anticipated regret, and greater intention to eat vegetables when reading prevention-framed messages than when reading promotion-framed messages. No similar difference was found in the case of non-intenders and intenders. Moderation analysis showed that non-intenders with a lower eating self-efficacy and demoralized intenders with intermediate and higher levels of eating self-efficacy were more involved by prevention-framed affective messages than by promotion-framed messages.

**Discussion:** The effectiveness of health communication to increase vegetable intake depends on how messages are framed and tailored to individuals predispositions.

12:15 - 12:30

## Community Action to Cope with Food Insecurity in a Syrian Refugee Settlement: A Qualitative Study

R. Talhouk<sup>1</sup>, C. Akik<sup>2</sup>, H. Ghattas<sup>2</sup>, B. Ahmad<sup>1</sup>, M. Balaam<sup>3</sup>, A. Garbett<sup>1</sup>, K. Montague<sup>1</sup>, V. Araújo-Soares<sup>1</sup>

<sup>1</sup>Newcastle University, United Kingdom

<sup>2</sup>American University of Beirut, Lebanon

<sup>3</sup>KTH Royal Institute of Technology, Sweden

**Background:** 91% of Syrian refugee families in Lebanon do not have adequate access to safe and sufficient food (UNHCR, 2017). This study explores Syrian refugee experiences of food insecurity and the community activities that contribute to coping with food insecurity.

**Methods:** To gain a holistic understanding of refugee community actions that impact their food security we conducted a qualitative study using focus groups during which participants were asked to: (1) reflect on the coping strategies they are adopting and (2) co-construct narratives of coping with food insecurity with a specific emphasis on the role of other community members. Thirteen Women in an informal refugee settlement in rural Lebanon participated in the study. Participants engaged in 5 focus groups over the course of two months. Data from each focus group the next. Data was validated with participants throughout the focus groups and thematic analysis was conducted on transcripts of audio recordings from the engagements (Braun & Clarke, 2013).

**Findings:** Our findings highlight that a key mechanism for coping was relying on the knowledge of others in the community on how to shop on a small budget. Additionally, women in the community supported one another through a favor system in which they would borrow small amounts of food from each other. Furthermore, community members also bought food items such as oil and vegetable boxes collectively.

**Discussion:** Future interventions to improve refugee food security should account for community actions and aim to leverage community members' knowledge as well as explore collective purchasing.

12:30 - 12:45

## Using the United Nations sustainable development goals in university courses to address global health inequalities

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<sup>1</sup>University of Hartford, United States

<sup>2</sup>The City University of New York (BMCC), United States

The phrase, “think globally, act locally” advocates for individuals to act in their immediate environment in an effort to address larger global health concerns. Educating future health advocates requires scholars to engage students in meaningful course content. As United Nations (UN) representatives and academics, we share data from #JoinTogether UHart, a university project that is part of the larger UN #JoinTogether network guided by the 17 UN Sustainable Development Goals (SDGs). We specifically targeted SDG #5 (Gender Equality) and #17 (Partnerships for the Goals) to address sexual assault/violence and women’s sustainable menstrual products. On a scale from 1-5 (where 5 is “strongly agree”), student’s enthusiasm for the subject (4.9) and being provided with useful information and skills (4.8) indicate that using the UN SDGs as a way to address women’s health inequality may be an effective pedagogical tool.

First-year seminars (FYS) are low-enrollment, introductory level college courses designed to instill intellectual passion and often utilizes an advanced student as a preceptor. Preceptor programs are commonly found in nursing education where experienced nurses (preceptors) are paired with novice nurses (Freiburger, 2002). Data from our institution show that students report their FYS classes to be an overwhelmingly positive experience (65-81%) (Muppidi & McGivney-Burelle, 2015) and courses with preceptors reported significantly greater engagement (Black & Voelker, 2008).

Using the preceptor paradigm in conjunction with the UN SDGs in university courses may be a valuable way to implement health psychology, improve health around the globe, and work in partnership in increasing international cooperation.

## ROUNDTABLE

Brief intervention programmes for  
chronic disease prevention: Health  
psychology's contribution to  
implementation and evaluation

11:30 - 13:00

Galijun, Valamar Argosy

Patrick Murphy

11:30 - 13:00

## Brief intervention programmes for chronic disease prevention: Health psychology's contribution to implementation and evaluation

P. Murphy<sup>1</sup>, J. Mc Sharry<sup>2</sup>, L. Mellon<sup>3</sup>, J. Hart<sup>4</sup>, V. Swanson<sup>5</sup>

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<sup>4</sup>University of Manchester, United Kingdom

<sup>5</sup>University of Stirling, United Kingdom

**Purpose:** A number of international health services, including Ireland's Health Service Executive (HSE), have begun implementing brief intervention (BI) programmes aimed at reducing the prevalence of chronic disease. Within these programmes, BIs addressing the behavioural risk factors for chronic disease should be delivered by all health professionals as part of routine consultations. This represents a cultural shift in health services, incorporating a focus on health and wellness into practices traditionally focused on disease management. Whether BI programmes can be implemented successfully is uncertain, as is their effectiveness. This roundtable will focus on the contribution of health psychology (HP) to addressing these questions of implementation and evaluation.

**Rationale:** This roundtable will offer insights into an emerging field of application for health psychologists and explore the potential for HP to make an impact in this important area.

ORAL

Influences on risk perception,  
communication and understanding

14:00 - 15:30

Elafiti 1, Valamar Lacroma Dubrovnik

Britta Renner

14:00 - 14:15

## Does the inclusion of images in patient educational material improve the understanding of an illness?

A. Krasnoryadtseva<sup>1</sup>, N. Dalbeth<sup>1</sup>, K. Petrie<sup>1</sup>

<sup>1</sup>University of Auckland, New Zealand

**Background:** Accurate views of an illness can help individuals respond to health conditions and choose appropriate coping strategies. In this study, we investigated how the addition and format of a medical illustration to a disease description affects illness understanding and perceptions, as well as the perception of health education material.

**Methods:** Two hundred and four supermarket shoppers were randomised to read one of the four educational leaflets about gout. Three leaflets included an image showing a foot of a person with gout in the form of either a cartoon, an anatomical image or a computed tomography (CT) scan. The control leaflet contained text without any pictures.

**Findings:** The addition of an image was seen by participants as making the leaflet more visually appealing ( $P=0.003$ ). Moreover, the image, compared to no image, helped participants to correctly answer the comprehension question about treatment for gout ( $P=0.019$ ). Of the different types of images, the anatomical image was found more helpful for the understanding of the illness than the cartoon ( $P=0.009$ ) and CT scan ( $P=0.049$ ). However, only those who saw the cartoon were significantly more likely to identify the correct treatment for gout compared to those who read the text without a picture ( $P=0.003$ ).

**Discussion:** Medical illustrations can improve the understanding of illness and also make the printed patient information more visually appealing. Further research is needed to determine what images offer consistent benefits for patient education.

14:15 - 14:30

## Can fact boxes support informed vaccination decisions?

L. Steinmeyer<sup>1</sup>, P.D.C. Betsch<sup>1</sup>, D.F. Renkewitz<sup>1</sup>

<sup>1</sup>University of Erfurt, Germany

**Background:** Fact boxes are promoted as a promising tool for benefit-risk communication. They are tabular summaries of benefits and harms of a treatment, compared to a control group. Research shows, they are well-understood. Yet, little is known about how they affect risk perception. Risk perception has been shown to be particularly relevant for vaccination behavior, as there is a consistent relationship. We expected that greater benefits (harms) will lower (increase) the perceived risk and increase (decrease) the intention to vaccinate. We expected that the positive effect of benefits will be moderated by the likelihood of harms. **Methods:** N = 324 U.S. citizens were recruited via MTurk and randomly assigned to a 3 (benefit: low, medium or high vaccine effectiveness) x 2 (harms: low or high probability of side effects) between subject

**Design:** They read about a fictitious disease, received a fact box about the respective vaccine and indicated the perceived risk of getting vaccinated and their intention to do so. Hypotheses were preregistered.

**Findings:** A linear regression with centered contrast coded factors revealed that higher probabilities of side effects lead to higher risk perceptions ( $b=5.597$ ,  $p<0.05$ ) and higher benefits (low vs. medium, high vaccine effectiveness) decreased the perceived risk of vaccination ( $b=-15.707$ ,  $p<0.001$ ). The intention to vaccinate was only affected by benefits ( $b=23.316$ ,  $p<0.001$ ), however not by harms ( $b=-5.950$ ,  $p=0.12$ ). There were no interaction effects.

**Discussion:** Benefits unexpectedly outweighed harms in forming the risk perceptions. We will discuss implications of these findings of further research and application of fact boxes.

14:30 - 14:45

## The echo in flu-vaccine echo chambers: Selective attention trumps social influence

H. Giese<sup>1</sup>, H. Neth<sup>1</sup>, W. Gaissmaier<sup>1</sup>

<sup>1</sup>University of Konstanz, Germany

**Background:** Online discussions on vaccines may impact the willingness to get vaccinated. This study tests how individuals with same or opposing attitudes towards flu vaccinations attend to and convey information online, and how they change their perceptions in light of that information.

**Methods:** Out of 1892 MTurkers, we sampled 208 people with negative and 221 people with positive attitudes towards flu vaccinations into homogeneous or heterogeneous 3-link diffusion chains. We (i) assessed with an ANOVA how participants perceived incoming information, (ii) compared across chains in an ANOVA which information about flu vaccinations participants conveyed to the following link, and (iii) evaluated in regressions how flu-vaccine related perceptions were altered by the received messages.

**Findings:** Participants (i) evaluated incoming information that matched their prior attitudes to be more convincing ( $\eta^2p = .077$ ,  $p < .001$ ), (ii) selectively conveyed attitude-consistent information with no overall anti-vaccine bias ( $\eta^2p = .192$ ,  $p < .001$ ), and (iii) did not alter their flu-vaccine related perceptions in response to incoming information (all  $|\beta| \leq 0.08$ ,  $p \geq .094$ ).

**Discussion:** Flu-vaccine related perceptions are resilient against contrary information, but bias online communication: People selectively attend to and convey information that matches their prior beliefs.

14:45 - 15:00

## Closing the risk perception gap: Perceived microlives as an integrative measure of perceived risk

B. Renner<sup>1</sup>, L. Debbeler<sup>1</sup>, J. Kollmann<sup>1</sup>, N. Lages<sup>1</sup>, H. Szymczak<sup>1</sup>, H. Schupp<sup>1</sup>

<sup>1</sup>University of Konstanz, Germany

The question how can we motivate people to protect their health and to change their lifestyle risk behaviors has been issued as a central topic by all major public health organizations. Beside other factors, risk perception that is how people perceive health risks is of crucial importance for protective motivation and ultimately for behavior change. Therefore, advancing our understanding of how people perceive health risks, how they act on it and why they do so, is vital to face the challenge. As part of the Konstanzer Life Study, the present study assessed health risk factors in a community sample (N = 430). Participants received individualized risk feedback and their risk perception was measured using classical approaches (e.g., perceived likelihood) and by assessing perceived microlives as a more intuitive approach for assessing risk perception. A microlife is a unit of risk representing half an hour change of life expectancy (Spiegelhalter, 2012). The results indicate relative accuracy in risk perceptions since individual risk factor profiles were reflected in perceived microlives. Interestingly, social risk perceptions indicated a self-optimistic bias: Others were seen as losing one or more microlives daily while the self was seen on the winning side, possibly indicating a reduced perceived need for behavior change. Assessing perceived microlives seem to be a promising new avenue for assessing and addressing risk perceptions in a more intuitive way in daily life.

15:00 - 15:15

## Identifying research priorities for electronic cigarettes: A James Lind Alliance Priority Setting Partnership

A. Hunter<sup>1</sup>

<sup>1</sup>University of Nottingham, United Kingdom

**Background:** Smoking is the leading cause of preventable death. In the UK, around 16% of people smoke. Electronic cigarettes (EC) are now the most popular method for quitting smoking. However, there is much controversy associated with using them. This James Lind Alliance Priority Setting Partnership provides a formal structure for patients and clinicians to agree uncertainties and priorities for research into EC.

**Methods:** An online survey allowed members of the public and clinicians to submit their questions about EC that they want answering by research. Responses were organized into themes and rewritten in PICO format (Patient, intervention, control, outcome) where appropriate. Questions where no recent systematic review exists were confirmed as 'true' uncertainties. A second survey allowed respondents to rank the top 10 uncertainties they see as priority questions.

**Findings:** Over 560 people completed the first survey. This represented over 1300 questions on different topics relating to the safety and effectiveness of EC for smoking cessation; prevalence of use in different populations; risks to health, including from passive vapour; use in specific populations (e.g. pregnancy, people with mental health conditions, respiratory conditions, diabetes, and effect on oral health); education and knowledge; questions specific to the devices; barriers and facilitators to EC use; environmental impact; licensing and regulation, and many more.

**Discussions:** The top ten uncertainties will be disseminated widely to raise awareness amongst key stakeholders and funders. Given that resources for research are limited, it is important for funders to understand the priorities so future research can be targeted accordingly.

15:15 - 15:30

## Communication with parents in Neonatal Intensive Care Units: relations to the parental distress

M. Kostović Srzentić<sup>1</sup>, Z. Pukljak Iričanin<sup>1</sup>, A. Bogdanić<sup>2</sup>

<sup>1</sup>University of Applied Health Sciences, Department of Health Psychology, Croatia

<sup>2</sup>University Hospital Centre Zagreb, Croatia

**Background:** The hospitalization of a newborn in Neonatal Intensive Care Unit (NICU) causes high levels of psychological distress in parents. One of the main elements of family-centered NICU environment is enhanced communication with parents. The aim of this study was to assess clinical staff's communication with parents in NICU and relate it to global psychological distress of parents in Croatia.

**Methods:** 76 parents (44 mothers, 32 fathers), aged from 18 to 55, completed Perceived information and Empathetic Communication Scale (PIEC-S) and CORE-18. Average gestational age of infants from two NICU centers was 32 week (25-42), birth weight 1691 grams (800-3720) and 56% needed respiratory support.

**Findings:** Even 51.3% of parents were in clinically significant distress (CORE-18). More than two thirds of parents (68.4%) were introduced into the NICU and all perceived the initial introduction as helpful. The parents, who were introduced, expressed significantly lower distress than parents who were not. Parents had relatively low results on subscale Information on parent's orientation but high on Empathy in communication subscale. Significantly higher results were on subscale Information on treatment and care than on subscale Information on parent's orientation ( $p < 0.001$ ). Infant's gestational age related positively to Information on parent's orientation, while other infant's characteristics (sex, birth-weight, duration of hospitalization, respiratory support) and parental factors were not (age, sex, education). Information on parent's orientation (e.g. health prognosis) related positively but mildly to global distress (CORE).

Results imply need for more specific information communication and psychological support for parents with more family-centered NICU in Croatia.

ORAL

# Understanding risk behaviours

14:00 - 15:30

Elafiti 2, Valamar Lacroma Dubrovnik

Eva Kemps

14:00 - 14:15

## Students' risky sexual behaviours – implications for the battle against HIV epidemic in South Africa

M. Mokgobi<sup>1</sup>, N. Khamisa<sup>1</sup>, T. Basera<sup>2</sup>

<sup>1</sup>Monash University (South Africa campus), South Africa

<sup>2</sup>Monash South Africa, South Africa

HIV remains one of the banes plaguing Southern Africa, with South Africa bearing the brunt of being a country hardest hit by the epidemic. For the past decade, South African government has been making considerably efforts to try to reduce the scourge of HIV. Despite these efforts, risky sexual behaviours among the youth remain major concern. Underpinned by the Health Belief Model, this study aimed to investigate university students' risky sexual behaviour in relation to HIV. Using the KAB questionnaire, data were collected from 542 students, 374 (69.0%) of whom were female and 168 (31.0%) were male. Participants had an average age of 19.2 years (SD=1.8 years), and their average knowledge score of HIV and AIDS, and STIs was 0.78 (SD=0.17). Preliminary results of T-test indicate that condom use at last sex was low when this was with a sex worker or a regular partner. More males than females said they used a condom at last sex with a regular partner (55.4% compared to 39.3%), with a non-regular partner (62.8% compared with 42.7%) and with a sex worker (49.6% compared with 30.7%), and the differences were statistically significant. Consistent condom usage (every time) with regular sex partners was higher among male students (42.5%) than female students (38.8%). These results suggest that South Africa still has a lot of work to do before getting HIV infections under control. It is recommended that radical HIV prevention programs be implemented in schools and universities in South Africa.

14:15 - 14:30

## Hazardous drinking and social and outcome expectancies

A.M. Wu<sup>1</sup>, M.X. Zhang<sup>1</sup>, S. Yu<sup>1</sup>, L. Ku<sup>2</sup>

<sup>1</sup>University of Macau, China

<sup>2</sup>De Montfort University, United Kingdom

**Background:** According to the theory of reasoned action, both positive social and outcome expectancies of drinking increase motivation/intention to drink and hence the likelihood of hazardous drinking. This study aims to examine the relative effects of specific types of drinking expectancies in university students, who are vulnerable to hazardous drinking, for effective intervention.

**Methods:** A cross-sectional study using an anonymous questionnaire in a student sample (N=1356) at two public universities in China was conducted. Basic demographics, hazardous drinking (by Alcohol Use Disorder Identification Test- Consumption [AUDIT-C]), social expectancy, outcome expectancy (sociability, tension reduction, liquid courage, sexuality, cognitive and behavioural impairment, risk and aggression, self-perception), and drinking motivations were assessed. Only those with past-year drinking experience (72%) were included in the data analysis of this study.

**Findings:** Except negative types of outcome expectancy, all cognitive and motivational variables were significantly and positively correlated with hazardous drinking ( $r=.18$  to  $.43$ ;  $p<.001$ ). In path analysis, social expectancy and drinking motivations were shown to have significant direct effects on AUDIT-C ( $p<.01$ ), while positive types of outcome expectancy exerted significant indirect effects. Social expectancy (parents), courage, tension reduction, and sociality had relatively stronger effects (Standardized total effect=.05-.21).

**Discussion:** Our findings suggested that negative consequences of drinking were well aware by university students but did not help keeping them away from hazardous drinking. Future interventions should focus on altering their favorable drinking norms or consequences perceived, which are positively associated with drinking motivation as well as hazardous drinking.

14:30 - 14:45

## Predictors of e-cigarette use in secondary school children: employing the theory of planned behaviour.

L. Simpson<sup>1</sup>, J. Doherty<sup>1</sup>, J. Davison<sup>2</sup>, L. Dunwoody<sup>1</sup>, M. McLaughlin<sup>1</sup>, M. Giles<sup>1</sup>, C. Armour<sup>1</sup>, C. McDowell<sup>1</sup>, G. Gilmore<sup>3</sup>, L. Bauld<sup>4</sup>

<sup>1</sup>Ulster University, United Kingdom

<sup>2</sup>Queen's University Belfast, United Kingdom

<sup>3</sup>Public Health Agency Northern Ireland, United Kingdom

<sup>4</sup>University of Edinburgh, United Kingdom

**Background:** E-cigarette (EC) use among young people in the UK is rapidly increasing, especially among non-smokers, with some viewing them as a healthy alternative, more socially acceptable to cigarettes, and as smoking cessation aids. The aim of this study was to determine knowledge, attitudes and potential predictors of EC use in a sample of young people aged 11-16 years.

**Methods:** A quantitative survey design based on the Theory of Planned Behaviour (TPB) was used. A sample of 1495 young people aged between 11-16 years took part, recruited from 21 schools across Northern Ireland. Questions were structured and based on an elicitation study carried out previously with this age group, developed to reflect direct and indirect influences on the main constructs of the TPB (attitude, subjective norm (SN) and perceived behavioural control (PBC), to determine predictors of EC use in this group.

**Findings:** Around 4% of the sample were current e-cigarette users, with 19% reporting ever use. Hierarchical linear and hierarchical logistic regression analyses were conducted to determine predictors of intentions to use and actual use of EC, respectively. Overall sociodemographic and TPB variables accounted for 65% of the variance in intentions to use EC, the main predictors being current use, attitudes, direct and indirect SN, self-efficacy and PBC. Current EC use was predicted by self-efficacy and intentions, with sociodemographic and TPB variables accounting for 16% of the variance in use.

**Discussion:** These findings will be used to inform an educational resource to support teachers in educating pupils on EC use.

14:45 - 15:00

## Using the TPB to identify predictors of e-cigarette use among parents of secondary school children.

J. Doherty<sup>1</sup>, J. Davison<sup>2</sup>, L. Dunwoody<sup>1</sup>, M. McLaughlin<sup>1</sup>, M. Giles<sup>1</sup>, C. Armour<sup>1</sup>, C. McDowell<sup>1</sup>, G. Gilmore<sup>3</sup>, L. Bauld<sup>4</sup>, L. Simpson<sup>1</sup>

<sup>1</sup>Ulster University, United Kingdom

<sup>2</sup>Queens University Belfast, United Kingdom

<sup>3</sup>Public Health Agency Northern Ireland, United Kingdom

<sup>4</sup>University of Edinburgh, United Kingdom

**Background:** E-cigarette use is a contemporary issue, with some suggesting they can contribute positively to tobacco control strategies. Parents' attitudes and knowledge of e-cigarettes has the potential to influence their health behaviour and that of their children. Thus, the aim of this study was to determine knowledge, attitudes and potential predictors of e-cigarette use among parents of post-primary schoolchildren, using the Theory of Planned Behaviour (TPB).

**Methods:** This was a quantitative study that recruited 619 parents, the majority were female (n=535) with 20% reporting ever use and 9% current use. A TPB-based questionnaire was developed and administered to adults through post-primary schools, to identify the factors that influence e-cigarette use. The questionnaire collected information on participant characteristics, e-cigarette use, direct and indirect measures of attitude, subjective norm and perceived behavioural control.

**Findings:** Hierarchical regression analyses showed that sociodemographic and TPB variables accounted for 60% of the variance in intention, with level of education, ever use (traditional cigarettes), knowledge, attitude, subjective norm and indirect measures of attitude, subjective norm and perceived behavioural control predicting intention. Socio-demographic variables, ever use (traditional cigarettes), knowledge and direct measures of the TPB constructs explained 41% of the variance in actual use.

**Conclusions:** This data provides us with good insight into the personal and social factors that influence EC use in parents of secondary school children in the UK. This could be used to inform interventions to promote knowledge and awareness of e-cigarettes in this group.

15:00 - 15:15

## Using temporal self-regulation theory to predict two consumption behaviours: Sugar sweetened beverage and alcohol consumption

B. Mullan<sup>1</sup>, A. Moran<sup>1</sup>, K. Murray<sup>1</sup>

<sup>1</sup>Curtin University, Australia

**Background:** Dual process theories such as temporal self-regulation theory provide important insights into the prediction of health behaviour but recent studies have conflicting results as to the utility of the theory. To address this we sought to compare its predictive utility across two separate but similar behaviours: sugar sweetened beverage and alcohol consumption

**Methods:** Two studies were conducted across Australia in 2018. At time one, participants completed measures assessing temporal self-regulation theory constructs (intention, behaviour prepotency, and self-regulation). At time two participants completed a follow-up questionnaire measuring actual consumption behaviours over the previous seven days. Consumption over the previous seven days was provided by 392 adult participants in the alcohol study and 292 in the sugar-sweetened beverage study.

**Findings:** Forty-one percent of variance in alcohol consumption (large effect size,  $f^2=.69$ ) and 33% of the variance in sugar sweetened beverage consumption (large effect size,  $f^2 = 0.53$ ) was predicted. Intention and behavioural prepotency independently predicted behaviours in both studies whereas self-control did not predict consumption, and in neither were interaction effects found on the intention-behaviour relationship.

**Discussion:** Results indicate that temporal self-regulation theory is not necessarily a good model for understanding adult consumption behaviours. Whereas intention and habit were important in predicting both sugar sweetened beverage and alcohol consumption, the lack of a role for self-control and any moderation effects suggest that revisions to temporal self-regulation theory are needed. Nonetheless these studies offers directions for interventions targeting reduction in both sugar sweetened beverage and alcohol consumption and these will be explored.

15:15 - 15:30

## Sexual self-regulation: Control motivation and capacity among men who have sex with men

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<sup>2</sup>Utrecht University, Netherlands

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<sup>5</sup>STI Aids Netherlands, Netherlands

**Background:** Condoms protect against HIV and STI, but it does take self-regulation to use them. We assessed the components of the integrative model of self-control (Kotabe & Hofmann, 2008) in the context of sexual decision making among men who have sex with men in the Netherlands. This model states that health goals and desires can be conflicting, which affects control motivation. Motivation together with control capacity determines effort to control behaviour.

**Methods:** Using linear regressions, we analysed data of an online cross-sectional survey (N = 6205). Questions included demographics, and on 5-point scales: control capacity, motivation, health goals, desire, and condom use with casual and steady partners.

**Findings:** 3959 participants completed the self-control questions ( Mage = 36.11, SD = 14.81). Among participants with casual partners, health goals (B = .57), motivation (B = .24), and capacity (B = .13) predicted condom use frequency,  $R^2 = 0.18$ ,  $F(4, 1979) = 105.91$ ,  $p < .001$ , while desire was not significantly associated. Condom use with steady partner(s) showed a different pattern, health goals (B = .32) and desire (B = -.18) predicted frequency of condom use,  $R^2 = 0.03$ ,  $F(4, 1515) = 12.29$ ,  $p < .001$ , whereas capacity and motivation were not significantly associated.

**Discussion:** Sexual decisions were influenced by components of self-control especially in the context of casual sex, desire did not play a role possibly because desire is more difficult to assess in cold-light of survey settings. Interventions focusing on components of the integrative model of self-control could promote condom use during casual sex.

## ROUNDTABLE

# The future of Health Psychology: A movement towards societal visibility, global consensus, and international mobility

14:00 - 15:30

Elafiti 3, Valamar Lacroma Dubrovnik

Anne Marie Plass

14:00 - 15:30

## The Future of Health Psychology: A Movement Towards Societal Visibility, Global Consensus, and International Mobility

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**Purpose:** This roundtable aims to present findings and recommendations put forward by the European Health Psychology Society (EHPS) task force on 'Moving Health Psychology Forward in Europe and Beyond'. This Roundtable functions as a platform for EHPS members to learn about, and further discuss and debate, the EHPS task force proposed list of core competencies and skills to ensure consensus of a set of global standards in health psychology practice as well as increase the visibility of health psychology as a unique profession to key decision and policy makers, health professionals, and the community. Further, this roundtable functions as a starting point to discussing implementation of internationally recognized standards, towards working together with the European Federation of Psychologists' Associations (EFPA).

**Rationale:** In a series of four articles in *European Health Psychologist* (2017) on health psychology education, legislation, employability, and cooperation with other disciplines in various countries represented in the EHPS, multiple barriers were identified when applying health psychology in practice. In moving forward and clarifying the roles and identity of health psychologists, psychological associations have an important role toward building a global consensus around health psychology as well as internationally recognised standards of practice.

ORAL

## Diabetes and physical activity

14:00 - 15:30

Karaka, Valamar Argosy

Dominika Kwasnicka

14:00 - 14:15

## The diversity of diabetes-related self-monitoring and problem-solving practices across health literacy levels: A qualitative study

J. Ayre<sup>1</sup>, C. Bonner<sup>1</sup>, D. Muscat<sup>1</sup>, S. Bramwell<sup>2</sup>, S. McClelland<sup>2</sup>, R. Jayaballa<sup>2,3</sup>, G. Maberly<sup>2,4</sup>, K. McCaffery<sup>1</sup>

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**Background:** Systematic reviews suggest that behaviour change techniques (BCTs) such as self-monitoring and problem solving are important for successful management of complex health behaviours. However, in practice, BCTs describe heterogeneous processes and individuals engage in these techniques in different ways. This study aimed to explore how people with diabetes and varying health literacy levels engaged with BCTs to improve their diabetes self-management.

**Methods:** 24 participants took part in semi-structured interviews and completed a health literacy measure (Newest Vital Sign). Interviews were audio-recorded, transcribed and coded using Framework Analysis.

**Results:** 56% of participants (N=13) had inadequate health literacy, and 43% (N=10) had adequate health literacy. Two themes were identified: 1) Self-monitoring as a complex BCT; 2) The problem-solving 'tool-kit'. Self-monitoring practices ranged from simply increasing awareness about a behaviour or outcome, to deliberately self-monitoring to increase motivation, and setting thresholds for recovering from relapses. Participants described their experiences problem-solving to overcome barriers (another common BCT), and how over time they developed a repository of problem-solving strategies to use after a lapse in self-management.

**Conclusions:** Regardless of health literacy, there is substantial variation in the way that individuals practise a given BCT and even their reasons for choosing it. This provides a deeper understanding of how a BCT might map to multiple aspects of the health action process approach theory. Future intervention studies should consider the diversity of practices for a given BCT and how health literacy might affect the way that people most effectively engage with these techniques.

14:15 - 14:30

## Behavioural intervention to increase physical activity in adults with type 2 diabetes: A pilot RCT

L. Avery<sup>1</sup>, S. Charman<sup>2</sup>, D. Houghton<sup>2</sup>, D. Flynn<sup>1</sup>, A. Batterham<sup>1</sup>, F. Sniehotta<sup>2</sup>, M. Catt<sup>2</sup>, R. Taylor<sup>2</sup>, M. Trenell<sup>2</sup>

<sup>1</sup>Teesside University, United Kingdom

<sup>2</sup>Newcastle University, United Kingdom

**Background:** Meta-analyses show that physical activity is an effective management approach for type 2 diabetes that can independently improve glycaemic control. However, primary healthcare professionals report difficulties supporting patients to become more physically active.

**Methods:** A two-arm, clustered pilot RCT assessed the acceptability, feasibility, and fidelity of a theory-based multifaceted behavioural intervention - Movement as Medicine for Type 2 Diabetes. We estimated mean intervention effects for moderate-vigorous physical activity (MVPA) and HbA1c at 1, 6, and 12-months, and derived the intracluster correlation coefficient (ICC) to inform planning of any subsequent definitive RCT.

**Findings:** 240 adults ( $\geq 18$  years; diagnosed with non-insulin dependent type 2 diabetes) were recruited from 11 primary care practices. Participant flowcharts, completion of healthcare professional training, and qualitative feedback indicated that the intervention was acceptable and feasible to healthcare professionals and patients. A 25% patient attrition rate was recorded at 12 months. Fidelity of intervention delivery reduced over time. The effect on daily MVPA (intervention minus control) was 4.7 (95% CI=-3.6 to 13.1) minutes at 1-month, 3.0 (-5.5 to 11.4) minutes at 6 months, and 2.8 (-5.9 to 11.6) minutes at 12 months. The effect on HbA1c was 0.10 at 1 month, (95% CI=-2.0 to 2.2), 0.38 at 6 months (95% CI=-1.7 to 2.5) and 0.87 at 12 months (95% CI=-1.2 to 3.0). The ICC was 0.043 for MVPA and 0.038 for HbA1c.

**Discussion:** The intervention was acceptable and feasible; however we identified a need for ongoing healthcare professional training/mentoring to increase and maintain patients' physical activity levels

14:30 - 14:45

## A weight loss programme in Australian Football League settings, Aussie-FIT: a pilot randomised controlled trial.

D. Kwasnicka<sup>1,2</sup>, N. Ntoumanis<sup>1</sup>, C. Thogersen-Ntoumani<sup>1</sup>, D. Gucciardi<sup>1</sup>, D. Kerr<sup>1</sup>, K. Hunt<sup>3</sup>, S. Robinson<sup>1</sup>, R. Newton<sup>4</sup>, C. Gray<sup>5</sup>, S. Wyke<sup>5</sup>, J. McVeigh<sup>1</sup>, E. Quested<sup>1</sup>

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<sup>4</sup>Edith Cowan University, Australia

<sup>5</sup>University of Glasgow, United Kingdom

**Background:** The aim of this study was to develop and pilot a weight loss programme in the Australian Football League settings for overweight/obese middle-aged men, to promote weight loss and healthy lifestyles.

**Methods:** Overweight/obese (BMI>28) middle aged men (35-65 years) were randomised to an intervention or wait list control group. The intervention group received 12-weekly 90-minute sessions, each incorporating a classroom component on nutrition education, behaviour change techniques and principles of effective motivation followed by group-based physical activity sessions delivered by coaches. Measures were taken at baseline, 3 and 6 months. The primary outcome was a mean difference in weight loss between groups at 3 months, expressed as absolute weight loss. Self-reported measures (e.g., motivation, health) and other objective measures of physical activity, waist size, and blood pressure were included. Data was analysed with mixed level models.

**Findings:** 130 men participated in the intervention (mean age: 45.78, SD: 8.01; mean weight: 111.42kg, SD:18.23kg; mean BMI: 34.48, SD:4.87), 64 intervention and 66 control group. At 3 months the mean difference in weight between groups, adjusted for baseline weight and group, was 3.33 kg (95% CI 1.89 – 4.77) and percentage weight loss, similarly adjusted, was 2.88% (95% CI 1.48 – 4.28), both in favour of the intervention ( $p<0.001$ ).

**Discussion:** The Aussie-FIT programme can help men to lose weight and it offers an effective strategy to challenge male obesity in Australia. This programme can be tested and implemented on a larger scale and across other sport settings and to other population segments.

14:45 - 15:00

## Stage- and activity-specific effects on predictors of behavior change in a 10-week web-based intervention trial

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**Background:** Web-based interventions can effectively promote behavior change regarding physical activity (PA). There is limited research on differential intervention effects on various types of PA and on the extent to which baseline stages of change (based on the Health Action Process Approach) relate to the effects of different web-components.

**Methods:** Older adults (60+ years, n = 589) were randomly assigned to intervention group 1 (IG1; PA recommendations and online diary), IG2 (IG1 program plus activity tracker) or a delayed intervention control group (CG). Stages of change regarding recommended aerobic- and muscle strengthening training and social-cognitive predictors for PA were assessed using questionnaires. Group differences were analyzed using Chi<sup>2</sup>-tests and mixed-effects ANOVA.

**Findings:** Significant stage-specific intervention effects on stage movement were found for strength training, but not aerobic exercise. Among baseline nonintenders, only those in IG2 experienced a significant forward stage movement (93.6% in IG2 vs. 37.8% in CG; p < .001, Cramer's V = .36), but among intenders, only IG1 was effective (85.7% in IG1 vs. 20% in CG; p < .001, Cramer's V = .45). Activity-specific differences by means of time\*group interactions were found in actors regarding aerobic exercise for task self-efficacy (p = .034) and intention (p = .006), but in nonintenders regarding strength training for intention (p = .048) and negative outcome expectancies (p = .039).

**Discussion:** PA stages of change respond differently to objective or subjective monitoring components of web-based interventions. Intervention effects on social-cognitive predictors differ by type of PA, which builds on previous evidence.

15:00 - 15:15

## How do participants engage with the Let's Move It intervention? Thematic analysis of adolescents' interviews

M. Palsola<sup>1</sup>, K. Kostamo<sup>1</sup>, E. Renko<sup>1</sup>, F. Lorencatto<sup>2</sup>, N. Hankonen<sup>1</sup>

<sup>1</sup>University of Helsinki, Finland

<sup>2</sup>University College London, United Kingdom

**Background:** A key step between interventions and their intended outcomes are participants responding to and engaging with interventions as intended. However, few interventions assess this. Let's Move It was a multi-component intervention aimed to increase physical activity and reduce sedentary behaviour among vocational school students. We investigated positive and negative accounts of (1) intervention acceptability, i.e. experienced cognitive and emotional responses to the intervention, (2) receipt, i.e. comprehension of intervention content, and (3) enactment of skills (behaviour change techniques) learned.

**Methods:** Within a cluster-randomised trial, semi-structured interviews were conducted in a subsample of participants post-intervention (n=21) and at 12-months (n=14). Interview questions explored strategies to increase, maintain and manage physical activity, and thoughts on the intervention program. Transcripts were analysed using thematic analysis.

**Findings:** Positive and negative accounts were categorised into themes and sub-themes by acceptability, receipt and enactment. **Acceptability:** participants generally liked the intervention and accepted its aim. **Receipt:** participants generally understood the main intervention messages, but some did not realise their applicability to everyday life. **Enactment:** Skill acquisition was mixed; despite demonstrating understanding of how to perform skills and perceiving these as effective, most participants did not consider skill use as useful, because it would conflict with e.g. their desire to stay spontaneous, have fun and live in the moment.

**Discussion:** Assessing comprehension and skill enactment, and identifying misunderstandings or difficulties in skill acquisition, can help interpret main trial outcomes and inform intervention optimisation.

OSF: <https://osf.io/rvj43/>

15:15 - 15:30

## Exploring service-users' perspectives on the implementation of goal-setting in type-1 diabetes self-management education and care.

M. Fredrix<sup>1</sup>, J. Mc Sharry<sup>1</sup>, M. Byrne<sup>1</sup>

<sup>1</sup>NUI Galway, Ireland

**Background:** Collaborative goal-setting techniques are widely recommended for diabetes self-management support within healthcare. Creating self-management plans that fit with patients' own goals has been linked with improved diabetic control. Consequently, goal-setting has become a core component of well established diabetes self-management education programmes such as the 'Dose Adjustment for Normal Eating (DAFNE)' programme for Type 1 diabetes (T1DM). However, limited research has explored how goal-setting techniques are implemented or received by service-users. Therefore, this study aimed to explore the perspectives of people with T1DM on the implementation of goal-setting within DAFNE and follow-up diabetes care. Furthermore, views on barriers and facilitators to goal-attainment after completing DAFNE were explored.

**Methods:** A longitudinal qualitative research design was utilised. Semi-structured interviews were conducted with 20 people with T1DM who attended a DAFNE-programme. Interviews took place at 1 week, and 8-10 months after completion of DAFNE. A recurrent cross-sectional approach was utilised in which themes were identified at each time-point using thematic analyses.

**Findings:** Several themes were identified surrounding the value that participants placed on goal-setting techniques, the support participants felt was needed for goal-achievement after DAFNE and the role of collaborative goal-setting in routine diabetes care.

**Discussion:** Participants generally valued the implementation of goal-setting within DAFNE, but reported limited engagement with goal-setting after DAFNE. While follow-up support was seen as beneficial for goal-achievement, goal-setting practices within routine diabetes care were viewed as severely limited. Future research could address implementation barriers and strive to optimise the application of goal-setting strategies within diabetes healthcare systems.

ORAL

# Social factors and quality of life

14:00 - 15:30

Olipa 1, Valamar Collection Dubrovnik President

Jasminka Despot Lucanin

14:00 - 14:15

## The wellbeing and competence of mothers in relation to the grandparents' help

J. Despot Lucanin<sup>1</sup>, E.A. Delale<sup>2</sup>, A. Koscec Bjelajac<sup>3</sup>, D. Lucanin<sup>4</sup>

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<sup>3</sup>Institute for Medical Research and Occupational Health, Zagreb, Croatia

<sup>4</sup>University of Applied Health Sciences, Zagreb, Croatia

**Background:** The study aim was to examine the contribution of mother's psychological distress, sleep quality, perceived social support and child affectivity in explaining their sense of competence (satisfaction and self-efficacy) and examine the associations of these variables with perceived grandparents' help in their family life.

**Methods:** The participants were 105 mothers of children 6 -7 years old, not socialized in kindergarten. The mothers completed the scales of: Parenting sense of competence, CORE-OM, Perceived social support, Negative affectivity of the Children's behavior questionnaire, and Perceived grandparents' help in eight domains of family life.

**Findings:** Using hierarchical regression analysis, 41.4% of maternal parental satisfaction variance and 27.9% of maternal self-efficacy variance was explained by the observed predictors. Sleep quality and child's negative affectivity were significantly predicted both satisfaction and self-efficacy, while maternal psychological distress predicted satisfaction only, and social support predicted self-efficacy only. Maternal satisfaction was higher when they perceived grandparents' help in taking care of children during and out of their work, and in children's „little school“ assignments. More distressed mothers perceived more grandparents' financial help, and in taking care of a sick child. More perceived child's negative affectivity was associated with more grandparents' help in those same two domains and in household help. As expected, only perceived social support from family (not friends or special person) correlated with perceived help in most domains (except financial and household help).

**Discussion:** The findings suggest the importance of further exploration of different family members' wellbeing with regards to their roles in contemporary families.

14:15 - 14:30

## Quality of life and moderate-to-vigorous physical activity in patient-partner dyads

E. Swora<sup>1</sup>, M. Boberska<sup>1</sup>, E. Kulis<sup>1</sup>, Z. Szczuka<sup>1</sup>, A. Banik<sup>1</sup>, M. Kruk<sup>1</sup>, K. Horodyska<sup>2</sup>, A. Luszczynska<sup>1</sup>

<sup>1</sup>SWPS University of Social Sciences and Humanities, Wroclaw, Poland, Poland

<sup>2</sup>University of Social Sciences and Humanities Warsaw, Poland

**Background:** This longitudinal observational study investigates associations between physical, emotional, and social domains of health related quality of life (HRQOL) and moderate-to-vigorous physical activity (MVPA) in patient-partner dyads. We explored individual and dyadic effects and the order of the associations (what comes first, MVPA or HRQOL?).

**Methods:** Data were collected among 238 dyads of patients with a chronic illness (Mage = 47.03; 67.2% women) and their partners (Mage = 45.47; 65.1% women) at Time 1 (T1), whereas at Time 2 (T2; 2-3month follow-up) from 176 full patient-partner dyads. All dyads participated in an MVPA promotion program at 1 week after T1. At T1, at least one person in the dyad did not meet WHO recommendations for MVPA. HRQOL was measured WHOQOL-BREF and MVPA was measured with IPAQ questionnaire.

**Findings:** Patients' MVPA at T1 was related to better physical HRQOL (measured in patients at T2). Partners' MVPA (T1) was also related to better physical HRQOL (measured in partners at T1 and T2). Patients' MVPA at T2 was related to better emotional HRQOL (measured in patients at T2). Partners' MVPA at T2 was related to better social HRQOL in patients and partners (T2). Partners' physical HRQOL at T1 was related to higher MVPA in partners (T2). Patients' emotional HRQOL at T2 was related to higher MVPA in patients (T2).

**Conclusions:** The majority of significant effects were observed at individual (not dyadic) levels. Significant associations were found for MVPA and all domains of HRQOL, but the majority referred to the physical domain.

14:30 - 14:45

## The relation between overweight, weight-stigma, and well-being: A meta-analysis

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<sup>2</sup>ZPID - Leibniz Institute for Psychology Information, Germany

<sup>3</sup>University of Trier, Germany

**Background:** One third of the world's population is overweight or obese. Importantly, many people with overweight and obesity experience weight stigma. While there has been some research on the relation between weight stigma and well-being, no quantitative synthesis of the empirical evidence is available to date. This meta-analysis fills this gap by quantifying the association between weight stigma and well-being/ mental health. Age, gender, and factors presumed to exert a protective role (i.e., adaptive coping strategies, perceived social support) were tested as potential moderators.

**Methods:** We conducted a three-level meta-analysis under a random-effects assumption including 79 eligible studies (44,752 participants, 371 effect sizes).

**Findings:** The meta-analytic model revealed a medium to large negative association between weight stigma and well-being/ mental health ( $r = -.39$ ). The overall association remained significant when controlling for publication year, education, body weight, and obesity. There was substantial heterogeneity in effect sizes between studies and within studies. Surprisingly, all moderator hypotheses had to be rejected.

**Discussion:** The correlative evidence for the negative consequences of weight stigma for a range of well-being and mental health outcomes emphasizes that addressing weight stigma is a promising avenue to improve and protect the psychological (and also somatic) functioning of individuals with overweight or obesity.

14:45 - 15:00

## The impact of PrEP use on the sexual well-being of men having sex with men

H. Zimmermann<sup>1</sup>, L. Postma<sup>1</sup>, R. Achterbergh<sup>1</sup>, M. Prins<sup>1,2</sup>, M. Schim van der Loeff<sup>1</sup>, H. de Vries<sup>1,2</sup>, E. Hoornenborg<sup>1</sup>, U. Davidovich<sup>1,2</sup>

<sup>1</sup>Public Health Service of Amsterdam, Netherlands

<sup>2</sup>Amsterdam UMC, University of Amsterdam, Netherlands

**Background:** Pre-exposure prophylaxis (PrEP) use is an efficient biomedical intervention to reduce HIV-infection risk among men who have sex with men (MSM). To ensure successful PrEP uptake, we need to understand the impact of PrEP use on the sexual well-being of its users.

**Methods:** Semi-structured interviews were conducted (2017/2018) with 43 HIV-negative MSM participating in the Amsterdam PrEP Study. Participants were purposively selected based on (1) self-reported changes (improvement or decline) on well-being indicators (e.g. mental health, sexual compulsivity); or (2) changes in PrEP uptake during the first 12 or 24 months of PrEP use. Interviews were audio-recorded, transcribed, and analyzed using flexible content analysis.

**Findings:** All participants reported improvements in  $\geq 1$  aspects of sexual well-being after PrEP initiation. PrEP eliminated HIV-related fear, increased self-esteem and reduced shame regarding condomless anal sex. PrEP-use increased the diversity of partner choices (e.g. HIV-positive men), and improved the perceived quality of sexual relationships with both steady and casual partners and the intimacy experienced with HIV-positive partners. Next to positive impact, almost half of participants also reported self-perceived negative influences. PrEP-use triggered more extreme sexual behaviors and increased the frequency and preoccupation with sex. In addition, for some, sex on PrEP was considered less intimate as the lowering of thresholds to have sex resulted in reduced meaningfulness of the sexual experiences.

**Discussion:** PrEP greatly contributes to the improvement of sexual well-being that goes beyond the mere protection from HIV. However, PrEP-users should learn to mitigate potential negative consequences of PrEP-use for sexual well-being.

