



European Health Psychology
Society & BPS Division of
Health Psychology Annual
Conference 2016

Behaviour Change: Making an Impact on Health and Health Services

Conference Abstracts

23-27 August
Aberdeen, Scotland

www.ehps2016.org

Wednesday, 24 August 2016

Keynote Lecture

17:00 – 18:00 | The Social Brain, Health, and Well-Being

Professor John Cacioppo, University of Chicago, USA

Roundtables

14:00 – 15:30 | Different perspectives on the conceptualization of motivation for health-related behaviours

Convenors: Prof Robert West and Prof David Williams

18:00 – 19:15 | Special Roundtable: 'Enhancing the Impact of Health Psychology on Policy and Practice'

Convenors: Dr Daniel Powell, Ms Eleanor Bull and Prof Marijn de Bruin

Symposiums

09:00 – 10:30 | Emotions and health

Chair: Dr Lee Shepherd, Northumbria University

Paediatric pain: facing the challenge!

Chair: Dr Brian McGuire, NUI Galway

Engagement and disengagement with digital interventions

Chair: Dr Mary Steele, University of Southampton

11:00 – 12:30 | On the role of interoception and alexithymia for embodied health

Chairs: Prof Olga Pollatos, Ulm University and Elena Georgiou, Ulm University

Choice and control over my body and health? Women's reproductive health in socio-cultural context

Chair: Heidi Preis, Tel Aviv University

Implicit and automatic processes in eating behaviour

Chair: Dr Marleen Gillebaart, University of Utrecht

14:00 – 15:30 | Why we eat what we eat: new findings in eating psychology

Chair: Dr Marijn Stok, University of Konstanz

Making an impact on older adults' well-being: resources and risk factors for active ageing

Chair: Dr Lisa Marie Warner, Freie Universität Berlin

Social exchange processes and their association with couples' health regulation and health-related outcomes

Chairs: Ms. Diana Hilda Hohl and Mr. Jan Keller, Freie Universität Berlin

Oral Presentation Sessions

09:00 – 10:30 | Self-management interventions in long term conditions

Chair: Prof Brian Oldenburg, Monash University

Stress and health: processes and interventions in healthy and clinical populations

Chair: Dr Daniel Powell, University of Aberdeen

Public health: screening and immunisation programmes

Chair: Dr Alison Wright, King's College London

Promoting healthy eating patterns and associated behaviours

Chair: Dr Barbara Mullan, Curtin University

11:00 – 12:30 | Creating reflective and impulsive choices for health behaviour change

Chair: Dr Britta Renner, University of Konstanz

Self-regulation of health and illness

Chair: Dr Kirby Sainsbury, Newcastle University

Treatment adherence

Chair: Dr Emma Godfrey, Kings College London

Caring and being cared for in later life

Chair: Dr Christina Bode, University of Twente

Measuring and managing stress: assessment and intervention in health

Chair: Prof Daryl O'Connor, University of Leeds

14:00 – 15:30 | Chronic disease and transplantation

Chair: Prof Ronan O'Carroll, University of Stirling

Understanding risk, risk perception and risky behaviour

Chair: Dr Anita Kinney, University of New Mexico

Understanding and measuring well-being and quality of life in patient and community populations

Chair: Dr Katrina Forbes-McKay, Robert Gordon University

Delivering healthcare services to meet patients' needs

Chair: Dr Rachael Powell, University of Manchester

Interactive Posters

15:30 – 17:00 | eHealth and mHealth 1

Chair: Dr Theda Radtke, University of Zurich

Lifestyle, health behaviours, and resilience factors

Chair: Dr Evangelos Karademas, University of Crete

Assessing and combating stress

Chair: Dr Stephanie Archer, Imperial College London

Self-regulation in illness

Chair: Keegan Knittle, University of Helsinki

Pain

Chair: Dr Brian McGuire, NUI Galway

Chronic disease

Chair: Dr Lisa Mellon, Royal College of Surgeons, Ireland

Interventions for weight loss

Chair: Prof Jane Ogden, University of Surrey

Caregiving in older age: Integrated perspectives

Chair: Dr Noa Vilchinsky, Bar Ilan University

Health in the family

Chair: Dr Ester Sleddens, Maastricht University

Well-being and quality of life in clinical, work and community settings

Chair: Dr Francis Quinn, Robert Gordon University

Identifying barriers and facilitators of health behaviour change

Chair: Dr Gareth Hollands, University of Cambridge

Understanding when and how behaviour change techniques work

Chair: Dr Julia Allan, University of Aberdeen

Interventions targeting implicit and explicit processes

Chair: Dr Dominika Kwasnicka, Curtin University

Promoting healthy eating

Chair: Dr Eleni Mantzari, University of Cambridge

Risk perception, risk communication and understanding risk behaviour

Chair: Dr Anne Marie Plass, NIVEL

Improving mental health services

Chair: Ms Kirstie McClatchy, Edinburgh Napier University

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Cultural aspects in health and health behaviours

Chair: Prof Paul Flowers, Glasgow Caledonian University

Occupational health: individual and organisational issues

Chair: Associate Proffesor Ewa Wilczek-Rużyczka, Cracow University, Poland

Psychophysiology of health

Chair: Prof Daryl O'Connor, University of Leeds

Service development and training in implementation research

Chair: Ms Hanna Kampling, Medical Center - University of Freiburg

Thursday, 25 August 2016

Keynote Lecture

17:00 – 18:00 | Making behavioural science fit for behaviour change interventions

Professor Marie Johnston, University of Aberdeen, Scotland

Roundtables

14:00 – 15:30 | Health promotion among musicians: opportunities for health psychology

Convenors: Ms Raluca Matei and Prof Jane Ginsborg

Health psychology practice in Europe: taking stock and moving forward together

Convenors: Dr Molly Byrne and Dr Vivien Swanson

Symposiums

09:00 – 10:30 | Making an impact on health services: the influence of context on healthcare professional behaviour

Chair: Prof Marie Johnston, University of Aberdeen

Cost-effectiveness and dissemination of Internet interventions for the treatment of somatic and mental health conditions

Chair: Jiaxi Lin, University of Freiburg

Considering the dyad in promoting positive health change: from observation to intervention

Chair: Prof Tracey Revenson, City University of New York

Adherence to medication: measurements and cognitions

Chair: Prof Hein de Vries, Maastricht University

11:00 – 12:30 | Testing and integrating social cognitive models of health behaviour (change)

Chair: Prof Hein de Vries, Maastricht University

14:00 – 15:30 | From theory-inspired to theory-based interventions: linking behaviour change techniques to their mechanisms of action

Chair: Prof Marijn de Bruin, University of Aberdeen

Implicit cognitions in health behaviour change

Chair: Prof Martin Hagger, Curtin University

Parental influences on childhood obesity

Chair: Mr Gill ten Hoor, Maastricht University

6th methods in health psychology symposium:

Measurement in health psychology: combining theory, qualitative, and quantitative methods to do it right

Chair: Dr Gjalte-Jorn Ygram Peters, Open University of The Netherlands

Thursday, 25 August 2016

Oral Presentation Sessions

09:00 – 10:30 | Behaviour change in health promotion

Chair: Dr Felix Naughton, University of Cambridge

Novel methods for studying behaviour change

Chair: Dr Frank Doyle, Royal College of Surgeons in Ireland

Illness and treatment perceptions

Chair: Prof Mariet Hagedoorn, University of Groningen

11:00 – 12:30 | Improving health through theory-based behaviour change interventions

Chair: Dr Stephan Dombrowski, University of Stirling

Goals and self-management

Chair: Dr James Reynolds, University of Sheffield

Pain and distress

Chair: Dr Jonathan Egan, NUI Galway

Social support and health

Chair: Prof Anne Hickey, Royal College of Surgeons in Ireland

Children's and young people's health

Chair: Dr Rachel Shaw, Aston University

Culture, health and illness

Chair: Dr Tina Rochelle, City University London

Challenging stress: individual differences and resilience

Chair: Dr Julie Turner-Cobb, University of Bath

14:00 – 15:30 | eHealth and mHealth interventions

Chair: Dr Hilde van Keulen, TNO Leiden

Health outcomes and illness perceptions

Chair: Dr Diane Dixon, University of Strathclyde

Interactive Posters

15:30 – 17:00 | eHealth and mHealth 2

Chair: Dr Felix Naughton, University of Cambridge

The many faces of stress

Chair: Dr Christina Schut, University of Giessen

Self-regulation in health behaviours

Chair: Dr Fuschia M. Sirois, University of Sheffield

Cognition and emotion in chronic illness

Chair: Prof Maryanne Martin, University of Oxford

Coping with chronic illness

Chair: Dr David Keatley, University of Lincoln

Interventions to enhance help-seeking and well-being

Chair: Dr Konstadina Griva, National University of Singapore

Emotions and cognitions in later life

Chair: Dr Eleonora Bielawska-Batorowicz, University of Łódź

Social support and health

Chair: Prof Alison Wearden, University of Manchester

Parental health behaviour

Chair: Dr Maria Karekla, University of Cyprus

Quality of life and well-being in clinical populations

Chair: Dr Rachael Powell, University of Manchester

Biopsychosocial influences on health behaviour change

Chair: Dr Pamela Rackow, University of Zurich

Understanding and improving quality of life

Chair: Dr Melanie Jagla, University of Applied Sciences Magdeburg-Stendal

Promoting health, well-being, and health behaviour

Chair: Dr Lena Fleig, Free University Berlin

Theory-based approaches to facilitate behaviour change

Chair: Dr Hanna Kontinen, University of Helsinki

Risk behaviours and health promotion

Chair: Dr Katherine Brown, Coventry University

Patient-centred healthcare

Chair: Dr Karen Morgan, RCSI, Ireland

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Training healthcare professionals