15:00 - 15:15

## Loneliness, social integration, social support and psychological pathways in medical rehabilitation patients over 17 months

S. Lippke<sup>1</sup>, R. Rinn<sup>2</sup>, A. Whittal<sup>1</sup>

<sup>1</sup>Jacobs University Bremen, Germany

<sup>2</sup>Universität Würzburg, Germany

**Background:** On basis of the model by Berman et al. (2000), which proposes that social networks impact health, the associations between loneliness, social support, life-satisfaction and gender were examined.

This study aimed at (1) validating gender differences in these variables from the perspective of the individual and in terms of rating others as lonely (social structural condition); and (2) testing whether relationship status (i.e., partner status) and social support, as well as sense of wellbeing/life satisfaction, interrelate with loneliness.

**Methods:** Questionnaire and interview data were collected from N=413 rehabilitation patients by 13 interviewers over 17 months during and after orthopedic or cardiologic rehabilitation. ANOVA and regression analyses were run.

**Findings:** (1) As predicted, women patients were perceived as being more lonely ( $M=1.51$ ) than men ( $M=1.14$ ;  $F[1,298]=5.40$ ;  $p<.05$ ). No main effects for gender of the interviewer ( $F[1,298]=1.01$ ;  $p>.05$ ), and no interaction of gender(interviewer) $\times$ gender(participant) ( $F[1,298]<1$ ;  $p>.05$ ) transpired. (2) Partner status ( $\beta=-.10$ ;  $p>.05$ ) and education ( $\beta=-.11$ ;  $p>.05$ ) were not significantly related to loneliness. People who were less satisfied with their life at baseline and over time reported higher levels of loneliness ( $\beta=-.23$ ;  $p<.01$ ). Furthermore, people who reported to be more socially supported at baseline and over time appeared less lonely than people who were more socially supported ( $\beta=-.16$ ;  $p<.05$ ).

**Discussion:** In line with the model by Berman et al. (2000), gender, social support and life-satisfaction are important factors in explaining loneliness. Enabling (particularly female) rehab patients to overcome loneliness requires improving life satisfaction and mobilizing social support.

15:15 - 15:30

## Trajectories of quality of life and social support among people with HIV: examining gender paradox

E. Gruszczynska<sup>1</sup>, M. Rzeszutek<sup>2</sup>

<sup>1</sup>SWPS University of Social Sciences and Humanities, Poland

<sup>2</sup>University of Warsaw, Poland

**Background:** Women in Europe have a lower prevalence rate of HIV than men but their HIV-related burden is higher (“gender paradox”). The study was to examine the trajectories of health-related quality of life (HRQoL) and perceived social support (PSS) among people living with HIV (PLWH) in this context.

**Method:** The participants were 257 PLWH undergoing antiretroviral therapy, 18% of women. HRQoL and PSS were measured three times with an interval of six months.

**Results:** In univariate latent class growth curve analysis three trajectories of HRQoL and four trajectories of PSS were identified. Gender was a significant covariate only for PSS: there were no women in the increasing support trajectory. Dual trajectory approach revealed that most of PLWH in the decreasing HRQoL trajectory followed the decreasing PSS trajectory. However, for almost half of PLWH representing the increasing HRQL trajectory, it co-occurred with the decreasing support. There was no significant gender effect in this regard.

**Discussion:** Although clear correspondence for the decreasing trajectories exists, the findings inform that HRQoL may change independently from PSS. No gender paradox was noted. A discrepancy between trajectories (for the same people, one increases while the other decreases) can be a result of different underlying processes, including also a change in self-perception. There is no a base for causal inference as only the correlated change was examined, still, it can be hypothesized that for some PLWH an increase in HRQoL is related to the appraisal of PSS as lower since their need for support has declined.

# ORAL

## Interventions in clinical health care

14:00 - 15:30

Galijun, Valamar Argosy

Fabiana Lorencatto

14:00 - 14:15

## Building Optimised Outpatient Services in Transfusion: A focus group study informed by patients' perceptions

B. Volkmer<sup>1</sup>, F. Lorencatto<sup>1,2</sup>, S. Stanworth<sup>3</sup>, S. Hirani<sup>1</sup>, J. Francis<sup>1</sup>

<sup>1</sup>City, University of London, United Kingdom

<sup>2</sup>University College London, United Kingdom

<sup>3</sup>Oxford University Hospitals NHS Foundation Trust, United Kingdom

**Background:** Patients with thalassemia or blood cancers may require repeated transfusions. Interview findings have previously revealed divergence between haematology patients' and healthcare professionals' (HCPs') perceptions of blood transfusion. Both recognised the benefits of transfusion and its burden, yet HCPs highlighted service pressures and often did not explore patients' views. This study explored potential areas for practice change and barriers/enablers to change with transfusion HCPs.

**Methods:** Semi-structured focus groups (n=3) with 19 transfusion HCPs. HCPs were presented with findings from previous patient interviews and asked to discuss patient support needs, potential service changes to improve patients' experiences and barriers/enablers to implementing these. Focus groups were audio-recorded and transcribed verbatim. Data were analysed using content analysis, whereby suggested service improvement proposals were mapped to the intervention functions and policy categories from the Behaviour Change Wheel (BCW) and barriers/enablers classified using the Theoretical Domains Framework (TDF).

**Findings:** Fifteen service improvement proposals were generated, four being reported across multiple focus groups. Proposals corresponded to BCW categories 'Service provision' (e.g. Home transfusion); 'Environmental restructuring' (e.g. Remote blood screening); and 'Education' (e.g. Enhanced shared decision-making and Role appreciation – promotion to laboratory staff, nurses and patients of each other's priorities). Key barriers/enablers mapped to the TDF domains: 'Skills' (e.g. HCP communication skills training), 'Environmental context and resources' (e.g. funding, time) and 'Beliefs about consequences' (e.g. anticipated patient engagement).

**Discussion:** Community healthcare, plus enhancing patient-HCP relationships in this context, could offer transfusion-dependent patients more support and improve their experiences.

14:15 - 14:30

## Improving antibiotic prescribing in long-term care facilities: Review of behaviour change strategies in stewardship interventions

E. Crayton<sup>1</sup>, M. Richardson<sup>2</sup>, C. Fuller<sup>3</sup>, C. Smith<sup>3</sup>, S. Liu<sup>1</sup>, G. Forbes<sup>1</sup>, N. Anderson<sup>1,4</sup>, L. Shallcross<sup>3</sup>, S. Michie<sup>1</sup>, F. Lorencatto<sup>1</sup>

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<sup>4</sup>Health Protection Research Unit in Evaluation of Interventions, National Institute of Health Research (NIHR), BS8 2BN, United Kingdom

**Background:** Antibiotic overuse has contributed to antimicrobial resistance- a growing public health threat, particularly in long-term care facilities (LTCFs) where rates of inappropriate prescribing as high as 75% have been documented. There have been numerous interventions targeting LTCFs' antibiotic prescribing with varying effectiveness. This review aimed to apply behavioural science frameworks to specify content of stewardship interventions in LTCFs and identify intervention components associated with improved outcomes.

**Method:** A systematic review (CRD42018103803) of 20 interventions identified through electronic database searches. The Behaviour Change Wheel and Behaviour Change Technique (BCT) Taxonomy were applied to code intervention descriptions into intervention function strategies and component BCTs. Meta-regression was not feasible due to study design and outcome heterogeneity. Interventions were categorised as 'very promising' (all outcomes statistically significant), 'quite promising' (some outcomes statistically significant), or 'non-promising' (no outcomes statistically significant). Promise ratios (PR) were calculated for identified functions and BCTs by dividing the number of (very or quite) promising interventions featuring the function/BCT by the number of non-promising interventions featuring the function/BCT. Promising functions/BCTs were defined as those with a PR  $\geq$  2.

**Findings:** Seven interventions (35%) were very promising, nine quite promising (45%), four non-promising (20%). Most promising intervention functions included persuasion (n=12 interventions; PR=5.0), education (n=17; PR=4.7) and environmental restructuring (n=18; PR=3.5). Most promising BCTs were: Feedback on behaviour (n=9; PR=8.0), prompts/cues (n=8; PR=8.0), and restructuring the social environment (n=11; PR=10.0).

**Discussion:** Incorporating environmental restructuring and performance feedback may be promising intervention strategies for future or refined antibiotic stewardship interventions within LTCFs.

14:30 - 14:45

## A theory-based investigation of barriers and enablers to antimicrobial stewardship in UK primary care

G. Forbes<sup>1</sup>, A. Herbec<sup>1</sup>, E. Richardson<sup>2</sup>, E. Crayton<sup>1</sup>, L. Shallcross<sup>1</sup>, C. Fuller<sup>1</sup>, A. Jhass<sup>1</sup>, C. Tarrant<sup>2</sup>, S. Michie<sup>1</sup>, F. Lorencatto<sup>1</sup>

<sup>1</sup>University College London, United Kingdom

<sup>2</sup>University of Leicester, United Kingdom

**Background:** Epidemiological evidence highlights frequent overuse and misuse of antibiotics in primary care. This in part contributes to the growing global public health threat of antimicrobial resistance. This study aimed to identify factors influencing antibiotic prescribing in primary care.

**Methods:** Semi-structured interviews with 20 general medical practitioners (GPs) and nurses from five high/low antibiotic prescribing general practices. Interview guides were based on the Theoretical Domains Framework (TDF). A deductive framework and inductive thematic analysis approach was applied to identify key reported factors within the 14 TDF domains.

**Results:** Whilst these GPs and nurses aimed to appropriately prescribe antibiotics, we identified key instances where prescribing inappropriately was perceived to be beneficial or difficult to avoid. Key factors influencing antibiotic prescribing behaviour were:

- Knowledge (e.g. clinical procedures, patients' medical history);
- Skills (e.g. interpersonal communication);
- Social influence (e.g. pressure from patients or other clinicians);
- Environmental context & resources (e.g. availability of tools to manage diagnostic uncertainty that ensures timely re-assessment (safety-netting); out-of-hours-clinics; the patient population);
- Intentions (e.g. to follow guidelines);
- Goals (e.g. to avoid hospital admissions);
- Beliefs about capabilities (e.g. to manage infections without antibiotics and to cope with patients' expectations);
- Beliefs about consequences (e.g. of prescribing antibiotics).

**Discussion:** Based on this application of the TDF, a wide range of barriers/enablers was identified at individual, social-cultural and environmental context levels. This evidence has scope to inform policy and practice by highlighting the need for multi-level intervention strategies to address these factors and improve antimicrobial stewardship.

14:45 - 15:00

## Specifying the behavioural components of interventions to improve antimicrobial use in hospital settings

N.C. Anderson<sup>1,2</sup>, E. Crayton<sup>1</sup>, P. Davey<sup>3</sup>, L. Shallcross<sup>4</sup>, R. Amlôt<sup>2,5</sup>, S. Michie<sup>1,2</sup>, F. Lorencatto<sup>1,2</sup>

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<sup>5</sup>Behavioural Science Team, Public Health England, United Kingdom

**Background:** Antimicrobial resistance is a growing health threat. Numerous interventions have attempted to improve appropriate antibiotic use in hospital settings. Recent reviews of interventions highlight the importance of moving beyond exploring whether interventions are effective, towards identifying specific behavioural strategies associated with effectiveness. This study aimed to apply behavioural science frameworks to specify the behaviour change techniques (BCTs) within antimicrobial interventions used in hospitals.

**Methods:** Design: secondary content analysis of 221 interventions included in a 2017 Cochrane systematic review of hospital antimicrobial stewardship interventions. Interventions were specified as component BCTs using the 93-item BCT taxonomy (v1) as a coding framework.

**Findings:** Interventions on average contained 5 BCTs (range: 1-12). 27% of 93 potential BCTs, and 69% of 16 potential theoretical hierarchical BCT clusters, from the BCT taxonomy (v1) were present in at least one intervention. The most frequently used BCTs were from clusters: 'Antecedents' (90% of interventions) e.g. 'Restructuring the physical environment' (n=136); 'Shaping knowledge' (75%) e.g. 'Instruction on how to perform a behaviour' (n=165); and 'Goals and planning' (66%) e.g. 'Discrepancy between current behaviour and goal' (n=129).

**Discussion:** Current interventions to reduce overuse and misuse of antibiotics in hospitals use a limited range of BCTs, predominantly those focused on increasing knowledge, enhancing plans or goals for antimicrobial use, or changing the physical and social context through adding resources and altering team working processes. This current analysis of intervention content provides a basis for exploring which intervention components are associated with improved outcomes and informing future intervention design and refinement.

15:00 - 15:15

## Electronic behavior change records: a novel platform to guide and record interventions in usual care

A. Schweitzer<sup>1,2</sup>, L. Vlahopol<sup>3</sup>, G. Bazaitu<sup>3</sup>, A. Androne<sup>3</sup>, E. Rizea<sup>3</sup>, M. Bogdan<sup>3</sup>, A. Dima<sup>4</sup>

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<sup>3</sup>Fundatia Baylor, Romania

<sup>4</sup>University Claude Bernard Lyon 1, France

**Background:** The scientific community urges for increased reporting of usual care and for integration of evidence-based techniques and theories into routine practice. The Baylor clinic provides behavior care for people living with HIV in the Constanta region since 2001. Recently, an Electronic Behavior Change Records (EBCR) platform was developed to capture objectives and techniques used in self-management support and quality of life (QoL) improvement interventions.

**Methods:** The platform was developed through an iterative procedure guided by the Intervention Mapping framework and the behavior change techniques (BCT) taxonomy. Resulting coding categories are care phases (diagnosis, pretreatment, treatment), performance objectives (PO), change objectives (CO), and BCTs. We conducted user training and data entry audits within initial stages of deployment. We extracted data from July 2018 to January 2019 on treatment phase psychologist-delivered interventions and examined BCT use and associations to Objectives:

**Findings:** The EBCR recorded 799 treatment phase interventions, 45% targeting self-management and 55% QoL POs. Self-management COs focused on adherence (43%), reducing behavioral risks (28%), emotion regulation (10%); QoL COs aimed at increasing life satisfaction (74%) and self-efficacy (26%). Most interventions used one BCT (64%; 66 different techniques); 29% combined 2 BCTs and 7% had  $\geq 3$ . BCT sub-set choice varied by CO: for adherence interventions 34 BCTs were used, and 27 for life-satisfaction interventions.

**Discussion:** The EBCR contributes to quality improvement in usual care. Recording intervention content, together with outcome measures, will allow real-life evaluation of effectiveness in behavioral care.

15:15 - 15:30

## Do interventions target key influences? A behavioural analysis of interventions to limit catheter-associated urinary tract infections

F. Lorencatto<sup>1,2</sup>, A. Sallis<sup>3</sup>, A. Schneider<sup>4,5</sup>, T. Chadborn<sup>3</sup>, K. Shaw<sup>3</sup>, S. Hopkins<sup>3</sup>, A. Bunten<sup>3</sup>, S. Michie<sup>1</sup>, L. Atkins<sup>1</sup>

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<sup>5</sup>NIHR Health Protection Research Unit for Evaluation of Interventions, Afghanistan

**Background:** Catheter-associated urinary tract infections (CAUTI) are one of the most frequently acquired, yet preventable, infections across care settings. Numerous interventions have been implemented in England targeting behaviours contributing to CAUTI (e.g. catheter insertion/maintenance/removal), but their theoretical basis is unknown. This study synthesised and triangulated evidence about factors influencing CAUTI-related behaviours and components comprising current interventions, to assess the extent to which these target key influences.

**Methods:** Three-phased study. 1) Systematic review of 25 studies reporting barriers/enablers to CAUTI-related behaviours, classified using the Theoretical Domains Framework (TDF); 2) Content analysis of 11 national CAUTI-prevention interventions, coded into component behaviour change techniques (BCTs) using BCT TaxonomyV1; 3) Findings from 1 and 2 triangulated using matrices mapping TDF to BCTs to propose BCTs that are theoretically congruent with different barriers/enablers.

**Results:** 1) Most frequently reported barriers/enablers corresponded to TDF domains: 'environmental context/resources,' 'social influences,' 'memory/attention/decision making,' 'knowledge,' 'beliefs about consequences,' 'social professional role/identity.' 2) Interventions were typically guidelines. Most frequent BCTs were: 'instruction on how to perform behaviour' (n=11) and 'information about health consequences' (n=11). 3) On average, 53% of congruent BCTs were used in ≥1 intervention. Congruence was lowest for domains 'social professional role/identity' and 'environmental context and resources' (33% mapped BCTs used ≥1 intervention).

**Discussion:** CAUTI-prevention interventions incorporate only half of the potentially relevant and effective BCTs to target key behavioural influences. Interventions predominantly focus on shaping knowledge rather than addressing motivational, social and environmental factors. This study illustrates the application of interlinked behavioural science frameworks to address a healthcare policy issue and inform design/refinement of future interventions.

## ORAL

# Physical activity, food intake and healthy sleep in families

14:00 - 15:30

Asimon, Valamar Lacroma Dubrovnik

Adriana Baban

14:00 - 14:15

## Effect of family physical activity planning on child physical activity and fitness: a randomized trial

R. Rhodes<sup>1</sup>, C. Blanchard<sup>2</sup>, A. Quinlan<sup>1</sup>, P. Naylor<sup>1</sup>, D. Warburton<sup>3</sup>

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<sup>2</sup>Dalhousie University, Canada

<sup>3</sup>University of British Columbia, Canada

**Background:** Regular moderate-to-vigorous intensity physical activity (MVPA) and high physical fitness are extremely important to the health of children and track to positive health profiles in adulthood. The purpose of this study was to examine the effect of a parent planning skills intervention to support child physical activity on the subsequent MVPA and fitness of their children.

**Methods:** One hundred and two children (aged 6 to 12 yr), who were below international physical activity recommendations at baseline, were recruited through advertisements and randomized to either the planning + education condition (n = 52) or an education only condition (n = 50). MVPA was assessed via accelerometry at baseline, six-weeks, three-months, and six-months and fitness (BMI, aerobic, and musculoskeletal) tests were conducted at baseline and six-months.

**Findings:** Generalized linear mixed modeling showed that the patterns varied by condition over time ( $\beta = -.33$ ;  $p < .05$ ), where children in the planning intervention significantly increased MVPA compared to the education condition at six weeks and three months but not at six months post-intervention. Aerobic fitness ( $p = 0.04$ ;  $d = 0.26$ ) was the only significant fitness change between the two groups, and favored the planning group over the education control.

**Conclusions:** The initial efficacy of the planning intervention was supported, but waned by six months. These changes appeared to be sufficient for modest changes in aerobic fitness. Future research should aim to improve the maintenance of these early changes and assist parents in planning for activities to improve child musculoskeletal fitness.

14:15 - 14:30

## Parental neophobias' indirect effects on child's food intake and physical activity – longitudinal dyadic studies

K. Zarychta<sup>1</sup>, K. Horodyska<sup>2</sup>, Y. Gun<sup>3</sup>, C. Chan<sup>4</sup>, J. Wiggers<sup>5,6</sup>, L. Wolfenden<sup>5,6</sup>, M. Boberska<sup>2</sup>, A. Luszczynska<sup>2,7</sup>

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<sup>6</sup>Hunter Medical Research Institute, Australia

<sup>7</sup>University of Colorado, United States

**Background:** Individual and environmental factors explain children's food intake and physical activity. These factors include children's and parental perceptions of foods and physical activity and emotional states associated with foods and physical activity (e.g., neophobia). This study investigates associations between food and physical activity neophobias (self-reported child's neophobias, self-reported parental neophobias, and parental perceptions of child's neophobias), child's food intake, and child's physical activity.

**Methods:** Parent-child dyads were enrolled to participate in two longitudinal studies. Study 1 (food neophobia; 10-month follow-up) were conducted among 924 dyads (54.3% girls, aged 5-11 years old, 88.9% mothers), whereas Study 2 (physical activity neophobia; 7-8-month follow-up) among 879 dyads (52.4% girls, aged 5-11 years old, 83.2% mothers). Participants filled in self-report measures on neophobias and/or food intake and physical activity; body weight and height were measured objectively.

**Findings:** Self-reported parental food neophobia (T1) was associated with child's fruit and vegetable intake (T2) via parental perceptions of child's food neophobia (T1) and self-reported child's food neophobia (T2) ( $B = -0.012$ ,  $p > .001$ , 95% CI [-0.020, -0.005]). The same pattern of associations was found for physical activity neophobia ( $B = -0.003$ ,  $p > .001$ , 95% CI [-0.086, 0.089]).

**Discussion:** Parents with high levels of neophobias were more likely to perceive their children as having high levels of neophobias, and their children were more likely to report high levels of neophobias, which, in turn, predicted lower fruit and vegetable intake and lower physical activity in children.

14:30 - 14:45

## Associations between trends in Romanian adolescents' overweight/obesity with individual physical activity, screen habits and SES

D. Taut<sup>1</sup>, A. Baban<sup>1</sup>, R. Balazsi<sup>1</sup>

<sup>1</sup>Babeş-Bolyai University, Romania

**Background:** Despite sustained efforts to tackle juvenile obesity, almost a third of European children and adolescents are overweight and obese, with rising prevalence in most countries. We aimed to assess the trends in overweight and obesity from 2014-2019 and analyse whether they are influenced by changes in the distributions of physical activity, eating in front of screens, and SES.

**Method:** Cross-sectional data from 4 HBSC surveys (2005/2006; 2009/2010; 2013/2014; 2017/2018), comprising 16315 cases of adolescents aged 11, 13, and 15, were pooled and analysed across the 4 survey points, for BMI, physical activity over the past 7 days, eating in front of screens, and SES.

**Results:** Between 2006 to 2010, the rates of overweight and obesity increased with 4% in boys and with 2% in girls, reaching 26.6% and 11.8% in boys and girls, respectively (ps for trends <.001). Between 2014 and 2018 they markedly increased in boys with 4.6% (reaching 31.3%) and 3.3% in girls (reaching 15%) (ps for trends <.001). Physical activity level, followed by SES were the greatest contributors to BMI in boys but not in girls, whereas eating in front of screens did not contribute significantly as a covariate in either of groups.

**Discussion:** Whereas our results show the intertwinement between overweight/obesity and individual factors (physical activity habits, SES), we found little support for the connection between overweight and other incriminated unhealthy habits, such as eating in front of screens. This latter relation should be tackled in further studies.

14:45 - 15:00

## The impact of weight teasing, weight bias on quality-of-life and distress in youth with Obesity

K. Griva<sup>1</sup>, Y.S. Lee<sup>2</sup>, K.Y. Loke<sup>2</sup>, D.S. Ooi<sup>3</sup>, C. Ho<sup>2</sup>, Y. Lim<sup>2</sup>, A.A. Sng<sup>2</sup>, V. Tay<sup>4</sup>, K. Vijaya<sup>4</sup>

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<sup>4</sup>Health Promotion Board, Singapore

**Background:** Obesity is a public health concern among youth, with compound effects on physical and mental health. Both peer weight-based victimization and internalised-weight bias are associated with psychopathology in overweight and obese individuals. However, the relative and synergistic contributions of these social and self-evaluative processes remain to be clarified. This study set out to examine the associations between weight-related stigma, expressed as internalised weight-bias or enacted weight-based teasing with quality of life (QOL) and psychopathology indicators in pediatric patients with obesity.

**Methods:** N=359 pediatric patients [age 13.9(2.9) yrs; 68.8% male; 54% Chinese; BMI 37.2(6.5)] with early-onset obesity (BMI>97th percentile) underwent metabolic phenotyping and completed measures of weight bias internalization, somatic symptoms, emotional distress (DASS-21), weight teasing and QOL (Pediatric QOL Inventory).

**Findings:** Children reported frequent weight-teasing and QOL impairments: 42.6% physical; 38.4% social; psychological 35.4%; 28.1% emotional; 35.7% School QOL/functioning. Regression models controlling for sociodemographic and clinical parameters indicated that physical QOL was associated with somatic symptoms and frequency of teasing; emotional QOL with somatic symptoms, internalised weight-bias and impact of weight teasing; social QOL with somatic symptoms, internalised weight-bias, frequency of teasing; school QOL was associated with somatic symptoms and frequency of weight teasing (Adj R<sup>2</sup> 27-50%). Both frequency of teasing and internalised weight-bias were significantly associated with overall QOL and emotional distress symptoms.

**Discussion:** Children with obesity who experience frequent weight teasing and have high internalised weight stigma are more likely to report poorer outcomes – increasing efforts to mitigate stigma and support youth are needed.

15:00 - 15:15

## Can physical activity support young people after the death of a parent? The BABYSTEPs project

A. Chater<sup>1</sup>, J. Williams<sup>1</sup>, J. Zakrzewski-Fruer<sup>1</sup>, N. Howlett<sup>2</sup>, G. Shorter<sup>3</sup>

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<sup>2</sup>University of Hertfordshire, United Kingdom

<sup>3</sup>Ulster University, United Kingdom

**Background:** Annually, 41,000 UK children and young people are parentally bereaved. Grief is an individual process and must be supported properly. Many mental health aspects that cross over with grief outcomes (i.e. anxiety and depression) can be improved through physical activity. Yet there is limited research investigating whether physical activity can support bereaved individuals with their grief and what services are currently available.

**Methods:** A systematic review of the literature (10 databases) and service provision (5 search engines) was performed. Empirical studies (qualitative and quantitative) had to explore physical activity (of any type) to help individuals (of any age) who had experienced a bereavement (of any human, other than national loss). Organisations which provide bereavement support to young people were contacted (via questionnaire and telephone) to record details about their service and if they offer physical activity support.

**Results:** From 564 studies screened, 20 met the inclusion criteria, with 5 reporting using physical activity to support parental bereavement. Running and martial arts were noted as types of beneficial activity. Of the 373 organisations identified, 26 provided physical activity support (i.e. residential retreats, football) for bereaved young people.

**Conclusion:** There is evidence that physical activity can support the wellbeing of young people who have been parentally bereaved. However, this evidence is limited, with just a small number of organisations offering physical activity. There is a clear need for more research and services to understand and increase the use of physical activity to support young people following the death of their parent.

15:15 - 15:30

## The development of a healthy sleep intervention for children aged 6-9 years.

L. Belmon<sup>1,2</sup>, V. Busch<sup>2</sup>, M. van Stralen<sup>3</sup>, M. Chinapaw<sup>1</sup>

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<sup>2</sup>Department of Epidemiology and Health Promotion, Section Youth, Municipal Health Service Amsterdam, Netherlands

<sup>3</sup>Faculty of Science, Department of Health Sciences and Amsterdam Public Health research institute, Vrije Universiteit Amsterdam, Netherlands

**Background:** Unhealthy sleep behavior (i.e. inadequate duration, quality, and timing) is linked to numerous health outcomes in children. Despite its consequences, prevalence of sleep problems is increasing, especially among families with a lower socioeconomic position. Hence, our objective is to systematically develop an intervention that promotes healthy sleep in children aged 6-9 years living in disadvantaged neighborhoods in Amsterdam, guided by the Intervention Mapping Framework.

**Methods:** The Needs Assessment, part of step 1 of the Intervention Mapping Framework, included 1) a systematic review, scrutinizing the longitudinal evidence on the determinants of sleep among children aged 4-12 years (45 included studies) with best-evidence synthesis; 2) a mixed-methods study, mapping child-, parent- and professional perceived determinants of inadequate sleep (N= 44 (children), 33 (parents), 27 (professionals)) using multidimensional scaling and hierarchical cluster analysis; 3) a 7-day sleep diary study, investigating the determinants of inadequate children's sleep (N=382), using multilevel analyses; and 4) interviews with parents, community managers, and professionals, identifying relevant actors involved in children's sleep behavior.

**Findings:** Several psychological (i.e. stressful thoughts and feelings), behavioral (i.e. screen time, sleep hygiene behaviors), environmental (i.e. sleep environment) and social (i.e. unstable family situation, parental sleep-related practices) determinants of children's sleep were identified. We identified actors involved in children's sleep behavior at multiple levels, including interpersonal (e.g. parents/caregivers), organizational (e.g. primary schools), and community (e.g. policy makers) levels.

**Discussion:** Interventions that promote healthy child sleep should be multifactorial, targeting all relevant determinants, and multilevel, including all relevant actors within a complex system.

## Posters

# Predicting physical activity and sedentary behaviour

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Chris Noone

15:30 - 17:00

## Longitudinal associations between dyadic, individual, and collaborative plans: sedentary adult—partner dyads

E. Kulis<sup>1</sup>, M. Boberska<sup>2</sup>, K. Horodyska<sup>2</sup>, M. Kruk<sup>2</sup>, A. Banik<sup>1</sup>, Z. Szczuka<sup>1</sup>, A. Luszczynska<sup>2</sup>

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**Background:** This study investigated associations between three types planning of physical activity (dyadic, collaborative, and individual plans) in sedentary adult-partner dyads.

**Methods:** At T1, there was 190 sedentary adult—partner dyads. Sedentary adults were 20-90 years old (M = 48.8; SD = 16.00), 65.8% women. Partners were 18-84 years old (M = 46.0; SD = 16.19), 64.2% women.

Data were collected individually, at T1 and after one week follow-up at T2.

**Results:** Analyses explaining sedentary adult's and partner's planning showed that the frequent use of other person's collaborative planning (T1) was related with more frequent collaborative and dyadic planning (T2). Also more frequent use of partner's dyadic planning (T1) was related with more the frequent dyadic and collaborative planning (T2) in sedentary adult. Other longitudinal dyadic effects were not significant.

**Conclusions:** Collaborative and dyadic planning turned out to be significant predictors of planning formed by the other person in a dyad.

15:30 - 17:00

## Does the theory of planned behaviour predict sedentarism in university students? An observational N-of-1 study

D. Healy<sup>1</sup>, C. Noone<sup>1</sup>

<sup>1</sup>NUI Galway, Ireland

**Background:** Sedentarism is defined as any waking activity which involves the expenditure of < 1.5 metabolic equivalents while in a sitting, reclining or lying position. Prolonged sedentary behaviour has been linked to numerous negative health outcomes such as colon and rectal cancer, depression, metabolic syndrome, and cardiovascular disease. University students have been identified as a group who are at risk of prolonged sedentary behaviour. Emphasis has been put on the need for improving the prediction of sedentarism. One method is the use of health behaviour theory to predict such behaviours. The theory of planned behaviour (TPB) has previously shown promise in predicting sedentarism with reasonable accuracy in between-subjects designs. However, the results of such designs cannot be accurately generalised to individual behaviour as this would violate the assumption of ergodicity.

**Methods:** Six participants will be recruited and asked to complete daily questionnaires while wearing a biosensor which will objectively measure sedentary behaviour. The study will last for 1 month, with data being collected from the participants 4 times per day. Time-varying autoregressive models, which do not assume ergodicity, will be applied to the data.

**Expected Results:** It is expected that different relationships between TPB constructs and sedentary behaviour will be observed across time and across individuals.

**Current stage of work:** Data collection

**Discussion:** This project contributes to this area in two crucial ways. Firstly, it will examine intra-individual variations in sedentary behaviour using the TBP. Secondly, it will combine experience sampling data with real-time objective measures of sedentary behaviour.

[Repository:<https://osf.io/ap2q9/>]

15:30 - 17:00

## Promoting exercise: the theory of planned behavior and social appearance anxiety in exercise intentions

C.N. Sen<sup>1</sup>, D. Gurleyik<sup>1</sup>

<sup>1</sup>Ozyegin University, Turkey

What factors motivate inactive individuals to exercise, and which factors keep active people from relapsing into inaction? In addition to commonly studied attributes like attitudes, norms, and efficacy, does appearance anxiety affect people differently at various levels of regular activity and contribute to future exercise intentions? The current study, wave 1 of a three-wave longitudinal study, examines physical activity (PA) predictors using the Theory of Planned Behavior (TPB) and incorporates social appearance anxiety (SAA) in 228 Turkish university students.

The IPAQ assessed current PA, and participants were grouped into low (N=39), moderate (N=118), and high (N= 71) activity levels. In two-step regression analysis, TPB variables were entered into model 1 and SAA scores were added to model 2, to determine six-month exercise intention. For inactive participants, only SAA influenced PA intentions ( $\beta=0.40^*$ , R2 model 1=0.06, R2 model 2 =0.19). For moderately active participants, in both models only attitudes influenced PA intentions ( $\beta=0.20^*$ , R2 model 1=0.07, R2 model 2=0.07). For highly active participants, in model 1, attitudes ( $\beta=0.48^{***}$ , R2 model 1=0.32) influenced PA intentions. In model 2, attitudes were still influential ( $\beta=0.45^{***}$ ) and were joined by SAA ( $\beta=0.22^*$ , R2 model 2=0.37).

In conclusion, SAA was only a predictor in low and high activity individuals where higher levels of anxiety were associated with greater intentions to exercise. Overall, our constructs performed fairly well in determining future intentions for low and highly active participants, but for intervention purposes, we sorely need additional factors to motivate moderately active individuals to continue to maintain their activity.

15:30 - 17:00

## Associations between sedentary behaviors and intentions to increase energy expenditure: systematic review

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<sup>3</sup>University of Colorado at Colorado Springs, United States

**Background:** The relationships between sedentary behaviors (SB), intentions to increase physical activity or to reduce sedentary behaviors are the subject of research, however, so far they haven't been brought under any comprehensive analysis. Therefore, the present study aims at providing a generalized synthesis of empirical evidence on the relationship between SB, and intention to increase physical activity or reduce sedentary behaviors.

**Methods:** Data were collected in accordance to PRISMA guidelines and registered with PROSPERO database (registration no. CRD42018086899). Systematic search included 6 databases: PsycINFO, PsychArticle, Academic Search Complete, Health Source: Nursing/Academic Edition, MEDLINE and Scopus. A total of 22 studies which provided information about the associations between SB and intention were identified.

**Findings:** Twenty two out of 26 (82%) association coefficients yielded significant relationships between SB and intention. Respectively, 21 out of 22 (95%) coefficients showed that higher levels of intention were related to lower levels of SB. The remaining one coefficient yielded the opposite pattern of association. Significant associations between intention related to SB reduction and SB were found in 20 out of 23 (87%) analyzed relationships. In case of physical activity (PA)-related intention and SB, significant associations were found in 2 out of 3 (67%) identified relationships.

**Discussion:** The vast majority of studies showed that higher intention was associated with lower SB, regardless of the type of intention (PA-related vs SB reduction-related). The findings contribute to the ongoing discussion on how sedentary behavior is related to physical activity.

15:30 - 17:00

## Factors Influencing Istanbulites Intention for Being Physically Active Outdoors

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Due to modern-day sedentary lifestyle, physical inactivity has become a public health concern. World Health Organization stated insufficient physical activity (PA) as a prominent risk factor causing chronic diseases such as cancer, type 2 diabetes, and hypertension. This study focused on identifying similar patterns of PA, specifically running in İstanbul public parks, by clustering people within Theory of Planned Behavior framework, their perception of security and running frequencies. Observations at two geographically distinct parks during morning and evening hours and a survey assessing people's attitudes, intentions and perceptions on exercising in these public parks were conducted. 119 people utilizing the selected parks filled out the survey. Data analyzed via SPSS revealed 2 clusters, regular and irregular runners, in which people's attributes to outside PA was more important in predicting cluster membership. Irregular runners have negative attributes to outside PA, lower intention and control, and lower support from their significant others. Additionally, evaluation of clusters based on people's perception on public park safety indicated that irregular runners feel insecure in public places and are more concerned about incidents such as accidents, theft and violence. Feeling insecure and having concerns also brought about lower intention, especially to women. Thus, it is important to create safe and inclusive cities facilitating cost-free PA participation like running outdoor in order to achieve sustainable good health and well-being for everyone.

15:30 - 17:00

## Exploring the psychological determinants of adherence to beginner running programmes: a 10-week diary study

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**Background:** Running is one of the most effective forms of exercise for maintaining health-related fitness but can be challenging to commence in adulthood. Beginner running groups aim to support novice participant's transition from walking to sustained running through supervised progressive training programmes. This study explored the psychological factors associated with programme adherence through quantitative and qualitative data analysis.

**Methods:** Participants of beginner running groups completed diaries (n = 34) during the 10-week programme. Diaries included weekly visual analogue scales of enjoyment, motivation, confidence, fatigue, satisfaction and support along with a record of training sessions. Associations between scale scores and adherence were examined with Spearman's correlations. Space was provided for free-text comments to provide qualitative data which underwent thematic analysis.

**Findings:** Overall adherence to the 10-week program was  $53.2 \pm 27.1\%$ . Adherence was positively correlated with enjoyment ( $\rho = 0.58$ ,  $p < 0.001$ ), motivation ( $\rho = 0.53$ ,  $p = 0.001$ ), confidence ( $\rho = 0.59$ ,  $p < 0.001$ ), and satisfaction with progress ( $\rho = 0.54$ ,  $p = 0.001$ ). Qualitative analysis of diary entries indicated three distinct themes (self-awareness, social support, personal challenge) underlying progression through the programme. Changes to interpretations of physical sensations and awareness of individual improvements contributed to increased confidence and satisfaction over time.

**Discussion:** Adherence to group-based beginner running programmes was enhanced when participants enjoyed sessions, felt confident and motivated to run, and were satisfied with their progress. A longer-term study is required to determine if these factors predict continued engagement in running after completing beginner programmes.

15:30 - 17:00

## Exploring the predictors for older adults' intention to engage in the Lifestyle-integrated Functional Exercise programme

S. Labudek<sup>1</sup>, L. Fleig<sup>2</sup>, C. Jansen<sup>1</sup>, F. Kramer<sup>1</sup>, C. Nerz<sup>3</sup>, C. Becker<sup>3</sup>, J. Klenk<sup>3,4</sup>, M. Schwenk<sup>1</sup>

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<sup>4</sup>Ulm University, Germany

**Background:** The Health Action Process Approach (HAPA) defines task self-efficacy, risk perception and outcome expectancies as predictors for intention to change behaviour. Additional individual factors like motivation quality, health status or perceived social support might help to explain why older adults are motivated to engage in the Lifestyle-integrated Functional Exercises (LiFE) programme for falls prevention.

**Methods:** This study presents baseline data of a larger randomized controlled trial of n=197 participants (M=78.8, SD=5.5, 73.6% female). Questionnaires were administered to assess task self-efficacy, risk perception and outcome expectancies (1=totally disagree; 6=totally agree), motivation quality (Behavioural Regulation in Exercise Questionnaire, 0=not true for me; 4=very true for me), perceived social support (three items from the 6-Item Loneliness Scale; 1=not true; 6=totally true for me) and perceived physical function (function scale of the Late-Life Function & Disability Instrument; 5=none; 1=cannot do). To predict intention, we conducted multiple hierarchical regression analysis.

**Results:** Findings showed that HAPA-related task self-efficacy, risk perception and outcome expectancies explained 26.7% of the variance in intention ( $F(3,193)=24.84, p<.001$ ). When adding motivation quality ( $\beta=.23, p<0.001$ ), social support ( $\beta=.13, p=.03$ ) and perceived physical function ( $\beta=.01, p=.91$ ) to the regression model, explained variance increased to 5.5% ( $F(6,190)=16.50, p<.001$ ). Neither age nor gender were related to intention.

**Discussion:** Providing older adults with opportunities to experience feelings of autonomy, competence, and relatedness as well as social support may help to increase their intention to take up falls prevention programmes like LiFE. Future studies could explore the integration of motivation quality and social support into the HAPA.

## Posters

# Behavior change interventions for prevention

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Felix Naughton

15:30 - 17:00

## Altering the availability and position of products within physical micro-environments: A conceptual review and framework

R. Pechey<sup>1</sup>, G. Hollands<sup>1</sup>, P. Carter<sup>2</sup>, T. Marteau<sup>1</sup>

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<sup>2</sup>University College London, United Kingdom

**Background:** Altering the availability and position of products are two possible sets of interventions to change behaviours to reduce preventable premature deaths worldwide. However, research on these interventions lacks consistent conceptualisation, hindering clear reporting and cumulative synthesis.

**Methods:** This conceptual review describes how Availability and Position interventions have been operationalised, revealing inconsistency in terminology and targets for change. A conceptual framework is proposed – categorising intervention types and summarising constituent components – with which interventions can be reliably described and evidence synthesised.

**Findings:** Three principal distinctions are proposed for Availability: interventions altering: (i) Absolute Availability (Overall number of options); (ii) Relative Availability (Proportion of items comprised by a subset of products); (iii) Both Absolute and Relative Availability. Three distinctions are proposed for Position: interventions altering positions that are: (i) All within-reach (Reachable vs. Reachable); (ii) Some within-reach and some out-of-reach (Reachable vs. Unreachable); (iii) All out-of-reach (Unreachable vs. Unreachable). These can be further subdivided into interventions that alter proximity relative to a starting position (Absolute Proximity), proximity relative to other key products (Relative Proximity), both (Absolute & Relative Proximity), or neither (Equidistant).

**Discussion:** The proposed framework aims to facilitate study of two sets of interventions that could contribute significantly to healthier behaviour across populations.

15:30 - 17:00

## The impact of health warning labels on alcohol selection: two online experimental studies

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**Background:** Excessive consumption of alcohol increases the risk of diseases including liver disease, heart disease and some cancers. Evidence suggests that health warning labels (HWLs) might reduce selection and consumption of alcohol. Uncertainty remains around the content and form of warnings with the potential to exert the largest effects.

**Aims:** To identify the most promising HWLs for reducing alcohol intake in two online studies, for subsequent evaluation in laboratory and field settings.

**Methods:** Study 1: A between-subjects design with 21 different pictorial HWL conditions illustrating the adverse health consequences of excessive alcohol consumption. Participants (N=5537) were randomly allocated to view an alcoholic drink with one HWL. HWLs eliciting the highest ratings of negative emotional arousal were selected for Study 2.

**Study 2:** A between-subjects 2 (image: present v absent) x 2 (text: present v absent) factorial experimental Design: Participants (N=5988) were randomised to view alcoholic (with one of three label types or no label) and non-alcoholic beverages and selected a drink to consume. The primary outcome was the proportion of participants selecting alcoholic beverages.

**Results:** HWLs illustrating bowel cancer, breast cancer and liver cancer were selected for use Study 2 based on negative emotional arousal scores. Free text responses were coded into themes (positive, negative, neutral) based on their sentiment. Data collection is in progress for Study 2 (due 03.2019).

**Discussion:** The results of these studies will provide evidence for the extent to which HWLs can reduce selection for alcoholic beverages, to be validated in laboratory and field settings.

15:30 - 17:00

## Prescribing laughter to increase well-being: An exploratory mixed methods feasibility study of the Laughie

F. Gonot-Schoupinsky<sup>1</sup>, G. Garip<sup>2</sup>

<sup>1</sup>University of Derby, United Kingdom

<sup>2</sup>University of Derby Online Learning, United Kingdom

**Background:** As a response to calls for a practical laughter prescription from the healthcare community, this research developed the Laughie tool and evaluated its impact to elicit laughter and increase well-being in healthy adults. The Laughie is a user-created one-minute recording of the user's laughter, operated by re-playing it while laughing simultaneously.

**Methods:** A mixed methods preliminary feasibility study was conducted between March-May 2018. Twenty-one participants aged 25 to 93 ( $\bar{x}=51$ ,  $SD=20$ ) created a Laughie and were instructed to laugh with it three times a day for seven days, documenting each trial. Well-being was measured prior to and post-intervention using the World Health Organization (WHO five-item) well-being index. Interviews were analysed using thematic analysis. Evaluation considered the Feasibility, Reach-out, Acceptability, Maintenance, Efficacy, Implementation and Tailorability (FRAME-IT) of the Laughie.

**Findings:** The Laughie elicited laughter for most of the one minute in 89% of 420 Laughie trials; immediate well-being increased in 70% of them. Absolute overall WHO well-being scores increased post-intervention by 16%. Fourteen participants reported absolute well-being increases of 10% or more. Ten participants found their laughter self-contagious. Laughie evaluation using FRAME-IT showed the Laughie was feasible, acceptable, and tailorable. Four smart laughter techniques that facilitated maintenance/usage were identified.

**Discussion:** Smart laughter (laughing in a smart way for a smart reason on a smartphone) achieved by the Laughie may be a convenient way to harness the benefits of laughter. FRAME-IT is proposed as a practical planning and evaluation framework for early-stage interventions.

15:30 - 17:00

## The TPB constructs as mediators between smoking home environments and efficacy of a cessation program

J. Blondé<sup>1</sup>, O. Desrichard<sup>1</sup>, J.M. Falomir-Pichastor<sup>1</sup>, M. Felder<sup>2</sup>, L. Folly<sup>2</sup>, G. Riedo<sup>2</sup>

<sup>1</sup>University of Geneva, Switzerland

<sup>2</sup>Behaviour Change Lab, Switzerland

It is quite well established that living in smoking home environments undermines smokers' efforts to quit and maintain long-term abstinence. In contrast, whether and how such environments may affect chances to successfully complete cessation interventions is less documented. In the present research, we sought to examine the potential of the Theory of Planned Behavior (TPB) components to mediate the consequences of smoking home environments on the efficacy of an online smoking cessation program. Participants were smokers living in Western Switzerland who enrolled into a 6-month cessation intervention delivered on Facebook. Assessment of the TPB constructs and characteristics of home environment was completed at baseline (N = 820). Smoking abstinence was measured at 3- (T1; N = 645), 6- (T2; N = 545), and 9-months follow-up (T3; N = 473). We used structural equation modelling with latent factors to estimate both direct and indirect effects in a serial mediation model. Results showed that living in a smoking environment was negatively associated with subjective norm ( $\beta = -.15$ ,  $p = .010$ ), attitude ( $\beta = -.26$ ,  $p > .001$ ) and perceived behavioural control ( $\beta = -.15$ ,  $p = .011$ ). Afterwards, each of these variables predicted intention ( $\beta s > .12$ ,  $ps > .001$ ), which in turn was related to abstinence at T1 ( $\beta = .60$ ,  $p > .001$ ). Such mediation effects consistently persisted at T2 and T3. Taken together, our results demonstrated that the TPB constructs can account for the deleterious effects of home smoking environments on success of cessation programs.

15:30 - 17:00

## A coaching approach at workplace to change health related behaviours

P. Vitória<sup>1,2</sup>, C. Nobre<sup>3</sup>

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<sup>2</sup>CIS-IUL, Instituto Universitário de Lisboa (ISCTE-IUL), Portugal

<sup>3</sup>Ph+ Desenvolvimento de Potencial Humano, Lda, Portugal

**Background:** Some behaviours (e.g., use of tobacco, alcohol and drugs) have a high impact on health. Coaching implemented at organizational level can be useful to change health relevant behaviours.

**Methods:** To illustrate the impact of these problems in organizations, data of a study including 330 workers with alcohol and drug problems from a company with 10500 workers will be presented. Main measures: accidents and absenteeism.

To illustrate the effectiveness of health coaching at organizational level, the evaluation of a quit smoking programme implemented during one year in a company with 520 workers will be present. This programme included interventions at organizational, group and individual levels. Main measure: smoking.

**Findings:** In the first study, in the last five years, 169 (51%) participants had at least one accident and 58% of these had more than one accident. The absenteeism due to an accident or a disease was 10.6% for this group (comparing with an absenteeism of 3.6% for the whole organization).

In the second study, on the quit smoking programme, at the end of the programme smokers' rate in the company decreased from 38% to 30%.

**Discussion:** Some behaviours have an impact at organizational efficacy and at health status (e.g., tobacco use and alcohol abuse). Health coaching at organizational level could be an interesting approach to change health relevant behaviours with benefits for the organizations and for the health of their employees.

## Posters

# Understanding chronic conditions and improving outcomes session

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

15:30 - 17:00

## TAFFI Kids Group (Therapy, Art, Friendship and Flourishing in Illness): a randomized controlled trial

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<sup>1</sup>Trinity College Dublin, Ireland

<sup>2</sup>Children's Health Ireland at Tallaght University Hospital, Ireland

**Background:** Many children with chronic conditions struggle psychologically and frequently report feeling different from their peers. An art therapy group protocol that integrates aspects of narrative therapy, positive psychology and mindfulness-based approaches was designed to address the psycho-social needs of patients across multi-diagnostic paediatric presentations.

**Primary aims:**

- To assess the effectiveness of an art therapy group intervention on health-related quality of life, social functioning, coping, illness perception, well-being and psychosocial behavior in young people with chronic conditions
- To qualitatively examine the acceptability of the intervention

**Method:** A mixed methods Randomized Controlled Trial collecting quantitative and qualitative data. Up to 60 patients aged 9 – 12 years old with various chronic conditions will be recruited and randomized into 3 intervention and 3 wait-list control groups, comprising an 8-week weekly art therapy group. Measures will be taken at baseline, post-intervention and at 6-months post-intervention. Focus groups will be conducted with patients and families post intervention and analyzed using thematic analysis. Audio Image Recordings (AIRs) and Reflective Interviews (RIs) will be used to identify participant valued mechanisms of change in the art therapy process.

**Expected Results:** Preliminary qualitative results support the acceptability of the intervention

**Current stage of the work:** The first intervention group is complete and data collected. The waitlist control group is currently receiving the intervention. Qualitative data from both of these groups will be available.

**Discussion:** This study will examine whether art therapy is helpful to pediatric patients and what the possible mechanisms of change are.

15:30 - 17:00

## Psychosocial aspects in adults with congenital heart disease: from the pre-surgical/intervention phase to cardiac rehabilitation

E. Callus<sup>1,2</sup>, S. Pagliuca<sup>1</sup>, E. Quadri<sup>1</sup>, E.G. Bertoldo<sup>1</sup>, F. Martini<sup>1</sup>, V. Filippi<sup>1</sup>, R. Tramarin<sup>1</sup>, M. Carminati<sup>1</sup>, M. Chessa<sup>1</sup>, A. Giamberti<sup>1</sup>

<sup>1</sup>IRCCS Policlinico San Donato, Italy

<sup>2</sup>Università degli Studi di Milano, Italy

**Introduction:** Adults with congenital heart disease (ACHD) are a growing population facing specific psychosocial challenges. Psychosocial screening and support could be even more warranted when these patients are hospitalized.

**Methods:** 30 ACHD (14 females) age ranging from 29 – 66 years ( $\mu = 48.66 \pm 10.68$ ) were evaluated when it comes to the psychosocial aspects before (t0) and after the intervention/procedure (t1) and at discharge from cardiac rehabilitation (t2). Initial psychosocial evaluation at t0 included biographic and lifestyle data, health perception (EuroQol) quality of life (NRS 0-100) and anxiety and depression (Hospital Anxiety and Depression Scale HADS). Health perception, anxiety and depression were also evaluated at t1 and t2. The medical variables considered were: Six Minute Walk Test (6MWT), Ejection Fraction, NYHA Index and diagnostic category (Mild (7), Moderate (22) and Complex (1)).

**Results:** An improvement was observed in health perception (t0  $\mu = 63.67 \pm 23.37$ ; t1  $\mu = 65.13 \pm 16.45$ ; t2  $\mu = 76.33 \pm 15.80$ ) whereas the average scores for anxiety and depression remain in the normal range during all times. A correlation was found between health perception and depression during t0 ( $r = -0.61$ ;  $p = 0.003$ ) and t1 ( $r = -0.45$ ;  $p = 0.032$ ) for moderate and complex cases but not for the mild ones. Interestingly patients with a moderate diagnosis presented a higher average quality of life ( $\mu = 81.5 \pm 15.93$ ) than those within a simple ( $\mu = 69.28 \pm 13.67$ ) and severe ( $\mu = 65$ ) condition.

**Conclusions:** further quantitative and qualitative data are necessary during the different times during the hospitalization of ACHDs in order to improve and tailor psychosocial interventions provided to them.

15:30 - 17:00

## Evaluating online and in-person psychotherapeutic interventions for chronic pain: a systematic review and network meta-analysis.

J. Flynn<sup>1</sup>, S. Haugh<sup>2</sup>, L. O'Connor<sup>1</sup>, B. McGuire<sup>1</sup>, B. O'Grady<sup>1</sup>

<sup>1</sup>NUI Galway, Ireland

<sup>2</sup>Centre for Pain Research, NUIG, Ireland

**Intro:** Chronic pain (CP) is a highly prevalent and debilitating disorder. A plethora of evidence is available which supports the effectiveness of psychotherapy for increasing quality of life in CP sufferers. However, socioeconomic barriers can prevent CP sufferers from accessing such facilities. Consequently, online interventions are proposed as a more accessible modality for psychotherapy delivery. The objective of this review and network meta-analysis (NMA) is to assess and compare the effectiveness of different psychotherapeutic techniques and the medium in which they are delivered for improving quality of life in CP sufferers.

**Methods:** MEDLINE, EMBASE, CENTRAL and PsycINFO were searched. The review included randomized controlled trials whereby psychotherapy was delivered in-person or online to CP sufferers. Exclusion criteria included non-RCTs, cancer or headache pain or non-psychological interventions. Studies that assessed pain interference will be included in the NMA to compare the various treatment techniques and delivery modalities. Studies which assessed quality of life and psychological suffering will be assessed in pair-wise meta-analyses. Initially, papers were screened based on titles/abstracts with 10% screened in duplicate. Two reviewers independently assessed the remaining papers for inclusion in the analysis.

**Expected results:** Over 120 studies will be included in the analysis. Included studies employed a range of different techniques including online and in-person CBT, ACT, mindfulness and psychodynamic therapy.

**Current stage of work:** The final stages of full-text screening are currently underway.

**Discussion:** Findings from this study will inform patients, researchers and clinicians about the treatment efficacy of psychotherapies and delivery Methods:

15:30 - 17:00

## Efficacy of a cognitive-behavioral intervention for children with functional abdominal pain: A randomized controlled trial

P. Warschburger<sup>1</sup>, C. Calvano<sup>1</sup>, C. Posovszky<sup>2</sup>, S. Becker<sup>3</sup>, E. Iven<sup>4</sup>, C. Hudert<sup>5</sup>, F. Ebinger<sup>6</sup>, K. Wegscheider<sup>7</sup>

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<sup>7</sup>Universitätsklinikum Hamburg, UKE, Germany

**Background:** Functional abdominal pain (FAP) is highly prevalent among children and associated with increased psychosocial strain. The aim of this trial was to compare the efficacy of a cognitive-behavioral group intervention (CBT) among children suffering from FAP with an attention control group program (AC).

**Methods:** We conducted a prospective, multicenter RCT in five outpatient clinics for pediatric gastroenterology in Germany. 127 participants were block randomized with a 1:1 ratio to either the CBT (n=63) or the AC (n=64). Both treatments comprised 6 weekly group sessions for the children and 2 parent sessions. CBT aimed at the enhancement of child's self-management by providing coping skills and relaxation techniques. The AC covered educational instructions on physical functioning and a healthy lifestyle. Primary outcome was self-reported abdominal pain, secondary outcomes referred to functional disability, health-related quality of life, coping and cognitions, parent behavior and cognitions.

**Findings:** Analyses revealed that treatment success rates, i.e., at least 80% reduction in pain intensity, in the CBT did not differ from those in the AC. Linear mixed models showed that both pain intensity and the broad range of secondary psychosocial outcomes, a comparable benefit over time was observed in both groups. Significant group differences post-intervention were observed.

**Discussion:** Our data did not support a more promising course over time for the CBT compared to the AC. This observation underlines the importance of unspecific factors in the treatment of pediatric FAP. Therefore, dismantling trials analyzing the mechanisms and the agents of change in FAP treatment are warranted.

15:30 - 17:00

## Can inulin help in weight reduction: results from a clinical trial

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<sup>4</sup>Université catholique de Louvain, Belgium

**Background:** This study tested if an inulin (a pre-biotic fiber) rich diet (combined with inulin supplement) could aid obese participants in their weight loss, when compared to treatment as usual (TAU) combined with a placebo. In a 3-months clinical trial, we measured the impact of both treatments on biological aspects (e.g., body mass index) as well as several psychological measures (e.g., emotional, restrained and external eating tendencies (DEBQ), health behavior and self-regulation (TSRQ) as well as emotional competence).

**Methods:** 103 participants were included in the study (n\_placebo= 53, n\_inulin = 50), at three different hospitals in Belgium. A mixed model design was used to analyze the data, with wave (baseline vs. 3-month follow-up), treatment group (inulin vs. placebo) and gender as fixed factors, and allowing participant intercepts to vary randomly.

**Findings:** During the trial, both groups (inulin vs. placebo with TAU) lost weight, but the inulin group lost significantly more ( $b=-0.27$ ,  $p=0.03$ ). We also found some evidence that the inulin group improved in their emotional competence, whereas the placebo group did not ( $b=0.05$ ,  $p=0.07$ ). No significant differences between the two groups were found for health behavior and self-regulation, nor for any of the DEBQ measures (though restrained eating increased ( $b=0.50$ ,  $p=0.00$ ) and external eating ( $b=-0.19$ ,  $p=0.01$ ) decreased significantly over time for both treatment groups).

**Discussion:** Most importantly, both treatment groups were successful in losing weight. However, we may have an indication that increasing the consumption of inulin may be more beneficial for weight loss compared to treatment as usual.

## Posters

# Stress management and support interventions

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Elke Vlemincx

15:30 - 17:00

## Relaxation effects of paced slow breathing

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<sup>2</sup>KU Leuven, Belgium

Most popular stress management and relaxation techniques involve slow, regular breathing instructions. Whereas the effects of paced slow breathing on cardiovascular parameters have been studied extensively, research investigating the effects on relaxation is scarce. Therefore, the following two studies aimed to compare the relaxation effects of slow vs. normal paced breathing.

In Study 1, 24 low and 22 high worriers (defined by the Penn State Worry Questionnaire) participated in a 10-min baseline, followed by two experimental trials consisting of a 10-min paced breathing phase (of 8 or 14 breaths per minute, in counterbalanced order), a 5-min stress induction, and a 5-min stress recovery. In Study 2, 34 high worriers participated in two lab sessions, each with the same trial structure as Study 1, separated by 4 weeks during which they were trained in either slow or normal paced breathing. In both studies, self-reported relaxation was measured during each phase.

Study 1 showed that slow breathing increased relaxation, but only in low worriers. Study 2, in high worriers, showed that relaxation was overall higher during slow breathing compared to normal paced breathing. However, baseline levels of relaxation increased over the 4-week period, independent of training in slow or normal paced breathing.

These results suggest that slow paced breathing may induce concurrent relaxation, particularly in low worriers. Yet, training of paced, and thus regular, breathing is beneficial in high worriers, regardless of breathing frequency. These findings suggest that breathing frequency may not be the key mechanism of long-term breathing-induced relaxation.

15:30 - 17:00

## Psychometric Properties of a Brief Version of the Implicit Positive and Negative Affect Test (brief-IPANAT)

G. Hernandez<sup>1,2</sup>, T. Rovira<sup>1</sup>, S. Edo<sup>1</sup>, M. Quirin<sup>2</sup>

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<sup>2</sup>Technical University of Munich, Germany

As self-reports of affect are limited in several regards, an indirect measure of affect, the Implicit Positive and Negative Affect Test (IPANAT; Quirin, Kazén, & Kuhl, 2009), has previously been developed and adapted to many languages. The IPANAT uses 36 items and showed adequate reliability and validity. The present article evaluates a brief, 18-item version of the IPANAT in a sample of 242 Spanish adults (111 males). Item reductive procedures consisted of a random selection of the stimuli words used in the IPANAT. Competing models of the latent structure of the brief-IPANAT were evaluated using Confirmatory Factor Analysis. In addition, correlational analysis were used to determine the relationship between the brief and the full version of the IPANAT, and with explicit measures of affect. Results showed that the best-fitting model consisted of two factors corresponding to positive affect and negative affect (CFI=.91; TLI=.89; SRMR=.06). Reliability of the brief-IPANAT was high (implicit PA,  $\alpha=.86$ ; implicit NA,  $\alpha=.79$ ), and the pattern of relationships between the brief-IPANAT and explicit affect measures were consistent with previous findings. The differences between the mean scores of implicit affect assessed with 18 items or 36 items were statistically non-significant, and showed strong correlations (PA,  $r=.92$ ; NA,  $r=.88$ ). In sum, the results indicate that the brief-IPANAT has satisfactory psychometric properties and can be a valid instrument to perform various measures of affect in an ecological context, or when burden of multiple measures needs to be prevented.

15:30 - 17:00

## Are self-reported and objectively monitored physical activity and sedentary behavior related to mental distress?

L. Briones-Buixassa<sup>1,2</sup>, M. Félez-Nobrega<sup>1,3</sup>, J. Bort-Roig<sup>1,3</sup>, E. Puigoriol<sup>4</sup>, A. Puig-Ribera<sup>1,3</sup>

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<sup>4</sup>Vic Hospital Consortium, Spain

**Background:** This study aims to examine associations between self-reported and activPAL™-determined sedentary behavior (SB) and physical activity (PA) with psychological stress and anxiety.

**Methods:** A total of 360 undergraduates (44% females, 20.9±2.93 years) participated in the study. Trait and state anxiety were assessed via the State-Trait Anxiety Inventory, and psychological stress through the Perceived Stress Scale (PSS). PA and SB were measured via self-report (IPAQ long-form, and the Last 7 days' sedentary behavior questionnaire). A subsample of 121 participants (53.7% females; 20.8±2.6 years) also wore an activPAL™ for 7 days to determine total sedentary time and several PA intensities. Separate multiple linear regression models were performed to examine associations between PA and SB variables with stress and anxiety.

**Findings:** Self-reported PA positively influences stress and anxiety levels (>3hrs/week of moderate-intensity PA for trait anxiety; >7hrs/week of moderate-intensity PA for state anxiety; and >10hrs/week of total PA for stress). There is no association for monitor-based PA. Independently of PA, >10hrs/day on SB pursuits on weekends was related to higher perceived stress. Additionally, >3hrs/day of self-reported leisure screen time during weekends negatively influences trait anxiety. No associations were found for the rest of SB domains or activPAL-derived total sedentary time.

**Conclusions:** Our data suggest that college students should limit leisure screen time SB to <3hrs/day on weekends and concomitantly engage in at least 3hrs/week of PA to benefit mental health indicators. Intervention strategies targeting both PA and SB, and specially focused on weekends may contribute to enhance college students' mental health status.

15:30 - 17:00

## CareKnowDo: A pilot Randomized Controlled Trial of multichannel support for people with Chronic Kidney Disease

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**Background:** Chronic Kidney Disease (CKD) is a common, progressive condition. Lifestyle changes and antihypertensive medication can slow progression to Stage 5 (end stage). However, adherence to these recommendations is often low.

The aim of CareKnowDo was to assess the feasibility of rolling out a digital adherence support programme integrated with a patient-facing Electronic Health Record, Renal Patient View (RPV).

**Methods:** A two arm pilot RCT, running in two NHS sites in the UK. Sixty-one patients with CKD were randomised into two groups and provided with either a new tailored, digital support programme (CareKnowDo, n = 31) integrated with RPV, or standard care (RPV alone, n = 30). Quantitative measures included clinical and psychosocial measures. The primary outcomes were feasibility based; recruitment rate, drop-out, and exploration of associations.

**Findings:** Out of 1,392 patients screened in local kidney clinics, 269 met the basic inclusion criteria, the first eligible 61 of whom were recruited to participate in the study. Twenty-three patients (37.7%) completed the final 6-month follow-up survey. Reasons for attrition are explored. Higher belief in the ability of treatment to control CKD was associated with lower blood pressure at baseline ( $r = -0.52$ ,  $p < 0.01$ ), and higher perceived understanding of CKD at baseline was associated with lower blood pressure at follow-up ( $r = -0.66$ ,  $p < 0.01$ ).

**Discussion:** A digital support programme to enhance support for patients with CKD was piloted in two NHS sites, and found to be feasible and acceptable. Improvements to increase uptake will be discussed.

15:30 - 17:00

## Optimising psychological support in cancer prehabilitation

J. Varkonyi-Sepp<sup>1,2</sup>, C. Grimmett<sup>3</sup>, M. Grocott<sup>2,4</sup>, M. West<sup>5,6</sup>, A. Bates<sup>5</sup>, S. Leggett<sup>2,5</sup>, S. Jack<sup>2,5</sup>

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**Background:** Evidence is increasing that improving physical fitness before major cancer surgery improves clinical outcomes even long-term. Psychological interventions close to the time of diagnosis may also increase psychological wellbeing. Our research aims to optimise psychological support prior to cancer surgery.

**Methods:** In the Wessex Fit-4-Cancer Surgery multi-centre efficacy randomised controlled trial 300 patients scheduled for major cancer surgery are randomised to one of four study arms: usual care, structured responsive exercise training programme (SRETP), person-centered counselling (PCC), and PCC combined with SRETP. Psychological support is either PCC by registered counsellors or 'Healthy Conversations', an individualised behaviour change support programme delivered by personal trainers within SRETP. To evaluate the feasibility and acceptability of these interventions, after the first 30 patients completed their 12-week post-surgery assessment, we conducted a process evaluation using semi-structured one-to-one interviews. Eight patients and seven healthcare professionals (HCPs) delivering the trial took part. Data was analysed using Thematic Analysis.

**Findings:** Both patients and HCPs regarded SRETP useful. Healthy Conversations supported some patients in planning for long-term exercise maintenance after surgery. Experiences of PCC among patients were mixed with some reporting benefits while others preferred to draw on existing social networks and support at this time. HCPs regarded PCC as not very useful in preparation for surgery and preferred supporting patients in problem-focused coping and short interventions deliverable in one or two sessions when surgery was imminent.

**Discussion:** Results from the 12-week post-surgery evaluation informed regional collaboration to develop optimised psychological support services for patient's cancer care pathways.

## Posters

# Family support during health and social challenges

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Diana Taut

15:30 - 17:00

## Stress, control and support: Comparing mothers of children under 2 in the UK and Finland

V. Swanson<sup>1</sup>, L. Hannula<sup>2</sup>

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<sup>2</sup>Metropolia University, Finland

**Background:** Being a new parent can be stressful, impacting on maternal well-being. Despite being a 'natural' behavior, breastfeeding can contribute to parenting stress. Stress-coping theories emphasise the crucial role of control and support. This study aimed to understand and contrast women's early parenting experiences in the UK and Finland, investigating formal and informal social support and self-efficacy as stress moderators.

**Methods:** Two large-scale semi-structured cross sectional online surveys of mothers recruited via non-government organisations were carried out in Finland and UK in 2017-8, including over 2,000 mothers of children under 2. We assessed quantity and quality of informal and formal social support, parenting stress, breastfeeding stress and maternal self-efficacy and collected open-ended responses reflecting individual experiences.

**Findings:** Finnish women reported better birth experiences and more breastfeeding self-efficacy, breastfeeding (both  $p < .01$ ), but more parenting stress ( $p < .01$ ), and breastfeeding stress ( $p < .001$ ) than women in the UK. Partners provided most support in both countries. In both countries, informal support including Facebook groups, family and peer support was used more than formal hospital/baby clinic supports for breastfeeding. Health professionals' relational empathy was rated more highly in the UK ( $p < .01$ ). Regression models indicated that support and self-efficacy moderated relationships between breastfeeding and parenting stress, suggesting women with more breastfeeding support found parenting less stressful overall ( $p < .001$ ).

**Discussion:** Experiencing breastfeeding stress has a negative effect on early parenting experiences which could be ameliorated by more empathic support – delivered using informal systems such as Facebook as well as via more formal healthcare contexts.

15:30 - 17:00

## Preschool children: Greek parents' knowledge and attitudes on sexuality education

V. Brouskeli<sup>1</sup>, S. Tsesmeli<sup>1</sup>

<sup>1</sup>Demokritus University of Thrace, Greece

**Background:** This study aimed at revealing the knowledge and attitudes parents of preschool children have regarding sexuality education. We explored the parents' readiness and adequacy to discuss about sexuality with their preschool children as well as the role of gender and their own sexuality education to their current attitudes.

**Methods:** For the research purposes, 193 Greek parents (84 male, 109 female) of preschool children filled in an anonymous questionnaire. The instrument included 29 questions about parents' sexuality education, their knowledge and attitudes regarding educating preschool children on sexuality and their readiness to provide sexuality education to the children. The Research Ethics Committee of Democritus University of Thrace approved the research methodology **Design:**

**Findings:** The results showed that the participants had not received the proper sexuality education. Mothers claimed more often to be ready to provide this kind of education to their children, mainly due to their preparation by reading relevant books and consulting medical staff, while 27% of the sample had not received advice or information by any relevant source. The attitudes parents had as children seem to affect their current attitudes and mainly their openness to discuss with their preschool children.

**Discussion:** Findings suggest the primary need to educate and counsel parents, particularly about developmentally appropriate sexuality education. Furthermore, interventions should be designed according to both their gender and their informational needs.

15:30 - 17:00

## Early exposure to cardiac treatment and distress among patients and their spouses

T. Cornelius<sup>1</sup>, N. Vilchinsky<sup>2</sup>, K. Fait<sup>2</sup>, R. Dekel<sup>2</sup>, S. Matetzky<sup>3,4</sup>, H. Hod<sup>3,4</sup>

<sup>1</sup>Columbia University Medical Center, United States

<sup>2</sup>Bar-Ilan University, Israel

<sup>3</sup>Chaim Sheba Medical Center, Israel

<sup>4</sup>Tel-Aviv University, Israel

**Background:** Social support is thought to be beneficial during emergency health situations; however, support providers may be afflicted by the situation, which could distress patients. We assessed patient/spouse distress as a function of spouses' presence during an acute cardiac event (ACE).

**Methods:** ACE patients and their spouses were recruited from the intensive care unit of the largest medical center in Israel. Couples (N = 111; 214 individuals) completed baseline questionnaires in-hospital—where they reported on (1) partner presence during transportation to the hospital and during initial care and (2) anxiety—and follow-up surveys over the telephone four months post-discharge—where they reported on ACE-related posttraumatic stress symptoms (PSS). Dyadic multilevel models were estimated to examine the impact of partner presence on distress.

**Expected results:** Complete data analysis uncovered no main effect of partner presence during transportation or initial care on anxiety or PSS. There was a marginally significant interaction between role (patient v. spouse) and partner presence during transportation,  $p = .085$ . For spouses, being present was marginally associated with greater anxiety at baseline,  $B = 1.44$ ,  $p = .090$  (for patients,  $B = -0.55$ ,  $p = .462$ ).

**Current stage of work:** We are contemplating next steps, given the absence of an effect when dropouts are included in the analysis.

**Discussion:** It is important to understand the impact of partner presence during medical care on distress on couples. Reasons why presence seemed distressing only for spouses who remained in the study are unclear.

15:30 - 17:00

## The family experience of living with coeliac disease: a qualitative study

S. Goodliffe<sup>1</sup>

<sup>1</sup>The Open University, United Kingdom

**Background:** Coeliac disease (CD) is an inherited autoimmune condition, triggered through the ingestion of foods containing gluten, a protein found in grains. Treatment is a gluten-free diet. In the United Kingdom prevalence is 1:100 people.

The negative psychological and social impact on patient's living with CD is known. However, there is a paucity of knowledge on how CD effects family members. The aim of the research is to explore the lived experience of families living with an adult with CD.

**Methods:** The design and materials are informed through the involvement of advisory research members. Purposive sampling of adult participants with CD and their family members aged eight years and over. Participant-driven (semi-structured) photo-elicitation will be used as a tool to guide individual semi-structured interviews. Participants will be broadly briefed on what to photograph. Prior to interview participants will be sent their photographs to review. Interviews and photographs will be analysed through an inductive data-driven approach using Interpretative phenomenological analysis.

**Expected results:** Identify the psychological and social factors at an individual and family level related to the experience of living with CD.

**Current stage of work:** Early stage of PhD research.

**Discussion:** This research will provide an understanding from a family perspective of the experience of living with CD. Identify the modifiable psychological and social factors can inform interventions for families living with CD. The research adds to the use of photo-elicitation as a qualitative tool in health psychology.

15:30 - 17:00

## Psychological adjustment of children and their gay/bisexual fathers: A systematic review

F.A. Teplitzky Carneiro<sup>1</sup>, F. Tasker<sup>2</sup>, F. Salinas-Quiroz<sup>3</sup>, P.A. Costa<sup>1</sup>, I. Leal<sup>1</sup>

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<sup>2</sup>Department of Psychological Sciences, Birkbeck University of London, United Kingdom

<sup>3</sup>National Pedagogical University Mexico, Mexico

**Background:** This review aimed to examine the psychological adjustment and well-being of children and their gay/bisexual fathers, and the disclosure of sexual identity and gender-role orientation of gay/bisexual fathers.

**Methods:** A comprehensive search of relevant literature using electronic databases and reference lists for articles published until December 2016 was conducted. A total of 63 studies, spanning from 1979 to 2016, were collected. More than half of the studies were published after 2011 and the overwhelming majority were conducted in the United States.

**Findings:** The reviewed studies revealed that gay/bisexual fathers and their children were generally well-adjusted. Regarding gay father's own childhood, some studies indicated that the vast majority had experienced an enjoyable childhood and adolescence. Other studies revealed that gay fathers presented higher levels of subjective well-being, and a stronger sense of personal growth and purpose in life compared to childless gay men and heterosexual fathers. Further, gay fathers with an integrated gay identity tended to report higher perceived competence in parental tasks, higher levels of psychological adaptation, and greater contentment about being a parent compared to either gay fathers with non-integrated gay identities or heterosexual fathers.

**Discussion:** Two-father families are becoming more visible in research and gradually transforming the conceptualization of parenting. To date, most of what we know about the role of fathers and child development has been from research on heterosexual fathers parenting with mothers. Research on gay and bisexual fathers have given a particularly valuable opportunity to consider fatherhood per se in absence of motherhood.

15:30 - 17:00

## The role of spouses in the smoking behaviour of Indonesian male smokers

T. Ayuningtyas<sup>1,2</sup>, M. Tuinman<sup>1,2</sup>, Y. Prabandari<sup>3</sup>, M. Hagedoorn<sup>1,2</sup>

<sup>1</sup>University of Groningen, Netherlands

<sup>2</sup>University Medical Center Groningen, Netherlands

<sup>3</sup>Universitas Gadjah Mada, Indonesia

**Background:** Previous studies have consistently found that having a non-smoking spouse is beneficial for smoking cessation and reduction. However, despite the fact that the majority of Indonesian smokers have a non-smoking spouse (single-smoking couples), Indonesia has the highest prevalence of male smokers in the world. This study examines what role non-smoking spouses played in Indonesian ex-smokers' smoking cessation and whether the spouses have an influence on the smoking behaviour of current smokers.

**Method:** We conducted in-depth interviews with 18 heterosexual couples in Jogjakarta, Indonesia, in April-August 2019. In 11 couples, the men had stopped smoking and in seven couples, the men were current smokers. Thematic analysis will be used, where we identify and analyse the themes in the data.

**Expected results:** Some themes that emerged from the interviews are the decision to has to come from the smokers themselves, the spouses often enforce smoking rules, and the majority of the rules are related to the children.

**Current stage of work:** The interviews are transcribed verbatim and a few interviews were translated into English. The first author and a second coder code all the interviews and discuss any discrepancies until a consensus is reached. We have coded 60% of the interviews and expect to build the themes soon.

**Discussion:** This study will provide insights into how Indonesian couples perceive and deal with smoking. The information gained will contribute towards the knowledge regarding social factors of smoking in single-smoking couples, which may be useful in couples intervention or health promotion strategies.

15:30 - 17:00

## Improved Nutrition Preconception Pregnancy Post-Delivery (INPreP3) in sub-Saharan Africa (SSA)

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<sup>6</sup>Medical Research Council Lifecourse Epidemiology Unit, University of Southampton, United Kingdom

**Background:** There is a 'double burden of malnutrition', in countries undergoing nutritional transition such as South Africa, Ghana and Burkina Faso, where under-nutrition coexists with overweight/obesity and non-communicable diseases. In view of achieving Sustainable Development Goals 2 (Zero Hunger) and 3 (Good Health and Well-being), the INPreP3 team plans to design and develop evidence-based, context-appropriate and deliverable interventions to optimise preconception, intra- and postpartum nutritional status: targeting offspring health in the first 1000 days of life. To inform intervention design, we will seek stakeholders' perceptions of their communities' maternal and child nutritional needs and possible interventions.

**Method:** Ten focus groups per country will be conducted with men and women aged 18-40 years, from communities in Nanoro, Burkina Faso; Navrongo, Ghana; and Soweto, South Africa. Stakeholders are recruited from existing research cohorts and surveillance samples. Data will be thematically analysed using Nvivo to produce a cross-country synthesis.

**Expected result:** Themes should capture perceptions of the role nutrition has on a person's own and their future offspring's health in the short and long-term. Ideas for potential interventions will be captured.

**Current stage of work:** Focus group discussions are being conducted, transcribed and reviewed at each site. A cross-country data analysis workshop is arranged for April 2019, to collaborate on data interpretation and dissemination.

**Discussion:** Understanding the perceptions and behaviours of the target population is essential to inform professionals on designing acceptable and feasible interventions. This project highlights the role of Health Psychology within Global Health intervention design, in order to address SDGs.

## Posters

# Psychosocial correlates of quality of life

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Eva Henschke

15:30 - 17:00

## Heartwarming memory recollection effects on mood and mental health

A. Honda<sup>1</sup>

<sup>1</sup>Shizuoka Institute of Science and Technology, Japan

Earlier studies of reminiscence, the process of thinking or telling about past experiences, have investigated the association between reminiscence and well-being in later adulthood. Several recent reports have described that reminiscence intervention has mood stabilizing effects. Although the relation between reminiscence and its effects has been studied extensively among elderly adults, few studies have examined reminiscence by younger people. This study examined effects on mood and mental health of recollecting heartwarming memories. Particularly, we compared effects for healthy young people (N=9, avg. age = 28.11 yr) and elderly people (N=8, avg. age = 72.75 yr). Participants in this study, conducted during eight sessions, were asked about “recent topics” during the first, second, seventh, and eighth sessions (control sessions), and about “memorable heartwarming topics” during the third, fourth, fifth, and sixth sessions (intervention sessions). The interval between sessions was about one week. After each session was completed, participants answered a shortened version of the Profile of Mood States (POMS) and the World Health Organization's Subjective Well-Being Inventory (WHO-SUBI). Average data of two sessions were analyzed using a two-way factorial analysis of variance (two levels of age, four levels of session). Results show that reminiscence improves negative mood state such as Tension–Anxiety on POMS, creates positive attitudes as do social relations on WHO-SUBI, and increases confidence in coping ability on WHO-SUBI. These effects were clearly observed for young people, indicating that reminiscence is more effective for younger people than for elderly people.

15:30 - 17:00

## Personal qualities of women with different levels of life satisfaction

G. Kozhukhar<sup>1</sup>, T. Karpovich<sup>2</sup>

<sup>1</sup>Moscow State University of Psychology and Education, Russia

<sup>2</sup>Minsk State Linguistic University, Belarus

**Background:** The purpose of the study was to find out and describe personal characteristics of women with different levels of life satisfaction.

**Methods:** The sample included 126 women, who took part in a retraining course as practical psychologists (age  $M=37.56$ ). The data were collected via Life Satisfaction Index (Neugarten et al., adopted by Panina), Purpose-in-Life Test (Crumbaugh & Maholick, adopted by Leontiev), and Self-Efficacy scale (Maddux & Sherer). Using hierarchical clusterization we divided the participants into 3 subgroups according to the level of their life satisfaction index (LSI): women with high LSI ( $n=31$ ), medium LSI ( $n=67$ ) and low LSI ( $n=28$ ). These subgroups were compared via dispersion analysis.

**Findings:** The results showed significant differences between subgroups 1 (high LSI) and 3 (low LSI) for each personal quality studied (all of them were higher in subgroup 1) except age, social and general self-efficacy. Between subgroups 1 and 2 (medium LSI) there were no significant differences in the congruence between desired and achieved goals, orientation on the process and result, locus-control in life and social self-efficacy. Subgroups 2 and 3 were similar in zest, mood tone, orientation on a result, self locus-control and two kinds of self-efficacy. Besides, regression analysis showed a mutual effect of LSI and existential meaning.

**Discussion:** Though the sample was limited in sex (only women) and occupation, we consider the received data help to promote psychological work with women's meanings and reflection of components of existential sense, life satisfaction and self-efficacy in their connection and impact.

15:30 - 17:00

## Self-love actualized: A new conceptualization of a misunderstood construct

E. Henschke<sup>1</sup>, P. Sedlmeier<sup>1</sup>

<sup>1</sup>Technical University of Chemnitz, Germany

Throughout history, polarizing views on self-love as “bad” (associated with narcissism and selfishness) versus “good” (associated with well-being and health) have been manifested. In humanistic literature, self-love has been postulated as a prerequisite of psychological health. However, in academic literature, narcissism and self-love are often not clearly distinguished, although they are in fact opposites. Furthermore, there is a lack of adequate research, debate and empirical work on the construct of self-love and its contributing factors. Due to a missing adequate empirical conceptualization, this qualitative study aims at defining and examining the construct of self-love.

A total of thirteen semi structured interviews were carried out in German and English. Based on the humanistic postulation that any psychopathology roots in some lack of self-love, seven psychotherapists from different psychotherapeutic approaches as well as six authors of relevant literature were interviewed. Interview questions focused on specifying self-love and its components.

Inductive thematic analysis was conducted and yielded three main themes: (a) self-contact, defined by giving attention to oneself, (b) self-acceptance, defined by being at peace with oneself, and (c) self-care, being protective of and caring for oneself. For each theme, specific facets are described by respective subthemes.

In order to present a comprehensive conceptualization of self-love, findings are completed by relevant elements mentioned in the literature. The relation to other psychological constructs such as self-compassion, self-esteem and narcissism are examined. Results shed new light on the construct and provide basis for further research examining the relationship between self-love, psychological health and well-being.

15:30 - 17:00

## Relationship between Self-Compassion and Subjective Health, and the Mediating Effect of Strengths

S. Ishikawa<sup>1</sup>, Y. Matsuda-Chapman<sup>1</sup>, R. Ishikawa<sup>1</sup>

<sup>1</sup>J. F. Oberlin University, Japan

**Background:** Growing evidence suggests that self-compassion promotes desirable health behaviors. Recent studies also report that self-compassion enhances strengths, one of the key concepts in positive psychology. The present study aimed to examine the relationship between self-compassion and subjective health, and the mediating effect of strength awareness and strength use.

**Methods:** A total of 219 Japanese university students (100 males, 113 females,  $M=20.04$ ,  $SD=1.44$ ) participated in the survey using paper-pencil questionnaire. Age, sex, Japanese self-compassion scale, strength knowledge, strength use and subjective health that consists of physical condition, life-style habits, psychological stability and motivation were measured.

**Findings:** Data analysis indicated that the high self-compassion group (mean +1SD) demonstrated significantly higher scores on strength knowledge, strength use, subjective health, physical condition, psychological stability and motivation than the low self-compassion group (mean -1SD). Structural equation modeling revealed that self-compassion was significantly associated with subjective health directly, and bootstrap methods also showed the indirect effects of self-compassion on subjective health that was mediated by strength knowledge and strength use.

**Discussion:** This preliminary cross-sectional study implies that self-compassion promotes not only an attitude towards being happier, but also an attitude towards being a healthier person. The present result suggests that a higher level of self-compassion is likely to increase awareness of individual's strength. Future research with longitudinal designs needs to be conducted to verify these findings.

15:30 - 17:00

## Relationship between self-rated health and psycho-social adjustment indicators

N. Gostautaite Midttun<sup>1</sup>, A. Goštautas<sup>2</sup>

<sup>1</sup>Mental Health Initiative, Lithuania

<sup>2</sup>Vytautas Magnus University, Lithuania

**Background:** The correlation between self-rated health (SRH) and all-cause mortality has been proved in large scale population studies. However the specific mechanism of this relationship is less clear. Lower SRH can be related to diagnosed illnesses, can be mediated by life-style factors or other health determinants.

The aim of this analysis was to identify SRH correlations with several indicators of psycho-social adjustment as potential pathways mediating SRH relationship with all-cause mortality.

**Methods:** This is a additional analysis of the data from the joint Quality of Life Project for Kaunas Region Municipality, based on data from population investigation of 2400 respondents. SRH scale, 7 items Reeder's scale, 3 items of depression scale were included together with the WHO QoL-100 questionnaire.

**Results:** SRH was significantly correlated with QoL-100 physical, psychological, independence, social and environmental domains. Significant relationship was established also between SRH and Reeder stress scale score, and symptoms of depression. All correlations achieved  $p < 0,05-0,0001$  level of significance.

**Discussion:** Subjectively perceived self-rated health indicator has multiple correlations with important indicators of psycho-social adjustment. This confirms possibility of multiple pathways mediating between lower SRH and medical status of the individual, which eventually translate into increased risk of death. It is positive result since it provides multiple avenues for intervention, including psychological counseling, environmental manipulation and life-style changes.

15:30 - 17:00

## Quality of life as the key prerequisite of the individual's psychological health.

E. Nosenko<sup>1</sup>, I. Arshava<sup>1</sup>, V. Kornienko<sup>1</sup>, A. Baratynska<sup>1</sup>, I. Arshava<sup>1</sup>

<sup>1</sup>Dnipro National Univeristy, Ukraine

The phenomenon "quality of life", conceptualized in terms of the individual's awareness of the purpose of life and the active engagement in pursuing that purpose, is claimed to result in the satisfaction with life. This presentation shows that the individuals are likely to experience the quality of life not only if they are actively engaged in the professional activities, but also in pursuing their individual hobbies or helping the younger members of their families about the house. It is the individually satisfying engagement that is claimed to be the major prerequisite of psychological health. This presentation sums up the results of the authors' research on the representative samples of individuals, both engaged professionally, retired, but active in various walks of life, and the students, in the course of higher education acquisition. It allows to claim that feeling satisfied with oneself as the subject of the meaningful life activity is the key prerequisite of the psychological health. We tested this statement on the sample of students satisfied with their success in academic studies, on the sample of professionals, efficient in different spheres, and on the retired individuals, who characterized the perception of their life as individually satisfying.

15:30 - 17:00

## Association of healthy lifestyle factors with mental health indicators among adolescents of different family affluence

L. Maenhout<sup>1</sup>, C. Peuters<sup>1</sup>, G. Cardon<sup>1</sup>, G. Crombez<sup>1</sup>, A. DeSmet<sup>1</sup>

<sup>1</sup>Ghent University, Belgium

**Introduction:** This study investigated the healthy lifestyle behaviors, namely sufficient physical activity, daily breakfast intake, low levels of alcohol use or smoking, and sufficient sleep and mental health (feelings of depression, anxiety, stress and self-esteem) among youngsters from different family affluence. Furthermore, associations between these healthy lifestyles and mental health outcomes, and the moderating role of family affluence will be examined.

**Methods:** Adolescents aged 12-18y were recruited via a random sample of schools. A total of 1037 adolescents participated (M age=15.2, 50% female). Multiple linear regression analyses assessed the association between healthy lifestyles and mental health outcomes and the moderating role of family affluence.

**Results:** Adolescents from low-medium family affluence had lower levels of physical activity, less often took breakfast, and reported lower self-esteem than adolescents from high family affluence. All healthy lifestyle behaviors were associated with at least one mental health outcome. Healthy diet and sufficient sleep were associated with all mental health outcomes. More smoking showed an association with higher levels of feelings of depression, anxiety, and stress, whereas higher alcohol consumption was only associated with more feelings of stress. Higher levels of physical activity was associated with lower feelings of depression. The results showed no moderating effect of family affluence, except for smoking in relation to stress.

**Conclusion:** These findings support the value of integrating healthy lifestyle behaviors in interventions for mental health promotion, for both youth of low-medium and high family affluence.

## Posters

# Physical and cognitive health in older age

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Kevin McKee

15:30 - 17:00

## Pre-frail or frail status, healthy eating, and exercise behaviors among older adults in Japan

K. Yamatsu<sup>1</sup>

<sup>1</sup>Saga University, Japan

**Background:** Frailty and/or pre-frailty are identified as a major predictor of long-term care status. However, there is limited evidence that supports the relationship among healthy eating, exercise behavior, and frailty or pre-frailty status in Japan. This study aimed to clarify the relationship among healthy eating, exercise behavior, and frailty or pre-frailty status in Japanese rural elderly.

**Methods:** Participants were 651 elderly (mean age: 74.7 $\pm$ 6.8, female: 89.4%, mean body mass index [BMI]: 23.4 $\pm$  3.4) living rural area in Japan. All participants completed the questionnaires and two types of physical fitness tests (hand grip-strength and usual walking speeds). The physical fitness tests were reported to be valid by previous study (Shinkai et al., 2000). Being pre-frail or frail were evaluated in Fried's standard (2001) and were used as independent measures in multiple logistic regression analysis.

**Findings:** Of 651 subjects, 2.3% were frail and 35.8% were pre-frail. After examining multiple logistic regression analysis, being pre-frailty or frailty were associated with daily healthy eating (OR=0.91, 95% CI=0.83, 0.98) and with exercise class participation rate (OR=0.98, 95% CI=0.98, 0.99). Also, these conditions were associated with age (OR=1.05, 95% CI=1.02, 1.09).

**Discussions:** Although aging were increased being pre-frailty or frailty, daily healthy eating and exercise class adherence may reduce risk of being pre-frailty or frailty.

**Acknowledgements:** This study was supported in part by JSPS KAKENHI Grant Number JP26282188 and JP15K12723 from the Ministry of Education, Culture, Sports, Science and Technology of Japan.

15:30 - 17:00

## Relationships between cognitive function and physical function in middle-aged and older adults

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<sup>1</sup>Kyoto Women's University, Japan

<sup>2</sup>Kansai University of Welfare Sciences, Japan

<sup>3</sup>Naruto University of Education, Japan

**Background:** Physical performance decline on gait and mobility tasks has implications for accelerated cognitive decline. However, few studies examine the relationship between various functional gait or mobility and several cognitive functions. This study aimed to ascertain which performance on physical function tests are associated with indicators of cognitive functions among community-dwelling middle-aged and older adults.

**Methods:** Participants were 595 community-dwelling middle-aged and older persons without dementia. The cognitive functions were measured by means of logical memory test, D-CAT (digit cancellation test), Stroop test, verbal fluency test, and Money road test. Physical performance was assessed using the Timed Up and Go (TUG) test, 10-Meter Walk Test (10MWT), Two Step Walk, and One-leg standing.

**Results:** We constructed a series of linear regression models to examine the association of functional gait or mobility with cognitive functions. In analyses controlling for age, sex and education, lower performance in D-CAT1 (attention function) was related to lower level of balance, gait speed, and functional capacity estimated by 10MWT. In addition, lower performance in D-CAT3 and Stroop task (executive function) was related to lower level of physical functions estimated by TUG and 10MWT. **Conclusions:** The results suggest that physical performance was associated with cognitive function, especially with executive function after adjusting for age, sex, and education in middle-aged and older adults. These mobility tasks are sensitive predictors of cognitive decline in community-dwelling sample. Further research is needed to determine mechanisms and early intervention strategies to slow functional decline.