Chair: Dr Justin Presseau, Ottawa Hospital Research Institute

Methods and measurement tools

Chair: Dr Alexandra Dima, University of Amsterdam

Clinical studies in implementation research

Chair: Dr Jenny Mc Sharry, NUI Galway

Friday, 26 August 2016

Keynote Lecture

17:00 – 18:00 | From personal health data to population health improvement: new data, new insights and new challenges

Professor Kevin Patrick, Family Medicine and Public Health, UC San Diego School of Medicine, USA

Roundtables

09:00 – 10:30 | Challenges in assessment in health psychology

Convenors: Prof Yael Benyamini and Dr Evangelos Karademas

14:00 – 15:30 | Using Bayesian analysis to get the most out of health psychology data: a practical primer

Convenor: Prof Susan Michie

Symposiums

09:00 – 10:30 | Goal management in chronic illness – from assessment to intervention

Chair: Ms Yvette Ciere, University of Groningen

Risk communication and behaviour - in context of genetic and personalised information

Chair: Dr Ari Haukkala, University of Helsinki

Systematic reviews of behaviour change interventions: using BCT taxonomies for evidence synthesis

Chair: Ms Milou Fredrix, NUI Galway

11:00 – 12:30 | Social support and beyond: social co-regulation and health-related outcomes in couples and close others

Chair: Prof Nina Knoll, Freie Universitat Berlin

14:00 – 15:30 | Digital behaviour change interventions: design and evaluation

Chair: Dr Ildiko Tombor, University College London

New determinants and barriers of (un)healthy food behaviours

Chair: Dr Olivier Luminet, Université catholique de Louvain

Use of economic evaluations by health psychologists and the relevance of their work for policy-making

Chair: Prof Hein de Vries, Maastricht University

Friday, 26 August 2016

Oral Presentation Sessions

09:00 – 10:30 | Temporal and social processes in health behaviour change

Chair: Prof Paul Norman, University of Sheffield

Interventions for long term conditions across the life span

Chair: Dr Rachel Rahman, Aberystwyth University

Advances in eHealth and mHealth

Chair: Dr Efrat Neter, The Hebrew University of Jerusalem

11:00 – 12:30 | Health behaviour change interventions in health care: patients and providers

Chair: Prof Chris Armitage, University of Manchester

Culture, health, behaviours and beliefs

Chair: Dr Heather Buchanan, University of Nottingham

Coping and managing chronic illness

Chair: Prof Rona Moss-Morris, King's College London

Individual correlates of health-related resilience

Chair: Prof Christina Lee, University of Queensland

Interventions for healthcare professionals

Chair: Dr Sarah Tonkin-Crine, University of Oxford

Maintaining health and well-being in older age: the role of strategy use and health behaviour change

Chair: Dr Clare Cooper, University of Aberdeen

Occupational health: determinants and interventions

Chair: Dr Margot van der Doef, University of Leiden

14:00 – 15:30 | Adherence to medications: evidence synthesis strategies for intervention development

Chair: Dr Gerry Molloy, NUI Galway

Efficacy and mechanisms of theory-based behaviour change interventions

Chair: Prof Aleksandra Luszczynska, University of Social Sciences and Humanities,
Wroclaw

Adherence and maintenance issues in health behaviour change

Chair: Prof Madelynn A. Arden, Sheffield Hallam University

Patient experience

Chair: Dr Vera Araujo Soares, University of Newcastle

Interactive Posters

15:30 – 17:00 | eHealth and mHealth 3

Chair: Prof Robert West, UCL

eHealth and mHealth 4

Chair: Dr Marta Marques, University of Lisbon

Resilience in illness and disability

Chair: Dr Ewa Gruszczyńska, University of Social Sciences and Humanities, Warsaw

Cognitions, performance and behaviour in stress and coping

Chair: Ms Tara Cheetham, University of Bath

Treatment beliefs and illness perceptions

Chair: Dr Thomas Janssens, KU Leuven

Psycho-social issues and chronic disease

Chair: Ms Hannah Dale, University of St Andrews

Patient experience

Chair: Dr Sabrina Cipolletta, University of Padua

Psychosocial interventions in long-term conditions 1

Chair: Dr Gerry Molloy, NUI Galway

Psychosocial interventions in long-term conditions 2

Chair: Dr Keegan Knittle, University of Helsinki

Improving health and well-being in later life: behavioural approaches

Chair: Dr Samuel Nyman, Bournemouth University

Promoting health behaviour

Chair: Dr Nelli Hankonen, University of Tampere

Quality of life and well-being across the lifespan

Chair: Dr Constance Drossaert, Twente University

Health expectations and experiences

Chair: Dr Tanya Berry, University of Alberta

Interventions targeting health risk behaviour and sexual health

Chair: Dr Richard Cooke, Aston University

Promoting health and health behaviour among high risk individuals

Chair: Dr Sandra van Dijk, Leiden University

Public health insights 1

Chair: Dr Daniela Harnacke, Justus-Liebig-University Giessen

Friday, 26 August 2016

Patient experience of healthcare

Chair: Prof Gisela Michel, University of Lucerne

Social factors, media and health

Chair: Ms Kate Adkins, Sheffield University

Study design and conduct

Chair: Dr Anna Levke Brütt, University of Hamburg

Public health insights 2

Chair: Dr Lesley McGregor, University College London

Saturday, 27 August 2016

Keynote Lecture

11:00 – 12:00 | Ways to increase the impact of behaviour change interventions in a real-world setting

Professor Aleksandra Luszczynska, University of Social Sciences and Humanities, Wrocław, Poland

Oral Presentation Sessions

09:00 – 10:30 | Implicit and controlled processes in health behaviour change

Chair: Dr Frank Eves, University of Birmingham

Models and interventions in implementation research

Chair: Dr Fabiana Lorencatto, City University London

Health in the family and parental health behaviour

Chair: Dr Fiona Gillison, University of Bath

Psychosocial functioning and well-being in patient populations and the community

Chair: Dr Lucy Piggin, City University London

Health promotion and addictive behaviour

Chair: Dr James Green, University of Otago

User perspective in eHealth and mHealth

Chair: Dr Rik Crutzen, Maastricht University

Mechanisms of change and experiences of interventions

Chair: Dr Emily Arden Close, Bournemouth University

Wednesday, 24 August 2016

17:00 - 18:00 | GORDON SUITE

The Social Brain, Health and Well-Being

Professor John Cacioppo, University of Chicago, USA

Social species are so characterized because members of the species have frequent interactions, typically with conspecifics, and through these interactions they form stable structures that extend beyond the individual. The brain is the key organ for forming, monitoring, maintaining, repairing, and replacing the salutary connections with others that promote survival, reproduction, and a genetic legacy. Investigations of the social brain through the lens of perceived social isolation (i.e., the perceived absence of salutary connections or “loneliness” in humans) have led to insights on the neural, hormonal, cellular, and genomic mechanisms underlying our social nature and underscore the fundamental contributions of our social brain to health and well-being.

9:00 - 10:30 | FLEMING AUDITORIUM

Symposium: Emotions and health

D. O'Connor¹, R. O'Connor², L. Shepherd³, R. O'Carroll⁴, D. de Ridder⁵¹University of Leeds, United Kingdom²University of Glasgow, United Kingdom³Northumbria University, United Kingdom⁴University of Stirling, United Kingdom⁵Utrecht University, Netherlands

Aims: This symposium will demonstrate the impact of emotions on health and wellbeing. We will present emotion research from 4 key areas of health psychology: biological processes, mental health, healthy-living and behaviour change. The impact of emotions in promoting and preventing health and wellbeing will be discussed. Finally, this diverse research will be integrated to create an overview of the impact of emotions on health and wellbeing.

Rationale: Although the impact of social-cognitive factors on health has been comprehensively assessed in the health psychology literature, theory and research on emotional factors is somewhat limited by comparison. This is despite the fact that emotions are central to numerous key areas of health psychology, ranging from biological processes to behaviour-change interventions. Therefore, this symposium will combine current research, from different areas of health psychology, on the growing topic of emotions and health.

Summary: This symposium will present and integrate emotion research from key areas of health psychology. First, we will discuss emotion and health from the biological approach by presenting research assessing whether cortisol responses to laboratory stressors are associated with suicide ideation and attempt. Following this, we will focus on the interface between health and clinical **psychology to discuss how an individual's response to emotional triggers** is associated with suicidal behaviour. Next, we will discuss the role of social identity on emotions and wellbeing. We will then explore the impact of emotions on healthy living by assessing the extent to which future orientated emotions promote and deter healthy eating, testicular self-examination and breastfeeding. We will then discuss the effectiveness of future orientated emotions (i.e., anticipated regret) in behaviour-change interventions using studies on organ donation, and colorectal and breast cancer screening. Finally, our discussant will integrate this research and provide an overview into the variety of ways emotions influence health and wellbeing.