15:30 - 17:00

## Self-restraint from driving as a moderator between cognitive functions and hazard perception in older drivers

L. Šeibokaitė<sup>1</sup>, U. Grigaitė<sup>1</sup>, R. Markšaitytė<sup>1</sup>, A. Endriulaitienė<sup>1</sup>, J. Slavinskienė<sup>1</sup>

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**Background:** Commuting from place to place is one of the key elements of well-being of older population. In some countries this might be assured mainly by ridding a car him/herself. Cognitive deterioration is considered as the reason for driving withdrawal. There is a necessity to look for the measurements enabling driving of older population in the safest way. The aim of this paper is to disclose the moderation effect of self-restraint from driving in relationship between cognitive functions and hazard perception in older drivers.

**Methods:** Seventy-seven drivers older than 60 participated in correlational study. Hazard perception abilities were evaluated by static picture test. Reaction time and attention/information processing speed were measured as indicators of cognitive abilities. Self-restraint from driving was assessed by questions about driving frequency in more dangerous circumstances (during the rain, in the night, etc).

**Findings:** Hazard perception scores and cognitive abilities get lower with the higher age of participants. Better ability to notice and recognize the hazards on the roads was related to higher cognitive abilities. The self-restraint from driving had no significant relationship with hazard perception efficiency. It served as a moderator in relationship between hazard perception and attention/information processing speed. Higher self-restraint from driving weakened the relationship between attention/information processing speed and hazard perception.

**Discussion:** Age related cognitive deterioration is reflected in hazard perception that is crucial in traffic safety. Older drivers might be advised to restrain themselves from driving in dangerous circumstances when they feel some cognitive deficiency.

15:30 - 17:00

## Quick test for age-related cognitive decline detection in the health examination

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<sup>9</sup>Nagoya University, Japan

**Background:** To detect early sign of cognitive decline in community-dwelling elderly and to prepare strategies to slow down declining brain function is the important mission of local health authorities. The sign should possess a practical validity from the view-points of consuming time, scientific backgrounds and financial cost. To address the purpose, three candidates of behavioral measures, Digit cancellation test (D-CAT1 and D-CAT3) that represent mainly updating and Stroop test that represents inhibition components in the executive function, were compared.

**Methods:** From the Yakumo cohort Study database, 90 participants who participated more than 4 times for a period of 11 years and completed D-CAT1, D-CAT3 and Stroop Test. The cognitive decline slopes (linear regression coefficients) that calculated individually for 11 years (age 65 to 75) for D-CAT1, D-CAT3, and Stroop effect were compared.

**Results:** The results showed that the age-related decline slope of D-CAT1 and D-CAT3 can be classified differently from that of Stroop effect and the declining slope of D-CAT 3 was significantly steeper than that of D-CAT1. These show that the developmental trajectory of D-CAT3 is the most sensitive for age-related decline.

**Conclusions:** Findings suggest that D-CAT3 seems to be the most promising, practical and reliable sign for health authorities to checkup the developmental cognitive change in older adults and to monitor the decline beginning, to prepare programs for preserve older adult community dwellers' cognitive function.

15:30 - 17:00

## Meta-analysis of longitudinal risk factors for loneliness among older adults

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<sup>2</sup>Aging Research Centre, Karolinska Institutet & Stockholm University, Sweden

**Background:** Loneliness in older adults has adverse effects on health and well-being, and increases the risk of mortality. This meta-analysis will identify, appraise and synthesise the findings of longitudinal studies of risk factors for loneliness among older adults.

**Methods:** Literature searches occurred in June 2018 and included Web of Science, Sociology collection, Scopus and PsycINFO databases. Inclusion criteria for articles were: English language; population of older adults (M=60+ years at outcome measurement); examination of risk factors for loneliness; longitudinal research design; study conducted in an OECD country; and article published in peer-review journal.

**Expected Results:** After screening of title and abstract, full-text review was carried out by two independent reviewers on 77 articles, of which 47 were found to be relevant. Quality assessment was made of all relevant articles. Significant risk factors for loneliness included: demographic factors (e.g., age, gender, ethnicity); material resources and socio-economic position (e.g., income, education); social factors (e.g., social contacts, social support); psychological factors (e.g., mental health, well-being); physical health factors (e.g., functional ability, self-rated health); and contextual factors (e.g., institutional care).

**Current Stage of Work:** Data will be extracted for meta-analysis to determine the effect sizes for each group of risk factors on loneliness, with examination of moderating factors including time from baseline measurement to outcome.

**Discussion:** This is the first study to synthesise longitudinal studies of risk factors for loneliness in older adults. Our findings will support the development of individualised interventions to combat loneliness and its negative effects on health in later life.

15:30 - 17:00

## Children in an ageing world: Exploring views on ageing and old people in Romanian children

I.C. Craciun<sup>1</sup>

<sup>1</sup>Babes Bolyai University, Romania

**Background:** Negative ageing stereotypes originate in childhood and have detrimental effects on a person's health and longevity. However, there is mixed or little evidence concerning children's views on ageing. This qualitative study explores Romanian children's views on ageing and old people, examining age and gender differences concerning ageing representations.

**Methods:** Participants included 30 girls and 30 boys aged 11 (N=30) and 14 (N=30). First, participants were asked to draw an old person and then explain their drawings during semi-structured interviews. Both interviews and drawings were analysed with thematic coding. Emerging themes were compared between the groups of 11 and 14-year-olds as well as between girls and boys.

**Findings** revealed the predominance of negative views on ageing in both age groups, irrespective of gender. Old people were represented as ill, passive, lonely or disabled, and surprisingly as cunning, while ageing was equalled with deterioration. Grandparenting, inner peace and enjoying leisure activities featured among the positive views on ageing. In both age groups, older women were represented as more active than older men, but also as more physically disadvantaged by ageing. Compared to 11-year-olds, the 14-year-olds displayed more negative views on ageing and tended to question the relevance and role of old age within the lifecycle.

**Implications:** This study fills a gap, as existing Romanian literature on ageing does not take children's views into account. Findings add to existing literature and inform interventions that help children develop realistic views on ageing and adapt to an increasingly ageing society.

15:30 - 17:00

## Anxiety, Depression and Quality of Life in Postmenopausal Women

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**Background:** Quality of life (QoL) can be compromised by psychological and physical illnesses, (as in post-menopausal women occurs).

The aim of this study is to verify if depression, anxiety and biological factors menopausal age, years since menopause, body mass index (BMI) can be considered predictors in post-menopausal women, and to evaluate their impact on QoL.

**Methods:** 60 women (68.18±8.02 yrs) completed HAM-A, BDI-II, SF-36.

**Findings:** Path analysis was conducted to test a model with menopausal age, years since menopause BMI, psychic anxiety, somatic anxiety, depression as predictors, and QoL as outcome. Data fit the final model [ $\chi^2(59) = 86.16$ ;  $p = .01$ , CFI = .93, RMSEA = .09 (90% CI = .04 – .09)] and showed significant path from menopausal age to Physical functioning ( $\beta = -.38$ ), Pain ( $\beta = -.21$ ), Vitality ( $\beta = -.20$ ). There was a significant path from Years since Menopause to Physical functioning ( $\beta = -.47$ ), Pain ( $\beta = .24$ ), General Health ( $\beta = -.29$ ) an significant paths from Psychic Anxiety to Physical functioning ( $\beta = -.57$ ), Role limitations physical ( $\beta = -.55$ ), Pain ( $\beta = -.51$ ), Vitality ( $\beta = -.49$ ), Social functioning ( $\beta = -.49$ ), Role limitations emotions ( $\beta = -.55$ ), Emotion well-being ( $\beta = -.54$ ) and from Depression to General Health ( $\beta = -.42$ ).

**Discussion:** These results showed the role of psychic anxiety and of depression in the postmenopausal women perceived QoL, confirming psychological factors can lead to less functioning and life satisfaction, thus the early identification of predictors could improve wellbeing across lifespan.

## Posters

# Individual differences and health of young people

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Konstantin Schenkel

15:30 - 17:00

## The impact of social jetlag on mental health in young people: A systematic review

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<sup>1</sup>University of Leicester, United Kingdom

**Background:** Sleep behavior is increasingly being examined as a health behavior in adolescence, itself a transitional period associated with a number of key physiological, social and psychological changes. Sleep difficulties may adversely affect physical and mental health, particularly given the natural shift towards an evening-type sleep pattern (chronotype) seen in young people, whilst social constraints encourage early waking to accommodate school/work. This leads to a circadian misalignment between week days and weekends, known as social jetlag which may contribute to emerging psychological difficulties during adolescence. A systematic literature review was undertaken to investigate the association between social jetlag and mental health outcomes.

**Method:** Systematic searching of electronic databases (The Cochrane Library; PsycINFO; CINAHL; Scopus; and PubMed), and grey literature, in November 2018 identified seven studies examining associations between social jetlag and mental health outcomes in young people (aged 11-24 years). Quality appraisal was completed using the Appraisal Tool for Cross-Sectional Studies.

**Results:** Findings appeared equivocal, with significant associations between jetlag and depression revealed in two studies, with female participants and in high latitude regions. Quality of included studies was moderate (10-13 criteria met).

**Discussion/conclusion:** Equivocal findings may result from confounding factors in measuring social jetlag in this age group, and the due to the relative infancy of the field. Future research should address the lack of homogeneity through the development of an interdisciplinary core outcome set, and agreement on a standardised measure and calculation for social jetlag.

15:30 - 17:00

## Gender differences in perceptions about preconception care in Korean adolescents

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**Purpose:** This study explored the gender differences in the perceptions about high risk pregnancy and preventing high risk pregnancy, and gender equality related to pregnancy and childbirth among Korean male and female adolescents.

**Methods:** Cross sectional survey was done. Participants were 712 high school students. Measurements were that 5 items of high risk pregnancy / 10 items of preventing high risk pregnancy (by CDC / 5 items of gender equality on pregnancy and childbirth (by author). Gender differences were examined using independent t, Mann Whitney- U test with SPSS PC (ver. 24) package.

**Results:** 68.8% students did not hear about healthy pregnancy. 85% students expressed the necessity of healthy education. There were significant gender differences that importance for preventing high risk pregnancy (contraception use,  $p=0.004$ / maintaining body weight,  $p=0.001$ ), and confidence for preventing high risk pregnancy (abstinence until becoming adult,  $p=0.002$ / do not smoking,  $p=0.006$ / maintaining body weight,  $p<0.001$ / watch out for harmful chemical,  $p=0.002$ , maintaining mental health,  $p=0.001$ ). The lowest confidence perceptions were abstinence in male (76.12) and maintaining proper weight in female (80.11). In the perception about pregnancy and childbirth, male students appeared more conservative than female students ( $z=-5.67$ ,  $p<0.001$ ).

**Conclusions:** Mostly, they appeared lower perception scores in confidence than importance. This implies that the strategies should be established to raise confidence or efficacy of specific practice as well as knowledge transmission.

**Acknowledgement:** This study was supported by the National Research Foundation of Korea (NRF) grant funded by the Korea government (Grant No. 2018R1 A2B2001231)

15:30 - 17:00

## High sensory-processing sensitivity predicts dichotomous thinking in Japanese university students

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**Background:** Sensory-processing sensitivity (SPS) is a temperament trait, which differentiates individuals according to sensitivity and responsivity to various stimuli. High SPS has been known as a risk factor for highly depressive tendencies; though, few studies have investigated their relationship in detail. Dichotomous thinking (e.g., black or white, all or nothing) has been well known to predict negative psychological outcomes, while it helps us make a decision quickly. This study investigated the relationship between SPS and dichotomous thinking for providing the more detailed findings of the association of SPS with depressive tendency.

**Methods:** We investigated 110 Japanese university students (mean age = 20.3, SD = 3.2; 75 males and 35 females) using a cross-sectional approach. They participated in a questionnaire survey containing the followings: Highly Sensitive Person Scale (HSPS) and all the subscales of Dichotomous Thinking Inventory (DTI), i.e., “preference for dichotomy”, “dichotomous belief”, and “profit-and-loss thinking”.

**Findings:** First, the latent rank analysis categorized the participants into three groups, i.e., high- (n = 33; 32%), medium- (n = 47; 39%), and low-SPS (n = 30; 29%) groups respectively, according to the HSPS scores. Second, one-way analyses of variance showed that the high-SPS group indicated higher scores of all the subscales of DTI with moderate effect size (i.e., Cohen’s d) than those of the low-SPS group.

**Discussion:** This study suggested that higher SPS individuals tended to think dichotomously. Dichotomous thinking may help highly sensitive individuals making a decision quickly, but may increase depressive tendency levels for them.

15:30 - 17:00

## Hospital-related fears of children with epilepsy

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**Background:** Epilepsy is a common and severe neurological disease of unprovoked seizures associated with increased mortality and adverse psychological and quality-of-life outcomes. Children with epilepsy experience vulnerability, disempowerment, and discrimination. In addition to seizures, many patients often report cognitive and psychiatric problems associated with both the seizures themselves and its therapy. However, the children are particularly vulnerable to the effects of stress and fear during hospitalization. The aim of the present study was to investigate the types of fear and their intensity in hospitalized children with epilepsy

**Methods:** We have examined the fears of 36 children aged 7-12 years old ( $\bar{x}=9.8\pm 1.6$ ) from the University Hospital „St. George” (Plovdiv, Bulgaria) by a diagnostic instrument of A. I. Zakhrarov which consist of 22 items.

**Results:** The analysis of the results showed that with the highest coefficient of intensity in children with epilepsy are fear of death, followed by fear of the dark and fear of medical procedures. Moderate fears are social fears, followed by phobias of situations and fear of school. There was not observed phobias of animals. The girls identified as intense fear mostly fear of death, while the boys indicated mostly as a strong fear of being sick. In conclusion, our findings demonstrated the interest to provide individualized approaches that anticipate fear reactions in order to assist children with epilepsy to cope with sources of fears during hospitalization.

15:30 - 17:00

## Physical activity and depression in adolescence. Relationships through the dark triad of personality

J. González Hernández<sup>1</sup>, C. López-Mora<sup>2,3</sup>, A. Nogueira<sup>4</sup>, D. Garita Campos<sup>1</sup>

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<sup>4</sup>University of Leon, Spain

Although it is not entirely clear what is necessary or sufficient for a personality to be considered "dark", little is known about the specific tendencies and dispositions linked to the features of the Dark Triad (Paulhus & Williams, 2002), and how in the construction of its traits (narcissism, Machiavellianism and psychopathy) they intervene in interpretations and interactions that the sportsmen themselves experience when facing any sporting situation. The main objective of this work, focuses on pointing out how the sustained practice of physical activity is understood as a positive predictor of depression in adolescence, in the face of different typologies of that practice (competitive vs. healthy) and under the influence of dark personality traits. Following a descriptive and randomized methodology, a sample of 348 adolescents (205 boys and 143 girls) was reached who indicated to regular physical activity, and to whom measures of dark personality and depression were administered. The results suggest that competitively oriented physical activity (e.g., being federated) offers significantly more tendency toward depression than healthy orientation (e.g., going to the gym). At the same time, it is reflected that practicing any sports orientation leads to depression under the moderating influence of dark personality traits, mainly when high indicators of narcissism and psychopathy appear. Such results offer relevant information allowing us to understand that, although maintaining an active lifestyle is protective of adolescent depression, practicing sports under the pressure of results and the fear of not being able to reach them, could construct profiles with greater psychological vulnerability.

15:30 - 17:00

## The interplay among competitiveness, gaming perfectionism, and norm on IGD among Chinese middle school students

S. Yu<sup>1</sup>, A.M. Wu<sup>1</sup>, M.X. Zhang<sup>1</sup>

<sup>1</sup>University of Macau, China

**Background:** High prevalence of Internet Gaming Disorder (IGD) among Chinese students was reported. In previous studies, competitiveness trait was found to be positively correlated with behavioral addictions, yet the mechanism underneath such relationship remained unclear. This study tested the direct and indirect effect of competitiveness through a gaming specific cognition (i.e., gaming perfectionism) on IGD, and whether norm played a role in such mechanism in gender specific context.

**Methods:** Data were collected from five public middle schools in Beijing, China. Students with Internet gaming experience (N=640; Mage=13.45) completed an anonymous questionnaire survey. IGD was measured by the modified Young's Internet Addiction Test for Internet gaming. Correlation analysis was used. The moderated mediation model was tested with bootstrapping approach.

**Findings:** As hypothesized, competitiveness trait, gaming perfectionism, and norm were positively correlated with IGD ( $r_s=.12$  to  $.67$ ,  $p_s<.01$ ). Bootstrapping results showed that for females, the effect of competitiveness on IGD was partially mediated by gaming perfectionism, and its effect on gaming perfectionism was strengthened by norm. For males, gaming perfectionism fully mediated the effect of competitiveness on IGD, and norm did not have a moderating effect as among their female counterparts ( $p>.05$ ).

**Discussion:** Competitiveness trait contributed to IGD through gaming perfectionism. For females, having frequent game playing parents and peers added to their gaming specific maladaptive cognitions. Meanwhile, it seemed that the development of such cognitions was not related to peers and parents for males. Gender specific school-based intervention programs aiming at modifying maladaptive cognitions (i.e., gaming perfectionism) may be developed.

15:30 - 17:00

## Time perspective and mental health: how individual profiles are related to anxiety, depression and coping?

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<sup>2</sup>Centre des Maladies Mentales et de l'Encéphale (CMME), Centre Hospitalier Sainte-Anne, France

**Background:** Time perspective (TP) can be described as an individual's attitude toward personal past, present and future. TP plays a role in several areas of psychological functioning and impacts actual thoughts and behaviors, suggesting that it could influence adaptive behavior and mental health such as anxiety and depression. However, it has been seldom studied in mental health, and most studies do not focus on person-centered analysis, which are essential to identify individual temporal profiles.

**Methods:** 311 participants were recruited online and were asked to answer time perspective (ZTPI), depression (BDI-13), anxiety (STAI) and coping (CISS) self-reported inventories. Cluster analysis were conducted.

**Findings:** cluster analysis allowed us to identify 3 meaningful individual profiles: individual with balanced TP, individual with present-focused TP, and individual with negative TP. Those with negative TP have higher depression and anxiety scores and emotional-focused coping (such as deny and blame), and those with balanced TP have lower depression and anxiety and higher task-focused coping (such as planification).

**Discussion:** these results suggest that a specific TP could be considered as a vulnerability for anxiety and depression, and could help explaining individual difference regarding coping strategies. This encourages further studies on the role of TP in mental health and adaptive behaviors.

**Key words:** time perspective, depression, anxiety, coping, person-centered analysis

## Posters

# Coping and emotion regulation

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Cristina Camilo

15:30 - 17:00

## Connection between the EEG fluctuations and HRV in healthy and heart transplanted individuals

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**Background:** Previous research indicates a connection between heart rate variability (HRV) and electroencephalogram (EEG) during sleep. There are periodic activities in the EEG with the frequency range corresponding to the low frequency (LF) component (0.04-0.15 Hz) of HRV. However, no research has been conducted to reveal the potential connection between LF fluctuation and the periodic EEG activities.

**Methods:** Non-rapid-eye movement (NREM) and rapid-eye-movement (REM) sleep phases of 67 healthy and 28 heart transplanted individuals were analyzed. Signal processing and connectivity methods were applied to the standard frequency bands of the EEGs and the RR-series extracted from the ECG records.

**Findings:** Analyses revealed increased connections between NREM sleep delta/beta and infraslow RR-fluctuations in healthy individuals compared to heart transplanted patients. REM sleep beta, but not delta amplitudes were shown to cohere and phase-couple with infraslow RR-fluctuations. Heart-transplanted patients showed reduced EEG-ECG connectivity, partly depending on the time interval between transplantation and sleep-laboratory testing.

**Discussion:** The reduced but still detectable connection between heart and brain in heart transplanted patients may indicate a functional neural or humoral link between heart and brain that will need further investigation and may lead to improved functioning.

15:30 - 17:00

## You're always in my thoughts: Cardiovascular stress-buffering effects of thinking about social relationships when alone

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**Background:** According to Social Baseline Theory, the brain assumes social resources are available to help meet life's challenges. The absence of social contact elicits cardiovascular stress responses that contribute to long-term disease risk. Previous work suggests that supportive social relationships may help individuals cope with time spent in solitude (without social contact), but the underlying mechanisms and cardiovascular correlates are unclear. This research examines when and for whom thinking about social relationships reduces older adults' stress responses to solitude.

**Methods:** Ninety participants aged 65+ are each subjected to 15 minutes of solitude (alone with their thoughts) and 15 minutes of social interaction ("fast friends" procedure), while collecting electrocardiography, impedance cardiography, electrodermal, and thought probe measures. Participants receive one of three solitude instructions: "think about people you feel close to", "think about people you feel isolated from", or no thought prompt. Structural equation models test whether thought contents mediate the relationship between social relationship quality (Ryff Scale) and cardiovascular stress responses to solitude.

**Expected results:** Participants with higher-quality social relationships may show less-pronounced stress responses to solitude, and un-prompted thinking about close relationships may partially mediate this effect. Moreover, prompting thoughts of social closeness [isolation] may reduce [increase] stress responses to solitude.

**Current stage:** Data collection and preliminary analyses are underway.

**Discussion:** This study will provide insight into how individuals maintain feelings of social connection (or social isolation) when in solitude. We examine potential implications for cardiovascular health in older adulthood – a phase of life when solitude is particularly common.

15:30 - 17:00

## Psychological assessment and treatment expectations in cancer patients admitted for their first chemotherapy treatment

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<sup>2</sup>Psychologist, Bank of Cyprus Oncology Centre, Cyprus

**Background:** The present study aims to examine psychological adaptation of patients entering the Bank of Cyprus Oncology Centre's (BOCOC) wards as inpatients for their first chemotherapy treatment.

**Methods:** A total of 121 cancer patients were recruited in this cross-sectional study. Socio-demographic data and medical information was obtained from patients' medical records. Levels of distress, physical functioning and illness perceptions were assessed using the following questionnaires: Hospital Anxiety and Depression Scale, Functional Assessment of Cancer Therapy, Brief Illness Perceptions Questionnaire. Questions regarding patients' treatment expectations were also included. A mediation analysis was conducted using the PROCESS tool, to examine whether illness perceptions statistically mediate the relation between physical and psychological well-being.

**Findings:** The majority of participants were males (73%) and the average age was 58 years. The most common diagnoses were lung and gastrointestinal cancers. Thirty-eight percent of the participants reported above the normal range for anxiety, and 27% above the normal range for depression. Expectations of treatment were positive and significantly correlated to the sub-scale of treatment expectations of the Brief IPQ. Greater physical dysfunction was associated with more negative illness perceptions and poorer mental health. As expected, the mediation analysis showed a significant indirect effect of physical dysfunction on psychological distress through illness representations,  $b = .24$ , BCa CI [.14, .37].

**Conclusions:** An early psychosocial assessment during the initial admission of cancer patients is important to optimize patients' and caregivers' well-being. Perceptions of illness and treatment are also vital in the initial assessment and should be included.

15:30 - 17:00

## Temperamental factors determining flexible coping with stress in adolescents

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**Background:** Temperament is reflected in the way of the individual's responding to life events. The purpose of the study was to assess, firstly, the role of temperamental traits in adolescents' coping flexibility and its dimensions: repertoire, coping competencies, reflexivity, and secondly, relationships of their coping flexibility with demographic and psychosocial characteristics.

**Methods:** Participants in the study were 368 adolescents (131 boys and 236 girls) aged 15 to 20. The average age in the study group was 17.2 (SD = 1.90) years. Girls were somewhat older than boys, their mean ages were, respectively: 17.61 (SD 1.89), and 16.67 (SD = 1.77), ( $t = 4.63$ ;  $p < 0.001$ ).

The following methods were used: the Coping Flexibility Questionnaire for Adolescents (KERS-14A) by Basińska et al., the Pavlovian Temperament Survey (PTS) by Strelau and Zawadzki, and a demographic-psychosocial questionnaire.

**Findings:** Temperament was found to be a statistically significant predictor of coping flexibility and its dimensions, explaining 12% of the variance in coping flexibility, and respectively: 6% of the strategies repertoire, 20% of the variance in perceived coping competencies, and 7% in reflexivity. The research findings show that the strength of excitation and the strength of inhibition processes were predictors of coping flexibility. Adolescents characterized by greater strength of both these processes turned out to flexibly deal with stress more often.

**Discussion:** Temperamental characteristics determine adolescents' flexibility in coping with stress. Coping flexibility depends also on their self-assessed socioeconomic status and health.

15:30 - 17:00

## The relationship between perceived stress and emotional eating: the role of emotion focused coping

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Emotional eating has long been considered as one of the antecedents of certain eating disorders such as Binge Eating Disorder and Night Eating Syndrome. Considering the background, the current study sought to examine the mediator role of emotion focused coping in the relationship between perceived stress and emotional eating. To this end, a total number of 461 female university students, ranging in age from 18 to 21, were recruited in the study. For data collection, Perceived Stress Scale (PSS), Coping Styles Inventory (CSI), Three Factor Eating Questionnaire (TFEQ - R21) were administered in both written and online formats. The methodological approach taken in this study was a quantitative methodology based on simple mediation analysis using bootstrapping sampling method. The findings of the study indicated that perceived stress exerts a direct effect on emotional eating. Besides, in terms of the indirect effect, the simple mediation analysis provided compelling evidence for the mediator role of emotion focused coping ( $B = .05$ ,  $SE = .02$ ,  $95\% \text{ CI} = .0341; .1900$ ) in the relationship between perceived stress and emotional eating. These findings contribute to literature on the importance of teaching effective coping strategies and nutrition education in terms of health education programs. The findings also suggest that psychologists as well as practitioners working with emotional eaters should pay regard to individuals' perceived stress and coping skills when designing interventions.

Keywords: emotional eating, perceived stress, emotion focused coping.

15:30 - 17:00

## Predictive role of personal resources for flexibility in coping with stress in alcohol use disorder

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**Background.** Alcohol dependent persons perceive themselves as ineffective in terms of coping with stress. Therefore, it is important for the therapy process to diagnose both the way they use coping strategies and the extent of personal resources that can be a point of support for abstinence. One of the conditions for effective coping is its flexibility, which consists of selecting and changing strategies to adequately address the situation. Flexible people are able to adapt their behavior to the signals sent by the environment, as well as reflect on their usefulness. This attitude is conducive to building health-psychological and somatic.

**Methods:** The study included 115 alcohol dependent persons (79 men, 36 women). Tools used in the study: the Flexibility of Coping with Stress Questionnaire, Spiritual Index of Well-Being, Adult Hope Scale and Resiliency Scale.

**Results:** Hope, spiritual well-being and resilience were strongly associated with flexibility in coping with stress. Hope made it possible to predict the intensity of flexibility in coping with stress in 36% (Adj.  $R^2=0.359$ ;  $F(12,98)=6.041$ ;  $p<0.001$ ). The model taking into account the resource subscales was also significant and allowed to predict the variance of flexibility in coping in 42% (Adj.  $R^2=0.425$ ;  $F=(12.98)=6,041$ ;  $p<0.001$ ). The more intense predictors were self-efficacy and the pathways.

**Limitations:** Male over-representation is a limitation of this study.

**Conclusions:** The results suggest that personal resources facilitate flexibility in coping in a group of alcohol dependent persons. It seems important to base psychological interventions on the development of personal resources and coping strategies in this group.

## Posters

# Psychosocial predictors and correlates of chronic pain adjustment

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

María-Ángeles Pastor-Mira

15:30 - 17:00

## Associations between clinical variables and psychological symptoms in rheumatoid arthritis: a network science perspective

H.Y. Tung<sup>1</sup>, S. Norton<sup>1</sup>, J. Galloway<sup>2</sup>, F. Matcham<sup>1</sup>, M. Hotopf<sup>1</sup>

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**Background:** This study tests the feasibility of a network analysis approach to examine associations between clinical variables and mental health symptoms in rheumatoid arthritis (RA).

**Methods:** Over 1000 patients completed patient reported outcomes. A subsample of 211 was extracted where psychological screening (using two-item versions of the Patient Health Questionnaire (PHQ2) and the Generalised Anxiety Disorder scale (GAD2)) and inflammatory markers were recorded concurrently (<14days). Inflammatory markers, joint counts, pain, fatigue, and global disease activity were also recorded. Network analysis was conducted based on regularised correlations between variables.

**Results:** The network highlights pain and PHQ2 (low mood) as having the highest degree (3.9 & 3.8) and betweenness centrality (22 & 10), indicating that they have the highest number of connections and provide the shortest pathway between symptoms, therefore act as key variables linking inflammation and mental health. Pain and global disease activity had the highest closeness centrality (0.033 & 0.032), illustrating that they have the shortest path with other symptoms, and capture the influence of both inflammation and mental health. Tender and swollen joints have weak connections with mental health variables, suggesting that extra-articular aspects of pain may be important.

**Conclusions:** Inflammation in RA does not have a strong influence on mental health, but pain appears to be the biggest influencing factor. Symptoms of mental health were all strongly connected, but low mood provides the main connection between clinical and psychological variables. This indicates mood as potentially a key variable, which is easy to monitor in routine care.

15:30 - 17:00

## Understanding Vulvodynia: a systematic review of psychosocial factors associated with pain and sexual function

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<sup>1</sup>King's College London, United Kingdom

<sup>2</sup>Uppsala University, Sweden

**Background:** Vulvodynia is a prevalent and severe vulvar pain condition affecting 10-28% of women, and significantly impacting their health and quality of life. Vulvodynia is currently poorly understood and biomedical treatments achieve modest reductions in pain and improved sexual function, suggesting a wider biopsychosocial conceptualization of this condition may be helpful. There is currently no coherent understanding of how psychosocial factors may interact with relevant disease-variables in Vulvodynia.

**Aim:** To identify and systematically review psychosocial factors associated with pain and sexual function and present a preliminary biopsychosocial model of Vulvodynia. To evaluate differences across Vulvodynia subtypes.

**Methods:** Observational/experimental studies reporting on the association between psychosocial factors and pain or sexual function variables in adult samples of women with Vulvodynia were eligible. Two reviewers independently conducted eligibility screening, data extraction, and quality assessment. 36 studies were included.

**Expected results:** It is expected that certain psychosocial factors play a role in pain and sexual function in this population and that summarising these in a preliminary biopsychosocial model of Vulvodynia will help inform future research and intervention development in this area.

**Stage of current work:** data extraction.

**Discussion:** Despite its prevalence and being the most common cause of dyspareunia, Vulvodynia represents an under-researched and poorly managed condition. This review will be the first to provide an overview of this population that acknowledges the interface of mental and physical health. Importantly, it will unravel psychosocial factors that are potentially modifiable and incorporate these into a model to guide future interventions for this condition.

15:30 - 17:00

## Psychosocial factors associated with pain in inflammatory bowel disease: a cross-sectional study

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<sup>1</sup>King's College London, United Kingdom

**Background:** Pain is frequently reported by patients with inflammatory bowel disease (IBD). Pain in IBD is not sufficiently explained by disease activity or other clinical findings, and a recent systematic review suggested that psychosocial factors have an important role in IBD-pain. The aim of this cross-sectional study was to investigate psychosocial factors associated with pain severity and pain-related interference in IBD.

**Methods:** 297 adults (>16 years) with IBD were recruited from outpatient clinics (n=114) and online (n=183). Participants completed standardised questionnaires assessing pain and potential emotional, cognitive and behavioural correlates. Socio-demographic and clinical factors including disease activity were also recorded.

**Findings:** 243 (81.8%) participants reported pain. Of these 243, the mean age was 36 years; 153 (63%) had Crohn's disease (CD), 90 (37%) had ulcerative colitis (UC), and 165 (67.9%) were female. 40.3% of participants met the criteria for chronic pain and 18.5% reported opioid use. Psychosocial factors associated with pain-related interference included depression ( $r = .507$ ), catastrophising ( $r = .506$ ), fear avoidance ( $r = .415$ ) and lower self-efficacy ( $r = .592$ ) and psychological well-being ( $r = .391$ ). Regression models explained 44.7% of the variance in pain severity and 48.6% of pain interference, with psychosocial factors explaining 9.7% and 23.5% respectively when controlling for demographic and clinical variables.

**Discussion:** Pain in IBD is significantly associated with cognitive and behavioural factors as well as negative mood. This study widens a biopsychosocial understanding of pain in IBD and identifies important areas for treatment targets in future interventions.

15:30 - 17:00

## Lower resilience was associated with self-reported chronic pain symptoms in representative sample of Czech adults.

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<sup>5</sup>University of Pavol Jozef Safarik in Košice, Slovakia

**Background:** Resilience as the ability to bounce back or recover from stress could be related to health related outcomes. The aim of this study was to assess the associations between resilience and self-reported chronic pain (including arthritis, back pain, migraine, pelvic pain and pain of unclear origin), and to investigate whether lower resilience affects odds of reporting chronic pain as well as reporting multiplex pain (2 or 3+ pain symptoms).

**Methods:** Using a cross-sectional data from representative sample of Czech adults (N=1800) the association of self-reported chronic pain with resilience (the Brief Resilience Scale) was analysed by multinomial logistic regression model, adjusted for gender and age, with respondents without pain as a reference category.

**Findings:** Respondents reporting higher resilience have lower chance to report one or more pain syndromes: One standard deviation increase in resilience was associated with 17% decrease in the odds of one pain symptom, with 33% decrease in the odds of two pain symptoms, and with 43% decrease of 3 and more symptoms.

**Discussion:** There is a significant association between lower resilience and reporting chronic pain, namely multiplex pain. The pain experience is considered as a stressor and resilience can be viewed as a source contributing to adaptive coping with chronic pain. Programs for fostering resilience in patients with chronic pain could be helpful in their treatment. However, lower resilience may also contribute to the genesis of chronic pain. The association between resilience, childhood trauma and insecure attachment will be addressed as another research topic.

15:30 - 17:00

## Physical activity profiles related to achievement goals in women with fibromyalgia

F. Martínez-Zaragoza<sup>1</sup>, E. León-Zarceño<sup>1</sup>, S. López-Roig<sup>1</sup>, A. Lledó<sup>1</sup>, C. Peñacoba<sup>2</sup>, M. Pastor-Mira<sup>1</sup>

<sup>1</sup>University Miguel Hernández, Spain

<sup>2</sup>University Rey Juan Carlos, Spain

**Background:** Fibromyalgia is characterized by generalized and diffuse chronic musculoskeletal pain accompanied by other symptoms. The objective of this study is to explore the preference of achievement goals related to physical exercise versus pain avoidance goals, and to determine if there is a profile of women with fibromyalgia who prefer achievement goals related to physical exercise.

**Methods:** Participants were 260 women with a diagnosis of fibromyalgia. A descriptive correlational design was used. We took measures of goal preferences, activity patterns, and pain. The data were analyzed by tests of differences between means.

**Findings:** Women with fibromyalgia prefer goals to avoid pain against goals related to physical exercise ( $M = 4.02$ ,  $SD = 1.47$ , range 1-6). There are relationships between a high preference to avoid pain with activity patterns of avoidance (both to avoid pain ( $r = .39$ ;  $p < .000$ ), avoid activity ( $r = .27$ ;  $p < .000$ ) and to regulate the activity to increase it ( $r = .28$ ;  $p < .000$ ) and to conserve energy ( $r = .31$ ;  $p < .000$ )). There were also relationships between preference of goals to avoid pain with patterns related to less persistence, both contingent to the task ( $r = -.35$ ;  $p < .000$ ) as with excessive persistence ( $r = -.24$ ;  $p < .000$ ).

**Discussion:** The data found indicate that there is no profile of women with fibromyalgia for preferring some goals, which is in accordance with the importance of situational variables. However, young women seem to show a more achievement-oriented profile.

15:30 - 17:00

## Preference for pain avoidance goals, positive affect, activity patterns, and fibromyalgia impact

M. Pastor-Mira<sup>1</sup>, S. López-Roig<sup>1</sup>, F. Martínez-Zaragoza<sup>1</sup>, E. León-Zarceño<sup>1</sup>, A. Lledó<sup>1</sup>, C. Peñacoba<sup>2</sup>

<sup>1</sup>University Miguel Hernández, Spain

<sup>2</sup>University Rey Juan Carlos, Spain

**Background:** Some motivational models understand health behaviour as a result of the interaction between goals preferences and mood. However, this perspective has not been explored in fibromyalgia. Furthermore, in chronic pain, it has only been explored concerning negative affect. Thus, our aim was to explore the relationships between goal preferences and health outcomes, testing the moderator role of affect and the mediating role of chronic pain activity patterns.

**Methods:** 260 women participated in a cross-sectional study. We took measures of pain avoidance and mood management goals, pain catastrophizing, positive and negative affect, self-reported activity patterns, pain intensity, and disability and fibromyalgia impact. Path analyses were performed.

**Findings:** Robust RMSEA fit index of the final models ranged from 0.039 for pain to 0.000 for disability and fibromyalgia impact. Pain avoidance goals and negative affect had an effect on pain mediated by task persistence. Both variables had an effect on disability mediated by task and excessive persistence. Pain avoidance goals and positive affect had an effect on fibromyalgia impact mediated by activity avoidance and also a direct effect of negative and positive affect. Preferences for pain avoidance goals were always related to health outcomes through activity patterns. Mood did not moderate these relationships and showed direct and indirect effects on health outcomes, mainly by increasing persistence.

**Discussion:** Intervention targets should include reinforcing achievement goals vs pain avoidance and positive affect to promote adaptive persistent activity patterns.

## Posters

# Eating and activity behaviours: Interventions to address childhood obesity

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Ryan Rhodes

15:30 - 17:00

## Parental Support of the Canadian 24-Hour Movement Guidelines for Children and Youth: Prevalence and Correlates

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<sup>7</sup>ParticipACTION, Canada

**Background:** Parental support is critical to help children achieve positive health behavior patterns. The purpose of this study was to explore the prevalence of parental support for meeting the Canadian 24-Hour Movement Guidelines for Children and Youth, identify key interactive support profiles among the four movement behaviors, and investigate subsequent sociodemographic and social cognitive correlates of these profiles.

**Methods:** A representative sample of Canadian parents (N = 1,208) with children aged 5 to 17 years completed measures of the theory of planned behavior (TPB), and support of the four child movement behaviors.

**Results:** Sleep behavior had the highest parental support (73%) and moderate to vigorous physical activity support had the lowest prevalence (23%). Interactive profiles of the four movement behaviors yielded six primary clusters and comprised wide variation from parents who supported none of these behaviors (19%), to parents who supported all four behaviors (14%). These profiles could be distinguished by the age of the child (younger children had higher support) and the gender of the parent (mothers provided more support), as well as constructs of the TPB, but TPB cognitions were more accurate as specific predictors of each health behavior rather than general predictors of aggregate health behavior clusters.

**Conclusions:** Teenagers and fathers may represent key targets for parental support intervention of the 24-Hour Movement Guidelines. Intervention content may need to comprise the underlying foundations of attitude and perceived behavioral control to change parental support while considering the unique features of each health behavior to maximize related intervention effectiveness.

15:30 - 17:00

## Can food-specific inhibition training make energy-dense snacks less appealing to children?

L. Porter<sup>1</sup>, K. Wright<sup>1</sup>, N. Lawrence<sup>1</sup>

<sup>1</sup>University of Exeter, United Kingdom

**Background:** Children consume too much sugar. Food-specific inhibition training (FSIT) requires users to inhibit responses to energy-dense foods within a reaction-time computer game. FSIT reduces choice, consumption and liking of inhibited foods among adults. Similar findings have been observed on children's choices/consumption, but changes in liking have not been investigated. This study aimed to test whether FSIT devalues inhibited foods among children. A FSIT app was also piloted.

**Methods:** In a mixed design, 180 children were randomised to computer-FSIT, app-FSIT or a non-food control task. At baseline, children's food choices (hypothetical food choice task – choose six food images out of a possible twelve) and food liking (visual analogue scale rating twelve food images from “Not at all yummy” [0] to “Very Yummy” [100]) were recorded. One week later, children completed their allocated training, followed by post-training measures of hypothetical food choice and food liking. Children were offered a range of healthy and energy-dense snacks as a participation reward, with their choice (healthy vs. energy-dense) serving as an objective behavioural outcome.

**Results:** Data collection is ongoing (expected completion February 2019). Changes in hypothetical food choice and food liking will be analysed with ANCOVAs. Real food choices will be analysed with binary logistic regression. It is expected that FSIT will decrease choice and liking of energy-dense foods compared to controls.

**Discussion:** These results will contribute to wider literature on FSIT as a healthy eating tool for children, as well as providing a first investigation of FSIT mechanisms in child samples.

15:30 - 17:00

## The association of selected risk factors with overweight among adolescents

D. Husarova<sup>1</sup>, S. Stranavska<sup>2</sup>, J. Michal<sup>2</sup>, K. Görner<sup>2</sup>, J. Kopcakova<sup>3</sup>

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<sup>3</sup>P J Safarik University, Kosice, Slovakia, Slovakia

**Background:** Overweight and obesity is increasing problem worldwide, especially among adolescents. The evidence indicates several factors associated with overweight, including insufficient physical inactivity, sedentary behaviour or nutrition. Therefore, the aim of this study is to examine the association of selected risk factors (unhealthy diet habits, length of sleep, inactivity) with overweight among adolescents.

**Methods:** The sample consisted 888 Slovak adolescents aged from 11 to 15 years old (mean age 12.97; SD 1.20; 56.0 % boys) who participated in physical fitness measurement within the Health Behaviour in School-aged Children study conducted in 2018. We used logistic regression models stratified by gender and adjusted for age to examine the associations of unhealthy diet habits, length of sleep and inactivity with overweight assessed by body fat percentage.

**Findings:** Results showed that frequent consumption of soft drinks (boys: OR/CI: 2.02/1.46-2.80; girls: OR/CI: 1.67/1.15-2.43), irregular breakfast during weekdays (boys: OR/CI: 1.60/1.16-2.22; girls: OR/CI: 1.70/1.16-2.47), engagement in other than sport activities (boys: OR/CI: 2.37/1.61-3.50; girls: OR/CI: 2.25/1.45-3.49) or no activities (boys: OR/CI: 2.69/1.82-3.99; girls: OR/CI: 2.26/1.45-3.53), and low (boys: OR/CI: 3.80/2.31-6.25; girls: OR/CI: 4.10/2.22-7.54) or medium level of cardiorespiratory fitness (boys: OR/CI: 2.28/1.45-3.59; girls: OR/CI: 2.62/1.47-4.67) is associated with overweight among adolescents. On the other hand, quantity of sleep is not associated with overweight among boys and girls, respectively.

**Discussion:** Improvement of dietary habits as well as engagement in sport leisure time activities might be helpful in prevention of overweight among adolescents.

15:30 - 17:00

## Lack of sleep mediates association between energy drinks consumption and emotional and behavioural problems

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**Background:** Previous research confirmed association between energy drinks consumption a negative behavioural outcomes. In addition to this, energy drinks consumption was found to be associated with insufficient amount of sleep reported by adolescents. However, it remains unclear whether energy drinks consumption is associated also with emotional problems and what role might amount of sleep play on the association between energy drinks consumption and emotional and behavioural problems. The aim was to explore whether energy drinks consumption is associated with emotional and behavioural problems and whether this association might be mediated by amount of sleep among adolescents.

**Methods:** We used data from the Health Behaviour in School-aged Children study conducted in 2018 in Slovakia, comprising 8,405 adolescents aged from 11 to 15 (mean age 13.43; 50.9% boys). Linear regression models adjusted for age and gender were used to assess associations between energy drinks consumption, amount of sleep and emotional and behavioural problems measured by Strengths and Difficulties Questionnaire. Sobel test was used to explore amount of sleep as a potential mediator on the association between energy drinks consumption and emotional and behavioural problems.

**Findings:** Energy drinks consumption was significantly associated with emotional and behavioural problems ( $p < 0.001$ ) with higher consumption of energy drinks leading to more emotional and behavioural problems. This association was found to be mediated by amount of sleep among adolescents ( $p < 0.001$ ).

**Discussion:** Energy drink consumption regulations seem to be of high importance as their consumption during adolescence influence amount of sleep and might lead to emotional and behavioural problems.

15:30 - 17:00

## Parental strategies for weight loss in overweight children

H. Arriscado<sup>1</sup>, A. Trovisqueira<sup>1</sup>, V. Araujo Soares<sup>2</sup>, F. Sniehotta<sup>2</sup>, S. Gonçalves<sup>1</sup>

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<sup>2</sup>Newcastle University, United Kingdom

**Background:** The prevalence of overweight in Portuguese children remains high (30,7%). Parents play a critical role in their children diet and physical activity (PA). However, little is known about the strategies used by parents/caregivers to help overweight children lose weight and their perception of success. The aim of this study was to assess parental strategies for their child weight loss and perceptions of success.

**Methods:** Cross-sectional study included 688 parents of children attending 1st and 2nd cycle schools (aged 6 to 12 years). Participants completed a self-report measure – the Portuguese version of the NoHow Weight Management Survey adapted to overweight children's parents/caregivers. 1253 questionnaires were sent to parents via the school setting and 688 delivered (response rate 54.9%) – 30 were invalid.

**Findings:** Of 658 parents, 66 reported overweight problems in their children. Of those, 85.1% were trying to make their children lose weight. Strategies used to target diet were: consuming more fruit and vegetables (75.6%), set goals for calorie restriction (73.3%), drinking more water (68.1%), reducing sugary drinks (62.3%), counting calories (20%). Strategies used to increase PA were : providing daily opportunities for PA (75%); decrease sedentary behaviours (e.g screen time; 73.2%). Only 18.7% consider their efforts to support their child weight loss successful.

**Discussion** Results seem to indicate that parents could benefit from extra support. Helping ones child to lose weight can be a complex task and the vast majority of parents feel their efforts are unsuccessful.

**Key-words:** children; overweight; parent weight loss strategies;

15:30 - 17:00

## Prerequisites for participation in health promotion programmes: Lessons learned from the Dutch FAMILY project

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<sup>2</sup>GGD Amsterdam, Netherlands

**Background:** The Dutch FAMILY project aims to support Creole-Surinamese and West-African families in the prevention of childhood obesity. The needs assessment showed that many parents have more urgent issues than healthy lifestyle; stress and the feeling of not having 'grip' on life and parenting issues are matters which overshadow the urgency of healthy lifestyle. Eight parents were trained in aspects of health and well-being as well as communication. With these skills, the parents gave interviews on Surinamese, Ghanaian and Nigerian local radio stations and attended a session at the local parenting services to give feedback on the service' image and accessibility.

**Methods:** The intervention development was supported by a researcher performing Developmental Evaluation (DE). DE is a utilization-focused type of evaluation, and its main goal is to provide real time support to intervention development and/or implementation, particularly in social contexts that are dynamic, complex and unpredictable. This was a perfect for the evaluation of the participatory intervention development at hand. The project team extensively reflected on the participation of various stakeholders.

**Findings:** In reflection meetings within the team the following prerequisites for participation were identified and further elaborated on: 1) building personal relationship, 2) communication, 3) responsibility and ownership, 4) diversity sensitivity, and 5) sustainability.

**Discussion:** This intervention sought to be community-based and had a bottom-up approach. The agendas of the various stakeholders were leading. To ensure participation and commitment, intervention developers and researchers need to consider how to give substance to these prerequisites throughout the project, while balancing agendas.

15:30 - 17:00

## Collaboration with health professionals as a principle to promote group intervention with teenagers

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<sup>4</sup>Faculdade de Psicologia e Ciências da Educação do Porto - UP, Portugal

**Background:** The objective of this research is to explain the process of construction of an intervention developed with health professionals and teenagers about sexual and reproductive health. We focus on the moments that precede the intervention, elucidating the collaboration of those involved in proposing the intervention itself, something still little explored in the literature.

**Methods:** The participants in this research were four community agents, a psychologist, a nurse, a social worker and two physicians. All the stages were held in a Family Health Unit in a city in the state of São Paulo, Brazil. The data collection procedure happened through records in field notes and full audio transcription interviews. From a methodological design of collaborative research-action, we went through seven stages for its development. The analysis procedure was the reading of the field notes and the creation of the steps to construct the intervention, based on the Collaborative Practices.

**Findings:** There were five important steps in the collaborative construction of the intervention, identified in our analysis: 1) Daily life: knowing the health unit; 2) Construction: articulating networks and knowledge; 3) Waltz: inviting teenagers; 4) Face to face: interviewing teenagers; 5) Simply put: co-building the intervention. These steps happened in anticipation to the group intervention that ultimately took place following the gathering of these results.

**Discussion:** Describing the process of collaborative construction of a group intervention can point to two ethical issues: The inclusion of the participants and the methodological explanation of the research itself. (FAPESP, processos nº 2016/25882-4; 2018/16490-0)

## Posters

# Structures and practices related to quality of life

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Zsuzsanna Szabolcs

15:30 - 17:00

## Meaningful activity as a preventive strategy for mental health problem

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**Background:** Japan is experiencing a high suicide rate, as well as worksite, community, and school absenteeism due to stress. Thus, prevention certainly plays an important role in mitigating these hazardous outcomes of stress. The purpose of this study is to examine the effects of “meaningful activity (MA)” for Japanese individuals in promoting positive mental health. MA refers to an activity that gives a feeling of satisfaction and a sense of fulfillment. Because MA is an affirmative subjective experience, the content varies among individuals.

**Methods:** A standard test battery in relation to MA was adopted to examine the effect on mental and physical health for 130 men and women aged 20 and older. The test battery consists of the contents of MA which each participant usually performed, the Japanese version of Engagement in Meaningful Activities Survey (EMAS) (Eakman, 2012), Mental Health Survey, and Subjective Health Status.

**Findings:** A step-wise multiple regression analysis showed that EMAS score and stress degree significantly predicted mental health improvement after having carried out MA. Regarding physical health after having carried out MA, multiple regression analysis revealed that an EMAS score, healthy awareness and the activity time of MA per week significantly improved physical health.

**Discussion:** Results showed that the effects on mental and physical health were reinforced by a variety of feelings after individuals have performed MA. If each one has own MA and is able to improve QOL and feel happiness by carrying it out, it can be means of mental health prevention.

15:30 - 17:00

## Psychological correlates of regular aikido practice: mindfulness, self-compassion, spirituality, body-awareness, and well-being

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**Background:** Aikido is a philosophy and a Japanese art of self-defence, which is claimed to have several beneficial effects on mind and body. The objective of the current work was to describe the associations between regular aikido practice and five characteristics, i.e. body awareness, mindfulness, spirituality, self-compassion, and subjective well-being.

**Methods:** In a quantitative cross-sectional questionnaire study, adult practitioners of aikido (n=144), judo (n=78), yoga (n=89), and ballroom dance (n=92), and a control group (n=99) completed a survey consisting of Mindful Attention Awareness Scale, Self-Compassion Scale, Body Awareness Questionnaire, Spiritual Connection Questionnaire, and WHO-5 Well-being Scale. Univariate analyses of variance (ANOVA) were used to compare groups (controlled for gender, age, education, and weekly hours spent with the respective physical activity), and Spearman correlation to estimate associations within the aikido group.

**Findings:** ANOVA indicated no differences among groups with respect to mindfulness ( $F(4,474)=1.384$ ,  $p=0.238$ ) and subjective well-being ( $F(4,475)=1.238$ ,  $p=0.294$ ). All four sport groups scored higher in body awareness than controls ( $F(4,467)=3.542$ ,  $p=0.007$ ). The aikido group scored lower in spirituality than the yoga group, but higher than the other groups ( $F(4,463)=23.373$ ,  $p<0.001$ ). Aikido group was lower in self-compassion than yoga group and did not differ from the other groups ( $F(4,475)=6.737$ ,  $p<0.001$ ). Within the aikido group, instructors and those with more aikido experience showed higher levels of mindfulness (and self-compassion than less experienced practitioners).

**Discussion:** The practice of aikido is associated with increased levels of spirituality, mindfulness and self-compassion.

15:30 - 17:00

## Relationships among shared mealtimes quality, self-esteem, and mental health

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<sup>2</sup>Rikkyo University, Japan

**Background:** Previous studies on shared mealtime have shown that the frequency of shared mealtimes is positively associated with some psychological aspects such as self-esteem. Additionally, shared mealtime quality, defined as “sharing enjoyment in the presence of others at mealtime,” was associated with mental health in Japan. However, the mechanisms and mediating factors of the relationship between shared mealtime quality and mental health have not been reported. Therefore, in this study, we investigated the relationships among shared mealtime quality, self-esteem, and mental health.

**Methods:** This study was conducted via an online survey with 400 Japanese adults (200 males, 200 females, mean age: 37.0±14.0 years). The Scale for Shared Mealtime Quality (SSMQ; Kimura et al., 2018), the Japanese version of Rosenberg’s self-esteem scale (Yamamoto et al., 1982), and the General Health Questionnaire (GHQ12; Nakagawa & Daibo, 1985) were used to assess shared mealtime quality, self-esteem, and mental health, respectively.

**Findings:** A covariance structure analysis showed that the scores of SSMQ were positively correlated with the scores of self-esteem, and positively correlated with the scores of GHQ12 (mental health) via the scores of self-esteem ( $\chi^2(2)=1.79$  ( $p=.41$ ), GFI=.998, AGFI=.989, RMSEA=.000).

**Discussion:** We found a significant relationship among shared mealtime quality, self-esteem, and mental health. These results suggest that improving shared mealtime quality might involve improving self-esteem and mental health. Future studies should investigate other mediating factors between shared mealtimes quality and mental health.

15:30 - 17:00

## Acute and long-term effects of hatha yoga practice on subjective well-being

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**Background:** There is a growing evidence concerning the beneficial psychological effects of hatha yoga practice, however diversity of the research makes generalization and standardization of the results difficult. Aim of the present study was to investigate the acute and long-term effects of a 10-session long traditional hatha yoga practice on subjective well-being.

**Methods:** 82 healthy female university students (mean age of  $22.0 \pm 3.83$ ) with no previous experience in yoga participated in the study. The yoga group (N=49) completed a yoga course which consisted of 10 weekly sessions, 1.5 hours each with an emphasis on asana practice. The control group (N=33) did not receive any intervention. One week before and after the training the Positive and Negative Affect Schedule (PANAS) was recorded. Before and after the yoga classes only yoga participants filled out the questionnaire. For long-term effects 2 x 2 mixed (time x intervention) ANOVAs, for acute effects paired t-test and Wilcoxon test were calculated.

**Findings:** A significant interaction term with respect to negative affect ( $F(1,80) = 6.351$ ;  $p = 0.014$ ; partial  $\eta^2 = 0.074$ ) emerged. Regarding acute effects, there was a significant increase in positive affect ( $t(48) = -6.616$ ;  $p < 0.001$ ; Cohen's  $d = 0.94$ ) and significant decrease in negative affect ( $Z = -5.852$ ;  $p < 0.001$ ;  $r = 0.59$ ).

**Discussion:** Our results showed that beginner level of hatha yoga practice of 10 sessions decreases negative affect compared to no intervention controls. Furthermore, traditional hatha yoga classes have an acute effect of enhancing positive affect and reducing negative affect.

15:30 - 17:00

## The connection of the quality of speech with well-being

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<sup>2</sup>Psychological Institute of Russian Academy of Education, Russia

Stuttering is one of the most frequent speech disturbance in children and adolescents in Russia. Its peculiarity is that almost without affecting the human intellect, it dramatically worsens the process of communication, and hence the quality of life. The aim of the study was to improve the quality of life of the child, improving the quality of his speech.

The study involved 13 stuttering teenagers, as well as two parents for each participant. A total of 39 people were examined. All participants filled questionnaire, which assessed the change in the quality of life of the subjects and kept the diaries. In addition to these methods, objective methods of assessing changes in the state were used, including the recording of heart rate variability and working memory volume. Measurements were made two times: before the beginning of psychotherapy and at its end of it. We have used method psycho-logo- family-therapy, it lasted 3 weeks from 9 to 21 hours every day.

The results indicated that after the psychologo-therapy the psychological parameters and the state of well-being were changing first, and all the subjects wrote that now they can control of their own lives. At the same time, the heart rate variability was changing slower. Well-being rather quickly changes under the process of speech improvement, while the slowest changes are observed for the level of heart rate changes. Work was supported by grant of RFFS, projects #18-013-00721 A and # 18-013-00323.

15:30 - 17:00

## Chronotype and mental health

Z. Tanyi<sup>1</sup>, Z. Kövi<sup>2</sup>

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<sup>2</sup>Károli Gáspár University, Hungary

**Background:** The aim of the study was to examine mental health correlates of chronotypes in a sample of couples living together. Previous research has identified that eveningness is related to (mental) health risks. Our aim was to study patterns of partners and also to study mental health correlates with a new questionnaire.

**Methods:** Our cross-sectional study consisted of 143 couples (mean age = 39.44; SD = 10.11). Our questionnaire battery included a morningness-eveningness scale and a mental health questionnaire measuring Well-being, Savoring, Resilience, Creative-executing individual and social efficiency and Self-regulation. We applied linear regression models.

**Findings:** Regression analyses revealed that morningness of male respondents was related to resilience (beta = .255;  $t = 3.137$ ; Sig < .01,  $r^2 = .07$ ) whereas morningness of females was not related to mental health scales. The difference between males and females (within a couple) was linked to well-being, savoring and self-regulation scores: the higher morningness the male has (relatively to the female), the higher the well-being is ( $r^2 = .34$ ,  $p < .01$ ).

**Discussion:** Mental health risk is linked to chronotype, but only within males. The mental health of couples is better if the male member of the couple is characterized with higher morningness than the female member.

## Posters

# Adjustment to health challenges

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Efrat Neter

15:30 - 17:00

## Women's beliefs on antimicrobial resistance (AMR) and urinary tract infections (UTIs) during pregnancy

F. Ghouri<sup>1</sup>, A. Hollywood<sup>1</sup>, K. Ryan<sup>1</sup>

<sup>1</sup>University of Reading, United Kingdom

**Background:** Evidence suggests that antibiotics for UTIs in pregnancy are overused which has implications for AMR. Pregnancy can significantly limit the choice of an effective and non-teratogenic antibiotic. The aim of the study was to explore women's beliefs regarding AMR and UTIs in pregnancy to facilitate appropriate use of antibiotics and health behaviour change.

**Methods:** Semi-structured telephone interviews were conducted with 15 women who had experienced a UTI during pregnancy. Participants were over 18, not currently pregnant, and resident in the UK. Data was analysed using thematic analysis.

**Findings:** The predominant view was that in general, antibiotics are overused and prescribers limit their use. However for UTIs in pregnancy, women expected or felt encouraged by prescribers to use antibiotics. The need for accurate point of care tests was expressed by some to justify antibiotic use. A proportion of women were aware of preventative behaviours but did not consciously employ them to avoid infections.

**Discussion:** The core belief that emerged from the data was feeling a lack of control over their health during pregnancy. A fear of retrospective regret, in case the infection progressed or impacted the pregnancy, led women to take antibiotics but not necessarily as prescribed as they wanted to limit their exposure. Therefore, women require reassurance at the point of prescribing to adhere to the antibiotic course through explanation of the treatment rationale. Furthermore, the importance of preventative hygiene behaviours need to be emphasised, to highlight the control women can have over this condition and build self-efficacy.

15:30 - 17:00

## Osteoporosis, perception of disease and compliance: presentation of a thesis work Design:

L. Lepage<sup>1</sup>, F. Lemetayer<sup>1</sup>

<sup>1</sup>Université de Lorraine, France

**Background:** Based on the model of Leventhal, this thesis aims to explore the psychological factors involved in compliance the behaviors in osteoporotic women.

**Methods:** 200 osteoporotic patients will be asked to respond to different questionnaires on therapeutic compliance, representations of disease and treatment, anxiety-depression, intolerance to uncertainty, life goals and coping strategies. A qualitative approach will also be considered using semi-structured interviews.

**Data analysis:** Quantitative data will be subject to inferential analyses and structural equations using SPSS and AMOS software, while the qualitative data collected will be analyzed using the Nvivo software.

**Expected results:** The results should show that psychological variables such as the representation of the disease and its treatments on the one hand and intolerance to uncertainty, life goals and coping strategies on the other hand, contribute significantly to non-compliance in osteoporotic women.

**Current stage of work:** The protocol of this thesis work is currently being reviewed by an ethic committee. Along with, a review of the literature is underway on all the variables studied.

**Discussion:** Based on the Leventhal model, this thesis work should provide a better understanding of the complexity of the variables involved in non-compliance in osteoporotic women, and in particular the key role of the perception of the disease on compliance behaviors.

15:30 - 17:00

## Illness perceptions and treatment adherence among emerging adults with asthma: Bringing in a developmental perspective

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<sup>3</sup>University of California, Irvine, United States

**Background:** Unlike rescue inhalers that work in response to asthma symptoms, preventive medications reduce airway swelling and protect against future asthma attacks; however, adherence is low among emerging adults (EAs; 18-29 year-olds). Drawing from the Common-Sense Model of Illness (CSM) and the Theory of Emerging Adulthood, this study aims to explore how beliefs about asthma, asthma medication, and illness-related coping are embedded in the developmental tasks of emerging adulthood (e.g., quest for autonomy, greater self-focus), and cultural and familial values. Understanding these systems of belief and sociocultural contexts may inform patterns of medication adherence among EAs.

**Methods:** This qualitative interview study will include 30 EAs (50% female) with asthma who have been prescribed preventive asthma medication. Semi-structured interviews address: 1) experiences with asthma; 2) impact on quality of life; 3) illness beliefs (e.g., personal, familial, cultural, spiritual/religious); and 4) medication adherence. Following abductive coding procedures, emergent themes will be articulated and illustrated with data. Using the lens of CSM and the Theory of Emerging Adulthood, relationships between thematic findings will be compiled to reach study conclusions.

**Expected Results:** We expect that themes will highlight developmentally-relevant factors for disease management during emerging adulthood. We anticipate that adherence will have unique intersections with autonomy and self-focus, cultural values about medication, and financial and healthcare resources.

**Current stage of work:** Recruitment and enrollment in progress.

**Discussion:** The study addresses an at-risk chronic illness population with poor adherence. Understanding developmentally-relevant issues surrounding adherence may enhance current research using the CSM and suggests intervention targets.

15:30 - 17:00

## Adherence in people living with HIV: effects of illness perception, resilience, sociodemographic and clinical variables.

E. Seidl<sup>1</sup>, E. Remor<sup>2</sup>

<sup>1</sup>University of Brasilia, Brazil

<sup>2</sup>Federal University of Rio Grande do Sul, Brazil

**Background:** AIDS has changed from a disease with high mortality to a chronic condition, but adherence to treatment is still a challenge. Illness perception refers to beliefs that influence the individual's emotional responses, as well as the coping strategies to deal with disease. Resilience refers to a person's ability to deal with adversities and stressors that emerge in the context of life, as a chronic disease, by re-adapting and living in a positive way. The study aims to investigate predictors of adherence to antiretroviral treatment among sociodemographic and clinical variables, resilience and illness perception.

**Methods:** Participated 155 seropositive persons, mean age of 40.6 years (SD=11.4), 72.9% men. Undetectable viral load was identified for 80.6% of the sample. Interview on sociodemographic and clinical aspects and instruments to measure adherence, resilience and illness perception.

**Results:** Adherence mean scores was 86.9 (SD=8.61; 56 to 100), indicating good levels of adherence to antiretroviral treatment. The mean resilience score was high (M=70.4; SD=15.0; 18 to 100). The scores of illness perception revealed that the majority did not perceive the seropositivity condition as threatening (M=26.2; SD=12.7; zero to 57). Multiple regression analysis showed that three variables predicted adherence: resilience ( $\beta=0.31$ ;  $p\leq 0.001$ ), illness perception ( $\beta=-0.32$ ;  $p\leq 0.001$ ) as negative predictor, and age ( $\beta=0.18$ ;  $p\leq 0.01$ ), with 29% of variance explained.

**Discussion.** Results indicated relevant effects of psychological variables on adherence. Cognitive-behavioral interventions are relevant for modifying dysfunctional beliefs, with positive implications for adaptive coping and resilience in the face of adversity in the context of seropositivity.

15:30 - 17:00

## “Do my patients lie to me? Understanding non-compliance in adults with sickle-cell disease.”

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<sup>2</sup>Henri Mondor Teaching Hospital - Red Blood Cell Genetic Diseases Unit, France

<sup>3</sup>Paris Nanterre University, France

Sickle cell disease (SCD) is a genetic pathology in which structurally abnormal haemoglobin leads to severe clinical manifestations, among which: haemolytic anaemia, greater susceptibility to infections and major pain attacks. A molecule has proven its therapeutic efficacy: hydroxyurea (HU). However, studies show a very low rate of compliance. Our purpose is to better understand the different factors which may affect compliance in adults with SCD (awSCD) as well as their respective weight in the process.

Methodology: Cross-sectional study on 211 adults recruited in a French setting.

Psychometric assessment:

- Medicine-taking behaviour (MTB): Morisky Medication Adherence Scale (MMAS);
- Cognitions on treatment: Beliefs about Medicine Questionnaire (BMQ);
- Illness perception: Illness Perception Questionnaire (IPQ-R).

Results: Compare to the psychometric evaluation of compliance (MMAS), subjective assessment by the patient show that they overestimate their MTB. Cluster analyses of cognitions and MTB are suggesting that only extreme beliefs on treatment have effect on compliance. The factor analysis of the IPQ-R dimensions showed two dimensions: "Patient adaptation to SCD" (PA) and "Negative experience of SCD" (NegExp). A structural modelling to explain compliance includes positive effect of PA and cognition, and negative effect of NegExp on compliance.

Conclusion: Data are suggesting a gap between what is expected by physician and what patients are willing to do. This gap is not explained by negative cognitions on treatment. Non-compliance seem to be explained by NegExp. Interventions should focus on the reduction of NegExp and adequacy between what physicians are expected and what patients understand.

15:30 - 17:00

## Illness perception: a comparative study of illness representation

G. Bongeot<sup>1</sup>, A. Delhemmes<sup>1</sup>, F. Sordes<sup>1</sup>

<sup>1</sup>University of Toulouse, France

**Background:** These last years, scientific interests have been focused on illness perception. The Common-Sense Model (CSM) enables the identification of some factors involved in patients' perception regarding treatment information linked with their illness (identity, disease evolution, causes, consequences and sense of control). The aim of this study is to evaluate the illness perception on psychological adjustment to chronic illness.

**Methods:** A comparative approach allowed us to bring forth differences or similarities regarding specific illness representations: causes, emotional impact, control perception for chronic illnesses: chronic inflammatory bowel diseases (MICI), renal pathology, functional bowel disease and diabetes.

This research assessed 492 patients aged between 18 and 78 years (M = 37,8 years ; SD= 13,6). Participants were requested to complete a questionnaire regarding illness perception: the Revised Illness Perception Questionnaire (Moss-Morris et al., 2002).

**Findings:** These illnesses are completely different, both in symptomatology and treatments. However, some similarities were found in a cluster analysis which emerged from the present study research. These similarities are mostly the belief concerning personal responsibility in illness triggers or in the illness prognosis.

**Discussion:** Further research should be conducted including other illnesses in order to clarify different illness perceptions and adjust patient care.

15:30 - 17:00

## Predictors of Sexually Transmitted Infections (STIs) among Users of HIV Counselling and Early Detection Centres

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<sup>1</sup>Portuguese Catholic University, Portugal

<sup>2</sup>North Regional Health Administration, Ministry of Health, Portugal

Users of publicly funded HIV Counselling and early detection centres (CDCs) in the Portuguese National Service have been found to have higher rates of HIV risk behaviour than the general population, but data concerning the relationship between socio-demographic, cognitive, and behavioural variables, and Sexually Transmitted Infections (STIs) in this specific population are limited. This study tests the impact of socio-demographic (age, education, sexual orientation), cognitive (sexual knowledge, risk perception, barriers against safer sex, self-efficacy) and behavioural variables (past sexual behaviour, alcohol and drug use) on STIs in a sample of Portuguese users of CDCs. A cross-sectional study using interviewer-administered fully structured questionnaires was conducted among 168 sexually active individuals (45 women and 123 men). Significant gender differences were found for HIV knowledge, oral and anal sex practices, number of lifetime sexual partners, number of sexual partners in the last six months and number of STI, with men showing higher Results: Hierarchical logistic regression analyses showed that demographic factors (being older), sexual orientation (being homosexual), and cognitive variables (having a higher number of barriers towards safer sex) significantly predicted the likelihood of having an STI among CDC's users. The full model explained 51% of the variance in having a STI. Age, sexual orientation and negative attitudes towards safer sex are associated with having a STI in CDCs users. Identifying the variables associated with STIs would allow designing specific intervention strategies to prevent STIs in this specific population.

Keywords: Sexually Transmitted Infections; sexual behaviour; cognitive variables; gender differences

## Posters

# Coping with chronic illness

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Mariet Hagedoorn

15:30 - 17:00

## Coping with disease in psychotherapeutic patients

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<sup>5</sup>University of Applied Sciences Magdeburg and Stendal, Germany

**Background:** Coping strategies influence health behavior. To develop more effective interventions to improve health behavior in psychotherapeutic patients, the following study was conducted.

**Objective:** To analyze different types of coping with disease in psychotherapeutic patients and to evaluate the influence of psychological distress and personality factors.

**Methods:** 95 psychotherapeutic patients from three German facilities (a psychotherapeutic practice, a day clinic and a hospital) answered the Essen Coping Questionnaire (EFK), the Brief Symptom Checklist (BSI), a short version of the NEO-FFI, and the Stendal Adherence to Medication Score (SAMS).

**Findings:** For the 95 psychotherapeutic patients, mean age was 46 years (SD=15, 19-77), 62% were female. Active, problem-oriented coping, active search for social integration, and finding of inner stability were low, whereas depressive processing, and trust in medical care were high compared to the normative sample of chronically ill patients (N=1.815). Regarding coping with disease, cluster analysis (WARD) resulted in three clusters: passive (n=35), active (n=40), and depressive cluster (n=20). All three clusters were highly psychologically distressed, especially the depressive cluster; they reported high neuroticism, and low openness to experience. In the passive cluster extraversion and conscientiousness were low compared to a normative sample (N=399 adults). The depressive cluster reported low extraversion and low agreeableness. The active cluster had relatively normal personality-scores. The depressive cluster reported high non-adherence to medication.

**Discussion:** Health oriented interventions should enhance active coping strategies, support social experiences and help to find an inner stability. Further studies should prove their effectiveness on health outcomes.

15:30 - 17:00

## Life after bariatric surgery: psychosocial and behavioural characteristics and their effect on weight and well-being.

J. Pyykkö<sup>1,2</sup>, Ö. Aydin<sup>3</sup>, V. Gerdes<sup>3</sup>, R. Sanderman<sup>1,2</sup>, M. Hagedoorn<sup>1,2</sup>

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<sup>2</sup>University of Groningen, Netherlands

<sup>3</sup>Amsterdam Academic Medical Center, Netherlands

**Background:** Bariatric surgery (BS) is an effective weight loss treatment for severe obesity, leading to great weight reduction and long-term improvement in physical and psychological health. A subgroup of patients, however, reach unsatisfactory weight loss. **Results:** The aims of this research are to investigate: 1. The impact of BS on psychological well-being [e.g. health-related quality of life (HR-QoL), depression] over time, and 2. psychological factors (e.g. food craving, body image satisfaction, self-efficacy, attachment style, and neuroticism) which may predict short- and long-term surgical outcomes. Currently, the field lacks testable hypotheses as well as conclusive findings about predictors of surgical outcomes.

**Method:** Medical, psychosocial and behavioural factors are measured from obese patients admitted to Roux-en-Y gastric bypass before and 6-, 12- and 24-months after the surgery. Multivariate regression analyses will be used to answer the research questions.

**Expected results:** We expect HR-QoL to improve and depressive symptoms to ameliorate as weight decreases. Furthermore, we expect higher food craving, body image satisfaction, and negative affect to be important predictors of small weight loss, but which will also change for better as weight decreases.

**Current stage of work:** A prospective, longitudinal study involving a multidisciplinary research team was initiated in September 2016 in Amsterdam and over 200 patients have been included so far.

**Discussion:** This study will contribute to constructing a theory about weight loss after BS. Knowledge about psychological predictors of surgical outcomes will aid in patient screening and designing additional interventions aimed at supporting long-term weight maintenance after BS (e.g. eHealth).

15:30 - 17:00

## Suicidal ideation and its association with coping self-efficacy in patients with obstructive sleep apnoea

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<sup>2</sup>Department of Pneumology and Phtiseology, Faculty of Medicine, PJ Safarik University in Kosice, Slovakia

**Background:** Sleep-related symptoms in Obstructive Sleep Apnoea (OSA) may increase risk for suicidal ideation (SI) and suicidal behaviour. For psychological distress, coping may represent one of the key determinants in diminishing the negative effects of chronic diseases. Thus, the aim of this study was to assess whether coping self-efficacy is associated with SI in OSA patients when controlled for age, gender, marital status, OSA severity, and sleep-related problems.

**Methods:** Participants in this cross-sectional study were 154 OSA patients (Apnoea-Hypopnoea Index–AHI $\geq$ 5; 68.2% male; mean age 48.8 $\pm$ 9.6 years). All patients completed the subscale of General Health Questionnaire-28 focused on assessing SI, the Coping Self-Efficacy Scale, the Pittsburgh Sleep Quality Index, the Multidimensional Fatigue Inventory, and the Epworth Sleepiness Scale. Multiple linear regressions were used to analyse data.

**Findings:** Disturbed nighttime sleep quality, fatigue, and poor coping self-efficacy strategies were strongly associated with SI in OSA patients. In the regression models the 3 coping self-efficacy dimensions: (a) the ability to get support, (b) problem-focused coping, and (c) coping focused on stopping unpleasant emotions and thoughts explained 2.6%, 4.3%, and 6.1% of the variance of SI, respectively.

**Discussion:** Both active and passive-oriented coping strategies may be effective against the risk of developing SI in OSA. Therefore, patients should be encouraged by medical professionals to take control of their psychological symptoms by using adaptive coping self-efficacy. More attention should be given to the early diagnosis and treatment of sleep disorders as a suicide prevention in OSA patients [Grant support APVV-15-0719].

15:30 - 17:00

## Toward further understanding of IBD-related fatigue: the role of emotional processing.

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<sup>2</sup>Rouen University, France

**Objective:** This study investigated the psychological processes (emotional processing, coping strategies and social support) underlying IBD-related fatigue.

**Methods:** 152 IBD patients completed assessments of fatigue (FSS), quality of sleep (ESS), psychological suffering (HADS), alexithymia (TAS-20), coping (CHIP), emotional processing (EPS-25) and perceived social support (SSQ-6). The weight of each variable on fatigue and their relationships were tested using a mediating model based on a path diagram.

**Results:** Active disease directly induced fatigue, in two independent ways. First, it induced an increase in depressive symptoms and in the use of emotional coping strategies, which in turn increased the level of fatigue. In the second way, emotional processing was characterized by anger, leading to greater fatigue.

**Conclusions:** It appears important to understand how patients regulate their emotions and why some patients are more resilient to fatigue than others.

15:30 - 17:00

## Exploring suicidal ideation, emotion regulation, and non-suicidal self-injury in women with Polycystic Ovary Syndrome.

D. Fido<sup>1</sup>, S. Williams<sup>1</sup>, D. Sheffield<sup>1</sup>

<sup>1</sup>University of Derby, United Kingdom

**Background:** This project aims to characterise suicidal ideation and non-suicidal self-injury in women with Polycystic Ovary Syndrome (PCOS). The core objectives are to [a] compare the prevalence of suicidal ideation and non-suicidal self-injury between women with and without PCOS, and [b] identify relationships between these variables and potential mediators thereof.

**Methods:** This research uses a cross-sectional, correlational design and samples women with (n=200) and without (n=200) a diagnosis of PCOS. Participants will complete validated measures of suicidal ideation, emotion regulation, and rumination, as well as indices of non-suicidal self-injurious behaviours and suicide attempts. A combination of MANOVA and sequential mediation modelling will be implemented to achieve the Objectives:

**Expected Results:** Previous research suggests the presence of suicidal ideation in the experience of PCOS. However, research is limited, as such the findings of this research are expected to quantify such ideation and associated behavioural intentions, and further delineate potential mechanisms underpinning this.

**Current Stage of Work:** Ethical approval has been granted, and recruitment has begun. Data collection is anticipated to conclude by August 2019, allowing the presentation of our analyses at the EHPS conference in September.

**Discussion:** While findings of this research will further our understanding of suicide intention and associated behaviours (e.g., non-suicidal self-injury) in PCOS, a key implication of this project will be to facilitate the development of suitable interventions within this population. Moreover, with no existing psychological or lifestyle intervention aimed at PCOS, this research will help to meet the growing call for intervention research in this area.

15:30 - 17:00

## Socio-demographic correlates of skin complaints: The constellation is what matters.

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**Background:** In skin diseases, which are the fourth leading cause of non-fatal health outcomes worldwide, women did report morbidities more frequently, and a higher education was associated with fewer skin complaints. Age has been shown to have different effects. The aim of the present study was to assess the socio-demographic correlates of 20 skin complaints.

**Methods:** A nation-wide face-to-face household survey was conducted with a representative sample of the German general population. 2,513 interviews were conducted (response rate 51.9%). Socio-demographic variables and skin complaints were assessed by a self-report questionnaire. Logistic regression analyses were performed, reported ORs were statistically significant for  $\alpha=.05$ .

**Findings:** Women were stronger affected by sensitive skin, dryness, erythema, skin alterations, itch, tingling, and pimples (ORs=1.2-2.3), while men reported more dandruff, body odor, and ingrown hair (ORs=1.2-1.8). Higher age was related to a slightly reduced report of nine skin complaints (ORs=0.95-0.99). Higher education was associated with more dryness and sensitivity of the skin and erythema in the face (ORs=1.3-1.6), while low education was associated with more dandruff, body odor, oily skin and burning of the skin (ORs=1.2-1.3). Social support (living with partner or children) was a protective factor associated with less skin complaints (ORs=0.72-0.88).

**Discussion:** This study assessed a very broad range of skin complaints in the general population. It showed that the profile of skin complaints is varying across different constellations of socio-demographic factors. While e.g. female hormone fluctuations may influence complaints like a sensitive skin, the entire context of an individual should be considered.

## Posters

# The role of social relationships for mental and physical health

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Jennifer Lay

15:30 - 17:00

## Costs of social support and psychological distress: Systematic review using the Contextual Illness Support Scale

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**Background:** In the context of chronic illness, social support helps individuals cope with psychological distress and protect against mental health declines. Much less studied than the benefits of social support are its costs when it is not desired, needed or delivered in a way that is suitable to the recipient. In a multi-language review of the Contextual Illness Support Scale (CISS), we examined associations between problematic support and psychological distress.

**Methods:** Systematic review of publications from 1990-2018. Peer-reviewed empirical papers and conference proceedings in any language that used the CISS in the context of chronic illness were included. Articles were coded for sample characteristics, psychometric data, and associations between the CISS problematic support subscale and psychological distress indicators.

**Findings:** Out of 4007 references retrieved, 64 articles with a total 19,649 study participants met inclusion criteria. The original English scale has been translated into German, Dutch, Italian, Korean, Japanese, and Spanish. The CISS has been used with a number of chronic illnesses: cancer (55% articles), rheumatic disease (33%), and multiple other illness conditions (13%). Cronbach's alphas ranged from .55-.87 for the four-item problematic support subscale. Across the set of studies, receipt of more problematic support was related to more depressive symptoms ( $r$ 's = .23-.43), anxiety ( $r$ 's=.29-.40), and psychological distress ( $r$ 's=.18-.63).

**Discussion:** The CISS' problematic support scale is a reliable and valid measure that has been translated into multiple languages. The review highlights that support is related to psychological distress across a range of illness conditions, indicating it may not always be positive.

15:30 - 17:00

## Implementing a social network intervention for loneliness in a community setting: the PALS study

J. Ellis<sup>1</sup>, R. Band<sup>1</sup>, E. James<sup>1</sup>, T. Cheetham<sup>1</sup>, K. Kinsella<sup>2</sup>, C. Blickem<sup>2</sup>, A. Rogers<sup>1</sup>

<sup>1</sup>University of Southampton, United Kingdom

<sup>2</sup>Liverpool John Moores University, United Kingdom

**Background:** Loneliness and social isolation are identified as significant public health concerns. Increasing social participation and diversifying social networks may improve health through accessing social relationship resources and activities. 'The Project About Loneliness and Social networks (PALS)' will assess the effectiveness of a social network intervention delivered within a community setting across two cities in England. Factors affecting uptake and implementation for community and voluntary organisations will be explored. Pre-implementation work for complex interventions is increasingly recognised as a phase in which intervention delivery can be optimized by accommodating the local context.

**Methods:** Informed by the Consolidated Framework for Implementation (CFIR), this pre-implementation stage evaluation combined observations (engagement meetings and training) with key stakeholder interviews to identify the factors that inhibit or facilitate organisational engagement with PALS, and the workability and integration of the intervention into existing practice.

**Results:** The alignment of organisational ethos and practices were important for engagement, workability and integration of the proposed intervention. Organisational capacity and resources (or lack thereof) is a significant consideration and factor in driving organisational engagement with the study, as well as affecting the workability of the intervention. This presentation will provide examples of how the PALS team worked in partnership with organisations to identify and act on factors affecting engagement and workability, illustrating how changes were made to implementation as a result of understanding the dynamic context.

**Conclusion:** This study highlights the need for flexible partnership and adaption to organisational imperatives when implementing public health interventions in a community context.

15:30 - 17:00

## Equine-human bond and mental health

A. Elekes<sup>1</sup>, Z. Kövi<sup>2</sup>

<sup>1</sup>KRE, Hungary

<sup>2</sup>Károli Gáspár University, Hungary

**Background:** Human-animal contact can influence psychological and physiological parameters important to health and welfare. Animal-assisted therapy (AAT) is one of several ways that animals can enhance individuals' health. The human-companion animal bond, especially the human-horse relationship can influence character development positively because of the unique characteristics and holding function of the horse. As an applied area, equine facilitated psychotherapy (EAT) provides a safe and secure environment that nurtures inner healing and encourages optimal growth and development.

**Methods:** Our cross-sectional study is planned to include 200 participants who regularly meet with horses either as a hobby or as a professional work. We will do a survey with questionnaires including Lexington's Human-Animal Attachment Scale, sense of coherence, mental health questionnaire and Cloninger's Temperament and Character Inventory.

**Analyses:** We aim to analyze the relations between variables with regression analyses. We plan to include Attachment Scale as dependent and other scales as independent variables. We hypothesize that higher attachment to horse will show relation to higher mental health and more developed character (self-directedness, cooperation and self-transcendence). We will perform the analyses separately for the professional and for the 'hobby' group. On the poster we will present preliminary Results:

**Discussion:** Research results can be linked to applied area of equine-assisted therapy. The three levels of character development (self-directedness, cooperation, self-transcendence) can all be interpreted within the applied framework.

15:30 - 17:00

## Suicidal ideation, fatigue, sleep quality and social support in people with multiple sclerosis

P. Mikula<sup>1</sup>, V. Timkova<sup>1</sup>, M. Vitkova<sup>1</sup>, J. Szilasiova<sup>1</sup>, I. Nagyova<sup>1</sup>

<sup>1</sup>University of Pavol Jozef Safarik, Slovakia

**Background:** Fatigue is one of the most commonly reported symptoms in people with multiple sclerosis (MS) and sleep quality is often diminished as well. Social support is often found to be positively associated with quality of life. Studies also show that suicidal ideation (SI) levels in MS are elevated compared to general population. The aim of this study is to assess associations between SI and fatigue, sleep problems, and social support.

**Methods:** Out of 184 MS patients asked to participate in this cross-sectional study, 156 agreed (75% female; mean age: 39.95±9.97 years). Patients filled-in the subscale of General Health Questionnaire-28 focused on assessing SI, Multidimensional Scale of Perceived Social Support, Multidimensional Fatigue Inventory-20, and Pittsburgh Sleep Quality Index. Models were controlled for age, gender, disease duration, and functional disability. Data were analysed using multiple linear regressions.

**Findings:** SI was positively associated with lower sleep quality and 4 types of fatigue: general, mental, reduced activity, reduced motivation. Physical fatigue was not significantly associated with SI. Social support was negatively associated with SI in all models. Models explained 26% (general fatigue), 24.3% (physical fatigue), 26.4% (reduced activity), 28.4% (reduced motivation), and 29.7% (mental fatigue) of the SI variance respectively.

**Discussion:** SI yielded associations with both sleep quality and fatigue, except for physical fatigue. Information provided by physicians on available sources of psychological help and psychosocial intervention focused on people who provide support for patients with MS (family, friends, and significant others) may reduce levels of SI [Grant support: VEGA 1/0594/17; APVV-15-0719].

15:30 - 17:00

## Facets of social control as predictors of physical activity in patient-partner dyads

K. Horodyska<sup>1</sup>, M. Boberska<sup>1</sup>, Z. Szczuka<sup>1</sup>, E. Kulis<sup>1</sup>, A. Banik<sup>1</sup>, M. Kruk<sup>1</sup>, E. Swora<sup>1</sup>, A. Luszczynska<sup>1,2</sup>, K. Lobczowska<sup>1</sup>

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<sup>2</sup>University of Colorado at Colorado Springs, United States

**Background:** Health-related social control refers to individuals' attempts to influence another person's health behavior. Facets of social control may refer to positive direct persuasion, positive reinforcement and modeling, negative control, or making structural changes in the home environment (cf. Thorpe et al., 2008). This study investigated the associations between the four facets of social control referring to physical activity and moderate-to-vigorous-physical activity (MVPA) in patient-partner dyads. We tested if perceived social control would predict MVPA of patients and partners, measured at the 2-3month follow up.

**Methods:** Data were collected among 238 dyads of patients with a chronic illness (Mage = 47.03; 67.2% women) and their partners (Mage = 45.47; 65.1% women) at Time 1 (T1), whereas at Time 2 (T2; 2-3month follow-up) from 176 full patient-partner dyads.

**Findings:** Patients' reports of partners' control (T1) were unrelated to patients' MVPA at T1 or T2. However, patients' reports of partners' control (positive direct persuasion, positive reinforcement and modelling, making structural changes by partners at T1) predicted partners' MVPA at T2. Similarly, the majority of associations between partners' reports of patients' control (T1) and partners' MVPA at T1 and T2 were non-significant (except of partners' reports of positive reinforcement and modelling by patients at T1 and partners' MVPA at T1). However, partners' reports of patients' positive direct persuasion predicted patients' MVPA at T2.

**Conclusions:** The most consistent patterns were observed for patients reports of their partners social control (T1) and partners own MVPA at the follow-up.

**Keywords:** social control; moderate-to-vigorous physical activity; adults-dyads

## Posters

# Implementation and health services research: Health care professionals and relationships with patients

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Nicola McCleary

15:30 - 17:00

## Identifying determinants of healthcare professional behaviour using the Theoretical Domains Framework: a systematic scoping review

A.M. Patey<sup>1</sup>, S. Linklater<sup>1</sup>, A. Fedotova<sup>1</sup>, E. Brehaut<sup>1</sup>, N. McCleary<sup>1,2</sup>, S. Birken<sup>3</sup>, J.J. Francis<sup>4</sup>, M.A. Kirk<sup>3</sup>, R. Shorr<sup>5</sup>, S. Asad<sup>1,3</sup>, J.M. Grimshaw<sup>1,2</sup>, J. Presseau<sup>1,2</sup>

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<sup>5</sup>The Ottawa Hospital - General Campus, Canada

**Background:** The Theoretical Domains Framework (TDF) integrates constructs from theories of behaviour into overarching domains. The TDF is often used to identify determinants of healthcare professional (HCP) behaviour to inform implementation intervention development. However, the impact and reach of its application has not been documented. We aimed to synthesize published studies using the TDF to assess factors influencing HCP behaviour.

**Methods:** We conducted a citation search for published papers in Web of Science, Scopus, and Google Scholar databases that referenced seminal TDF papers up to October 2017. We included qualitative and/or quantitative studies using the TDF for data collection and/or analysis. Data abstracted included: country, HCP behaviour, setting, professional groups, and TDF version used.

**Findings:** We identified 177 studies: 58% were published between 2015-2017 (2015[k=28]; 2016[k=4]; 2017[k=31]). Over two-thirds of studies were conducted in Australia(k=49), UK(k=46) or Canada(k=25). The three most investigated behaviours included non-specific multiple behaviours (k=83; e.g., guideline adherence, disease management), providing advice(k=34) and prescribing medication(k=17). Most frequent settings were hospital(k=73) and primary care(k=50); most frequent actors were allied health professionals(k=67), physicians(k=48), and multiple HCP groups(k=21). TDF-v1(k=74) was used more than TDF-v2(k=59); TDF version was unclear in k=25.

**Discussion:** TDF use has grown exponentially since the initial publication. Synthesis of these studies is an important first step for establishing the variation in TDF application. Our planned investigations of reported methodology and analysis (e.g. how important domains were identified) will support further refinement of recommendations for its use in implementation intervention development.

**Review registration:** PROSPERO 2017 CRD42017078764

15:30 - 17:00

## Compassionate and patient-centred values in adult nursing students: the influence of clinical practice experience

J. Groothuizen<sup>1</sup>

<sup>1</sup>University of Surrey, United Kingdom

**Background:** Values-based practice is vital to patient care. In England, a values-based recruitment policy intends to ensure that healthcare students' personal values align with the compassionate and patient-centred values of the National Health Service (NHS). However, students' values may become compromised with increased clinical experience, due to organisational and psychological pressures. This study explored potential differences in values between first, second and third year Adult Nursing students, to hypothesise whether and how such students' values might change with increased experience.

**Methods:** A Situational Judgement Test (SJT) was developed to assess students' value congruence with the NHS values. Psychometric quality was tested and found sufficient. Within this cross-sectional multi-method design, a total of 37 first, second and third year students completed the SJT, and were asked to participate in subsequent discussions. Linear regression was used to analyse SJT-scores. Transcripts of discussions were analysed using thematic Methods:

**Findings:** A negative linear relationship was found between year of study and SJT score ( $B=-3.88$ ,  $p<.001$ ). Qualitative themes identified were idealism in first year students, experiences of organisational hierarchy and hostility in second and third year students, and a fear of being 'marked down' when standing up for one's values, particularly amongst third year students.

**Discussion:** Students' values appeared to become compromised with increased experience. This poses questions regarding the validity of values-based recruitment Methods: Regardless of the fact that hierarchy and hostility should be addressed organisationally, students should receive psychological support to deal with fear and negative experiences, to increase resilience regarding their values.

15:30 - 17:00

## Application of a theoretical framework to assess acceptability in a process evaluation: a mixed-methods study

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**Background:** Process evaluation guidance recommends the assessment of acceptability. This study applied the Theoretical Framework of Acceptability (TFA) to assess overall acceptability across four trial arms of two feedback interventions ('enhanced content', i.e. feedback reports, and 'enhanced support',-online toolkit to plan response to feedback) delivered as part of a National Comparative Audit (NCA) of blood transfusion practice, in a 2x2 cluster-randomised controlled trial.

**Methods:** Mixed-methods study.

A 6-item questionnaire based on six TFA constructs (affective attitude, burden, intervention coherence, opportunity costs, perceived effectiveness and self- efficacy) was administered to all participating sites (n = 135) four months post-intervention delivery. ANOVA was used to compare average total acceptability scores (range 6-30) between trial arms.

Semi-structured interviews with 36 transfusion staff explored hospitals' response to feedback. Interview transcripts were analysed thematically using the TFA as a deductive coding framework.