9:00 - 9:15

Cortisol reactivity and suicidal behaviour: the role of hypothalamic-pituitary-adrenal axis responses to stress in suicide

D. O'Connor¹, J. Green¹, E. Ferguson², R. O'Carroll³, R. O'Connor⁴

¹University of Leeds, United Kingdom

²University of Nottingham, United Kingdom

³University of Stirling, United Kingdom

⁴University of Glasgow, United Kingdom

Background: Suicide is a major cause of death worldwide. The causes of suicidal behaviour are not fully understood. Dysregulated hypothalamic-pituitary-adrenal (HPA) axis activity, as measured by cortisol levels, is one potential risk factor. Recent evidence has indicated that cortisol reactivity to stress may be associated with suicidal behaviour. The current study investigated whether cortisol reactivity to laboratory stress differed between individuals who had previously made a suicide attempt compared to suicide ideators and controls.

Methods: One hundred and sixty participants were recruited to a previous attempt, suicidal ideation and a control. Participants completed background questionnaires before completing a stress task known as the Maastricht Acute Stress Test (MAST). Cortisol, cytokines, blood pressure and heart rate were assessed throughout. Measures of suicide ideation and attempt were measured at 1 month and 6 month follow-up.

Findings: Participants who had made a previous suicide attempt exhibited significantly lower levels of cortisol in response to the MAST compared to participants in the ideator and control groups. Moreover, participants who made an attempt within the past year exhibited significantly lower levels of cortisol compared to participants with a lifetime history of attempt. In addition, lower levels of cortisol in response to the MAST were associated with higher levels of suicidal ideation at 1-month follow-up.

Conclusion: These findings confirm that HPA axis activity is associated with suicidal behaviour. Moreover, cortisol reactivity may represent an important biomarker of a trait-diathesis following serious stressful and traumatic events and it may be an additional useful predictor of suicide risk.

9:15 - 9:30

A volitional helpsheet to reduce hospital-treated self-harm: a randomised trial

R. O'Connor¹, E. Ferguson², R. Smyth³, D. McDaid⁴, C. Armitage⁵

¹University of Glasgow, United Kingdom

²University of Nottingham, United Kingdom

³Royal Infirmary of Edinburgh, United Kingdom

⁴London School of Economics and Political Science, United Kingdom

⁵University of Manchester, United Kingdom

Background: To investigate the efficacy of a Volitional Help Sheet (VHS) in the management of self-harm (SH). There were two research questions:

(i) Does a VHS reduce the number of people who re-present to hospital with SH in the six months following an index episode of SH?

(ii) Does a VHS reduce the number of SH episodes in the six months following an index episode of SH?

Methods: Participants who had presented to hospital following suicidal SH were randomised into either the intervention (treatment as usual + VHS; n=259) or control (treatment as usual; n=259) arms of the trial. The VHS is a theoretically-derived brief behaviour change intervention. Two months later, they are sent out a booster VHS. Six months after randomisation, we determined whether the intervention had an effect on the number of participants who re-presented to hospital for SH and the number of re-presentations.

Results: Twenty eight per cent (27.8%) of the total sample re-presented with SH in the six months following randomisation. Intention to treat (ITT) analysis (using zero-inflated statistical modelling) revealed that the intervention was associated with a significant reduction in number of SH repetitions individuals engaged in. The intervention did not reduce the number of participants who self-harmed.

Discussion: The study achieved its aim in full. Taking the effectiveness and economic analyses together, we believe that the VHS offers considerable promise, however, closer inspection of the small minority of participants who are less likely to engage with the intervention is required.

9:30 - 9:45

The role of emotions in promoting and deterring health behaviours

L. Shepherd¹¹Northumbria University, United Kingdom

Background: Researchers often focus on the role of social-cognitive factors in promoting and deterring health behaviours. Across a series of studies, we assessed the impact of emotions on healthy eating (Study 1), testicular self-examination (Study 2), and breastfeeding (Study 3).

Methods: All three studies used a correlational design. In Study 1 (N = 135), participants stated their healthy eating intention and behaviour, and the extent to which they anticipated feeling pride for eating healthy food, and regret, disgust and pleasure for eating unhealthy food. In Study 2 (N = 115), we asked men to rate the extent to which they anticipated feeling relief for checking and regret from not checking their testicles regularly, self-examination behaviour, and intention to self-examine in the future.

In Study 3 (N = 375) we assessed the extent to which mothers felt pride for breastfeeding their child, anxieties surrounding breastfeeding and their baby feeding practices. All three studies used regression-based approaches to analyse the results.

Findings: Across all three studies we found that positive emotions predicted health behaviours. In Study 1 anticipated pride positively and anticipated pleasure negatively predicted healthy eating intention. Similarly, in Study 2 anticipated relief positively predicted self-examination intention and behaviour. Finally, in Study 3 pride positively predicted while anxiety negatively predicted breastfeeding.

Discussion: These studies suggest that it is important to assess the impact of emotions on health behaviours and for interventions to target these emotions.

9:45 - 10:00

Regrets? I've had a few...

R. O'Carroll¹, J. Chambers¹¹University of Stirling, United Kingdom

Background: Previous studies have reported positive results from using anticipated regret (AR) as a manipulation to increase targeted health behaviours. This paper reviews three recent large-scale interventions studies that have used AR - colorectal cancer screening (ARTICS), organ donor registration (INORDAR) and breast cancer screening (TELBRECS).

Methods: In ARTICS 60,000 members of the general public posted a colorectal screening FOBT test kit were randomized to 1 of 3 arms, including AR. In INORDAR 14,500 members of the general public were randomized to 1 of 3 arms, including AR and in TELBRECS 856 women who had missed a breast screening appointment were randomised to 1 of 4 arms, including AR. All used intention to treat analysis.

Findings: In none of the three studies did a simple AR intervention lead to a significant increase in the targeted health behavior.

Discussion: Counter to hypotheses, in all 3 large studies, AR did not lead to promotion of the targeted health behaviour. The findings will be critically evaluated, focusing on mode of delivery as a key aspect of intervention design.

9:00 - 10:30 | CROMBIE B SUITE

Symposium: Paediatric pain: facing the challenge!

J. Egan¹, B. McGuire^{2,3}, L. Caes^{1,4}, S. O'Higgins⁵, A. Traynor⁵, A. Riggenbach⁶, E. Keogh⁷

¹School of Psychology & Centre for Pain Research, National University of Ireland, Ireland

²National university of Ireland, Galway, Ireland

³Centre Pain Research, NUI Galway, Ireland

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⁵School of Psychology and Centre for Pain Research, National University of Ireland Galway, Ireland

⁶University of Lausanne, Switzerland

⁷University of Bath, United Kingdom

Aims:

To highlight and discuss the particular complexity of paediatric pain, emphasising the role of attachment, family, and sex differences.

To discuss the importance of various developmental aspects in understanding the chronic pain experience in adolescence.

To promote effective interventions for acute and chronic pain experiences tailored to meet the psychosocial needs of children.

To illustrate the use of participative research process workshops with youth.

Rationale: The experience of pain in childhood has the potential to impose a significant burden on children and their families. A better understanding of the psychosocial factors influencing child pain experience will facilitate development and implementation of evidence-based interventions.

Summary: This symposium consists of an international panel of paediatric psychologists who are each investigating **unique aspects of children's pain experiences**. **The symposium will start with** presenting findings on the differential impact of active versus passive distraction, with or without parental coaching, on child outcomes during a venipuncture in primary school children. The second presentation will report on the development of a novel internetbased self-management programme for primary school children with chronic pain and their parents. The third presentation will continue on this chronic pain theme by discussing the role of family context and developmental aspects (e.g. autonomy), which impact the experience of chronic pain in adolescents. The fourth presentation will focus on another important aspect of development, i.e. attachment, and how different attachment styles influence pain experiences in young adults (18-25 years). The fifth part will feature an interactive component illustrating the importance of giving children and adolescents their own voice in research by demonstrating the implementation of participative research process workshops.

The closing discussion will identify common themes and implications for clinical practice, with a particular focus on the relative role of sex and gender differences in acute and chronic paediatric pain experiences.

9:00 - 9:15

Passive versus active distraction and parental coaching in reducing child pain and distress during venipunctures

L. Caes¹, J. Keane², A. Newell², C. Heary², B. McGuire¹, V. Mc Darby³, J. Walsh²

¹School of Psychology & Centre for Pain Research, National University of Ireland, Ireland

²School of Psychology, National University of Ireland, Ireland

³Our Lady's Children's Hospital, Dublin, Ireland

Background: Venipunctures are a common medical procedure, which represent a source of pain and distress for children and their parents. While distraction has shown to be effective in reducing children's needle-related pain and distress, research comparing the effectiveness of different distraction interventions is lacking.

Although laboratory-based research supports the effectiveness of interactive compared to passive distraction, it is unknown whether this translates to real-life medical settings. Additionally, the benefit of parental distraction coaching is unclear. This study explored how distraction type and parent coaching impacts children's pain experiences and parental knowledge on effective pain management strategies.

Methods: Using a cross-sectional experimental design 50 children, scheduled for a venepuncture, and their parents were randomly allocated to one of four conditions: interactive distraction only, passive distraction only, interactive distraction with parent coaching, and passive distraction with parent coaching. ANOVA's were used to investigate the impact of the distraction type and presence of parental coaching on children's postprocedural reported pain and distress as well as parental knowledge of effective pain management techniques.

Results: Preliminary analyses revealed no differences between the four conditions for child pain and distress. However, more pain and distress was reported by children accompanied by their father compared to their mother, especially in the conditions without parental coaching. The presence of parental coaching showed a trend to improve parent's understanding of how reassurance can increase child distress.

Conclusions: This research highlights child and parental characteristics might influence the effectiveness of a particular distractor and use of parents as distraction coaches.

9:15 - 9:30

Pain management for school age children: design and development of a web-based programme

A. Traynor¹, J. Egan², S. O'Higgins¹, B. McGuire¹

¹School of Psychology and Centre for Pain Research, National University of Ireland, Galway, Ireland

²School of Psychology, National University of Ireland, Galway, Ireland

Research in the area of pediatric pain management and online intervention development has largely focused on adolescents with chronic pain. Little is known about the acceptability of technology-based psychological treatment for early school-age children with chronic pain. This paper describes the iterative and phased approach used to develop a web-based intervention (Feeling Better) designed to enhance adaptive coping in children with chronic pain.

Method(s): The Pre-clinical Development Phase involved: (1) a systematic review of empirical literature on the efficacy of psychological treatment for pediatric chronic pain delivered using information and communication technology; and (2) selection of a theoretical framework and intervention components. The Modelling Development Phase involved: (1) developing intervention platform materials; (2) qualitative assessment using a participative research process approach; (3) user-testing and (4) final intervention testing in an exploratory randomised controlled trial.

Results and Conclusions: The systematic review highlighted that school-age children are an underrepresented age group for clinical intervention and there is a lack of understanding about effective intervention features. Preliminary findings from the modelling development phase revealed similarities between parents' and children's understanding of what constitutes successful coping, but differences emerged on the value of specific coping strategies. Coping strategies addressing pain-related disability and enhancing a sense of belonging were identified as most important to children, while parents viewed coping strategies facilitating emotion regulation as the most necessary element. Preliminary findings of the ongoing, exploratory randomised control trial examining the feasibility of the Feeling Better intervention in comparison with a waitlist-control group will be discussed.

9:30 - 9:45

Adolescent chronic pain: the influence of autonomy on functional outcomes

A. Riggerbach¹, R. Amouroux¹¹University of Lausanne, Switzerland

Background: The existing literature suggests an influence of family factors on pain functional disability. However, as of yet, little attention has been given to developmental aspects of adolescents who suffer from chronic pain. Those aspects are strongly related to family factors, which influence functional outcomes. The purpose of the present study is to investigate the relation between adolescents' and parents' fear of pain and adolescents' feelings of being supported in their need of autonomy.

Methods: This research uses a mixed methodology. 100 patients between the ages of 12 and 17 referred to pain centers in Switzerland completed measures of autonomy support, fear of pain and functional disability. At least one parent of each adolescent completed the parent versions of the above questionnaires. Twenty of these adolescents participated in semi-structured interviews, where the management of developmental tasks was discussed. Those adolescents also participated in a video task with one of their parents. The interviews were analyzed following interpretative phenomenological analysis. Videos were coded following an interactive code design.

Findings: The results of the interviews and videos underscore how resources and difficulties in managing pain belong together with developmental aspects. As expected, our first results show that being supported in his own values and norms help the adolescent and his family to manage the pain. **Discussion:** The meeting of developmental theories and the usual models in pain highlight that adolescents with chronic pain remain adolescents. The developmental tasks influence and are influenced by the pain and impact functional outcomes.

9:45 - 10:00

The relationship between young Irish adults' attachment style, current psychological well-being and somatic pain presentation

J. Egan^{1, 2}, A. O'Laoide¹¹School of Psychology, NUI Galway, Ireland²Centre for Pain Research, NUI Galway, Ireland

Somatic pain symptoms are commonly reported in adults. The relationship between common pain symptoms such as **headaches, musculoskeletal pain, GI and chest pain** and a **young Irish adult's** current psychological well-being has not been studied adequately to date. The current study looks at how factors that have been found to moderate pain, such as, childhood abuse/neglect, insecure attachment style, high levels of dissociation, and having an internalising response to stress which results in low mood, and high anxiety relate to an increase in somatic concerns.

A sample of Irish young adults (18-25 years; N=761 who completed the survey of which 1259 started) responded to a university press release inviting them to respond to commonly reported feelings of dissociation.

Emails were sent to students and social media links. Participants were invited to click a link to complete an online survey.

High levels of somatic pain were reported in the previous month- including being bothered a little or a lot by back pain (73%), GI upset (57%), pain in joints (56%), headaches (56%), stomach pain (54%), constipation (48%), menstrual pain (40%), and chest pain (20%). Profile analyses resulted in important differences in somatic complaints across young adults when current attachment style, psychological well-being and degree of the presence of childhood abuse were compared. Recommendations will be made in relation to primary care practice, as well as how to address future research needs for this young adult population- who are learning to independently interact with the medical services available to them.

10:00 - 10:15

An interactive illustration of participative research process workshops with youth

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This interactive component will illustrate the use of Participative Research Process (PRP) workshops with young people. PRP, as a method, is based upon Health Promotion principles, in that it facilitates participation, equity, and empowerment (WHO, 1986). Participative research aims to ensure that the views of participants are reproduced in their terms, rather than interpreted by researchers. This makes it possible to “access and valorise previously neglected knowledges and provide more nuanced understandings of complex social phenomena” (Kesby, 2000, p.423). The implicit belief is that valid data can be elicited by moving away from young participants being treated as respondents to inquiry instruments, to being partners in a transformative research process (Bowd et al., 2010).

PRP workshops add the inclusion of fun to the basic assumptions that processes should have meaning and value for the participants (O'Higgins et al., 2010; Sixsmith et al., 2007). If an activity is perceived as being fun, participants become more enthusiastic about engaging with it (Barker & Weller, 2003b). The workshops also need to be rewarding by contributing to something valued by the participants. Focusing on enjoying the process together rather than just focusing on the outcomes helps to build a sense of belonging and ensure that participation is meaningful now and not just in the future. This is not the same as advocating a 'child-friendly' technique, which could undermine the belief in young people as competent social agents (Punch, 2002), nor would it recognise the heterogeneity of young people's lives (Christensen & James, 2003)

10:15 - 10:30

Is it time to take a sex and gender approach to childhood pain?

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There are well known sex and gender differences in the perception and experience of pain. The general finding is that females report more pain than males, across a range of painful conditions and situations. Mechanisms are thought to be wider ranging, with biological and psychosocial factors known to contribute to such differences. However, the vast majority of research focuses on adults, and few studies consider sex and gender issues in pain within childhood.

This is surprising given the potential role that psychosocial factors, especially early social learning, are likely to play in the formation of pain behaviours e.g., coping styles, pain expression, analgesic use. The purpose of this discussion will be to challenge each of the speakers to consider the relative roles that both sex and gender play in understanding the results from their respective studies. It will start with a short overview of the background, and place this within an international context, where we are starting to see some funders of health research require their researchers to consider sex and gender in study design and analysis.

The discussion will challenge speakers and the audience to consider whether we should consider sex and gender as a standard approach to the investigation and treatment of pain in children (and adults), and if so, what the potential implications might be.

9:00 - 10:30 | GORDON B SUITE

Symposium: Engagement and disengagement with digital interventions

M. Steele¹, I. Muller¹, K. Bradbury¹, F. Schneider², H. de Vries², R. Crutzen²

¹University of Southampton, United Kingdom

²Maastricht University, Netherlands

Aims:

1. Highlight the potential for qualitative research to inform intervention development and enhance engagement and uptake.
2. Describe how quantitative analyses can highlight patterns of engagement and disengagement and inform future interventions.
3. Discuss linking engagement in specific intervention components to behavioural outcomes and participant demographics.

Rationale: Online interventions are a promising method of delivering behaviour change interventions but there is a need to boost engagement to improve outcomes. In-depth qualitative research can be used to understand and overcome barriers to uptake and engagement. Quantitative analyses can then be carried out to explore how participants engage and disengage with intervention components in a depth that is not possible with other modes of delivery, enabling links to behavioural outcomes and participant demographics.

Summary: The first two presentations focus on the role of qualitative research in maximising engagement and uptake of digital interventions. Firstly, FS will present the results of qualitative interviews with participants of a large e-health intervention exploring reasons for non-uptake and disengagement. KB will then demonstrate how an in-depth structured qualitative process to intervention development was used to optimise uptake and engagement in an online intervention for hypertension. The remaining presentations describe quantitative analyses of online interventions which have shown promising outcomes. IM will report on the usage of an international digital intervention for people with low health literacy (n=1041) investigating engagement in relation to interactivity and audio-visual presentations. MS will then describe an in-depth usage analysis (n=536) demonstrating what triggered high and low levels of engagement in an online weight management intervention. Finally, HD will present a series of RCTs of eHealth interventions, with an emphasis on how participant demographics impact on engagement.

The discussant has expertise in online interventions and will provide a commentary on the presentations and facilitate discussion arising from the studies.

9:00 - 9:15

Using a qualitative approach to assess motives for non-uptake and disengagement in digital interventions

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Background: The impact on public health of digital interventions is often limited due to suboptimal levels of uptake and engagement. In order to understand the process of uptake and engagement, it is important to supplement objective analyses of intervention use with qualitative approaches to understand barriers related to intervention uptake and engagement.