**Findings:** Questionnaire response rate was 65.7%. A significant effect of trial arm on acceptability was observed (p=.017), driven by higher acceptability scores in the arm receiving 'enhanced content' reports alone.

Participants liked the format of the reports (affective attitude) and found these easier to understand (intervention coherence). Recall of the toolkit was poor, therefore, limited conclusions can be drawn about its acceptability.

**Discussion:** Findings suggest the enhanced feedback reports delivered as part of the NCA are acceptable among transfusion staff. Application of the TFA in process evaluations can provide useful insights as to what factors may influence observed outcomes and provide guidance on where to focus efforts to enhance acceptability and improve uptake.

15:30 - 17:00

## Legal, occupational health and psychological problems in patients with bone marrow transplantation

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<sup>2</sup>„Occupation Health“ of Faculty of Public Health – Medical University Sofia, Bulgaria

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**Introduction:** The first transplantation of hematopoietic stem cells in Bulgaria was made in a 10-year old patient with advanced stage of rhabdomyosarcoma. We present our 21 years clinical experience in transplant activity and psychosocial care provided for these patients.

**Purpose:** The aim of the present study is to analyze the risky legal, social and psychological factors that can aggravate the collaboration with the medical team but also the quality of life of patients during and after transplantation as well.

**Material and methods:** 230 autologous and 88 allogeneic bone marrow, peripheral stem cell and umbilical cord cell transplantations were made between October 1997 – October 2018. 6183 clinical interviews and consultations were conducted with the patients. They took place twice per week, within the Section of bone marrow transplantation, following the methods of a structured interview and standardized psychological questionnaires.

**Results:** The summarized results present the model of psychological consultation, social assessment and status of patients in the three periods: before, during and after the transplantation. **Conclusions:** The transplantation activity, psychological support and labor legal advise in Bulgaria do not follow the usual ascending line as in the leading European centers due to a number of objective reasons. It is marked by great perseverance at work, often under exhausting organizational and financial conditions, with the sole purpose of improving the long-term care for the patients and their families, their integration in the society and to keep the experience and traditions in this highly specialized activity.

**Keywords:** bone marrow transplantation, occupational health

15:30 - 17:00

## Resources and Competences required at the Institutional Level for a Patient – Healthcare Professional Partnership

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<sup>2</sup>University of Luxembourg, Research Unit INSIDE, Luxembourg

Societal changes have catalyzed the perception of health as a personal responsibility, with social studies showing a behavioral trend where patients are increasingly seeking health information. This has given rise to patients who are active players in their care, and participate in decision-making. Central to these changes, are patients and healthcare professionals', whose backgrounds and experiences reflect both cultural factors that influence health decisions, and a power shift from professional dominance to a more equitable partnership style. Our study aims to determine resources and competences required at the institutional level to implementing a partnership

Semi-structured focus groups with 20 chronic disease patients and interviews with 15 healthcare professionals were conducted. Thematic content analysis was performed with NVivo 12 to categorize verbatim. Items were grouped into dimensions, and themes common to both parties were grouped together.

Three major areas emerged: 1) Training to develop a partnership culture - Training healthcare professionals in patient psychology, developing therapeutic education programs for patients and enriching available information with patients' experiential knowledge. 2) Creation of information / support centers for: Interdisciplinary meetings, facilitating the provision of structured, verified and pertinent information and providing administrative aid to patients. 3) Development of e-health solutions to: Provide information 24/7; facilitate collaborative content creation by healthcare professionals, patients and researchers, and for sharing and updating patient files among professionals.

Our findings will help design, implement, monitor and evaluate suitable actions, and help promote sustainable forms of expertise – inclusion of experiential knowledge and resource patients within the healthcare team

15:30 - 17:00

## Importance of individual factors for the trust in health care: the case of Lithuanian emigrants

K. Žardeckaitė-Matulaitienė<sup>1</sup>, R. Markšaitytė<sup>1</sup>, A. Endriulaitienė<sup>1</sup>, L. Šeibokaitė<sup>1</sup>

<sup>1</sup>Vytautas Magnus University, Lithuania

Trust in health care system was found to be one of key factors for positive health outcomes, beneficial health behaviours, and effective collaboration between patient and health professional. Unfortunately, trust in health professionals is under investigated in migration context as, according to Helliwell et al. (2016), this trust is partly inherited from origin culture. Thus, this study aims to evaluate which factors are important for trust in health professionals in Lithuanians and Lithuanian emigrants. A cross-sectional survey using self-report questionnaire (with several socio-demographic questions, single question about trust in health care system from ESS, BFI, Acculturation strategies Questionnaire, Social justice scale from SOCHI, and Mental Health Continuum-Short form) was carried out in the group of 578 Lithuanians living in Lithuania and 631 Lithuanian emigrants from 25 countries (80.2 percent females; mean age 34.2 years). Regression analysis revealed that higher trust in health care system for Lithuanians living in Lithuania was predicted by higher neuroticism, higher agreeableness and higher scores in social justice. However, higher trust in health care system for Lithuanian emigrants was predicted by lower neuroticism, higher levels of emotional and social well-being, and higher scores in social justice and integration. None of the sociodemographic variables were important in both groups of Lithuanians. Still, all factors explained about 12-16 percent of the variance of dependent variable in this study. It may be concluded that both personal and cultural factors of patients should be considered while implementing health promotion activities targeted to increase of trust in health care system.

15:30 - 17:00

## Self and other dehumanization in health-related contexts: Taking stock and looking forward.

S. Bernardes<sup>1</sup>, E. Diniz<sup>1</sup>, P. Castro<sup>1</sup>

<sup>1</sup>ISCTE-Instituto Universitário de Lisboa, Portugal

**Background:** Dehumanization is an everyday, pervasive phenomenon in health contexts. Given its detrimental consequences to health-care, much research has been dedicated to understanding and promoting the humanization of health services. However, health-care service research has neglected the socio-psychological processes involved in the dehumanization of self and others, in formal but also informal health-related contexts. Drawing upon socio-psychological models of dehumanization, we bridge this gap by presenting a critical review of studies on psychosocial processes of dehumanization in health-related contexts.

**Methods:** A database search (inception-2018) was conducted in PsycINFO, Web of Science, Scopus, and PubMed, using a combination of keywords on dehumanization and health/illness/body. Following general guidelines for critical reviews we have included and analyzed 59 papers published until Feb 2018.

**Findings:** Most studies focused on informal contexts, reflecting a de-contextualized and one-sided view of dehumanization (i.e. not integrating actors' and targets' perspectives). Despite the dominant focus on self-dehumanization, emerging perspectives uncover the role of processes that deny others' human uniqueness, and their individual determinants and consequences for mental health. A few studies uncover the functions of a variety of dehumanizing body metaphors on self and other dehumanization.

**Discussion:** The review depicts a whole range of psychosocial processes of dehumanization and their interconnectivity not only in formal health-contexts, but also in everyday interactions, bridging some of the gaps left by health service research. However, a broad and more contextualized understanding of self/other dehumanization on formal health-related contexts and beyond, are required to tackle current inequalities in health.

15:30 - 17:00

## “I went to four GPs before finding help”: Young transgender people’s experiences with primary-care services

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<sup>7</sup>National Institute for Health Research Health Protection Research Unit in Blood Borne and Sexually Transmitted Infections at University College London,, United Kingdom

**Background:** Transgender young people bear a disproportionate burden of poor health and wellbeing, exacerbated by social environments and structural factors (stigma, prejudice, and discrimination). In the UK, general practitioners (GPs) serve as a gatekeepers for referrals to specialised services for transgender youth (gender identity clinics). The aim of this study is to explore young transgender people’s experiences with general practice.

**Methods:** Nineteen individual-interviews were conducted with young transgender people (16-24 years). Study materials were developed through expert and lay consultation. Participants were recruited via youth organisations and social media websites. Data were analysed using an inductive thematic analysis.

**Results:** Many participants felt GPs were ill-equipped to provide appropriate healthcare and this often delayed referrals to gender identity clinics. Some reported experiences of misgendering whereby staff dismissed the patient’s gender identity and used incorrect pronouns. Several reported body dysphoria feelings, which made physical examinations difficult. Numerous participants felt general practice was too restrictive for transgender patients (e.g., some tests unavailable for those registered as a specific gender). These experiences led to reduced help seeking and unhealthy coping behaviours (e.g., self-medicating with testosterone). Potential strategies for improvement were suggested, such as increasing awareness of gender minorities across healthcare settings and staff sensitivity training.

**Conclusion:** Negative healthcare experiences can considerably influence one’s future help-seeking behaviour and interactions with healthcare systems. Healthcare professionals and policy makers must consider patient diversity to ensure healthcare is both optimal and inclusive. Addressing the health issues affecting this population is a crucial part of improving national public health.

# Posters

## mHealth and chronic conditions

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Katerina Kassavou

15:30 - 17:00

## A preliminary review of m-health intervention studies for hypertension

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<sup>1</sup>Waseda University/Graduate School of Human Sciences,, Japan

<sup>2</sup>Waseda University, Japan

<sup>3</sup>Saitama Medical University, Japan

**Background:** Hypertension is unlikely to show signs of symptoms, but it is likely to cause stroke or heart failure. In Japan, the number of hypertensive patients tends to increase until 2016. Therefore, it is desirable to use not only conventional symptomatic treatment but also m-health which can be widely intervened. The purpose of this review is to investigate m-health interventions for hypertension.

**Methods:** Literature search was used as a PsycINFO for searching the entire academic database. "hypertension" or "high blood pressure" and "m-health" or "smart phone" were used as search terms. The document meets the following criteria. (1) It is targeting people, (2) intervention is done, (3) it is a research paper published in English, (4) quantitative evaluation has been done, (5) It was an intervention study using a smartphone or web.

**Result:** Of the 11 papers that satisfied the selection criteria, 5 were self-monitoring. 3 of these 5 have set goals, and 2 have been providing information (such as a short message) together. 2 papers received feedback on behavior. 3 papers were only providing information. 1 paper was intervention study by meditation.

**Discussion:** Behavioral modification techniques such as self monitoring and target setting were widely used for hypertension as a point obtained in this review. Besides that, it was suggested that it is important to combine stress management techniques such as information provision and meditation.

15:30 - 17:00

## Self-reported responsibility level towards health – does it change after introduction of mHealth platform?

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<sup>1</sup>University Hospital for Infectious Diseases "Dr. Fran Mihaljević", Croatia

<sup>2</sup>University of Zagreb, School of Medicine, Croatia

<sup>3</sup>University Hospital for Infectious Diseases „Dr. Fran Mihaljević“, Croatia

**Background:** Effective antiretroviral therapy, has transformed HIV-infection into a chronic condition. The vast majority of people living with stable HIV-infection seek to reduce the impact of diagnosis on their everyday lives. The aim of the EmERGE project ([www.emergeproject.eu](http://www.emergeproject.eu)) is to assess how introduction of a mHEALTH platform can improve patient self-management.

**Primary objective:** To assess the impact of the mHealth platform on patient self-management and empowerment as determined by the Patient Activation Measure (PAM-13) in HIV-infected persons from Croatia.

**Methodology:** We used a quasi-experimental before and after Design: From April 2017 to October 2018, we included into the study 303 clinically stable patients, >18 years, in possession of smartphone or tablet. The PAM-13 ([www.insigniahealth.com](http://www.insigniahealth.com)) was administered at baseline, and will be applied also at 12 and 24 months after baseline. Analysis herein was made with frequencies, percentages and the PAM-13 scoring tool.

**Expected results:** The PAM-13 levels 1 (not activated) to 4 (fully activated) were assessed in 299 persons and indicated full activation in 121(40.5%) and level 3 in 137(45.8%). When outliers were excluded (n=256), 95(37%) and 120(46.9%) had PAM-levels 4 and 3 respectively.

**Current stage of work:** Results presented are baseline data, we expect 12 month follow up end of April 2019 and 24 month follow up end of April 2020.

**Discussion:** Baseline data shows that at least 83.4% participants are fully or partially responsible for personal health. Whether the introduction of mHealth will further improve self-management and responsibility towards health remains to be seen.

15:30 - 17:00

## Personalised goals via mHealth technology to increase physical activity in cancer survivors: Moving On Study.

J. Walsh<sup>1</sup>, J. Groarke<sup>2</sup>, O. Harney<sup>1</sup>, J. Richmond<sup>3</sup>, M.G. Kelly<sup>3</sup>, L. Glynn<sup>4</sup>

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**Background:** A significant proportion of cancer survivors are overweight, having implications for increased risk of subsequent and secondary cancers. The aim of this study is to examine the effect of a personalised goals using mobile technology to increase physical activity with a view to improving long term health outcomes.

**Methods:** 123 cancer survivors (BMI>25) were randomly assigned to control (n=61) or intervention (n=62). All participants received a FitBit to assess physical activity (step count). Intervention participants attended a 4-hour education session with physiotherapist, dietician and clinical psychologist to support self-management of weight loss. In addition the intervention group received personalised goals (+10% weekly) to increase step count which they could track using the FitBit. Step count was remotely monitored also and both feedback and incrementally increasing goals were set for participants via SMS. The control group received standard care and their FitBit screen was blank so did not permit self-monitoring. Follow-up data on step count, anthropometric, physiological, and psychological measures was collected for both groups at 3 and 6 months.

**Findings:** Significant interactions revealed increases in physical activity and reduction in weight and BMI ( $p<.05$ ) in the intervention participants compared with controls at follow-up. Significant improvements in psychological outcomes (e.g. social functioning, emotional wellbeing) were also observed.

**Discussion:** Personalised goal setting using mobile technology was effective in increasing physical activity, reducing weight and improving psychological outcomes in cancer survivors.

15:30 - 17:00

## myHT: Development of an app to improve adherence to hormonal therapy for breast cancer survivors

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**Background:** Breast cancer is the most common cancer in the UK and the third most common cause of cancer-related death. Adjuvant hormonal therapy (HT) is prescribed for up to 10 years post primary treatment to reduce the risk of recurrence of oestrogen receptor positive breast cancer. However, up to 50% of women are non-adherent or non-persistent. A digital psychoeducational behaviour change intervention was developed to support HT adherence

**Methods:** An online survey was distributed via online support groups to determine current technological ability and preferences of women with breast cancer. Cognitive interviewing, focus groups and written feedback was carried out with patient and public involvement (PPI) representatives to digitise a paper-based intervention

**Findings:** 136 women completed the survey. The mean age was 51 (SD=7.92, range=30-74). 53.7% were prescribed tamoxifen and 45.6% prescribed aromatase inhibitors.

80.1% used mobile internet with 83.1% using apps daily and 96.3% having regular access to a smartphone. 71.3% searched for medication effectiveness; 86.0% side-effects; 34.6% to access online support groups/forums. 53.7% would prefer an intervention delivered via a website plus app, with 32.4% preferring app only.

Alongside previous research, this fed into an app-based intervention using CBT and behaviour change techniques targeting treatment perceptions, self-efficacy, side-effect management and forgetting. PPI feedback led to modifications of risk information, symptom monitoring and the overall presentation.

**Discussion:** Among an online sample, mobile technology integration is high. A mobile app-based intervention was preferred. The evidence-based, theory driven intervention "myHT" will now be trialled.

15:30 - 17:00

## A very brief face-to-face intervention, followed by a text message or app. PAM pre-testing study.

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<sup>1</sup>Cambridge University, United Kingdom

<sup>2</sup>University of Cambridge, United Kingdom

**Background:** The aim of this study was to test the acceptability of a very brief intervention (VBI) followed by a text message and/or app intervention to support medication adherence in people prescribed treatment for hypertension in primary care.

**Methods:** Six nurses and twenty-five patients have been recruited from three primary care practices. Nurses pre-tested the VBI and provided experiential feedback using think aloud. Patients pre-tested the text message or app intervention for one month; and they completed self-reported questionnaires at baseline (T1) and follow up (T2) and semi-structured interviews at T2. Qualitative results were analysed using thematic analysis.

**Findings:** The intervention was found to be acceptable to support adherence to high blood pressure medication in primary care. It provided advice to adherence and supported people's abilities to monitor their medication taking behaviour.

**Discussion:** Despite the feasibility and acceptability of the intervention, a larger trial is required to decide whether and how to proceed with a full-scale effectiveness and cost effectiveness trial.

15:30 - 17:00

## Patient and practitioner views on a digital intervention supporting medication adherence in patients with hypertension

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<sup>1</sup>University of Cambridge, United Kingdom

<sup>2</sup>University of Leicester, United Kingdom

**Background:** Low adherence to medication for conditions such as hypertension pervades; developing digital interventions is a promising solution. This study aims to inform the development of a low-cost digital intervention to support medication adherence that will be tested in a full trial of effectiveness and cost-effectiveness. It aims to explore patient and practitioner views and preferences of intervention types and combinations (face-to-face and SMS or smartphone) and functions (e.g. reminder messages and sensing technology).

**Methods:** Semi-structured interviews with patients (n=6) and healthcare practitioners (n=11); focus groups with patients (n=14).

**Thematic analysis. Findings:**

Barriers to adherence echo previous research and can be categorised as intentional (side effects, emotional response to taking medication) and non-intentional (changes in routine, forgetting).

Patients and practitioners found the digital intervention acceptable, provided it is easy to use and highly tailored to the patient. The use of sensing technology by an app (GPS or WiFi data) was acceptable to patients due to the additional tailoring opportunities.

A brief face-to-face intervention, to trigger the start of the digital element, was viewed as feasible to deliver within a primary care setting; barriers include practitioners' experience with technology and competing priorities.

**Discussion:** Findings are informing the development of an intervention to support patients to take their medication as prescribed, which will be tested in a feasibility trial. Emphasis on the importance of tailoring is key for those developing similar digital interventions

15:30 - 17:00

## Promoting healthy adjustment following major surgery: Evaluation of iCanCope PostOp smartphone application.

B. O'Grady<sup>1,2</sup>, P. O'Reilly<sup>1,2</sup>, J. Stinson<sup>3</sup>, A. Hundert<sup>3</sup>, K. McCarthy<sup>4</sup>, P. Kiely<sup>4</sup>, C. Laloo<sup>3</sup>, K. Birnie<sup>3</sup>, P.B. McGuire<sup>1,2</sup>

<sup>1</sup>National University of Ireland Galway, Ireland

<sup>2</sup>Centre for Pain Research, Ireland

<sup>3</sup>The Hospital for Sick Children, Canada

<sup>4</sup>Our Lady's Children's Hospital Crumlin, Ireland

**Background:** The aim of this research is to reduce the impact of acute and chronic pain and deliver improved physical and psychological outcomes for adolescents following scoliosis surgery through the use of the iCanCope PostOp Scoliosis smartphone app.

**Methods:** Phase1: to adapt the iCanCope smartphone application. Focus groups and interviews with Health Care Professionals (N=19), adolescents who have undergone scoliosis surgery (N=8) and their parents/guardians (N=5).

Phase2: to test the usability iCanCope PostOp smartphone application using an iterative process of testing and refinement (2-3 adolescents and 1-2 parents/guardians per cycle).

Phase3: test the efficacy of the iCanCope PostOp smartphone app through a pilot RCT (N=90, randomly allocated to 3 groups; treatment as usual, educational articles only or iCanCope PostOp smartphone app).

**Expected results:** We hypothesis that iCanCope PostOp will be effective in reducing post-operative: pain disability and distress in adolescents and will reduce the risk of having chronic post-surgical pain 3 and 12 months post-surgery.

**Current stage of work:** Phase 1 analysis.

**Discussion:** The proposed innovative iCanCope PostOp app will support adolescents with acute post-operative pain to self-monitor symptoms and access 'in the moment' pain management advice when they need it. Improving acute postoperative pain may ultimately help reduce risk of development of chronic post-surgical pain, reduce healthcare utilization, reduce opioid requirements and potential for opioid-related harms and reduce impact of unrelieved or under treated pain on mood, sleep behaviour and function leading to improved patient and family satisfaction with care.

15:30 - 17:00

## Using a mobile app for experienced based sampling in cancer survivors: methodological lessons learned.

N. Warner<sup>1</sup>, A. Groarke<sup>1</sup>, J. Groarke<sup>2</sup>

<sup>1</sup>National University of Ireland, Galway, Ireland

<sup>2</sup>Queen's University Belfast, United Kingdom

**Background:** Music is frequently employed to induce positive and negative affective experiences, and affect regulation (AR) is a known function of music listening (ML) in everyday life. The influence of music on AR in cancer survivors is still unclear. This study utilised Experience Sampling Methods (ESM) to assess ML and AR in cancer survivors.

**Methods:** Mobile ESM (MuPsych application) measured positive and negative affect, alongside momentary assessments of affective experience (Emotion Regulation Questionnaire/Music Use Questionnaire Index of ML) during episodes of ML and everyday life for 3 weeks. These were presented at two time-points (initial question and repeated 5 minutes later). The Mobile Application Rating Scale (MARS) was utilised to assess application acceptability and usability.

**What Went Wrong:** Complications presented in the sampling methodology. The app was only compatible on Android software, meaning iOS users were automatically excluded. Additionally, MuPsych was only available to newer versions of Androids.

A lack of usable data may translate as feedback on participant's irritation (e.g.: MARS answer: "it took over my phone"). This can be accredited to the time commitment and the perceived invasiveness of ESM. This presented a unique participant experience –required repeatedly and randomly throughout the day.

**Possible Solutions:** A shorter timeframe, with fewer questions may prove more successful in promoting participant engagement.

**Conclusions:** ESM are a valuable research design, however often present challenges. Similarly, utilising ESM in a cancer population is not without issues. Further research is needed to find a 'happy-medium', whereby sufficient data is collected, with minimal participant burden.

## Posters

# Social media, intelligent systems and health

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Lorenza Entilli

15:30 - 17:00

## Manipulating Neural Coupling to Enhance the Propagation of Health Information on Social Media

M. Jovanova<sup>1</sup>, C. Scholz<sup>2</sup>, E.C. Baek<sup>1</sup>, M.B. O'Donnell<sup>1</sup>, E.B. Falk<sup>1</sup>

<sup>1</sup>University of Pennsylvania, United States

<sup>2</sup>University of Amsterdam, Netherlands

The spread of (un)healthy information through social media has strong implications for population-level health. We studied the (neuro)psychological processes that support the transmission of health-related information from communicators to receivers on social media, focussing on the mechanism of communicator-receiver coupling. During interpersonal communication, conversation partners synchronize across various biological systems including neural activity. This enhances mutual understanding and liking. In two fMRI studies, we investigated whether this phenomenon supports the propagation of health-related information and whether it can be manipulated experimentally.

Study-1 showed that neural coupling occurs even when a single Facebook message about health-related information is exchanged between strangers. Coupling was particularly pronounced in meta-analytically defined brain regions of interest/ROIs associated with value-related, self-related, and social processing, and related positively to the transmission of content evaluations between communicators and receivers.

In Study-2, we tested whether the extent of communicator-receiver coupling depended on a communicator's motivation for sharing. We asked communicators to follow certain motives (randomly assigned within subjects) when propagating content to receivers, namely to use the content to objectively spread the information it contains (control), describe something about themselves (self), or help the receiver (social). Study and analysis procedures were pre-registered (<https://osf.io/pxnmw/>).

As in Study-1, we found significant neural communicator-receiver coupling across all Study-2 trials. Further, the extend of coupling partially depended on the communicator's sharing motivation. Neural communicator-receiver coupling was stronger in the 'help' than the 'describe yourself' condition. This work provides new insight into the role of neural coupling in health-related information transmission.

15:30 - 17:00

## Illness experience and attitude toward medication in online communities for people with fibromyalgia

S. Cipolletta<sup>1</sup>, E. Lo Magno<sup>1</sup>

<sup>1</sup>University of Padua, Italy

**Background:** Fibromyalgia is a chronic syndrome characterized by widespread musculoskeletal pain. Its impact is disabling in people who suffer from it. For people with fibromyalgia, internet and online communities represent a way to share their illness experience and to look for support, empathy and information about care. Previous studies have investigated online communities, but none of these have focused on the understanding of illness experience and attitudes toward medication. The present study aims to deepen the knowledge of online behaviour in the community of people with fibromyalgia relating to patients' illness experience, and attitudes toward medication.

**Method:** A qualitative contentment analysis based on the Grounded Theory approach was carried out on 19 conversations (75,116 words) from an online forum, and 14 online interviews (13F and 1M) using the ATLAS.ti8 software.

**Findings:** Five macro-categories were identified: support, lack of reference points, attitude toward medication, self-description and the meaning of the illness. The core category identified was the search for recognition. On the basis of their attitudes toward medication, self-description and the meaning of the illness, patients were grouped into three illness trajectories: threat, aggressiveness and guilt.

**Conclusions:** The study highlighted how people with fibromyalgia use online communities. Online communities are a means by which the needs of users, especially in terms of legitimacy and recognition, can be expressed and shared.

15:30 - 17:00

## Live-chat support for people bereaved by suicide: a content analysis.

L. Entilli<sup>1</sup>, F. Bettio<sup>1</sup>, D. De Leo<sup>2,3</sup>, S. Cipolletta<sup>1</sup>

<sup>1</sup>University of Padua, Italy

<sup>2</sup>Griffith University, Australia

<sup>3</sup>University of Primorska, Slovenia

**Background:** People bereaved by suicide, or “survivors”, are subject to increased risk of complicated grief and suicide, and struggle to obtain proper support. The aim of this study was to explore experiences and needs of survivors who find help on live-chats. No such analysis has been conducted so far.

**Methods:** Qualitative content analysis was carried out on 30 live-chat conversations occurred between 2014 and 2019 through the software ATLAS.ti8 and by means of a Grounded Theory approach. Transcripts were retrieved from one of the major associations in Italy providing free of charge online support. Information about the sample was retrieved from the transcripts: users had different age (from 18 to 60 years), degrees of kinship with the deceased, and time distance from the loss (between 10 days and 36 months).

**Findings:** Five macro-categories were identified: Reactions, Needs, Resources, Intervention of the operator and Sense-making of the loss. The latter included attempts at finding explanations for the suicide. A strong sense of responsibility towards those remaining emerged as the main reason for seeking help. However, several users reported lack of family support and, sometimes, dissatisfaction with formal support.

**Discussion:** Live-chat services represent a safe space where survivors can obtain useful information and start their process of meaning making of the loss. Because of its anonymity and availability, live-chats may represent a valid first line of support and a tool for prevention of suicidal ideation. Insights obtained from this study would help in the implementation of better services for survivors.

15:30 - 17:00

## Getting close to digital humans: the effect of multimodal emotional expression during self-disclosure

K. Loveys<sup>1</sup>, M. Sagar<sup>2</sup>, E. Broadbent<sup>1</sup>

<sup>1</sup>Department of Psychological Medicine, The University of Auckland, New Zealand

<sup>2</sup>Auckland Bioengineering Institute, The University of Auckland, New Zealand

**Background:** Digital humans are starting to be used as companions to help reduce loneliness and stress. Their ability to form close relationships with people is important, and research needs to investigate ways to enhance relationships. We aimed to investigate the effect of multimodal emotional expression on social closeness with a digital human during a self-disclosure task.

**Methods:** An experimental study where participants are block-randomized by gender to interact with one of six versions of a digital human that vary in modality richness (face/no face) and emotional [removed]emotional/neutral voice; emotional/neutral face). Participants complete the Relationship Closeness Induction Task with a digital human, which is a 15-minute conversation involving reciprocal self-disclosure. Questionnaires are completed at baseline and post-conversation for social closeness, support, stress, loneliness, affect, and perceived mind. Physiological stress data from a wrist-worn sensor and audiovisual recordings of behavior and language are collected. Participants will be 100 males and 100 females aged >18 years with English fluency. Analyses will involve between groups comparisons using ANOVAs, ANCOVAs, and post hoc tests.

**Expected results:** We anticipate an emotional face and voice will generate the highest amount of social closeness and improvements in secondary outcomes, while no face and a neutral voice will generate the smallest effect. We expect these effects will be stronger for females.

**Current stage of work:** This study has received ethics approval. Participant recruitment has commenced.

**Discussion:** Results will indicate whether multimodal emotional expression is an important design technique for improving relationships with digital humans.

15:30 - 17:00

## Smartphone-Based Intelligent System: Using AI and Motion Sensors for Real-Time Intervention During Heavy Drinking Events

D. Madden<sup>1</sup>

<sup>1</sup>University of Southern California, United States

**Background:** Excessive alcohol consumption is an avoidable health risk, yet it causes a significant percentage of yearly deaths and injuries on college campuses. Recent work has showed that mobile-based interventions can effectively reduce alcohol consumption. However, few studies investigate delivering mobile interventions in real-time during drinking events to reduce risks like drunk driving and violence. To address these shortcomings, we built an intelligent system capable of passively tracking smartphone accelerometer data to identify heavy drinking in real time.

**Methods:** We collected smartphone accelerometer readings and transdermal alcohol content (TAC) from 19 subjects participating in a field study. The TAC readings served as the ground-truth when training the system to make classifications. Noisy readings were cleaned with the MATLAB signal processing toolbox. Data was segmented into 10 second windows and features known to change when humans lose control of their center-of-mass were extracted.

**Findings:** Feature extraction methods from sound recognition tasks showed significant improvement (up to 8% absolute accuracy gain). We built and trained several classifiers to call each window as a “sober walk” or “intoxicated walk”, the best of which achieved a test accuracy of 75.04%.

**Discussion:** This result has promising implications for making classifications on noisy accelerometer data. We plan to use classifiers to build a mobile sobriety tracking application that ultimately will serve as a free, reliable, and widely adoptable application that tracks intoxication in real-time, enabling development of effective mobile-based interventions. The results and application will also benefit future studies as new sensor-bearing technologies become widely adopted.

15:30 - 17:00

## Assessing acceptability and feasibility of a theory-based digital lifestyle intervention for adults with prediabetes.

K. Ashley<sup>1</sup>, S. Cassidy<sup>2</sup>, D. Houghton<sup>2</sup>, M. Trenell<sup>2</sup>, N. Okwose<sup>2</sup>, J. Scragg<sup>2</sup>, D. Jakovljevic<sup>2</sup>, K. Hallsworth<sup>2</sup>, L. Avery<sup>3</sup>

<sup>1</sup>Changing Health, United Kingdom

<sup>2</sup>Newcastle University, United Kingdom

<sup>3</sup>Teesside University, United Kingdom

**Background:** Prevalence of prediabetes is rapidly rising and this is largely linked to an increase in obesity. To address this issue, these individuals are often encouraged to lose weight, however this is a time consuming issue to tackle in primary care. Given the magnitude of the problem, we aim to assess the acceptability and feasibility of a digital theory-based behavioural intervention, 'Changing Health' for adults with prediabetes.

**Design:** A single group pilot study will recruit 40 participants with prediabetes, aged 18-75 years with a BMI  $\geq$  25. Participants will have access to the intervention for 9 months, which also involves lifestyle behaviour coaching via telephone.

**Methods of data collection and analysis:** A mixed methods approach will assess acceptability (e.g., adherence, completion, patient views) and feasibility (e.g., recruitment, retention). The preliminary effect of the intervention will be assessed in the following secondary outcomes: physical activity, diet, sleep, body composition and weight at baseline, 3 and 9 months to explore variability.

**Expected results:** Data from participants at the 3-month time point (n=8), suggests the intervention is feasible and acceptable. It is expected that the study will recruit and retain the required sample size and adherence/completion rates will be achieved.

**Current stage of work:** 25 participants from across 4 practices are eligible, with two drop-outs, 23 participants have been recruited. 8 participants have accessed the intervention, received coaching and have reached a 3-month time point.

**Discussion:** Preliminary findings indicate, this digital behavioural change intervention for adults with prediabetes is acceptable and feasible.

## Posters

# Occupational health: Psycho-social and policy issues.

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Marie Johnston

15:30 - 17:00

## Work after cancer? The needs and motivations of cancer patients in relation to work resumption

A.E. Popa<sup>1</sup>

<sup>1</sup>Lucian Blaga University of Sibiu, Romania

**Background** Around half of the patients with cancer in Romania are of working age. Returning to work after treatment is an option they must consider. This research aims to explore the cancer survivors' needs and motivations in relation to resuming work, in a country where the legislation provides no incentives and support for returning to work.

**Methods** Data were collected through semi-structured interviews. Twenty-eight patients with various types of cancer who either returned to work (n=16) or not (n=12) were recruited via specialized physicians. The interviews were thematically analysed using Nvivo 11.

**Results** The data analysis is work in progress. We expect to find similarities regarding the needs of the patients in the two sub-samples, coupled with differences regarding their motivations to return to work. The preliminary findings show that at least some of the patients who did not return to work were intensely motivated to work, yet they couldn't return to the same working conditions or find another job due to the diagnosis. Exploring the needs and motivations of the two sub-samples will also shed light on how the decision to resume work is taken and how is this prepared.

**Discussion** The results are important as they provide information regarding the needed support for returning to work after cancer. In the absence of formal support offered through legislation, health and psychology professionals could provide this kind of support. Therefore, it is important to know what motivates these patients to resume work and what their needs in the process are.

15:30 - 17:00

## Motives, considerations and work-related factors associated with (non-)disclosure of a chronic health condition at work

J.F. Bauer<sup>1</sup>, L. Jakob<sup>1</sup>, M. Niehaus<sup>1</sup>

<sup>1</sup>University of Cologne, Germany

**Background:** Most employees with a chronic condition are at some point confronted with the decision of whether or not to communicate their condition at work. As (non-)disclosure can lead to a variety of positive and negative consequences that might in turn affect wellbeing and workability these considerations are difficult. Because little is known about the process resulting in disclosure decisions, the aim of the current study was to explore motives, considerations and work-related factors associated with (non-)disclosure.

**Method:** N = 274 employees with a chronic condition (physical and/or mental) were surveyed via an online questionnaire. Data was analysed using descriptive statistics, factor analyses and nonparametric correlations.

**Findings:** 89% of the respondents have already disclosed their condition at work. The most common motive to consider disclosure is health-related absence from work (52%). Although the respondents integrate anticipated positive (hopes) and negative (fears) consequences of a disclosure in the decision process, only fears correlate significantly with actual disclosure ( $r_s = -.38$ ,  $p < .001$ ,  $n = 265$ ). Regarding work-related factors, disclosure is significantly associated with a positive team climate and an inclusive organisational culture ( $r_s = .22$ ,  $p < .001$ ,  $n = 250$ ;  $r_s = .21$ ,  $p = .006$ ,  $n = 173$ ).

**Discussion:** It seems that respondents start to consider disclosure quite late, namely when it becomes harder to conceal the chronic condition. Furthermore, within the complex decision process, fears appear to play a more important role than hopes. Team climate and organisational culture could be work-related starting points to reduce these fears.

15:30 - 17:00

## Employees' well-being and work-family interaction in relation to family support sources

M. Tonković Grabovac<sup>1</sup>, J. Despot Lučanin<sup>1</sup>, I. Černja<sup>1</sup>, I. Hanzec Marković<sup>1</sup>

<sup>1</sup>University of Zagreb, Croatian Studies, Croatia

**Background:** Recent research evidence is lacking on the implications of older family members' and other sources of help to the employees' well-being, which is typical for Croatian family life.

The study aim was to explore employees' well-being and work-family interaction in relation to the family support sources - older family members or paid help.

**Methods:** Participants were 597 employees of various Croatian organisations, heterogeneous regarding sociodemographic and work-related characteristics, working at least 30 hours per week. Participants completed the on-line questionnaire including the scales of: Satisfaction in life, work and family life, Job affective well-being, Work engagement, Work-family conflict, and Family support sources. Data on participants' sociodemographic and work-related characteristics were collected.

**Findings:** Results of t-tests revealed interesting findings regarding benefits of the sources of help that the employees used in their household. The source of help which seemed to be the most beneficial for various indicators of employees' well-being was the paid help. Also, the help of partners' parents showed the significant effect for the employees' satisfaction in life, work and family life. The help of employee's own parents failed to show benefits for employee's general and work-related well-being, but it might be due to the fact that only 13% of employees reported that they had not received any help from their parents.

**Discussion:** The findings indicate the important contribution of older family members to the general and work-related well-being of employed family members, and suggest further exploration.

15:30 - 17:00

## Occupational well-being of software developers working in international teams: the role of personality traits

L. Cirtautiene<sup>1</sup>, A. Endriulaitiene<sup>1</sup>

<sup>1</sup>Vytautas Magnus University, Lithuania

**Background:** Some authors state, that high stress scores and burnout of software developers found to be even more frequent than in other occupations. This is explained by unique job stressors in information technology (IT) industry - employees work in culturally diverse teams, highly demanding and changing work environment, they are relatively individualistic in orientation. Still prior research linking software developers' individual differences to well-being has been limited. The aim of current study is to investigate how personality traits are related to occupational well-being of software developers working in international teams.

**Methods:** The study was conducted in international IT companies operating in Lithuania. Twelve international teams (N=55) filled up the self-report questionnaire. Personality traits were measured by Hexaco PI-R test. Occupational well-being was assessed with two scales - satisfaction with working in a team (from The Team Task Performance Scale) and emotional exhaustion rate (from The Job Demands-Resources Questionnaire). This pilot survey is an initial stage of the larger project.

**Findings:** Regression analysis revealed that higher emotionality ( $r=.32, p<.05$ ), and lower extraversion ( $r=-.41, p<.01$ ) were related to higher employee's emotional exhaustion. Higher honesty – humility ( $r=-.52, p<.01$ ), and lower extraversion ( $r=.32, p<.05$ ) were related to lower satisfaction with working in a team. Emotional exhaustion linked with the less satisfaction with working in a team ( $r=-.43, p<.01$ ).

**Discussion:** It might be concluded that specific personality traits might contribute to occupational well-being of software developers. Therefore, they should be considered in the selection procedures of global IT teams as well as in preventive efforts aiming to deal with burnout in IT industry.

15:30 - 17:00

## Managing Stressors Associated with Double-Life Professional Identities for Undercover Law Enforcement and Intelligence Professionals.

C. Skvorc<sup>1</sup>

<sup>1</sup>American Public University, United States

The stressors associated with maintaining a double-life dual identity for undercover professionals in intelligence and law enforcement, involving the skilful and vigilant manipulation of human relationships, can impact psychological and physical health (Miller, 2006). This presentation will review existing models of diagnosis and treatment of psychological, physical, behavioral, and emotional stress (Love, et al., 2008), as well as ethical concerns of recruitment and long-term retention of intelligence and law enforcement professionals (Nathan, 2016).

Miller, L. (2006). Undercover Policing: A Psychological and Operational Guide. *Journal of Police and Criminal Psychology*, 21(2), 1-24.

Love, K.G., Vinson, J., Tolsma, J., & Kaufmann, G. (2008). Symptoms of undercover police officers: A comparison of officers currently, formerly, and without undercover experience. *International Journal of Stress Management*, 15(2), 136-152.

Nathan, C. Liability to Deception and Manipulation: The Ethics of Undercover Policing. *Journal of Applied Philosophy*, 34(3), 1-27.

## Posters

# Stress and health in organizational contexts

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Amelia Hollywood

15:30 - 17:00

## Working in a prison: Does occupation matters when planning stress intervention programs?

K. Orlak<sup>1</sup>

<sup>1</sup>Zoom in on Posts - Association for Occupational Health [Stowarzyszenie Zdrowa Praca}, Poland

**Background:** Although a prison is widely recognized as very stressful workplace there is still lack of more detailed knowledge on work-related stress of particular occupational groups hired in prisons. Main purpose of the study was to explore differences in psychosocial hazards exposure among guards and healthcare professionals hired in prisons as well as in health outcomes of work-related stress in those subgroups of prison officers.

**Methods:** The study was conducted in Poland in 2017 among 1486 prison officers. The unbiased sample consisted of 287 healthcare professionals and 1208 guards. Two questionnaires were used in the study. Work-related psychosocial factors was measured using COPSOQ II (Pejtersen et al, 2010), while mental health was measured with GHQ-30 (Goldberg, 1990). Job tenure in prison with respect to 2-year work adjustment period as well as age and sex of the respondents were controlled.

**Findings:** The study showed substantial differences between the two occupational subgroups both in general mental health and in exposure to psychosocial hazards as well. Important role was played by such psychosocial factors as: workplace violence (mobbing, sexual harassment, physical violence), cognitive and emotional demands, demands for hiding emotions, influence, meaning of work, commitment to the workplace, quality of leadership, social support, work-home interference, job insecurity and social inclusion. Tenure, age and sex also matters.

**Discussion:** The results can be important for intervention planning in stressful workplaces, such as prisons, There is a need for further in-depth studies in prison officers due to differences of the stress sources observed in occupational subgroups.

15:30 - 17:00

## Work-related stress severity and assessment of worklife areas in three occupation groups

A. Chudzicka-Czupała<sup>1</sup>, M. Stasiła-Sieradzka<sup>2</sup>, D. Grabowski<sup>1</sup>, K. Popiołek<sup>1</sup>, Ż. Rachwaniec-Szczecińska<sup>3</sup>

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<sup>3</sup>Medical University of Silesia in Katowice, School of Health Sciences, Chair of Social Sciences and Humanities, Department of Psychology, Poland

**Background:** The aim of the study was to examine the differences in the work-related stress severity and in the global assessment of worklife areas and individual worklife dimensions, treated as risks of health worsening.

**Methods:** The research covered 211 workers of three different occupations. The Perceived Stress Scale (PSS-10) by Cohen, Kamarck and Mermelstein was used to investigate stress severity and the subjective assessment of worklife areas was carried out using the Areas of Worklife Survey by Maslach and Leiter. Multivariate analysis of variance was used to answer the research questions. Additionally, Student's t-test was performed.

**Findings:** The research demonstrated the existence of statistically significant differences between workers belonging to the three groups of occupations in the severity of work-related stress. The findings show that 26% of the variance of the stress severity is explained by the fact of belonging to a specific occupational group. Statistically significant differences were found between the groups in terms of the assessment of all worklife areas, as well as in the assessment of particular areas: control, rewards, fairness, and values. No significant differences were found with regard to the workload and community areas.

**Discussion:** Working in social service occupations, whether as emergency or as helping professionals, may lead to a similar level of stress severity. Further research should be carried out into sources of stress, such as existing hazards to health, stress-inducing contact with customers, environmental determinants or the intrinsic predisposition of the individuals performing the specific type of work.

15:30 - 17:00

## Flexible Work Arrangements and Workplace Well-Being in the Canadian Military

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<sup>1</sup>Department of National Defence, Canada

**Introduction:** Flexible work practices are increasingly prevalent in today's changing workplace, and are frequently recommended for implementation in the contemporary workplace. The aim of this study is to examine:

- 1) The extent that military personnel use or perceive different forms of flexible work practices to be available to them (subject to operational requirements); and
- 2) The relationships between both self-reported use and perceived availability of FWAs and indicators and outcomes of psychosocial well-being at work such as work-family balance, psychological distress, burnout and morale.

**Study Design:** This study is being conducted as part of a department-wide workplace well-being survey in the Canadian Department of National Defence. The survey reflects Canada's National Standard for Psychological Health and Safety in the Workplace. Military personnel (N = 7061) were also asked to report on their use of and the perceived availability of flexible work practices such as compressed work weeks, flexible working hours, part-time work and telecommuting.

**Discussion:** The findings indicate that the perceived availability of FWAs is positively related to better well-being, and has a stronger relationship with well-being than actual usage. The availability of FWAs was positively related to outcome indicators such as increased morale, and lower burnout, psychological distress and turnover intentions. Work-family balance and autonomy were also positively related to the FWAs. One of the most consistent well-being findings is that FWAs (both availability and usage) are related to higher levels of perceived organizational support. The findings will be discussed within the context of the job demands-resources model.

15:30 - 17:00

## Resilience as a predictor of the work related patterns of behaviour among firefighters

M.A. Basińska<sup>1</sup>, A. Piórowska<sup>2</sup>

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<sup>2</sup>State Fire Brigade in Toruń, Poland

**Background:** Professional firefighters work is characterized by frequent exposure to traumatic situations with constant time pressure and needed of quick decisions. Factors that help to deal with psychological challenges of firefighters profession are personal resources. In this study, particular attention has been paid to resilience understood as a trait and process, which conducive to effective coping and enabling healthier functioning at work. The main objective of the study was to check the nature of the relationships between the firefighters resilience with the different types of functioning at work. The moderating role of intermediary variables related with service were also taken into account.

**Methods:** The respondents were 469 firefighters from Poland. **Methods used:** The Resiliency Assesment Scale by Ogińska-Bulik and Juczyński, The Brief Resistance Coping Scale by Sinclair and Wallston, the AVEM Questionnaire by Schaarschmidt and a Personnel Sheet.

**Findings:** The surveyed firefighters presented the average intensity of the studied resilience. Higher intensity of it favoured healthy functioning and constituted as a protective factor of using non-conducive ways of work functioning (A and B). A higher intensity of resilience (trait and process) promoted a more frequent use of healthy (G) type of functioning at work, it was also the most common type in this group. the overloaded type (A) favoured firefighters with a longer work experience.

**Discussion:** The examined resilience (as a trait and process) foster a healthy functioning of the firefighters work. Research has confirmed the role of resilience as protective factors of psychosocial threats in this service.

15:30 - 17:00

## Illness representation of dementia and job satisfaction in professionals of nursing homes

S. López-Roig<sup>1</sup>, A. De Paz Marcos<sup>1</sup>, F. Martínez-Zaragoza<sup>1</sup>, M. Pastor-Mira<sup>1</sup>, S. Ivorra-López<sup>1</sup>

<sup>1</sup>University Miguel Hernández, Spain

**Background:** Professionals may have misconceptions about dementia, negative beliefs towards the behaviour of patients and emotional reactions. The professionals' illness representations of dementia could influence their work satisfaction and the quality of care they provide to patients in nursing homes. Using the self-regulatory model, we examine the relationship between mental and emotional illness representation and job satisfaction, exploring the mediated role of self-efficacy.