Methods: A digital intervention promoting mental fitness was proactively offered to participants of a Dutch Health Monitor. A total of 24 semi-structured individual interviews were conducted in order to assess motives for uptake and disengagement. The interview guide was developed using Roger's Diffusion of Innovation Theory and the Unified Theory of Acceptance and Use of Technology. Data were analysed using thematic analyses methods.

Findings: Almost 17000 participants indicated their interest in the intervention, whereas actual uptake was 4378, of which 20% consisted of active users. Participants refraining from intervention uptake, as well as intervention users reported positive expectations regarding the intervention. They expected the intervention to be easy to use, effective and compatible with their daily routine. In addition, non-uptake could largely be explained by the fact that people were not convinced of the personal necessity of the intervention. Finally, the main reason for disengagement was the personal experience of obtaining positive results, which made further engagement redundant in their perception.

Discussion: The results of this study give valuable insights in the motives related to uptake and disengagement. Based on these findings strategies can be developed in order to optimize engagement and increase the impact of public health.

9:15 - 9:30

Improving uptake and engagement in a digital intervention for hypertension

K. Bradbury¹, R. Grist¹, K. Morton¹, R. Band¹, L. Yardley¹

¹University of Southampton, United Kingdom

Background: Raised blood pressure is the leading risk factor for global disease burden. An online intervention (HOME-BP) was designed using existing evidence and theory (Self-Regulatory Model, Behaviour Change Wheel). It aimed to support patients in monitoring their blood pressure at home, making medication changes and lifestyle changes to help reduce blood pressure. This study aimed to **explore both patients' perceptions** of managing their hypertension with a digital intervention and perceptions of HOME-BP, to understand how we could maximise uptake and engagement.

Methods: We took a **person-based approach to intervention development**, exploring patients' perceptions within interviews (N=51). We purposefully sampled both those who were interested in using a digital intervention to manage their hypertension and those who were not. Data was analysed using thematic analysis.

Findings: A number of barriers to uptake were identified, including concerns that digital interventions might not provide accurate, tailored advice and about lack of healthcare practitioner input. Patients found HOME BP engaging, valuing aspects of the website designed to raise motivation for behavioural changes. However, **challenges to patients' treatment perceptions that practitioners were best equipped to treat them** appeared to cause disengagement with the intervention. This talk will **illustrate how we addressed patients' concerns** through modifications to recruitment materials and the HOME-BP intervention, to promote uptake and engagement.

Discussion: A person-based approach enabled optimisation of recruitment materials and the HOME BP intervention, enabling us to maximise uptake and engagement. Paying particular attention to **patients' treatment perceptions** was key to making this intervention persuasive.

9:30 - 9:45

Engagement and usage of a digital intervention for people with lower levels of health literacy

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¹University of Southampton, United Kingdom

Background: Little is known about how people with lower levels of health literacy engage with web-based behaviour change interventions and there are important unanswered questions about how best to meet the needs of this population. This international study aimed to address these by developing and testing a web based intervention to promote motivational determinants of physical activity in people with Type 2 diabetes.

Our objective was to determine whether audio-visual presentation and interactivity (quizzes, planners, tailoring) could overcome the 'digital divide' through making digital interventions more engaging and effective for people with all levels of health literacy.

Methods: We adopted the Person-Based Approach to develop an intervention for trialling in the UK, Ireland, Austria, Germany, and Taiwan, comparing the interactive intervention to a plain text version. Self-reported measures were collected at baseline and follow-up. Intervention usage was objectively recorded for all users and analysed to explore usage patterns.

Findings: In total, 1041 people with type 2 diabetes took part in the trial. Participants in both intervention groups, and all health literacy levels showed significant improvements in health literacy outcomes as a result of looking through the web pages. Visual analysis of intervention usage revealed remarkably similar patterns in how the intervention was used by health literacy level, age, gender, country, time since diagnosis, physical activity level, or change in physical activity attitude.

Discussion: A good, clear design and Person-Based intervention development may be more important than interactivity and audio-visual presentations when developing accessible digital health interventions.

9:45 - 10:00

Usage analysis of engagement in an online weight-management Intervention

M. Steele¹, K. Bradbury¹, B. Ainsworth¹, B. Stuart¹, P. Little¹, L. Yardley¹

¹University of Southampton, United Kingdom

Background: Online interventions have the potential to provide support for weight management, but engagement is typically limited. Positive Online Weight Management Plus (POWeR+) is an automated online intervention to support weight management based on the principles of self-determination theory. It succeeded in aiding weight loss over a period of 12 months.

Aims: To investigate patterns of engagement throughout the intervention, and to investigate associations between engagement with intervention components and outcomes.

Methods: POWeR+ consisted of 25 online informational sessions and a weekly weight, eating and physical activity goal review which could be completed for up to a year. 536 participants were randomised to an intervention group and their usage was objectively recorded by the website. An online tool designed to create visualisations of large usage datasets, and statistical analysis was used to explore overall patterns of usage.

Findings: Good user engagement was observed throughout the intervention. High usage was prompted by factors such as email reminders and unlocking new content in timed stages. Particularly promising engagement was observed in the self-regulatory goal setting module, with a mean of 10.72 (SD=12.60) weekly goal reviews completed, indicating habit formation. Engagement with goal review was higher in participants whose subjective perceptions of having met goals was high. Number of goal reviews completed and number of sessions started was positively associated with weight loss.

Discussion: The analysis provides encouraging confirmation that there is an association between engagement and behavioural outcomes. It highlights the potential for linking specific intervention components, and therefore theory, to outcomes.

10:00 - 10:15

Differences in user appreciations and effects in Dutch computer tailored interventions

H. de Vries¹¹Department Health Promotion, Caphri, Maastricht University, Netherlands

Background: Computer tailored eHealth interventions have the possibility to deliver highly personalized messages. Yet, a challenge with these messages is that they require much text and reading and may also lead to widening of the digital divide. Hence, alternative strategies such as video tailoring and mHealth can be used in order to optimize appreciation, use and effectiveness.

Methods: The results of a series of RCTs will be presented in which we analyze the user appreciations and effects. First, we will compare the effects in drop-out and appreciation between low and high educated respondents. Next, the results of text and video tailoring will be compared. Finally, we will compare the results of eHealth and mHealth.

Findings: First, the results reveal no clear pattern in user appreciation and effects between educational levels; lower educated respondents sometimes liked the tailored letters better but also drop-out rates were sometimes slightly higher. Next, significantly higher appreciations and more effects were found when video tailoring was used. Finally, eHealth messages were appreciated better than mHealth messages and drop-out was higher in mHealth. eHealth led to more behavior change.

Discussion: Co-creation with users may prevent large differences in response and effects between high and low educated respondents. Video tailoring, although more expensive, can be cost-effective and is appreciated more. A balance in use between e&mHealth is needed.

11:00 - 12:30 | CROMBIE A SUITE

Symposium: On the role of interoception and alexithymia for embodied health

E. Georgiou¹, D. Grynberg², O. Pollatos¹, S. Mai³, D. Fischer¹, Z. van Dyck⁴, G. Panayiotou⁵

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⁵UCY, Cyprus

The aim of the symposium is twofold: First, the role of bodily signals and their perception (interoception) is introduced as a concept closely related to aspects of alexithymia, a personality trait mainly characterized by difficulties in describing and identifying feelings and by an externally oriented thinking style. While alexithymia is used for many years in clinical research, its relevance for health psychology as an important trait variable is quite new. The increasing realization of the extent to which mental processes are embodied has put interoceptive processes and the close interplay between the mind and the physiological state in the focus. Second, embodied health with the body as main stage of emotions or stress will be linked to both interoceptive processes as well as alexithymic trait that can act as resources or risk factors for many health-related issues.

The rationale of the symposium is to present better insight on these two related topics in order to allow connections being relevant when our mind and well-being is understood as embodied. This knowledge can be used in various ways being strongly associated with core topics of health psychology such as health-related interventions, emotional processing or coping with stress. A special focus will lie on innovative methods allowing various insights in new ways to quantify interoceptive processes and aspects of alexithymia.

Therefore, the symposium will introduce research highlighting how alexithymia interacts with the identification of emotional faces or is associated with poor emotion regulation explaining internalizing problems. Linking alexithymia with interoception and body ownership, the body and the perception of the body using bodily signals both from the cardiovascular as well as from the gastrointestinal system will be presented, using healthy persons and patients suffering from eating disorders such as anorexia nervosa, bulimia nervosa and binge eating.

11:00 - 11:15

Impaired categorical perception of emotional facial expressions in Alexithymia

D. Grynberg¹, P. Maurage², F. D'Hondt², S. Olderbak³, O. Pollatos³

¹Universite de Lille, France

²Universite catholique de Louvain, Belgium

³University of Ulm, Germany

Alexithymia is characterized by low **awareness of one's own emotions** and by an **externally-oriented thinking**. It has been linked to social impairments, notably with lower abilities to decode emotional facial expressions (EFE).

However, it remained unclear whether alexithymia is associated with a deficit for subtle (i.e., expressed at low intensities) emotions. Forty participants completed the 20-item Toronto Alexithymia Scale and an emotional morphing paradigm which displayed morphed emotions along continua between neutral and fullblown emotions (anger, fear, sadness, disgust, and happiness).

Main results showed that high levels of alexithymia, and more particularly externally-oriented thinking, were associated with increased identification threshold for fearful expressions and impaired recognition of low-intensity fearful faces. This study thus supports that alexithymia is characterized by an underestimation of fearful expressions and by altered identification of subtle EFE, which are the most frequently experiences in real-life situations.

11:15 - 11:30

Gastric interoception and gastric myoelectrical activity in bulimia nervosa and binge eating disorder

Z. van Dyck¹, A. Schulz¹, J. Blechert², B.M. Herbert³, C. Vogele¹

¹University of Luxembourg, Luxembourg

²University of Salzburg, Austria

³Eberhard-Karls-University of Tuebingen, Germany

A better understanding of the factors that control food intake and meal termination is crucial for models and treatment of eating disorders in which binge eating is a core feature. As a digestive organ and periodic reservoir for ingested food, the stomach plays an important role for satiation. Nevertheless, little is known about gastric interoception or gastric motility in patients experiencing binge eating, i.e. bulimia nervosa (BN) and binge-eating disorder (BED).

The present study investigated individual sensitivity for the onset of satiation and maximum stomach fullness in patients with BN or BED (ED group; n = 29) and in healthy controls (HC group; n = 32). In addition, gastric myoelectrical activity was measured before and after ingestion of non-caloric water. The onset of satiation and stomach fullness were assessed using a novel 2-step water load test (WLT-II). Gastric myoelectrical activity was measured by electrogastrography (EGG) during 15 minutes before and after water ingestion.

ED participants drank significantly more water until feeling satiated during the WLT-II. After water ingestion, the percentage of gastric activity in the 3 cpm normogastria range was significantly lower in ED compared to HC participants. Power in the 1-2.5 cpm bradygastria range was higher in ED than in HC subjects. Percentage of normogastria was strongly negatively related to the number of objective binge-eating episodes per week in bulimic patients.

ED patients have a delayed response to satiation compared to HC participants, together with abnormal gastric myoelectrical activity. Frequent binge eating may induce disturbances to gastric motor function.

11:30 - 11:45

Interoceptive accuracy and the heartbeat-evoked brain potential in Adolescents

S. Mai¹, E. Georgiou¹, O. Pollatos¹¹Ulm University, Germany

Background: The interplay of brain and bodily signals can be investigated using the heartbeat-evoked potential (HEP). The HEP is regarded as an index of the cortical reflection of cardiac interoceptive signals. Studies which have examined interoception in adolescents using the HEP are not known to the authors so far. This study aimed to investigate the processing of cardiovascular bodily signals in adolescents, represented by the HEP. We wanted to examine whether the HEP was modulated by interoceptive accuracy in heartbeat perception and wanted to shed further light on possible associations between the HEP and different dimensions of interoception.

Methods: EEG and ECG were recorded in a sample of 46 adolescents aged 12 to 17 years while subjects performed a heartbeat detection task. According to their performance in heartbeat perception (interoceptive accuracy), subjects were categorized as good (n = 23) or poor (n = 23) heartbeat perceivers. Subjects were asked for metacognitive accuracy of interoception.

Findings: Mean HEP amplitudes (360-500ms post R wave) were significantly higher at frontal and at right frontocentral electrode locations in good heartbeat perceivers as compared to poor heartbeat perceivers. A positive association between interoceptive accuracy and metacognitive accuracy was demonstrated only for the subgroup of poor heartbeat perceivers.

Discussion: Our results illustrate the function of the HEP as a psychophysiological marker to study interoceptive processing in adolescents. Its use for clinical questions should be exploited in future studies.

11:45 - 12:00

Interoceptive processes in anorexia nervosa in the time course of cognitive behavioural therapy

D. Fischer¹, O. Pollatos²¹Ulm University, Germany²University of Ulm, Germany

Background: Reduced interoceptive processes (especially interoceptive accuracy (IAc) and interoceptive sensibility (IS)) are associated with problems in recognition and processing of emotions as well as difficulties in perceiving hunger and satiety. These are central components in the onset and maintenance of eating disorders, especially anorexia nervosa (AN). Previous studies found a reduced IAc in AN. Whereas first studies suggest an improvement of IS in the time course of therapy in patients with AN, there is still a lack of research regarding the investigation of IAc.

Methods: 15 patients with AN (age: 27.40 [SD 7.85], BMI: 15.72 [SD 1.27]) from the Psychosomatic Clinic in Windach were assessed three times in the time course of a standardized cognitive-behavioral therapy. They were compared to 15 controls (age: 27.93 [SD 7.56], BMI: 21.02 [SD 1.84]), recruited from Ulm University and tested in a comparable setting. Both groups performed the heartbeat perception task and completed standard psychological assessments (Beck Depression Inventory-II and Eating Disorder Inventory 2 (subscale: interoceptive awareness)).

Results: Patients with AN showed a significantly decreased weight, higher levels of depression and both reduced IS and IAc compared to healthy controls. Following therapy, patients recovered in terms of weight and depression symptomatology. A descriptive trend for recovering from IS and IAc was observed.

Conclusions: Our findings suggest that deficits in interoceptive processes are present in recovered patients and could be a major factor for the high relapse rate. For the improvement of IAc a training of this variable (e.g. using biofeedback) is required.

12:00 - 12:15

Describe me your feelings: body illusion related to alexithymia among Adolescents

E. Georgiou¹, S. Mai¹, O. Pollatos²¹Ulm University, Germany²University of Ulm, Germany

Background: Having access to bodily signals, differentiating the self from the others and dealing with feelings is crucial in adolescence, where negative affect states could hamper the integration of bodily input into the self and might also affect the sense of body-ownership.

Method: 54 healthy adolescents aged between 12 to 17 years old participated in this study. The SDQ and the SPS-J were used as brief behavioral screening instruments but also to assess emotional distress. Difficulties in identifying and describing feelings as well as externally oriented thinking were assessed by the TAS-20. The Rubber Hand Illusion was implemented for the assessment of body ownership.

Results: No significant differences were detected between age, gender and alexithymia, in comparison to body ownership, where age seemed to play an important role. Further findings revealed the association between emotional distress and difficulties in identifying and describing feelings. Emotional distress and the SDQ did not seem to have an impact on the degree of body illusion. Lastly, a higher body illusion was found to be connected to more difficulties in describing feelings in the adolescence.

Discussion: Our findings emphasize the close link between the ability to perceive one's body based on proprioceptive signals and to verbalize own feelings. We suggest that in adolescents with higher malleability of body ownership, a vicious circle might occur which fosters a psychopathological state, where affect and integration of different exteroceptive signals regarding the body become more disentangled.

11:00 - 12:30 | CROMBIE B SUITE

Symposium: Choice and control over my body and health? Women's reproductive health in socio-cultural context

H. Preis^{1,2}, Y. Benyamini¹, K. Morgan³, E. Neter⁴, I. Todorova⁵

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⁵Health Psychology Research Center, Bulgaria

Aim: This symposium aims to promote research on women's unique health psychology issues. We will present a variety of pregnancy and birth-related matters women deal with, highlight the social paradigms that affect them and stress the importance of identifying populations at risk of health disparities.

Rationale: Reproductive health matters concern women across the globe, though often choices on these issues are limited. **Women's subjective experience of these matters, their perceptions, ways of coping and decision-making processes, could affect their physical and emotional health in the short and long term.** Therefore, it is imperative to study and share knowledge on these subjects. In addition, not all women are alike and it is important to recognize how reproductive issues play-out among women in different life circumstances.

Summary: Issues of conception, pregnancy termination and childbirth are experienced very differently by women from diverse social groups and under changing circumstances such as unwanted or desired but not achieved pregnancies. We will explore how social and intra-psychic constructs affect **women's health psychology in regards to reproduction.** We will open with several short thought-provoking videos that encapsulate choice and control surrounding women's reproduction in different cultures and settings.

These videos will set the ground for the following presentations and the audience engagement in the discussion thereafter:

1. An investigation of contraceptives use among women from different ethnic groups in Malaysia (Morgan).
2. An examination of health behaviours of adolescent Israeli's going through pregnancy termination (Preis).
3. An exploration of infertility centrality in the identity of Israeli women in ongoing fertility treatment and its association with well-being (Neter).
4. Development of a multi-dimensional construct of control during childbirth among pregnant Israeli women (Benyamini). We will end with an integrative and interactive discussion among presenters and audience, calling for more research and collaboration regarding women's psychological health.

11:15 - 11:30

Knowledge of and attitudes to the use of long acting reversible contraceptives among Malaysian women

K. Morgan^{1,2}, A. Tan Yih Xin¹, N. Maneevasagam¹, A. Dayang Ridu Anak Dennis Gimang¹

¹Perdana University, Malaysia

²Royal College of Surgeons in Ireland, Ireland

Background: Long acting reversible contraceptives (LARCs) are effective methods of contraception which are less likely affected by user adherence compared to other forms of contraception. However uptake remains low in many countries. This study explored knowledge, attitudes and beliefs regarding LARCs among Malaysian women aged 18-50.

Methods: A questionnaire was administered to women aged 18-50 years old in Klang Valley, Kuala Lumpur. The questionnaire assessed use of contraception, knowledge of LARC and attitudes to LARC use.