**Methods:** A total of 273 professionals, nurses and other (physiotherapists, psychologists, social workers, physicians, occupational therapists, social educators and managers) working in 22 nursing homes participated in this exploratory study. We administrated a Spanish adaptation of the IPQ-R, a work self-efficacy measure and a specific job satisfaction questionnaire. Path analyses were performed.

**Results:** While emotional representation was directly associated to global satisfaction ( $r^2=10.3\%$ ) and did not predicted intrinsic job satisfaction, the associations between cognitive illness representation and both intrinsic and global job satisfaction were mediated by self-efficacy ( $r^2=10.2\%$  and  $25\%$ ). "Coherence and understanding" was the cognitive dimension related to self-efficacy in model predicting global satisfaction ( $r^2=10.3\%$ ). And this dimension together with "Professional control" were associated to self-efficacy to predict intrinsic job satisfaction ( $r^2=37.2\%$ ).

**Discussion:** Specific training programs for dementia care staff should include characteristics of mental representation dimensions of dementia, especially those related to low sense of competence and job satisfaction. Training should be focused on improving a complete comprehension dementia and managing emotional reactions.

15:30 - 17:00

## A new survey tool characterising European community health workers supporting 'men having sex with men'

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<sup>6</sup>Aids Action Europe, Germany

<sup>7</sup>European Aids Treatment Group, Belgium

**Background:** Community health workers (CHW) supporting gay, bisexual, and other men who have sex with men (MSM) play a crucial role in delivering sexual health focused public health activities. Yet little is known or understood about this workforce across Europe. Our study aimed to develop the first multi-lingual European survey to characterise these CHWs including their activities and to understand their training needs.

**Methods:** An online survey targeting CHWs was developed via scoping exercise of existing surveys, development of a concept map and logic model, consultation of 25 organisations across Europe, 2 stages of piloting and cognitive debriefing interviews. The survey was translated into 15 European languages; it generated responses from n=1,035 participants.

**Results:** CHWs present a diverse workforce in Europe, so far without a common and well defined professional identity or recognition. Data demonstrates heterogeneous CHW demographic profiles, job titles, scope of practices and settings, as well as challenges to performing the role including stigma. CHW report high job satisfaction and self-efficaciousness although mean well-being scores were low (mean score =64 out of maximum 100). Over 90% of CHWs reported receiving training in areas relevant to their role; many indicate additional training and continuing education needs.

**Conclusions:** The ECHOES survey represents a significant step forward in understanding the CHW workforce operating in Europe. Such understandings are necessary to enhance and strengthen public health policies and practices to re-dress the disproportionate impact of HIV, viral hepatitis and other STIs in gay/bisexual and other MSM populations.

## Posters

# Health literacy, communication and information

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Radomír Masaryk

15:30 - 17:00

## Musicians' health literacy: a cross-sectional UK study

R. Matei<sup>1</sup>

<sup>1</sup>Royal Northern College of Music, United Kingdom

**Background:** Professional music making may have deleterious effects on musicians' health. Health literacy is a set of cognitive and social skills that guide individuals' motivation and ability to access, understand and use health-related information in order to manage their own health. This study was aimed at investigating UK-based musicians' health literacy for the first time.

**Methods:** An online cross-sectional study using the Health Literacy Questionnaire (HLQ) was conducted between November 2018 and January 2019. The HLQ consists of nine dimensions, such as 'feeling understood and supported by healthcare providers' and 'ability to understand health information well enough to know what to do'.

**Expected results:** Subsequent to obtaining ethical approval, 216 musicians took part. Mean scores for each of HLQ scale were calculated. For the first five scales answered using response options ranging from 'Strongly disagree' (1) to 'Strongly agree' (4), the highest overall score was found for the scale 'Social support for health' (M=2.90, SD=0.50). The lowest score was for 'Feeling understood and supported by healthcare professionals' (M=2.56, SD=0.65). For the last four scales ranging from 'Cannot do' (1) to 'Very easy' (5), highest score was for 'Understand health information enough to know what to do' (M=3.85, SD=0.64), while lowest was for 'Navigating the healthcare system' (M=3.27, SD=0.73).

**Current stage of work:** The study will run until March 2019 and updated findings will be presented at the conference.

**Discussion:** Identifying health literacy strengths and limitations may help health psychologists and health professionals to address the needs of musicians more specifically.

15:30 - 17:00

## The Gresham's Law in Health Communication: When conspiracy theories drive out scientific information in uncertainty

C.L.K. Leung<sup>1</sup>, K.K. Li<sup>1</sup>

<sup>1</sup>Department of Social and Behavioural Sciences, City University of Hong Kong, Hong Kong

Medical conspiracy theories pose detrimental public health consequences. The underlying mechanism regarding individuals' tendency to believe in conspiracy theories remained unclear. We propose that uncertainty decrease sense of control, and that would facilitate the endorsement of conspiracy theories over genuine scientific information, which are usually easier to comprehend than scientific theories, in order to replenish the sense of control, a.k.a conspiracy effect.

A novel experimental paradigm would be devised. In Study 1 with a 2x3 design, participants would be randomly assigned into groups with or without manipulation in uncertainty level, and exposed to different information (conspiracy theory, or genuine scientific information, or both). The implicit sense of control would be measured by intentional binding. The outcome variable would be the extent of endorsement towards conspiracy theories and scientific knowledge in general. Study 2 is a 2x3x2 design that follows the methodology of Study 1 except, after the presentation of conspiracy or scientific information, participants would or would not be given a manipulation in boosting their sense of control.

We expect that conspiracy effect to appear in uncertainty when they are also exposed to a conspiracy theory. However, if the participants also with their sense of control being boosted, we expect the conspiracy effect vanishes.

We are working on the details of the experiments.

The study contributes to revealing the potential detrimental effect of conspiracy theories in health communication. Boosting the sense of control in an individual may serve as an intervention in inoculating people from the harm of conspiracy theories.

15:30 - 17:00

## Discernment in health related news stories: qualitative analysis of themes in focus groups

R. Masaryk<sup>1</sup>, N. Vorelová<sup>1</sup>

<sup>1</sup>Institute of Applied Psychology, Faculty of Social and Economic Sciences, Comenius University in Bratislava, Slovakia

In the age of ubiquitous misinformation it is vital to practice discernment in understanding news stories and articles. This is even more important when it comes to news and information related to health because health literacy is an important factor in making health related decisions. In our research we exposed undergraduate psychology students to a series of health-related information in 6 focus groups. Using thematic analysis we identified different themes associated with health-related topics. For instance one of the main themes seems to be the dichotomy of natural vs. chemical/artificial. The results will be used in building targeted interventions to support discernment in secondary school pupils. The contribution is a part of the VEGA Grant No. 1/0641/19.

15:30 - 17:00

## Reducing the transmission risk of antimicrobial resistant germs: Swiss peoples` awareness of exposure pathways

C. Freivogel<sup>1,2</sup>, V. Visschers<sup>1</sup>, I. Lechner<sup>3</sup>, K. Stärk<sup>3</sup>

<sup>1</sup>FHNW, Switzerland

<sup>2</sup>University of Zurich, Switzerland

<sup>3</sup>SAFOSO, Switzerland

**Background:** Antimicrobial resistant (AMR) pathogens are not only evolving in individuals exposed to antimicrobials, but can also spread via the food chain or pets to humans and result in infection treatment failure. The general public can play an important role in slowing down the spread of AMR by engaging in behaviours to prevent the transmission of AMR bacteria, such as practicing proper hygiene in their daily lives. In order to develop an intervention strategy, we aimed to investigate Swiss laypeople's perceptions of AMR exposure pathways.

**Method:** We conducted semi-structured in-depth interviews with food preparers (N=7) and pet owners (N=7) to examine their awareness, knowledge, beliefs and perceived risks of AMR and of AMR exposure pathways, as well as strategies and behaviour undertaken to mitigate exposure to relevant AMR sources.

**Findings:** Overall, AMR was not perceived as a risk, neither through consuming food products nor by pet contact. Travelling was considered as a riskier exposure source, as were foods from abroad. Basic safety rules were vaguely known and not associated with the reduction of AMR transmission. A disparity between hygiene knowledge and self-reported practices emerged.

**Discussion:** In line with the optimism bias, participants believed others are at higher risk. Among other factors, we identified a lack of knowledge and misconceptions about AMR and about safety measures as barriers preventing laypeople from carrying out food or pet safety actions. Therefore, knowledge, risk perception, outcome expectancies and perceived personal control should be addressed in an intervention to reduce laypeople's risk of AMR exposure.

15:30 - 17:00

## Health psychology in musicians' training: qualitative programme evaluation

R. Matei<sup>1</sup>

<sup>1</sup>Royal Northern College of Music, United Kingdom

**Background:** Despite recommendations for the implementation of undergraduate health courses for music students, few such courses have been evaluated to date. On this basis, the aim was to design, run and evaluate a six month health education programme for first-year students at the Royal Northern College of Music, in Manchester, as part of their core curriculum, starting from October 2016.

**Methods:** The programme design was based on a critical appraisal of the literature and the incorporation of health psychology for the first time. Lectures and seminars covered a range of relevant topics such as effective practice and rehearsal strategies, anatomy, performance anxiety, and lifestyle (physical activity, nutrition, sleep and stress management), including an overview of the COM-B model and a toolbox of relevant behaviour change techniques. Subsequent to ethical approval, 20 semi-structured interviews were conducted at the end of the course to investigate health- and practice-related behavioural changes and general feedback. Verbatim transcriptions were thematically analysed.

**Findings:** Four main themes were identified: perceived benefits of the course (including behavioural changes in both practice patterns and lifestyle); effective components of the course such as the intimate nature of seminars; potential barriers such as a perceived lack of relevance of the health content with regards to performance quality; and suggestions for improvement (including providing reliable information in an electronic format and more seminars).

**Discussion:** The first health education programme incorporating health psychology among musicians was positively received and was associated with self-reported behavioural changes.

# Posters

## Gender and wellbeing

15:30 - 17:00

Business Centre, Valamar Lacroma Hotel

Yael Benyamini

15:30 - 17:00

## #MeToo: Meanings and mobilisations for young people's negotiation of sexual harassment

S. Jackson<sup>1</sup>, A. Lyons<sup>1</sup>, T. Neha<sup>1</sup>, R. Gill<sup>2</sup>, J. Ringrose<sup>3</sup>, A. Dobson<sup>4</sup>

<sup>1</sup>Victoria University of Wellington, New Zealand

<sup>2</sup>City University, London, United Kingdom

<sup>3</sup>University College London, United Kingdom

<sup>4</sup>Curtin University, Australia

**Background:** '#MeToo' has created unprecedented public and media discourse about sexual harassment with "no end in sight". Yet, although sexual harassment is a key problem threatening well-being for high school students, young people's voices are missing. Our pilot project asks: how do young people understand #MeToo and related discourse, how does it affect them and how does it shape their responses to sexual harassment?

**Methods:** This critical health psychology project draws on an affective-discursive framework to explore our research questions. We aim to recruit young people aged 16-18 of diverse identities (gender, sexuality) and socio-cultural backgrounds. Our methods include friendship-based focus groups, digital ethnography, and textual analyses of media texts gathered by participants. Multimodal affective-discursive analyses will enable us to discover how meanings, affect, and practices cohere in young people's sense-making around mediated sexual harassment and well-being.

**Expected results:** We expect to map the diverse ways in which young people engage with and respond to mediated stories of sexual harassment and contribute important knowledge about how their local cultures (e.g., friends, school culture) shape meanings of, and responses to, mediated sexual harassment which may impact well-being.

**Current stage of work:** A pilot project is underway which aims to establish relationships with schools, consult with stakeholders, develop indigenous and ethical protocols and trial our methodology.

**Discussion:** #MeToo provides a platform for opening up discussions about sexual harassment among, and with, young people which holds possibilities for improving well-being through the new capacities it may facilitate (e.g. recognising, challenging, voicing sexual harassment).

15:30 - 17:00

## Making sense of depression: Representations of depression in the Greek-Cypriot public.

M. Orphanidou<sup>1</sup>, I. Kadianaki<sup>1</sup>

<sup>1</sup>University of Cyprus, Cyprus

**Background:** This project adopts a Social Representations Theory (Moscovici, 1961) approach to explore representations of depression in the Greek-Cypriot context at different levels: the public, the press and those diagnosed with depression. The current part of the research asks: In what way(s) is depression understood and represented in the discourses of lay individuals of different ages? By posing this question, the project aims to contribute to a largely attitude-based literature with a more dynamic socio-constructionist framework, and to understand how representations of depression change with age.

**Methods:** Participants of any gender, SES, and educational background divided into four groups according to four developmental stages; late adolescence (16-20years old), early adulthood (25-35years old), middle adulthood (40-55years old), and late adulthood (65-80years old). Data will be collected via focus-groups; two focus-groups for each age-group with 5-7 participants in each group. Data will be qualitatively analysed using Thematic Analysis, which allows access to patterns of meaning that participants use to make sense of social phenomena.

**Expected results:** It is anticipated that meanings of depression will be varied and at times antithetical, reflecting both medicalised and non-medicalised constructions of depression.

**Current stage of work:** Currently working on data collection.

**Discussion:** Given that public beliefs about depression have the potential to affect patients' treatment-related decisions (e.g., treatment seeking, adherence) and feelings of self-stigmatisation, exploring the meaning ascribed to the construct of depression has important implications for improving health-related outcomes. It can also contribute to the design of awareness and anti-stigma campaigns, and suggest related policies.

15:30 - 17:00

## Gender stereotypical images of medical students towards women with pre-menstrual symptoms: An experimental study

R. Morais<sup>1</sup>, S. Bernardes<sup>1</sup>, P. Verdonk<sup>2</sup>

<sup>1</sup>ISCTE - Instituto Universitário de Lisboa, Portugal

<sup>2</sup>Amsterdam UMC, Vrije Universiteit Amsterdam, department Medical Humanities, APH research institute, Netherlands

**Background:** Health professionals may be underassessing and undertreating women with Premenstrual Syndrome (PMS) or Premenstrual Dysphoric Disorder (PMDD). Understanding the complexity of the stereotypical images of women with SPM and PMDD is a priority, as these this could to some extent influence physicians' assessment and treatment practices towards women with PMS/PMDD.

**Goals:** Drawing upon Gender Stereotype Models, this study aimed to investigate the extent to which a woman with PMS/PMDD is perceived as more typically feminine and less typically masculine than the stereotypical woman.

**Methods:** 256 medical students (73.4% females) participated in a between-subjects design, with one manipulated variable – type of character (woman with SPM vs. PMDD vs. typical woman) and one natural variable – participants' sex (man vs. woman). Written vignettes depicting a case of a woman with PMS or PMDD were presented. Participants were asked to assess the extent to which a set of personality traits, previously tested as being typically masculine (social dominance and instrumentality traits) or feminine (expressiveness traits), characterized the woman with SPM/PMDD/typical woman.

**Findings:** Women with PMS and PMDD were perceived as having less typically masculine traits compared to typical woman, namely, social dominance and instrumentality. The woman with PMS was perceived as less expressive compared to the typical woman.

**Discussion:** These findings suggest that gender stereotypes influence medical students' perceptions of women with PMS/PMDD. Implications of these results for the diagnosis and treatment of these women and for health-care professionals' gender awareness training are discussed.

**Key-words:** Premenstrual Syndromes; Women; Gender Stereotypes.

15:30 - 17:00

## Mental health disorders of traditionally circumcised males in the Eastern Cape Province of South Africa.

A. Nyembezi<sup>1</sup>

<sup>1</sup>University of the Western Cape, South Africa

**Background:** In recent years, initiation and traditional male circumcision, which is a rite of passage that marks the transition from boyhood to manhood among other African nations have become a matter of significant public health concern, following an increase in the morbidity and mortality rates resulting from botched circumcisions. As a result, a significant number of males are admitted to hospitals due to severe medical complications. However, we know little about the nature of mental health problems of hospitalised traditional circumcised men. The aim of this study is to understand the available public mental health policies and services for these hospitalised males in the Eastern Cape Province of South Africa.

**Methods:** This explorative qualitative study will be conducted among 15 professional health care workers who have experience with mental health problems among males admitted to one of the public hospitals after traditional circumcision processes. Data will be collected using in-depth, individual interviews. Ethics approvals have been will be granted by the University of the Western Cape, Walter Sisulu University, Eastern Cape Province Department of Health and the selected hospital.

**Conclusions:** The evidence generated will enable policymakers and stakeholders to better understand the nature of mental disorders and the adequacy of current surveillance systems and strategies for monitoring mental health disorders among males who have undergone traditional circumcision. This can contribute to better awareness, screening, planning of services and resource allocation decisions to mental health services tailored to the needs of these males.

15:30 - 17:00

## Couples` mental health in the perinatal period: a longitudinal study

A. Camarneiro<sup>1,2</sup>, J. Justo<sup>2</sup>

<sup>1</sup>Nursing School of Coimbra; UICISA-E, Portugal

<sup>2</sup>Faculty of Psychology — Lisbon University, Portugal

**Introduction:** Emotional experiences of depression, anxiety and stress, and psychosymptomatology in the perinatal period can affect marital adjustment and attachment to the baby.

**Objectives:** To compare depression, anxiety, stress and psychosymptomatology in women, men and couples in pre- and postnatal periods.

**Methodology:** Descriptive-correlational, longitudinal study. A total of 134 men and women participated in two moments, during pregnancy and 8 months postpartum. Inclusion criteria: marital relationship, low obstetric risk; absence of psychopathology.

**Instruments:** sociodemographic questionnaire; DASS-42 (Depression, Anxiety and Stress Scale); BSI (Brief Symptoms Inventory). Data analysis with SPSS22. Fulfilled ethical principles.

**Results:** Average values of depression, anxiety, stress and psychosymptomatology in women and men were highest in the postnatal period. In women, significant differences were found in: stress ( $p=.045$ ); obsessions-compulsions ( $p=.003$ ); interpersonal sensitivity ( $p=.017$ ); depression ( $p=.038$ ); hostility ( $p=.005$ ); paranoid ideation ( $p=.003$ ); psychoticism ( $p=.031$ ).

Between couples, in pregnancy, women exhibited significantly higher levels than men, of anxiety ( $p=.000$ ); stress ( $p=.000$ ), somatization ( $p=.000$ ), depression ( $p=.003$ ), anxiety ( $p=.000$ ), phobic-anxiety ( $p = .000$ ), obsessions-compulsions ( $p=.027$ ), interpersonal-sensitivity ( $p=.015$ ), hostility ( $p=.038$ ).

In the postnatal period, there are significant differences between spouses, with higher levels in women, on somatization ( $p=.001$ ) and obsessions-compulsions ( $p=.045$ ).

**Conclusion:** Women present more emotional and psychopathological difficulties than men in their perinatal trajectory. Psychological assessment is required and psychological counseling should be provided to women and men who need it.

**Rapid Communication Symposium**  
**Understanding intervention effectiveness: analysing potential for change, improving intervention reporting, and using machine-readable decision justifications**

15:30 - 17:00

Elafiti 4, Valamar Lacroma Dubrovnik

Gjalt-Jorn Peters and Neža Javornik; Discussant: Alexandra Dima

15:30 - 15:45

## Potential for change ( $P\Delta$ ): New metrics for tailoring and predicting response to behavior change interventions

K. Knittle<sup>1</sup>, G. Peters<sup>2</sup>, M. Heino<sup>1</sup>, R. Tobias<sup>3</sup>, N. Hankonen<sup>1</sup>

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<sup>2</sup>Open University of the Netherlands, Netherlands

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**Background:** Behavior change interventions assume that changes in social, cognitive and environmental determinants of behavior lead to changes in behavior. To benefit from an intervention, an individual must be deficient in the target behavior and in one or more of its theoretical determinants. The presence of ceiling/floor effects therefore limits the theoretically-possible impact of an intervention on behavior. This talk introduces a novel integrative construct, potential for change ( $P\Delta$ ), which accounts for such ceiling/floor effects to predict an individual's likelihood of response to an intervention.

**Methods:** This study analyses data from an RCT testing the Let's Move It (LMI) intervention - a complex theory-based intervention to increase moderate-to-vigorous physical activity (MVPA) and reduce sedentary behavior in vocational schools. Using baseline data, we calculated determinant-level  $P\Delta$  scores for 12 named theoretical determinants in the LMI intervention. We then calculated  $P\Delta$ -global, the mean of the 12  $P\Delta$ -determinant scores, weighted by each determinant's association with MVPA at baseline. This study examines the distribution of  $P\Delta$ -global and tests its ability to predict intervention response.

**Findings:** Among intervention recipients,  $P\Delta$ -global follows a normal distribution and is significantly related to increases in accelerometer-measured MVPA ( $r=.269$ ;  $p<.001$ ) and self-reported days per week with at least 30 minutes of MVPA ( $r=.175$ ;  $p=.001$ ), the study's primary outcomes.

**Discussion:** In this study,  $P\Delta$ -global accounted for floor/ceiling effects and predicted response to a theory-based behavior change intervention. Possible future uses of  $P\Delta$  include applying it to time-series data of individual determinants as a means to tailor intervention delivery.

[repository: <https://osf.io/25ewr/>]

15:45 - 16:00

## Which treatment-as-usual characteristics need to be reported? A narrative review of content and contextual treatment-as-usual characteristics

N. Javornik<sup>1</sup>, D. Powell<sup>1</sup>, M. Campbell<sup>1</sup>, M. de Bruin<sup>1,2</sup>

<sup>1</sup>University of Aberdeen, United Kingdom

<sup>2</sup>Radboud University Medical Centre, Netherlands

**Introduction:** Treatment-as-usual (TAU) is often used as comparator in behaviour change trials, but its characteristics are poorly described in published manuscripts (i.e., what was TAU in this trial)? This study set out to identify what TAU characteristics may be relevant to report in health behaviour change trials.

**Methods:** A narrative review was conducted using a systematic search approach. PsycINFO, MEDLINE and Web of Science were searched using terms for TAU (in title) and trial or review (in abstract or topic). Data were extracted qualitatively from relevant health and clinical psychology studies published since 1998. Studies had to assess contextual and content characteristics of treatment-as-usual, and their potential impact on outcomes. One coder extracted data on study identifier, methodology, results, and TAU intervention characteristics.

**Results:** Eligible studies (N=31) included qualitative and systematic reviews and trial studies. Content was characterised as type of treatment (n=8), adherence to guidelines (n=2) or treatment components (e.g. behaviour change techniques) (n=7). Contextual characteristics, namely provider (n=7), setting (n=4), tailoring (n=3), duration (n=1), and mode (n=1), were mapped onto reporting frameworks. Credibility of treatment (n=2), attention (n=2) and therapeutic alliance (n=3) were additionally identified as potentially important. Contextual and content characteristics were predictive of outcomes in 26/31 studies.

**Discussion:** Extracted content and contextual TAU characteristics could mostly be integrated within existing reporting frameworks (e.g. CONSORT-SPI, TIDieR). Additional TAU characteristics (credibility of treatment, attention and therapeutic alliance) were also identified. The extracted characteristics will be used to form a basis for a Delphi expert consensus on TAU reporting.

16:00 - 16:15

## Development of an ontology characterising the 'source' delivering behaviour change interventions

E. Norris<sup>1</sup>, A. Wright<sup>1</sup>, N. Boyt<sup>1</sup>, R. West<sup>1</sup>, S. Michie<sup>1</sup>

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**Background:** The 'source' of an intervention, defined as the individual or organisation that delivers the intervention, is often poorly reported. In order to accumulate evidence across studies, it is important to use a comprehensive and consistent method for reporting intervention characteristics, including the intervention source. This study used a structured method to develop part of the Behaviour Change Intervention Ontology specifying source characteristics.

**Methods:** Development of the 'Behaviour Change Intervention (BCI) Source' ontology followed a pre-specified methodology involving three phases:

1. A draft ontology was constructed by identifying relevant source entities from 100 research trial reports and existing ontologies and classification, such as the International Standard Classification of Occupations (ISCO-08).
2. Two coders used this draft to independently annotate 120 BCI trial reports (80 smoking cessation and 40 physical activity) and revised the draft.
3. Expert stakeholders provided feedback on the comprehensiveness and clarity of the revised draft ontology via an online portal and final revisions were made.

**Findings:** The Source ontology has 190 entities after expert stakeholder review, covering role, expertise, relationship with individuals targeted by the intervention, and whether the source was paid for delivery.

**Discussion:** The BCI Source Ontology captures key characteristics of those delivering behaviour change interventions. This is useful for replication, implementation and evidence synthesis and provides a framework for describing source when writing and reviewing evaluation reports.

(repository: <https://osf.io/wznsc/>)

16:15 - 16:30

## Acyclic Behavior Change Diagrams: human- and machine readable reporting of intervention content and causal logic

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To progress behavior change science, research syntheses are crucial. However, they are also costly, and unfortunately, often yield relatively weak conclusions because of poor reporting. Specifically, in the context of behavior change, the structural and causal assumptions underlying behavior change interventions are often poorly documented, and no convenient yet comprehensive format exists for reporting such assumptions.

In this contribution, Acyclic Behavior Change Diagrams (ABCDs) are introduced. ABCDs consist of two parts. First, there is a convention that allows specifying the assumptions most central to the dynamics of behavior change in a uniform, machine-readable manner. Second, there is a freely available tool to convert such an ABCD specification into a human-readable visualisation (the diagram), included in the open source R package 'behaviorchange'.

ABCD specifications are tables with seven columns, where each row represents one hypothesized causal chain. Each chain consists of a behavior change principle (BCP), for example a BCT, that leverages one or more evolutionary learning processes; the corresponding conditions for effectiveness; the practical application implementing the BCP; the sub-determinant that is targeted, such as a belief; the higher-level determinant that belief is a part of; the sub-behavior that is predicted by that determinant; and the ultimate target behavior. The ABCD is illustrated using an evidence-based intervention to promote hearing protection.

ABCDs conveniently make important assumptions underlying behavior change interventions clear to editors and reviewers, but also help to retain an overview during intervention development or analysis. Simultaneously, because ABCD specifications are machine-readable, they maximize research synthesis efficiency.

[repository: <https://osf.io/4ta79>]

16:30 - 16:45

## Enhancing research synthesis by documenting intervention development decisions: Examples from two behavior change frameworks

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To support the development of behaviour change interventions, there is a considerable amount of guidance (e.g. Intervention Mapping) on how to select behaviours, identify behavioural determinants, and select methods/techniques. When it comes to decisions about which modes of delivery are best for certain methods, and how they should be designed, there is little guidance.

While researchers make these decisions during the development of interventions, these decisions are not well documented, and as such, opportunities to learn from the justifications of those decisions are lost. An easily usable, systematic, efficient and machine-readable approach to reporting decisions and justifications of such decisions would improve this situation and enable accumulation of the knowledge that at present remains largely implicit.

We introduce 'justifier', an R package that allows reading and organizing fragments of text that encode such decisions and justifications. By adhering to a few simple guidelines, the meeting minutes and documentation of the intervention development process become machine-readable, enabling aggregation of the decisions and their evidence base over one or multiple intervention development processes. Tools such as heatmaps can be used to visualise these patterns, quickly making salient where decisions were based on higher and lower quality evidence.

We present two hierarchical compilations of the key decisions to justify during intervention development, one based on the Behavior Change Wheel procedure and one based on the Intervention Mapping protocol. Using the proposed 'justifier' format document the decisions and their justifications in these key domains provides greater insight in the intervention development process.

[repository: <https://osf.io/ndxha/>]

## ORAL

# Stress, mental health and chronic illness

9:30 - 11:00

Elafiti 1, Valamar Lacroma Dubrovnik

Elizabeth Broadbent

9:30 - 9:45

## Does compassion predict blood pressure and hypertension: the modifying role of familial risk for hypertension

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**Background:** The current psychosocial treatments for raised blood pressure are shown to be comparatively ineffective. Hence, there is a need for novel psychosocial treatments. We investigated (i) whether compassion is associated with blood pressure or hypertension in adulthood and (ii) whether familial risk for hypertension modifies these associations. **Methods:** The participants (N=1103–1289) came from the prospective Cardiovascular Risk in Young Finns Study. Parental hypertension was assessed between 1983–2007; participants' blood pressure in 2001, 2007, and 2011 (participants were aged 24–39 years); participants' hypertension in 2007 and 2011; compassion in 2001; self-reported health behavior in 2001–2011; participants' socioeconomic factors in 2011; and their parents' socioeconomic factors in 1980. The data was analyzed using logistic and linear regression analyses.

**Findings:** High compassion predicted lower levels of diastolic and systolic blood pressure in adulthood both among individuals with and without familial risk. Additionally, we found that a 1-SD increase in compassion was related to 0.49 times lower odds of hypertension in adulthood among individuals with no familial risk for hypertension. This association was independent of controlling for age, gender, participants' and their parents' socioeconomic factors, and health behaviors (i.e. coffee consumption, smoking status, alcohol use, body-mass index, and physical activity). Compassion for others was not related to hypertension in adulthood among individuals with familial risk for hypertension.

**Discussion:** High compassion may predict lower diastolic and systolic blood pressure among individuals with and without familial risk for hypertension. Moreover, high compassion may protect against hypertension among individuals without familial risk for hypertension.

9:45 - 10:00

## Synergism between physicians' empathy, bad news and cancer death: The role of hopelessness and inflammation

Y. Gidron<sup>1</sup>, V. Christophe<sup>1</sup>, A. Cortot<sup>2</sup>, S. Lelorain<sup>1</sup>

<sup>1</sup>Lille University, France

<sup>2</sup>CHRU Lille, France

**Background:** We recently found that providing too much (emotional) empathy when giving bad news to cancer patients, predicted higher risk of death. The present study reanalysed those data to reveal the psychoimmunological mechanisms underlying this unexpected finding.

**Method:** In a sample of 179 French patients with lung cancer, 70 had data on hopelessness and inflammation (C-reactive protein - CRP, and neutrophil/lymphocyte ratio - NLR). Patients assessed oncologists' empathy and the content of their clinical encounter was registered (usual follow-up or providing bad news of disease progression). Overall survival (OS) was registered.

**Findings:** Initially, we found that type of consultation (usual/bad news) synergistically interacted with physicians' empathy in relation to OS: Level of empathy was positively associated with risk of death only when receiving bad news. In the reanalysis, we found that patients receiving bad news had significantly higher levels of hopelessness, and two months later, had significantly higher levels of CRP and NLR, than those receiving neutral news, only if doctors were high on empathy.

**Discussion:** The unexpected synergism of high empathy with giving bad news to cancer patients in relation to OS may have occurred due to increased hopelessness and inflammation, known predictors of poor cancer prognosis. A plausible psycho-neuro-immunological explanation, the study's limitations and future directions will be discussed.

10:00 - 10:15

## Disengagement and acceptance as mechanisms of a mindfulness-based stress reduction program for subclinical social anxiety

C.A. Stefan<sup>1</sup>, M. Szilagyi<sup>1</sup>, C. Capraru<sup>1</sup>

<sup>1</sup>Babes-Bolyai University, Romania

**Background:** Empirical findings support the notion that mindfulness-based interventions are effective for a wide range of mental health issues such as subclinical social anxiety, mainly by enhancing the use of adaptive coping strategies. Hence, the current study was aimed at investigating: 1) the effectiveness of a mindfulness-based stress reduction (MBSR) program for college students at risk of social anxiety; and 2) disengagement and acceptance as potential mechanisms responsible for eliciting MBSR related changes in subclinical anxiety.

**Methods:** The sample was comprised of first year college students (N = 51), who were randomly assigned to either the MBSR intervention or control group. A 6 week long version of the original 8 week MBSR training was implemented. Assessments were conducted before and after the MBSR program and were performed employing the Liebowitz Social Anxiety Scale, as well as the COPE Inventory.

**Findings:** Mixed ANOVAs revealed that the MBSR intervention group reported significantly lower levels of social anxiety, as well as the use of significantly more disengagement and acceptance coping strategies compared to their control group counterparts. When a multiple mediation analysis was performed, the findings revealed that acceptance, but not disengagement coping, mediated the intervention's effectiveness on social anxiety.

**Discussion:** These findings suggest that a short, 6 week MBSR intervention could be a potentially effective intervention for preventing social anxiety disorders in young adults. Furthermore, it would suggest that although MBSR could lead to enhanced adaptive coping, it is possible that specific coping skills might be related to lower levels of social anxiety.

10:15 - 10:30

## Hair-cortisol as risk factor of poor metabolic control in pediatric patients with type 1 diabetes

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<sup>4</sup>Departement of Psychosomatics and Psychiatry and Children's Research Center, University Children's Hospital Zurich, Switzerland

**Background:** Type 1 diabetes (T1D) is one of the most common chronic illnesses among children and adolescents. Despite intensive medical care, poor metabolic control remains a major issue in many patients. Chronic hyperglycemia is the primary cause of morbidity and mortality in T1D. Psychosocial aspects, including stress, have been defined as the most important risk factors for poor T1D management.

**Aim:** To investigate the impact of patients' and parents' perceived and chronic stress on metabolic control in pediatric patients.

**Methods:** N=46 children and adolescents (age: 7–18; M=14.09, SD=3.22), diagnosed with T1D, were recruited for this cross-sectional study. Perceived stress (PSS-10; subscales: perceived helplessness, perceived self-efficacy) was assessed by structured interviews in patients and by questionnaires in parents. Cortisol levels were analyzed to measure chronic stress in 3 cm proximal hair-segments of patients (n=41) and parents (mothers=17, fathers=2). HbA1c (average blood sugar over past 3 months) served as indicator for metabolic control. For statistical analyses partial correlations and moderations were conducted.

**Results:** Mothers' ( $r=.490$ ,  $p=.005$ ), but not fathers' ( $r=.001$ ,  $p=.995$ ) or patients' ( $r=-.222$ ,  $p=.231$ ) perceived stress was significantly positively correlated with HbA1c. Fathers' perceived helplessness moderated the association between mothers' perceived helplessness and HbA1c ( $\beta=.015$ ,  $p=.031$ ). Mothers' and patients' cortisol levels were positively related ( $r=.549$ ,  $p=.042$ ). There were no significant association between child ( $r=.206$ ,  $p=.214$ ) or parental ( $r=-.462$ ,  $p=.071$ ) cortisol and HbA1c.

**Discussion:** Perceived stress of parents should be considered as important factor when counseling children and adolescents with T1D. More data need to be collected in this ongoing project.

10:30 - 10:45

## The effects of environmental enrichment after a stressor on human skin healing

M. Law<sup>1</sup>, E. Broadbent<sup>1</sup>, P. Jarrett<sup>1</sup>

<sup>1</sup>University of Auckland, New Zealand

**Background:** Environmental enrichment (EE) has been found to reduce stress, alter immunity and speed wound healing in animals. However, it is not yet known whether these effects translate to humans. This study aimed to investigate whether different forms of sensory EE could improve wound healing after a stressor in a human population.

**Methods:** 105 healthy participants were wounded using a standardised tape-stripping procedure and then stressed using a laboratory stress paradigm, the Trier Social Stress Test. After this, they were randomised to interact for 30 minutes with one of two possible sensory EE interventions (music as auditory enrichment or a Paro robot (a pet-like seal) as multi-sensory enrichment), or to a control group. Skin barrier recovery was measured using transepidermal water loss at baseline, after the stressor and after the EE intervention. Enjoyment during the intervention was measured by self-report.

**Findings:** The Paro group had significantly improved skin barrier recovery ( $M=44\%$ ,  $SE=1.92$ ) compared to the control group ( $M=37\%$ ,  $SE=2.01$ ,  $F(2,88)=3.25$ ,  $p=.043$ ). The music group did not significantly differ from the other two groups ( $M=42\%$ ,  $SE=1.95$ ,  $ps>.05$ ). Mediation analysis showed that enjoyment during the intervention period significantly mediated this relationship between group and skin barrier recovery ( $z=2.00$ ,  $p=.046$ ).

**Discussion:** Paro may be an effective form of enrichment to improve skin barrier recovery in humans, and this effect may be due to enjoyment. Further research with patient groups is required to investigate whether Paro can help heal clinical wounds, and if effective, Paro could be used to help improve skin healing rates.

10:45 - 11:00

## Training or App? Comparison of two stress prevention interventions for the digitalized world of work

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<sup>1</sup>Denkverstärker, Germany

<sup>2</sup>Technische Universität Braunschweig, Germany

Work-related stress is a widespread problem (Eurofound and EU-OSHA, 2014) that leads to high costs (EU-OSHA, 2014). Therefore, effective stress prevention is of high importance. Apps have potential to be an alternative to stress prevention trainings but there are only few available with a psychological founding.

This study aims at comparing the effects of two interventions: a two-day training and the Stresscue app that are both based on a psychological stress prevention concept (Kortsch & Paulsen, 2017) as well as on the job demands resources model (Demerouti et al., 2001).

In a pre-post design, group 1 (N=19) participated in the training (EG1), group 2 (N=27) used the Stresscue app for a period of one week (EG2), and the control group (N=26) had no intervention. Stress level, irritation, coping strategies and knowledge about stressors and resources were assessed.

Variance analyses revealed a significant interaction for the stress level but not for irritation, the decrease was stronger in group 1 than for group 2. Knowledge about stressors and resources increased significantly in both group 1 and 2 but not in the control group. Negative coping strategies (resignation, flight) only decreased significantly in group 1.

The study shows that using an app for only one week has a significant impact on people's handling of their stress. Thus, the use for only one week seems to be enough for significant effects. However, trainings including professional guidance are more effective. Therefore, apps constitute a good supplementary stress prevention offering but it cannot replace trainings.

ORAL

# Tobacco control and cancer prevention

9:30 - 11:00

Elafiti 2, Valamar Lacroma Dubrovnik

Samuel Parker

9:30 - 9:45

## Female Smokers' Experiences of an Appearance-focused Smoking Intervention and the Shock Reaction to Morphed Images.

L. Walker<sup>1</sup>, D.k. Scholtens<sup>2</sup>, P.S. Grogan<sup>1</sup>, D.M. Cordero<sup>1</sup>, D.A. Denovan<sup>1</sup>

<sup>1</sup>Manchester Metropolitan University, United Kingdom

<sup>2</sup>Staffordshire University, United Kingdom

**Background:** Previous research has investigated experiences of participants given age-appearance interventions (AAI) for smoking cessation, showing a positive influence on smoking behaviours and intention to quit. Qualitative research has revealed that smokers experience a shock reaction when viewing facial morphing images, and has suggested that shock may increase efficacy of the intervention. The present study was designed to investigate women's experiences of engaging with an AAI under two instruction conditions designed to differentially influence the shock reaction of the participants.

**Methods:** Thirty 18-55 year-old women smokers were administered AAI; fifteen received only basic intervention instructions (Neutral condition), and fifteen received the basic intervention instructions plus reassuring statements designed to reduce shock (Reassuring). Participants' spontaneous responses to the intervention were audio-recorded, after which they engaged in semi-structured interviews (n=30) and focus groups (n=10) to report their experiences. Data were analysed using inductive thematic analysis.

**Findings:** Four main themes emerged: shock reaction, intention to quit, health vs appearance, and perceived susceptibility. Twenty women (75%) expressed experiencing a "shock reaction"; fourteen of these participants (60%) received Reassuring instructions. Twenty women also indicated increased intentions towards quitting smoking; fourteen (60%) of these participants received Reassuring instruction.

**Conclusions:** Women's smoking intentions are positively affected by AAI such as age-appearance facial morphing. Contrary to expectations, Reassuring instructions seem to increase accounts of feeling shocked when viewing the age-morphed smoking images and intention to quit. Future work could use randomised controlled trials to investigate impacts of the two sets of instructions on smoking-related attitudes and behaviours.

9:45 - 10:00

## The effects of cigarette pack inserts with efficacy messages on responses to health warnings

O. Maynard<sup>1</sup>, M. Munafò<sup>1</sup>, M. Hall<sup>2</sup>, S. Ferguson<sup>3</sup>

<sup>1</sup>University of Bristol, United Kingdom

<sup>2</sup>University of North Carolina, United States

<sup>3</sup>University of Tasmania, Australia

**Background:** Fear appeals theory suggests that threatening warnings can promote maladaptive responses in the absence of efficacy to deal with the threat. Cigarette pack inserts, which provide information about how (self-efficacy) and why (response-efficacy) to quit smoking may provide a method of increasing efficacy, thereby reducing maladaptive responses.

**Methods:** Online experiment with 466 current UK adult smokers. Participants viewed either four control inserts (CI) or four efficacy inserts (EI), prior to viewing either three pictorial (high threat) or three text-only (low threat) warnings. Participants then reported their self-efficacy and response-efficacy, as well as reactions to the warnings.

**Findings:** Although participants reported that the EI were more helpful for quitting than CI (Mean Difference (MD)=0.82,  $p<0.001$ ), EI did not increase either self-efficacy (MD=0.05,  $p=0.7$ ) or response-efficacy (MD=0.11,  $p=0.5$ ). Participants viewing pictorial warnings reported higher perceived message effectiveness (PME;  $p=0.002$ ), negative affect ( $p=0.003$ ) and reactance ( $p<0.001$ ) than those viewing text warnings. Crucially, there was little evidence that insert condition influenced any reactions to the warnings (PME:  $p=0.2$ , negative affect:  $p=0.6$ , reactance:  $p=0.2$ ).

**Discussion:** Contrary to predictions based on fear appeals theory, viewing efficacy inserts did not impact responses to threatening (i.e. pictorial) warnings. This may be because the inserts did not increase self-efficacy or response-efficacy. These findings suggest that other types of messages and interventions may be necessary to increase smokers' efficacy. More research is needed to explore the ongoing debate regarding the importance of efficacy and threat for effective fear communication.

10:00 - 10:15

## Efficacy messages in health warning labels on cigarette packaging: A pilot RCT

L. Brinken<sup>1</sup>, S.G. Ferguson<sup>1</sup>, B. Schüz<sup>2</sup>, O. Maynard<sup>3</sup>, M. Frandsen<sup>1</sup>, N. Schuez<sup>4</sup>

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**Background:** Smokers often respond defensively to on-pack warning labels, potentially reducing their effectiveness. The extended parallel processing model (EPPM) posits that including efficacy messages in labels reduces defensive responses and increases target behaviours. This study explored the feasibility and effectiveness of combining current Australian warning labels with efficacy content.

**Methods:** RCT in 77 smokers over three weeks. After a seven-day baseline phase (smoking from usual tobacco packaging), participants were randomised to one of two adhesive labels groups for the remaining 14-days: standard labels featuring efficacy messages (experimental group) or unmodified standard labels (control group). Participants recorded their cognitions and smoking behaviour in real-time using hand-held computers and completed additional scales during daily evening reports.

**Results:** Multi-level analyses were used to test the relationships between group assignment, self-efficacy (assessed on a three-item, 9-point scale), and intentions to quit (two-item, 10-point scale). There was no main effect of experimental group on either self-efficacy (group difference=.10, n.s.) or intentions to quit (group difference=.06, n.s.). However, greater self-efficacy was associated with higher intentions to quit (

10:15 - 10:30

## Effective Implementation Strategies in Promoting Practitioner Delivery of Hospital-Initiated Smoking Cessation

S. Parker<sup>1</sup>, D. Parker<sup>1</sup>, V. Araujo-Soares<sup>1</sup>, D. Ogunbayo<sup>1</sup>, P. Kunonga<sup>1</sup>, R. McGovern<sup>1</sup>, E. Kaner<sup>1</sup>

<sup>1</sup>Newcastle University, United Kingdom

Tobacco dependency is a key factor in 10% of adult deaths worldwide. Over 50% of long-term smokers die on average 10 years prematurely. Most smokers want to quit, with hospitalisation increasing receptiveness to cessation support. Interventions may inadvertently worsen health outcomes; known as health inequity.

We undertook a systematic evidence overview to assess which implementation strategies successfully promote practitioner delivery of hospital-initiated smoking cessation interventions. Searching 10 databases revealed 2,730 unique references; 20 systematic reviews met our inclusion criteria citing 340 unique studies, of which 41 studies were relevant to our overview (11 RCT's; 24 before and after studies; 5 surveys; and 1 qualitative study). Interventions were assessed on implementation domains (EPOC Taxonomy); health equity (PROGRESS); intervention description and delivery (TIDieR); and risk of bias (Cochrane).

Ten-percent of studies incorporated all four EPOC-taxonomy domains; 61% covered three; 7% covered only one. All studies included implementation strategies, 95% and 66% covered delivery and governance arrangements respectively, however only 12% described financial arrangements. Strategies targeting healthcare workers for intervention implementation were incorporated in 95% of studies. Improving health equity formed the basis of 37% of papers; however 17% worsened equity, typically by excluding specific ethnicities/races. Studies commonly failed to describe intervention tailoring (51%) and modifications (80%). Only 1 study had low risk of bias.

A wide variety of implementation techniques were utilised. Assessment on reducing healthcare-generated disparities is often overlooked, and reporting quality and rigour is variable. Analysis of smoking cessation rates and other pertinent secondary outcomes is ongoing.

10:30 - 10:45

## What works for whom? Theory-based systematic review of behaviour change techniques in smoking cessation trials

N. Black<sup>1,2</sup>, M. Johnston<sup>1</sup>, S. Michie<sup>3</sup>, J. Hartmann-Boyce<sup>4</sup>, R. West<sup>3</sup>, W. Viechtbauer<sup>5</sup>, M.C. Eisma<sup>1,6</sup>, C. Scott<sup>7</sup>, M. de Bruin<sup>1,8</sup>

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**Aims:** (1) To use a theory-based approach to identify the effective behavioural components (behaviour change techniques; BCTs) of smoking cessation interventions; (2) to examine whether the effectiveness of these BCTs varies by population and intervention delivery characteristics; (3) to address (1-2) using comprehensive information on both experimental and comparator groups.