Results: The majority of respondents (61.2%) had heard of LARCs. Serious side effects were a concern for a quarter (25.5%) of women and included bleeding, weight gain and permanent infertility. One third believed that other forms of contraception are more reliable and 1 in 4 women were concerned about the involvement of needles and having foreign objects in their body. A quarter of women find it embarrassing to make an appointment for LARC insertion. Younger women were more like to experience this embarrassment. Differences were noted between married and unmarried women as well as between ethnic groups.

Discussion: Strategies to increase knowledge of LARC should be investigated as many misconceptions exist. Concern about side effects is of particular concern e.g bleeding among Muslims as this may impact religious practices.

11:30 - 11:45

Adolescents seeking abortions in Israel: a longitudinal study examining health behaviours

H. Preis^{1,2}, M. Prager², O. Bershtling²

¹Tel Aviv University, Israel

²The National Social Work Service, Ministry of Health, Israel

Background: Adolescents undergoing abortions of unwanted pregnancies are a unique population requiring special attention. They are often characterized by omnipotent thoughts leading to risky behavior. Immature judgment and poor social support also affect adherence to treatment recommendation. The current study investigated health behavior patterns of this understudied population in order to establish health-promoting interventions.

Methods: Eleven hospitals in Israel took part in this quantitative longitudinal study. Participants <19 years old were recruited by social workers during intake at the abortions committees (T1) and were asked about sociodemographic characteristics and obstetric history. They were followed up by phone one (T2) and two months (T3) post-abortion and questioned about adherence to post-abortion care guidelines and contraceptives use.

Results: Initial analyses of data from 77 of the participants revealed that only 23% were accompanied by their parents and 10% came alone. Almost half reported not using contraceptives before becoming pregnant, while the rest mostly reported condom failure. At T2, 53% did not have a post-abortion check-up. Of them, 66%, had not seen a doctor at T3. Parents' involvement increased the likelihood of seeing a doctor. At both follow-ups, almost half of the participants had not used contraceptives, though at T2, 77% of them reported planning to use them.

Discussion: Non-adherence to recommended post-abortion care seems to be a major problem, which might cause health disparities and more unwanted pregnancies. Effective interventions to promote behavior change are needed, especially those that increase parents' involvement and continuity of care in the community.

11:45 - 12:00

Adjustment in fertility treatments: the role of infertility centrality in women's identity and goal adjustment

E. Neter¹, S. Goren¹¹Ruppin Academic Center, Israel

Background: Some of the women that go through repeated infertility treatments do not adjust well to the treatments and experience increased distress. The present study examined how centrality of the fertility problem in the woman's identity and goal adjustment (disengagement and re-engagement) are associated with the woman's psychological adjustment.

Methods: 193 women in ongoing fertility treatments filled out questionnaires, and were follow up on their psychological wellbeing three months later (N=130).

Results: Women who perceived their fertility problem as more central to their identity experienced greater distress ($\beta=0.34$, $p<0.01$) and less well-being ($\beta=-0.31$, $p<0.01$). Concurrently, high ability for goal disengagement was a resource that protected women from these feelings. Women with the ability of goal disengagement who did not also show an ability of goal re-engagement (β of interaction=-0.23, $p<0.01$) experienced greater distress, probably because they remained with feelings of emptiness and lack of purpose.

These findings were found concurrently and after three months (T2). Finally, the models predicting wellbeing and distress at T2 using centrality, goal adjustment and T1 wellbeing/distress explained 42% and 47.5% of the variance, respectively.

Conclusions: Although a lot of attention is invested in both research and practice in the subject of coping with fertility treatments, it seems that the possibilities of reducing investment in treatments and finding alternative goals do not receive appropriate attention. This study discusses these issues and their possible clinical implications.

12:00 - 12:15

Conceptual analysis and empirical test of multi-dimensional perceptions of control in childbirth

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¹Tel Aviv University, Israel

²Maccabi Health Services, Israel

Background: Perceptions of control play a major role in many health psychology theories. Their definitions and methods of assessment greatly vary. Our aim was to test a multidimensional conceptualization of perceived control, adapted to the context of childbirth. We developed a model and an instrument based on Walker's (2001) unifying theory of control (including self and medical staff control), combined with anticipated and desired control of each type.

Methods: Pregnant women (N=850) filled in questionnaires including: Perceptions of self- control over the process of childbirth and over the staff and the surroundings and perceptions of staff control over childbirth (each set repeated twice, for anticipated and desired control); their intentions regarding a variety of natural choices during childbirth; and fear of birth. We conducted factor analyses and regression models (using PROCESS for interactions).

Findings: Greater desired and anticipated staff control, less desired and anticipated self-control of the birth surroundings, were significantly related to more fear of birth and fewer natural birth choices; anticipated selfcontrol of the birth process showed opposite associations. Desired and anticipated staff control significantly interacted: Only when desired staff control was low, higher anticipated staff control was related to more natural birth choices. Incongruent desired/anticipated perceptions of staff control were related to fear of childbirth.

Discussion: The findings illustrate the importance of attending to the full complexity of control perceptions when attempting to understand women's perspectives on childbirth. The multi-dimensional conceptualization of control developed here could help understand individuals' views of other health events and medical procedures.

11:00 - 12:30 | BALMORAL SUITE

Symposium: Implicit and automatic processes in eating behaviour

M. Gillebaart¹, J. Benjamins¹, B. Chang², M.A. Claassen³, R. Cserjesi⁴

¹Utrecht University, Netherlands

²Universite libre de Bruxelles, Belgium

³Universite libre de Bruxelles, Netherlands

⁴Budapest University, Hungary

People's health behavior is greatly influenced by automatic and implicit processes, rather than being deliberate and rationalized. However, there are still numerous gaps in knowledge about the exact nature of these processes in health behavior, and in eating behavior specifically. Since several health problems result from dysfunctional eating behavior, many interventions aim to change eating behavior. When attempting to change behavior, in-depth knowledge about the underlying processes leading to certain behavior is imperative. Therefore, this symposium will present an overview of studies aiming to further understanding into the automatic and implicit processes guiding eating behavior.

Five speakers will present their findings. Marleen Gillebaart will present research on the automatic side of self-control and how diet and exercise are affected: habitual behavior is presented as a key ingredient. Jeroen Benjamins will focus on how **sleep affects people's eating behavior, by discussing how sleep deprivation diminishes people's ability** to make healthy choices. Betty Chang will continue by presenting research on obesity priming and how obese vs. thin **exemplars affect people's food choices**. Renata Cserjesi will also present priming research, and will focus on how priming people with different size portions reveals discrepancies between implicit and explicit preferences in obese participants. Finally, Almudena Claassen will present research on how scarcity and hunger influence food choices.

The final 15-minute timeslot of the symposium will consist of an audience discussion on implications and future research directions in which the panel of the symposium will provide input as well as answer questions.

Aims:

*Present state-of-the-art research on implicit and automatic processes in eating behavior

*Integrate findings from separate research lines into an up-to-date overview of implicit and automatic processes in eating behavior

*Spark audience discussion on underlying processes in eating behavior

*Discuss current implications and future research questions concerning implicit processes and automaticity in eating behaviour

11:00 - 11:15

Effortless diet and exercise: self-control promotes health behaviour by force of habit

M. Gillebaart¹, M. Adriaanse¹¹Utrecht University, Netherlands

Background: Many people intend to eat healthy and exercise, but have trouble turning these intentions into behavior. Self-control is necessary to pursue long-term health goals that often clash with short-term hedonistic goals and other, instantly rewarding activities. We translated recent insights from self-control and habitual behavior research into eating behavior to the area of exercise.

Methods: Based on previous work in which participants (N=87) kept a snacking diary for a week in addition to filling in questionnaires about self-control and strength of healthy and unhealthy snacking habits, a study was conducted in which participants (N=134) were recruited from a local gym. Via an online survey they were asked about their self-control level, strength of exercise habits, and their exercise behavior over the past months.

Findings: Conceptually replicating a mediating relationship of habit strength between self-control and snacking behavior, mediation analysis revealed that a higher level of self-control predicted exercise habit strength, which in turn predicted exercise behavior (more minutes of exercise and a higher exercise frequency).

Discussion: Recent research on self-control demonstrated that self-control success is not only a matter of effortful inhibition, but also of adaptive habits. The current study has extended this notion from eating to exercise behavior, covering two essential health behaviors. Findings confirm that self-control is an important predictor of diet and exercise, and that adaptive habits that people with higher self-control have explain this relationship. This has implications for interventions aimed at improving diet and/or exercise.

11:15 - 11:30

Sleep deprivation and food choice: effects of cognition and preference

J. Benjamins¹, N. van der Laan², E. Garritsen¹, C. van de Meent¹, O. van der Kleij¹, L. Kuijpers¹, S. Loosschilder¹

¹Utrecht University, Department of Social, Health and Organisational Psychology, Department of Experimental Psychology, Netherlands

²Nutritional Neuroscience Lab, Image Sciences Institute, University Medical Center Utrecht, Netherlands

Background: Sleep deprivation has been shown to lead to decreased cognitive functioning (i.e. inhibitory control). Furthermore, sleep deprivation has been linked to overweight and increased unhealthy food intake. This study tries to determine whether this relation between food intake and sleep deprivation is due to decreased cognition, a changed food preference or both.