**Methods:** This was a systematic review of RCTs of behavioural smoking cessation interventions for adults, with biochemically-verified cessation outcomes at  $\geq 6$  months (PROSPERO: CRD42015025251). We searched the Cochrane Tobacco Addiction Group Specialised Register. Data were reliably extracted from published and unpublished (i.e., obtained from study authors) materials by independent coders. BCTs were organised into the 17 BCT taxonomy v1 clusters and three higher-order, dual-process theory groupings: associative, reflective motivational, and self-regulatory. Analyses were pre-registered (<https://osf.io/m5vea/>), comprised bivariate mixed-effects meta-regression analyses, used well-described experimental ( $k=143$ ) and comparator ( $k=92$ ) groups ( $n=43992$  participants), and controlled for a priori identified confounders.

**Findings:** In interventions delivered by a person, higher smoking cessation rates were predicted by the three higher-order groupings ( $B=0.05-0.06$ ,  $p<.0001$ ) and 12 of the 17 taxonomy clusters ( $B=-0.18-0.21$ ,  $p:<.0001-.361$ ). This was not the case for written (print/digital) interventions ( $B=-0.32-0.13$ ,  $p:.057-.937$ ). A few moderation effects were observed, but not more than would be expected by chance.

**Discussion:** In a sample of both experimental and comparator groups, more (versus less) extensive use of theoretically effective BCTs targeting key processes of behaviour change predict higher smoking cessation rates. This is true across populations and intervention delivery characteristics (except for in writing).

10:45 - 11:00

## Development of a blended intervention to improve adherence to nicotine replacement therapy among pregnant smokers

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<sup>2</sup>University of Nottingham, United Kingdom

**Background:** Smoking in pregnancy is a priority public health issue. Nicotine Replacement Therapy (NRT) is routinely provided to pregnant smokers in the UK yet evidence indicates it is at best borderline effective for this group. This is likely due to women having a faster nicotine clearance rate when pregnant, thereby requiring a higher NRT dose for therapeutic benefits, and because adherence is typically low among this population. The aim was to develop a blended (in-person and digital) NRT adherence intervention for pregnant women.

**Methods:** Findings from 5 systematic reviews, 2 qualitative studies and an expert group informed intervention development. Determinants of NRT adherence were mapped against the Necessities and Concerns Framework, Perceptions and Practicalities Approach and the Theoretical Domains Framework. Determinants were ranked, by consensus, with highest ranked determinants defining intervention objectives and allocated to delivery modes (face-to-face, telephone, SMS, website, leaflet).

**Findings:** Review evidence indicated high-dose, dual product NRT is unlikely to be harmful during pregnancy. Key determinants from reviews and qualitative work included: concerns about NRT's safety in pregnancy due to inconsistent messages; seeing NRT as unnecessary or insufficient for quitting; non-standard NRT usage patterns; ongoing smoking urges or lapses; side effects and practical usage problems; forgetting to take or have NRT available. Intervention objectives were developed and guided a multi-component intervention for delivery alongside usual NHS care.

**Discussion:** This is the first pregnancy-specific NRT adherence intervention to our knowledge. Next steps are feasibility and acceptability testing to optimise the intervention for an efficacy trial.

ORAL

Avoiding, detecting and managing  
illness

9:30 - 11:00

Elafiti 3, Valamar Lacroma Dubrovnik

Arie Dijkstra

9:30 - 9:45

## Was it me? The influence of self-versus provider-directed past mammogram behavior on future mammogram intentions

C. Naivar Sen<sup>1</sup>, L. Baruh<sup>2</sup>, G.T. Kumkale<sup>3</sup>

<sup>1</sup>Ozyegin University, Turkey

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<sup>3</sup>Kadir Has University, Turkey

Past behavior often leads to repeat actions; however, not all past behaviors are created equal. Past health behavior in mammogram screening may be self-directed or health provider-directed. In a longitudinal study, we investigated past mammogram behavior's influence on future mammogram intentions and behavior in 748 Turkish women over the age of 40 using the Integrated Behavioral Model (IBM; an extension of the Theory of Planned Behavior).

In Wave 1, intentions to engage in mammogram screening within the next two years were highest among women with self-directed mammograms ( $M=3.52$ ), followed by provider-directed mammograms ( $M=3.15$ ), and by women having no mammogram history ( $M=2.79$ ). Control and efficacy perceptions were highest in self-directed women. IBM predicted intentions well in both women with no previous mammogram ( $R^2=0.32$ ) and in those with provider-directed screening ( $R^2=0.35$ ) but not in self-directed women ( $R^2=0.07$ ). As for model constructs, descriptive norms predicted future intentions among all three groups of women, but attitudes predicted intentions only among provider-directed and non-screening women. Two-year mammogram behavior was assessed during Wave 2. As predicted by Wave 1 intentions, women with previous self-directed mammograms did rescreen at higher rates (65.2%) than both provider-directed women (46.2%) and women who had never had a mammogram (24.7%).

Campaigns promoting provider recommendations that empower and emphasize women's self-direction, as well as, interventions raising perceptions of the number of women engaging in self-directed mammograms may increase initial screening and subsequent adherence.

9:45 - 10:00

## Exploring participation in colorectal cancer screening: lessons from a mixed-methods research.

A. Le Bonniec<sup>1,2</sup>, M. Préau<sup>2</sup>, S. Mas<sup>1,3</sup>, M. Gourlan<sup>1,3</sup>, F. Cousson-Gélie<sup>1,3</sup>

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**Background:** In Europe, colorectal cancer is the second biggest cancer killer. The interest of screening for improving early detection is proven, but screening rates remain low in France (about 33%). Screening practices represent a major public health issue. Hence, we performed a mixed-methods research considering both general practitioners (GPs) and general population's perspectives.

**Methods:** Two qualitative studies and one quantitative study have been achieved between 2014 and 2017:

- (1) Interviews with GPs about screening in their practices (N= 17);
- (2) Focus groups questioning the general population about barriers to and facilitators of screening participation (N= 29);
- (3) Questionnaires based on the results of the two previous studies and on the Theory of Planned Behaviour, addressed to the general population, seeking factors influencing intention to participate and effective screening behaviour (N = 160).

**Findings:** (1) GPs faced difficulties during consultation to recommend screening properly (lack of time...) and wished a greater involvement from patients in screening. (2) Patients faced practical barriers to participate (several steps to achieve...) and they expected more encouragements from GPs. (3) Results showed the high value of perceived control in screening participation and revealed a gap between intention and screening behaviour. This gap can be explained with the results of the qualitative studies, showing the ambivalence generated by screening and shared by both GPs and patients.

**Discussion:** Mixing several perspectives provided a better understanding of screening participation. Finally, screening is a key for health promotion and results may constitute database for public health interventions.

10:00 - 10:15

## The effects of cancer treatment information on the primary prevention of bowel cancer

Y. Wu<sup>1</sup>, A. Dijkstra<sup>1</sup>, S. Dalley<sup>1</sup>

<sup>1</sup>University of Groningen, Netherlands

Cancer treatment information can be classified into two types: treatability information (TI) and treatment threat information (TTI). TI indicates the degree to which the course of cancer can be changed by the clinical treatment, and TTI indicates the degree to which the patient can suffer from the side effects of the clinical treatment. In this study, we examined the interacted effects of TI and TTI on the primary prevention of bowel cancer.

This experiment employed a 2 (low TI versus high TI) × (low TTI versus high TTI) design with a hanging control group. In total, 541 Dutch participants were recruited. The outcome measures were: the beliefs of the link between meat consumption and bowel cancer, intention to control meat consumption, and intention to increase vegetable/fruit consumption. Response efficacy was measured as a moderator.

When response efficacy was low, the high TI/high TTI group showed a significantly higher intention to increase vegetable/fruit consumption than either the high TI/low TTI group or the low TI/high TTI group. Besides, the beliefs of the link between meat consumption and bowel cancer in the high TI/high TTI group was not different from the high TI/low TTI group, but significantly higher than the low TI/low TTI group.

These findings suggested that the combination of high TI and high TTI can promote the intention to increase vegetable/fruit consumption best. The findings also suggested that there may be different causes of the low intention in the low TI/low TTI group and the high TI/low TTI group.

10:15 - 10:30

## The role of motivational dispositions and emotion regulation in coping via health information seeking

A. Chasiotis<sup>1</sup>, O. Wedderhoff<sup>1</sup>, T. Rosman<sup>1</sup>, A. Mayer<sup>2</sup>

<sup>1</sup>Leibniz Institute for Psychology Information, Germany

<sup>2</sup>ZPID - Leibniz Institute for Psychology Information, Germany

**Background:** When dealing with a health threat, health information seeking (HIS) is a prominent way of engagement coping. Yet, there is only limited research as to its motivational and emotion regulatory antecedents. How do individuals' motivational dispositions affect the comprehensiveness of health information searches? What role do their emotion regulation abilities and their self-efficacy expectations play in HIS? We present a theoretical model integrating approach and avoidance motivation, emotion regulation, HIS self-efficacy, and problem and emotion coping focus as predictors of HIS. We propose that, in the context of HIS, (1) approach and avoidance motivation have a direct effect on emotion regulation ability (positive for approach and negative for avoidance motivation, respectively), (2) approach and avoidance motivation have indirect effects on comprehensiveness of search via emotion regulation, HIS self-efficacy and problem coping focus, and (3) avoidance motivation has a direct effect on emotion coping focus.

**Measures:** Using a cross-sectional design, we applied several self-report measures in a sample of university students (N=283). Our model was tested by structural equation modelling using lavaan.

**Findings:** Model fit was good ( $\chi^2=332.58$ ,  $df=218$ ,  $p<.001$ ,  $CFI=.96$ ,  $SRMR=.056$ ,  $RMSEA=.043$ ), and all three hypotheses were supported ( $p<.05$ ).

**Discussion:** We show that emotion regulation ability is essential to explain the effects of approach and avoidance motivation on HIS as it fosters self-efficacy and a problem coping focus. The direct effect of avoidance motivation on emotion focus may represent an alternative way of coping with a health threat for those individuals who are highly sensitive to threat-related emotions.

10:30 - 10:45

## Shaping the public's expectations for antibiotics: A test of a utility-based signal detection model.

M. Sirota<sup>1</sup>, A. Thorpe<sup>1</sup>, M. Juanchich<sup>1</sup>

<sup>1</sup>University of Essex, United Kingdom

A better understanding of people's expectations for antibiotics is critical for educational campaigns tackling antibiotic resistance. We propose and test a model-driven approach for understanding a person's antibiotic expectations and decision to request antibiotics derived from an integrated framework of signal detection theory and prospect theory (Lynn & Barrett, 2014; Lynn, Wormwood, Barrett, & Quigley, 2015). People expect antibiotics that are clinically inappropriate if they have adopted a liberal criterion for establishing a target (a bacterial infection for which antibiotics could help) compared to a foil (a viral infection for which antibiotics could not help). Such a situation might occur, *inter alia*, due to signal perceptual uncertainty (or signal conceptual confusion) and/or due to the payoff structure, for instance when people are oblivious to the costs associated with inappropriate antibiotic use (i.e., antibiotic resistance). To test this, we devised three interventions – i) signal-noise conceptual clarification (viral vs. bacterial illness aetiology), (ii) stressing the personal costs associated with inappropriate antibiotic use, and (iii) stressing the costs linked with inappropriate antibiotic use for others – which we expected to reduce antibiotic expectations and, in turn, requests compared with a baseline condition. Across three experiments (n = 1880), the interventions significantly decreased the inappropriate expectations and requests for antibiotics compared with the baseline condition. The integrated utility-based signal detection model can explain why people expect antibiotics even when they do not need them. In addition to providing knowledge about antibiotic efficacy, public campaigns could focus on the costs of inappropriate antibiotic use.

10:45 - 11:00

## Validation of the Identification of Medication Adherence Barriers Questionnaire (IMAB-Q)

D. Bhattacharya<sup>1</sup>, T. Brown<sup>1</sup>, C. Easthall<sup>2</sup>, N. Taylor<sup>3</sup>, Z. Li<sup>4</sup>, A. Clark<sup>1</sup>, A. Dima<sup>5</sup>

<sup>1</sup>University of East Anglia, United Kingdom

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<sup>5</sup>University Claude Bernard Lyon 1, France

**Background:** Medication non-adherence requires practitioners to target key adherence barriers. A valid adherence barrier measurement tool that is evidence and theory-based, and feasible for routine practice implementation is required. The Theoretical Domains Framework (TDF) is a collation of behaviour change constructs grouped into 14 domains; the TDF underpinned IMAB-Q Design: We aimed to validate the newly developed self-report IMAB-Q, with patients prescribed cardiovascular disease preventative medication.

**Methods:** We identified medication adherence barriers for chronic conditions via a literature review and refined these using focus groups with patients and experts. Adults prescribed medication for cardiovascular disease prevention, recruited from nine community pharmacies, completed the resulting 30-item IMAB-Q. We used Mokken analysis to explore IMAB-Q structural validity.

**Findings:** Among 608 respondents, worry about unwanted effects (beliefs about consequences domain, n=212; 34.5%) and negative emotions (emotions domain, n=99; 16.1%) were most frequently reported. Mokken analysis generated four scales: a 15-item scale on knowledge and skills as facilitators, a 6-item scale on emotions and decision making as barriers, and two, 2-item scales; one on emotions as barriers, the other on skills and beliefs about capabilities as facilitators (H= 0.6 to 0.3).

**Discussion:** The IMAB-Q structure did not follow the TDF domains; instead, items clustered around a scale on facilitators related to knowledge and skills whilst negative emotions and complex decision clustered together as barriers. The IMAB-Q is able to discriminate between barriers of greatest importance and may therefore be suitable for supporting practitioners in working with patients to prioritize targets for adherence interventions.

## ROUNDTABLE

# Developments in evaluating intervention fidelity: Is current guidance fit for purpose?

9:30 - 11:00

Olipa 4, Valamar Collection Dubrovnik President

Elaine Cameron

9:30 - 11:00

## Developments in evaluating intervention fidelity: Is current guidance fit for purpose?

E. Cameron<sup>1</sup>, D. French<sup>1</sup>, N. Hankonen<sup>2</sup>, W. Hardeman<sup>3</sup>, F. Lorencatto<sup>4</sup>, E. Toomey<sup>5</sup>

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<sup>5</sup>National University of Ireland Galway, Ireland

**Purpose:** To discuss recent developments and debates in the principles and methods of evaluating and enhancing intervention fidelity in order to assess whether current guidance from existing fidelity frameworks is fit for purpose.

**Rationale:**

Intervention fidelity is the degree to which an intervention is implemented and received as intended. Existing fidelity frameworks recommend strategies for enhancing and monitoring fidelity in several domains, including design, provider training, delivery, receipt, and enactment by participants. Intervention fidelity should be enhanced and monitored across these domains so that outcomes can be appropriately attributed to the planned intervention, meaning accurate conclusions about intervention effectiveness can be drawn and interventions can be replicated in new contexts. However, fidelity research reveals potential areas for improvement within current guidance. Further theorizing and consensus is required regarding definitions in each fidelity domain, as well as guidance on operationalisation of strategies for evaluating fidelity, appropriate fidelity measures and interpretation of fidelity data. Moreover, there are as yet unaddressed challenges in the application of fidelity frameworks, including barriers to implementation for researchers and practitioners, and limited applicability of existing guidance for researchers who are asked to evaluate existing real-world interventions. There is also some debate over the appropriateness of evaluating fidelity in applied intervention settings, and the merits of contextual adaptation versus standardisation. This roundtable will provide an expert forum for in-depth discussion of these issues.

ORAL

# Personality and interoception

9:30 - 11:00

Karaka, Valamar Argosy

Veronique de Gucht

9:30 - 9:45

## Personality dimensions in patients with allergic rhinitis

R. Massaldjieva<sup>1</sup>, S. Novakova<sup>2</sup>, S. Karabeliova<sup>3</sup>

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<sup>3</sup>Sofia University "St. Kliment Ohridski", Bulgaria

Allergic rhinitis (AR) is among the most common diseases, causing disability worldwide and usually persisting throughout life (Bousquet, et al., 2008). The allergic immune response is systemic involving not only the nasal mucosa [Wheatley, 2015]. The main challenge for AR is to understand its complexity. Patients can be treated with a simple algorithm, but a big number has uncontrolled symptoms and requires a personalized approach (Bousquet et al., 2012). This necessitates knowledge about personality dimensions in AR. The objective of this study is to analyze the personality characteristics in a Bulgarian sample of patients with AR and healthy controls. The study was conducted on a sample of 104 respondents without a history of psychiatric disorder – 62 with AR and 42 – healthy individuals, aged between 19 and 65 years ( $M=34,00$ ;  $SD=10.59$ ), 45 women and 59 men; Testing was conducted after consultation with an allergologist. We used the Bulgarian versions of the Mini IPIP questionnaire, based on the Big Five and PID-5-BF, assessing personality characteristics, impeding the successful adaptation. The findings (ANOVA) showed that female AR patients had higher agreeableness and neuroticism than male ( $F(1,60)=12,401$ ,  $p<.001$  and  $F(1,60)=24,160$ ,  $p<.001$ ). Younger patients had higher extraversion than patients over 40 ( $F(1,60)=6,715$ ,  $p=.012$ ). Women with AR reported significantly higher negative affect, compared to men ( $F(1,60)=4,998$ ,  $p=.029$ ); Younger patients reported higher antagonism than those over 40 ( $F(1,60)=4,170$ ,  $p=.046$ ). Our results point to the need to take into account the mediating influence of gender and age in the study of personality in allergic rhinitis.

9:45 - 10:00

## Interoceptive accuracy is related to long-term stress via self-regulation

D. Schultchen<sup>1</sup>, J. Bayer<sup>1</sup>, J. Kühnel<sup>1</sup>, K. Melchers<sup>1</sup>, O. Pollatos<sup>1</sup>

<sup>1</sup>Ulm University, Germany

Interoception describes the ability to perceive internal bodily signals. Previous research found a relationship between interoceptive accuracy (IAcc) and cardiovascular outcomes during or after acute stress. So far, the association between IAcc and long-term stress has not been investigated. To fill this gap, the relationship between IAcc and long-term stress and the mediating role of self-regulation was examined. Data was collected from 98 participants consisting of 50 women and 48 men. To measure IAcc, participants completed the heartbeat perception task. Perceived long-term stress and self-regulation were assessed via an online questionnaire. In the second wave of recruitment, hair samples and the cortisol/DHEA ratio were obtained from 65 participants to investigate long-term stress. Results showed that IAcc was negatively related to long-term stress in self-reported and biological assessments. Furthermore, these relationships were mediated by participants enhanced self-regulation. Our results are important to understand why IAcc is beneficial for lower long-term stress. Future studies should explore the influence of long-term stress on IAcc to elaborate possible prevention strategies.

10:00 - 10:15

## The effect of energy drinks on interoception and cognition in anxious students

S. Mai<sup>1</sup>, S. Khalsa<sup>2</sup>, L. Schütz<sup>1</sup>, A. Gaus<sup>1</sup>, F. Müller<sup>1</sup>, O. Pollatos<sup>3</sup>

<sup>1</sup>Ulm University, Germany

<sup>2</sup>Laureate Institute for Brain Research (LIBR), Tulsa, OK, USA, Germany

<sup>3</sup>University of Ulm, Germany

It is known that patients with anxiety disorders have a higher focus on interoceptive signals. The consumption of energy drinks accelerates heart rate/respiratory rate and it enhances alertness, mirrored by heightened amplitudes of event-related potentials (ERPs). Interoception can be investigated with the heartbeat-evoked potential (HEP), which is an index of the cortical reflection of cardiac signals. In this study we assumed positive effects of energy drinks on interoception, which should be mirrored in enhanced HEP amplitudes. Moreover, we assumed a negative impact of energy drinks on cognition and mood only in high anxious students. Following consumption of an energy drink/placebo, EEG and ECG were recorded in a sample of 38 students aged 19 to 32 years while participants performed a heartbeat detection task/respiratory task. According to their anxiety sensitivity, participants were categorized as high (n = 19) or low (n = 19) anxious. They were also asked for their confidence of interoceptive accuracy. Moreover, an emotional stroop task was conducted. High anxious participants indicated reduced confidence following the intake of energy drink, and low anxious participants showed lower interoceptive accuracy. An effect of cognitive interference was only observed in high anxious students after energy drink consumption, as they showed longer reaction times for negative compared to neutral stimuli. They also reported decreased mood after the intake of the energy drink. Behavioral effects were reflected by neuronal patterns of HEPs and ERPs. The study draws attention to the adverse impact of energy drinks on interoception and cognition especially in anxious individuals.

10:15 - 10:30

## Development and validation of a multidimensional questionnaire to assess eating disorder-specific interoceptive processing

Z. van Dyck<sup>1</sup>, A. Lutz<sup>1</sup>, J. Ortmann<sup>1</sup>, A. Schulz<sup>1</sup>, C. Vögele<sup>1</sup>

<sup>1</sup>University of Luxembourg, Luxembourg

Poor interoceptive awareness is a core psychopathological element in eating disorders and overweight. Previous studies have primarily investigated interoceptive processes in relation to awareness of emotional states. In eating disorders, an important interoceptive deficit concerns the accurate detection and interpretation of physiological hunger and satiety signals. The present study aimed at developing and validating a multidimensional questionnaire to assess eating disorder-specific interoceptive processing (EDIP) in a healthy (N = 679) and an eating disordered (N = 132) sample. Furthermore, we compared EDIP scores between participants with and without eating disorder diagnosis and between different types of eating disorders. Exploratory factor analysis resulted in a four-factor solution: Hunger, Satiety, Emotion perception and Differentiation. Internal consistencies and corrected item-total correlations were good. Regarding construct validity, EDIP subscales were related to eating disorder symptomatology, interoceptive body perception, intuitive eating, and satisfaction with life. Participants with an eating disorder had significantly lower values on all subscales than control participants. Patients with anorexia nervosa (AN) had higher scores on the satiety subscale than patients with bulimia nervosa (BN) or binge-eating disorder (BED). Participants with BN reported a reduced perception of emotional states compared with AN or BED. BED patients had higher scores on the hunger subscale than patients with AN or BN. The EDIP constitutes a reliable and valid instrument for the assessment of eating disorder-specific interoceptive processing. Furthermore, results suggest that different components of interoception might be of relevance in different eating disorders, which further emphasizes the importance of a multidimensional and disorder-specific instrument.

10:30 - 10:45

## Does high versus low sensory sensitivity determine psychological and physical complaints in different study samples?

V. de Gucht<sup>1</sup>, T. Wilderjans<sup>1</sup>

<sup>1</sup>Leiden University, Netherlands

**Background:** The objective of the study was (a) to examine the presence of clusters of high-versus low-sensitive individuals in a general population sample, a chronic fatigue, and a chronic pain sample, and (b) to investigate the relationship between these clusters and psychological as well as physical complaints.

**Methods:** Clusters were determined using the Highly Sensitive Person Scale (HSPS) which was measured in the general population (N=998), a chronic fatigue (N=340), and a chronic pain sample (N=283). Model-based clustering was conducted based on the estimated factor scores from a CFA model with three components, measuring Ease of Excitation (11 items), Low Sensory Threshold (5 items), and Aesthetic Sensitivity (5 items). To determine the number of clusters, the Bayesian Information Criterion (BIC) was used. Analysis of Variance (ANOVA) was adopted to examine differences between clusters in terms of psychological and physical complaints.

**Results:** A two-cluster model, separating high-sensitive from low-sensitive subjects, had the best fit to the data in all three samples. Within the general population sample, high-sensitive individuals scored significantly higher on fatigue ( $p < .001$ ), anxiety ( $p < .001$ ), and depression ( $p < .001$ ) than low-sensitive individuals. Results were slightly different in the other two samples.

**Discussion:** The present study indicates that (a) both within the general population and two clinical samples a clear distinction can be made between high- versus low sensitive individuals, and (b) that high-sensitive individuals may be more susceptible to developing psychological distress as well as fatigue problems.

10:45 - 11:00

## There is no association between proprioceptive accuracy and self-reported body awareness, body competence, and affect

Á. Horváth<sup>1</sup>, E. Ferentzi<sup>1</sup>, F. Köteles<sup>1</sup>

<sup>1</sup>Eötvös Loránd University, Hungary

**Background:** Proprioception plays an essential role in motor control and in psychological functioning: it is the basis of body schema and the feeling of body-ownership. There are individual differences in the processing of proprioceptive stimuli. Proprioceptive acuity plays an important role in physical competence, and there are contradictory findings about the importance of the ability in healthy psychological functioning: in some studies it is negatively associated with the severity of clinical or sub-clinical mental disorders, but there are null findings too. Our goal was to further investigate the role of proprioception in psychological functioning. We hypothesized that proprioceptive acuity is positively associated with body-awareness, perceived body competence, and positive affect, and is negatively associated with negative affect.

**Methods:** We measured proprioceptive acuity by the reposition accuracy of elbow joint positions. We tested both dominant and non-dominant hand with two different versions of Joint Position Reproduction Test. We assessed perceived physical competence with the Physical Competence subscale of Private and Public Body Consciousness Scale, body awareness with Somatic Absorption Scale, and affectivity with Positive and Negative Affectivity Schedule.

**Findings:** Spearman's rank correlation test revealed no significant correlation between proprioceptive acuity and body-awareness, perceived body competence, and affect (Bonferroni-corrected significance level:  $p < 0,003$ ).

**Discussion:** Contrary our hypothesis, proprioceptive acuity is associated neither with body awareness, perceived physical competence, or affect. Previous studies had shown that proprioceptive acuity measured in one joint can not be generalized, so the results may refer only to the specific joint (elbow).

**ORAL**

**Psychosocial factors in adjustment to  
serious illness**

9:30 - 11:00

Olipa 1, Valamar Collection Dubrovnik President

Annmarie Groarke

9:30 - 9:45

## Prostate Cancer: Interplay of stress, threat and personal resources on adjustment

A. Groarke<sup>1</sup>, R. Curtis<sup>1</sup>, J. Skelton<sup>1</sup>, R. Furlong<sup>1</sup>, S. Conneely<sup>1</sup>

<sup>1</sup>National University of Ireland, Galway, Ireland

**Background:** Prostate cancer is the most frequently diagnosed non-skin cancer among men. The potential trajectory of disease from diagnosis through treatment decisions, to living with the consequences is inherently stressful. The transactional model of stress and coping provides a framework for understanding the impact of this stressor on adjustment, whereby, the impact of an external stressor is mediated by a person's appraisal of the stressor and the psychological resources at his disposal. This study examines the role of stress, masculine identity threat on adjustment and the moderating impact of personal resources (resilience and positive affect) on those relationships.

**Methods:** An online survey was completed by 186 men (mean age 65.2, SD = 7.5) who had been diagnosed with localised prostate cancer within the previous five years. They completed self-report questionnaires on perceived stress (PSS), cancer-related masculine threat (CMT), resilience (CD- RISC), affective status ( PANAS, Distress Thermometer) and quality of life ( PORPUS).

**Results:** Hierarchical regression analyses, controlling for illness related variables, revealed that stress was the strongest predictor of adjustment in the model, for example, explaining 39% of variance on distress and 43% on negative affect. Resilience and positive affect moderated the relationships between masculine threat and QoL and between masculine threat and distress (all  $P < .001$ ).

**Discussion:** Stress appraisal was consistently linked to adjustment indicating that men could be screened to identify those at risk for poor adaptation. Interventions that enhance personal resources may buffer the negative impact of threatened masculine self-image on adjustment.

9:45 - 10:00

## Identifying strategies that childhood cancer survivors use to self-manage their health and wellbeing

M. Brown<sup>1</sup>, A. Haste<sup>1</sup>, V. Araujo Soares<sup>1</sup>, R. Skinner<sup>1,2</sup>, L. Sharp<sup>1</sup>

<sup>1</sup>Newcastle University, United Kingdom

<sup>2</sup>Newcastle upon Tyne Hospitals NHS Foundation Trust, United Kingdom

**Background:** Childhood cancer survivors (CCSs) are at increased risk of chronic health problems. Effective self-management could help CCSs cope with the challenges that accompany survivorship, and reduce their risk of developing further health problems. There is little evidence about the extent to which CCSs engage with self-management and the specific strategies they use. This study aimed to identify strategies that CCSs use to manage the consequences of cancer in their everyday lives.

**Methods:** Twenty-four CCSs (median age 23 years) were recruited via outpatient follow-up clinics at a hospital in England. Participants completed a semi-structured interview which were audio-recorded and transcribed. Directed content analysis (deductive and inductive) was used to identify and code self-reported self-management strategies and categorise them into self-management types.

**Findings:** CCSs reported 116 specific self-management strategies which were categorised into 20 self-management strategy types. All CCSs used several self-management strategy types (median 13; range 6-18) and specific self-management strategies (median 35, range 13-52). The most frequently reported strategy types were: 'adopting a healthy lifestyle' (n=24), 'self-motivating' (n=24), 'using support' (n=24), and 'reasoned decision making' (n=24). The most common specific self-management strategies were: 'receiving family support' (n=20), 'attending follow-up and screening appointments' (n=20), 'thinking objectively about negative health behaviours' (n=19), and 'undertaking physical activity' (n=18).

**Discussion:** This is the first study which has enabled CCSs to self-report the numerous and varied strategies they employ to look after their health and wellbeing. This explorative study is the first step in developing a supported self-management intervention for CCSs in follow-up care.

10:00 - 10:15

## Patients' perspective on the impact of Heart Failure on quality of life: A qualitative study

W. Nwosu<sup>1</sup>, L. Hughes<sup>1</sup>, R. Rajani<sup>1</sup>, T. McDonough<sup>1</sup>

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**Objective:** Heart failure (HF) is a syndrome associated with high mortality and morbidity. HF patients tend to be at a high risk of poor clinical and psychosocial outcomes. This study aimed to capture patients' perspectives of HF in terms of the impact it has had on their health reported quality of life as well as to identify factors associated with their poor health outcomes.

**Design:** A qualitative study using semi-structured interview

**Methods:** Thirteen adult patients (> 18years) with HF were interviewed either face-to-face or over the telephone. Interviews were transcribed verbatim and analysed using thematic analysis

**Results:** A key theme was the management of symptoms resulting in patients highlighting issues such as; impact on their lifestyle including diet, smoking and inability to part-take in social activities, adjusting to HF diagnosis and co-morbidity management, and psychological/mental health issues such as anxiety and depression.

**Conclusion:** Patients believed their HF diagnosis had a debilitating effect on their quality of life in terms of the ability to continue usual daily activities such as exercise, household chores and attending social events. Some patients highlighted their lack of knowledge and understanding of their condition which limited them from being empowered to manage their condition at home. Their mental health was affected by their diagnosis, leading to poor family, social and work life balance. Conversely, few patients demonstrated coping mechanisms to deal with the effects of HF. Developing ways to further support HF patients through educational interventions could enable them to better cope with their diagnosis.

10:15 - 10:30

## Biological, psychological and social factors as dyspnea predictors in patients with chronic obstructive respiratory diseases

L. Basara<sup>1</sup>, S. Popović Grle<sup>1</sup>, N. Jokić Begić<sup>2</sup>, T. Jurin<sup>2</sup>, M. Jakopović<sup>1</sup>, M. Samaržija<sup>1</sup>

<sup>1</sup>University Hospital Center Zagreb, Department for Respiratory Diseases, Croatia

<sup>2</sup>Faculty of Humanities and Social Sciences, Department of Psychology, Croatia

**Background:** Dyspnea (breathlessness) has long been considered only as a symptom of physical illnesses. There are strong indications that dyspnea has two components (sensoric and affective) and therefore - a strong psychological dimension. Factors affecting breathlessness ultimately affect health behavior and treatment options. We aimed to determine predictive value of biological, psychological and social factors regarding dyspnea intensity among patients with asthma and chronic obstructive pulmonary disease (COPD).

**Methods:** Study included 147 patients (73 asthma, 74 COPD) in which we measured following variables: biological - age, gender, number of comorbidities, smoking status, body mass index, pulmonary functions tests and blood oxygen saturation; psychological- anxiety sensitivity, positive/negative affect, personality traits, locus of control and coping strategies; social - education, working and socioeconomic status, marital status and perceived social support. Data were analysed using stepwise linear regression with the mentioned variables included as predictors and dyspnea intensity as a criterion variable.

**Findings:** Combination of bio-psycho-social predictors explained 33% of dyspnea intensity. Dominant predictors of dyspnea intensity were psychological factors with the biggest single contribution (18%), followed by biological (9%) and social factors (6%). Psychological factors explained more of dyspnea intensity variance in asthma compared to COPD patients.

**Discussion:** Dyspnea is a multidimensional phenomenon, vastly affected by psycho-social not just biological factors. Understanding dyspnea as a complex bio-psycho-social experience can help answer needs of certain patient groups more efficiently by helping them differentiate and treat psycho-social contributing factors of dyspnea from actual biological factors, resulting in more efficient and precise treatment outcomes.

10:30 - 10:45

## Predicting the severity of surgical complications in esogastric cancers: what if psychological factors mattered?

L. Gehenne<sup>1,2</sup>, S. Lelorain<sup>1,2</sup>, V. Christophe<sup>1,2</sup>

<sup>1</sup>University of Lille, France

<sup>2</sup>SCALab UMR CNRS 9193, France

**Background:** Moderate surgical complications such as transfusion, thrombosis or puncture are frequent after esogastric cancer tumour resection. Recent theoretical models suggest that psychological factors could impact surgical complications. Patient perception of physician empathy (PE) and Emotional Abilities (EA), abilities involved in the management of emotions, are known to be associated with patient health. Therefore, our aim was to assess the effect of PE and EA on the severity of surgical complications in esogastric cancers.

**Methods:** We recruited 118 patients with esogastric cancer who completed validated measures of PE (CARE) and of EA (short-PEC) after diagnosis (T1). The severity of surgical complications was assessed using the Dindo-Clavien classification after surgery (T2). Multinomial logistic regressions were carried out, controlling for sociodemographic and medical covariates.

**Findings:** EA were associated with the severity of surgical complications whereas PE was not. As EA increased, patients were less likely to report moderate surgical complications compared to no complications at T2 ( $p < .05$ , OR = .41, CI = [.182 - .908]). The odds of reporting moderate surgical complications were reduced by 60% as EA increased. No significant results were found regarding severe complications.

**Discussion:** EA are an important resource for patients at the time of cancer diagnosis. As EA can be trained and improved, they are an interesting target for psychotherapeutic care. Further research is needed to understand the underlying mechanisms linking EA and health.

10:45 - 11:00

## Subjective and objective cognitive performance in a large UK sample of post-surgical colorectal cancer patients

S. Hirani<sup>1</sup>, P. Holder<sup>1</sup>, L. Piggin<sup>2</sup>, M. Dwek<sup>1</sup>, M. Machesney<sup>3</sup>, D. Propper<sup>3</sup>, L. Rixon<sup>1</sup>, S. Newman<sup>1</sup>, C. Hurt<sup>1</sup>

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<sup>3</sup>Barts Health NHS Trust, United Kingdom

**Background:** Cognitive Impairment is increasingly recognised across a range of cancers. However understanding of the cause, nature and course of this impairment is still limited. The present study assessed the relationship between subjective assessment of cognitive performance and objective performance in colorectal cancer patients and healthy controls.

**Methods:** Participants were post-surgery CRC patients due to receive adjuvant chemotherapy (n=78), non-chemotherapy post-surgery CRC patients (n=58) and individuals with no cancer history (n=55). All completed ICCTF-recommended measures of cognitive functioning, including: Hopkins Verbal Learning Test-Revised [HVLTR], Trail Making test[TMT] and Controlled Oral Word Association[COWA]. Perceived cognitive abilities (PA) and perceived cognitive impairment (PCI) were assessed using The Functional Assessment of Cancer Therapy - Cognitive Function [FACT-Cog] and anxiety and depression using The Hospital Anxiety and Depression Scale [HADS].

**Results:** PCI was negatively correlated with executive function (TMT=-.372,p<.01) and positively correlated with verbal memory(HVLT-R=.445, p<.01) in healthy controls. PA was positively correlated with verbal fluency (COWA=.346, p<.01), verbal memory(HVLT-R=.376, p<.01) and negatively correlated with executive function (TMT=-.350, p<.01) in healthy controls. No significant correlations between subjective and objective cognition were seen in either cancer group. PA negatively correlated with depression and anxiety in the cancer groups (p<.05). PCI negatively correlated with depression and anxiety in all groups (P<.05).

**Conclusion:** The healthy control sample showed some accuracy in estimating their cognitive abilities and impairment. However patients with cancer were poor at both suggesting their subjective cognitive appraisals may not reflect objective performance. Depression and anxiety appeared to be stronger drivers of PCI and PA in cancer groups.

ORAL

Environmental and minimalistic  
interventions

9:30 - 11:00

Galijun, Valamar Argosy

Justin Presseau

9:30 - 9:45

## Promoting organ donation registration in family physician offices: a stepped-wedge cluster randomized registry trial

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**Background:** Organ shortages available for transplant persist worldwide. Most Canadians support organ donation but only a minority are registered donors. Innovative strategies are needed to address this intention-behaviour gap. Family physician offices are a promising yet under-utilized setting for promoting registration. Informed by a Theoretical Domains Framework-based assessment of barriers/enablers, we designed an intervention to promote organ donation registration in family physician offices, aiming to evaluate its effectiveness in increasing objectively-assessed donor registrations.

**Methods:** We conducted a stepped-wedge cluster randomized registry trial over 14-weeks in six family physician offices. The intervention was designed to address memory, social influences, beliefs about consequences, beliefs about capabilities, emotion, procedural knowledge, and environmental context and resources. Reception staff verified donor status on health cards, provided written materials addressing identified barriers/enablers, and offered patients an opportunity to register on an iPad in the waiting room. Primary outcome: prevalence of organ donor registration among patients at 7 days after their physician visit, assessed by linking physician billing data with the provincial donor registry. Analysis was by intention-to-treat, using patient-level mixed-effects logistic regression with identity link, adjusting for time, age, sex, and neighbourhood income quintile.

**Findings:** 12,484 patients attended during the intervention and 12,132 during the control period. We found no significant effect on the primary outcome (adjusted absolute difference between intervention and control: 0.12%; 95%CI: -2.3% to 2.5%; p=0.92).

**Discussion:** This intervention had no significant effect on donor registration. A different approach is needed to realize the potential of increasing organ donor registration in primary care.

9:45 - 10:00

## Nudging young adults to choose more vegetables in mass eating context: Findings from field studies

S. Yi<sup>1</sup>, P. Brauer<sup>1</sup>

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**Background:** Young adults' consumption of vegetables remains low in most advanced countries. Nudge (Thaler and Sunstein, 2008) offers a promising framework by introducing subtle changes to the immediate food choice environment so that choosing vegetables becomes easier for consumers at the moment of decision. With the university foodservice's support, we are conducting a series of nudge-based field studies in student cafeterias.

**Methods:** Three interventions were implemented in on-campus cafeterias. First, a short prompt for adding kale for only \$1 was placed next to the server receiving orders for smoothie for 9 weeks. The number of customers who added kale was compared between the implementation weeks and baseline weeks. A similar prompt was used in the custom-made sandwich section. Lastly, large plates instead of the usual medium-sized plates were placed next to salad bar, and the display was alternated day by day. Weight of salad bar items sold daily was compared between the two conditions.

**Findings:** ANOVA analyses showed that significantly more smoothies with kale or spinach were sold on days the nudge poster was placed than the baseline ( $M=16.5$  vs.  $6.9$ ;  $F(1,58) = 21.66$ ,  $p < .01$ ). Similarly, significantly more sandwiches with spinach were sold on days the nudge poster was placed than the baseline ( $M=10.91$  vs.  $1.23$ ;  $F(1,58) = 8.79$ ,  $p < .01$ ). However, the weight of salad bar items did not significantly vary depending on the size of plates.

**Discussion:** Our findings indicate that nudge-based interventions can increase the choice of vegetables among young adults in mass eating settings.

10:00 - 10:15

## Altering healthier vs. less-healthy item availability in vending machines: A multiple treatment reversal design

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**Background:** Limited evidence suggests altering the availability of healthier or less-healthy foods may increase healthier choices. The current study investigated the impact of altering the absolute and relative availability (i.e. number and proportion simultaneously) of healthier vs. less-healthy items in vending machines.

**Methods:** In 10 vending machines serving snack foods and/or cold beverages in one English hospital, the slots assigned to (i) less-healthy and (ii) healthier items were altered over seven 4-week periods: Period 1: standardisation to 25% healthier snacks and/or 75% healthier drinks; Periods 2&3: either (random allocation): [1] removing less-healthy snacks/drinks and then adding healthier snacks/drinks; or [2] removing healthier snacks/drinks and then adding less-healthy snacks/drinks; Period 4: return to standardised levels;. Periods 5&6: the remaining option from [1] or [2]; Period 7: standardised levels again. Sales data were obtained from records of machine restocking. Snacks and drinks were analysed separately in linear mixed models of the impact of altering availability on energy purchased (kcal) per week.

**Findings:** Energy purchased from drinks reduced when the slots assigned to less-healthy drinks decreased, compared to standardised levels (-52.6%; 95%CI:-69.3,-26.9). No significant difference in energy purchased from snacks was found when the slots assigned to less-healthy snacks decreased (-17.2%; 95%CI:-47.4,30.5). Decreasing the slots assigned to healthier drinks or snacks had no statistically significant impact on energy purchased.

**Discussion:** Decreasing less-healthy drinks in vending machines could reduce energy purchased from drinks, without reducing overall sales. Further research is needed to establish whether any effect might be found for snacks in different contexts.

10:15 - 10:30

## Beyond nudging: Effects of different kinds of nudges on expected autonomy

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**Background:** While nudging has established itself as an efficient way to promote healthy behavior, possible aftereffects on cognition have been neglected. In three studies we investigate its effects on autonomy, as nudges are said to negatively influence autonomy.

**Methods:** We conducted three online studies (N=455, N=601, N=750). In Study 1, participants were shown a hypothetical choice scenario that included one of three persuasion techniques (default nudge, direct persuasion, control condition). Afterwards they received an explanation of the used technique, and were asked how they would feel about their decision, if made under these circumstances. For Study 2, we used a different hypothetical choice scenario and added a social norm nudge condition. For Study 3, we dropped the direct persuasion condition and added conditions that omitted the part of description which explained that decision makers are usually unaware of the technique being used.

**Findings:** In all studies we found that expected autonomy was lowest for participants confronted with a default nudge ( $p < .001$ , Cohen's  $d = .57$ ). Surprisingly, participants report their autonomy to be highest when confronted with a social norm nudge. The omission lead to higher expected autonomy in the default nudge condition.

**Discussion:** As nudges are already widely used in policy making, its effects on cognition and feelings have to be better understood. The beforementioned studies are a first step to do so. They also show that the understanding of a nudge is critical to peoples' expectations of the nudge.

10:30 - 10:45

## Consequences of randomization for the recruitment of participants to a worksite health promotion program

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**Background:** Randomized controlled trials (RCTs) are necessary to evaluate the effectiveness of health promotion programs, but recruitment of participants can be difficult. The aim of this study was to explore factors that may have facilitated or hindered recruitment of employees with musculoskeletal problems to a worksite health promotion program from the perspective of recruiters.

**Methods:** By means of three focus group discussions with recruiters, possible facilitators and inhibitors of recruitment to the RCT were explored. Data were processed with MAXQDA and analysed with a combination of content and sequence analysis.

**Findings:** Findings showed that recruitment to RCTs can be challenging for recruiters. They adapted their communication with and approach of possible participants because of the randomization method and employed coping strategies, such as offering alternatives or in some cases not offering participation, to compensate for allocation into the control arm of the study. Perceptions of superiority of the intervention group over the control group, perceptions of (mis)match of participants to one of the groups, as well as comprehension of the necessity of randomization for effectiveness evaluations, further influenced recruitment approaches. Moreover, perceived expectations of possible participants and their (emotional) reactions to the randomization allocation complicated recruitment.

**Discussion:** Qualitative approaches can help to understand and subsequently improve recruitment to RCTs. We were able to identify factors that may facilitate and hinder recruitment of participants to a worksite RCT. The identified factors are used to improve recruitment by adapting training programs for recruiters and best practice workshops.

10:45 - 11:00

## Coping with cola? Mental health problems predict soft drink consumption among German children and adolescents

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**Background:** Soft drinks have been suspected to negatively affect well-being and mental health through biological mechanisms. Other research has suggested soft drink consumption as an emotion-focused strategy of coping with mental health problems, especially among adolescents. Importantly, most research on this association has been cross-sectional and thus could not examine its directionality. The current study addresses this gap.

**Methods:** We analyzed longitudinal data of N = 5,923 children and adolescents from the nationally representative German KiGGS baseline study (2003 to 2006) and KiGGS wave 1 (2009 to 2012; Robert Koch Institute). The amount of soft drinks per day and mental health problems were assessed by questionnaire (baseline) and telephone interview (wave 1). We specified four cross-lagged panel models, compared them regarding their fit indices and tested specific paths for significance.

**Findings:** We found a positive cross-sectional association between mental health problems and soft drink consumption at both measurement points ( $p_s < .005$ ), even after controlling for third variables (including age, gender, and SES). Only the cross-lagged effect of mental health problems on soft drink consumption reached statistical significance ( $\beta = .044$ ,  $p = .012$ ), but not vice versa. The corresponding model also showed the best model fit overall.

**Discussion:** We replicated the positive cross-sectional association between mental health problems and soft drink consumption reported in previous research. Moreover, a longitudinal perspective revealed a unidirectional effect of mental health problems on soft drink consumption. Soft drinks might be a way of coping with mental health problems for children and adolescents.