Methods: Using two types of tasks (choose the preferred or non-preferred stimulus) on the same stimuli after normal sleep and a night of partial sleep deprivation (4 hours less than usual), the response times to these stimuli in 36 participants in a 2x2 within subjects design were used to investigate the question above.

Findings: For non-food stimuli response times are only influenced by type of task, not by amount of sleep; when choosing the non-preferred stimuli participants are slower due to translating their preferred choice to a response to the non-preferred stimulus ($F(1,35) = 18.708$, $p < .0001$), but this does not depend on sleep. The response times to food stimuli are in general slower than for non-food items, and only show a switching cost in the normal sleep condition, not after sleep deprivation (sleep x task interaction, $F(1,35) = 4.158$, $p = .049$).

Moreover, after sleep deprivation the proportion of unhealthy choices in food stimuli changes independent of type of task ($F(1,35) = 6.739$, $p = .014$).

Discussion: The results together make it tempting to suggest that both a changed preference and a slowed down cognition play a role in choosing for unhealthy food.

11:30 - 11:45

Body mass index moderates the effect of social exemplars on food choice

B. Chang¹, O. Klein¹, A. Cleeremans¹¹Universite Libre de Bruxelles, Belgium

Seeing an obese versus a thin exemplar can influence eating behavior, but the effects from the literature have been inconsistent. The present research investigates whether these discrepancies may be due in part to participant BMI having a moderating effect on food choice. Across three experiments, we found that participants' own BMI moderated the effect of exemplar weight on food choice. That is, the greater the participant's BMI, the more likely they were to make a lower-calorie choice when they saw an obese rather than a thin exemplar. This interaction occurred regardless of whether the exemplar was eating or not, suggesting that it is not dependent on priming an association between obesity and unhealthy eating. Instead, we propose that these effects are driven by self-regulatory social comparison processes.

11:45 - 12:00

Discrepancy between implicit and explicit preferences for food portions in obesity

R. Cserjesi¹, N. Deroost², I. De Vos³¹Eotvos Lorand University, Hungary²Vrije Universiteit Brussel, Belgium³Privet Clinical Psychologist, Belgium

We investigated the implicit preference for food portion in obesity using the affective priming paradigm. Primes representing different portions of fast food (small, medium, big) were used to **assess participants' readiness** to respond to a positive or negative target word. A self-reported affective rating of food portion and a portion judgment task were administered to determine the explicit preference for food portion and portion misperception, respectively. The results of the affective priming paradigm showed an implicit preference for big food portions in the obese group. No implicit preference for food portion was found in the non-obese group.

The explicit preference measure of food portion showed a rather negative attitude for big portions in the obese group, whereas the non-obese group reported no explicit preference for food portion. Thus, unlike the nonobese group, the obese group showed clear discrepancies between implicit and explicit preferences for food portion: obese participants demonstrated an implicit, but not explicit preference for big food portions. These results could not be attributed to a misperception of food portion, as revealed by the portion judgment task.

The current findings suggest that social desirability might conceal self-reported preference for food portion and/or that obese individuals are less aware of their internal preferences.

12:00 - 12:15

Poverty & obesity: how poverty and hunger influence food choices

M.A. Claassen¹, O. Klein¹, O. Corneille²¹Universite Libre de Bruxelles, Belgium²Universite Catholique de Louvain, Belgium

Background: Levels of overweight and obesity are higher in individuals from low socioeconomic status (SES) and those experiencing food insecurity. Previous research has shown that poverty cues make people eat more calories. The aim of this research is to investigate whether these cues influence individuals from different SES levels differently.

Methods: Participants were recruited online ($n = 197$) and were randomly allocated to a scenario in which they were told that their current income level was relatively lower (poor condition) or higher (rich condition) than others. They then completed a money and food discounting task. The data was analysed in a regression model in R.

Findings: A significant interaction was found between condition and income ($B = -1.49$, $t(194) = -3.09$, $p = .002$): people with lower incomes discounted more when they were in the poor (vs. rich) condition, whereas people with higher incomes discounted less when they were in the poor (vs. rich) condition. These findings were independent of whether the discounted reward was money or food. The findings for people with high (vs. low) hunger were identical to those of low (vs. high) income, indicating the importance of investigating food insecurity alongside income deprivation.

Discussion: The above results show that, under conditions of scarcity, poor and hungry people react more impulsively towards monetary and food rewards. This has implications for health policies in different SES environments. In order to better understand the underlying psychological mechanism, future studies will examine possible moderators (e.g. personal control, negative affect).

14:00 - 15:30 | FLEMING AUDITORIUM

Symposium: Why we eat what we eat: new findings in eating psychology

M. Stok¹, H. Konttinen², G. Kaptan³, S. Prinsen⁴, J. Ogden⁵, B. Renner¹

¹University of Konstanz, Germany

²University of Helsinki, Finland

³University of Leeds, United Kingdom

⁴Utrecht University, Netherlands

⁵University of Surrey, United Kingdom

Aims: This symposium aims to provide an overview on new findings in eating psychology. Specifically, it aims at shedding light on different influences on eating behavior. Moreover, the symposium will disclose mechanisms how these influences affect eating behavior. Last, the importance of paying attention not only to food intake but also to intake-related outcomes will be underlined.

Rationale: Unhealthy eating behavior is highly prevalent and, thus, there are many attempts to change this behavior. However, for designing effective interventions, a comprehensive understanding of eating behavior and influencing factors is crucial.

Summary: To address these aims, a wide range of rigorous methods will be employed: an experimental study, a 7- year prospective study, an experience sampling study, and a cross-country online survey.

First, Gudrun Sproesser (University of Konstanz) will target a comprehensive set of basic motives why people eat what they eat and investigate whether these are generalizable across countries with marked differences in eating environments.

Second, Hanna Konttinen (University of Helsinki) will show how these eating motives can mediate influences of socioeconomic status on eating behavior.

Third, Gulbanu Kaptan (University of Leeds) will demonstrate how perceived food attributes are related to food evaluations and eating decisions.

Fourth, Sosja Prinsen (University of Utrecht) will address the phenomenon of self-licensing, that is justifications to give into food temptations. Specifically, she will uncover conflict resolving as a potential mechanism how self-licensing liberates people to indulge.

Fifth, Marijn Stok (University of Konstanz) will show how visual deprivation affects food intake and intake-related outcomes such as perceived intake.

Last, Jane Ogden (University of Surrey) will provide an in-depth discussion of the different presentations, tying them together into a perspective on the current state of the field.

Altogether, the symposium is expected to make a significant contribution to the state of the art in eating psychology.

14:00 - 14:15

The eating motivation survey in three countries: results from the USA, India, and Germany

G. Sproesser¹, M. Ruby², N. Arbit³, P. Rozin², H. Schupp¹, B. Renner¹

¹University of Konstanz, Germany

²University of Pennsylvania, United States

³Columbia University, United States

Understanding why we eat what we eat is crucial for an understanding of 'normal' eating behavior. Research has shown that there is a large variety of different motives underlying why people eat what they eat, which can be assessed with The Eating Motivation Survey (TEMS, Renner, Sproesser, Strohbach, & Schupp, 2012).

However, until now, there has been no systematic investigation of whether the 15 basic motives included in TEMS are generalizable to countries with greatly differing eating environments. Therefore, the present study investigated the consistency of the 15-factor structure of TEMS within USA, Indian, and German samples (total N = 749). The 15-factor structure of TEMS was tested in confirmatory factor analyses. Despite the complexity of the model, the results showed good model fit within the three countries and for the total sample.

Also, internal consistencies of motive scales as well as item statistics were generally good. Thus, the 15-factor structure of TEMS was confirmed across countries despite marked differences in eating environments. This is a first step towards determining generalizability of the 15 basic eating motives of TEMS across a broad range of eating environments.

14:15 - 14:30

Motives underlying food selection and socioeconomic disparities in vegetable/fruit intake: a 7-year population-based prospective study

H. Konttinen¹, M. Elovainio¹, S. Mannisto², A. Haukkala¹¹Department of Social Research, University of Helsinki, Helsinki, Finland²Department of Health, National Institute for Health and Welfare, Helsinki, Finland

Background: A better understanding on the factors that underlie socioeconomic disparities in food intake is needed to develop more effective dietary change interventions. We used a population-based prospective study to examine whether changes in various motives for food choice varied according to the level of education, and whether these motives mediated the association between education and vegetable/fruit intake during a 7-year follow-up.

Methods: The participants were Finnish men and women aged 25-74 years who took part in the DILGOM study at baseline in 2007 and follow-up in 2014 (N=3735). A shortened Food Choice Questionnaire was used to assess nine motivational dimensions. Vegetable/fruit intake was measured with a validated Food Frequency Questionnaire. Mediation models were adjusted for age, gender and vegetable/fruit intake at baseline.

Findings: The absolute and relative importance of price motive ($P \leq 0.001$) increased more in individuals with lower education than in their higher educated counterparts. However, changes in familiarity, health, weight control, ethical concern, natural content, convenience, mood or sensory appeal motives did not vary according to educational qualification. Lower education predicted less frequent vegetable/fruit intake at follow-up, and higher relative importance of price and familiarity at baseline partly mediated ($P=0.004$ and $P=0.010$ for the indirect effects) the effect of education on subsequent vegetable/fruit intake.

Discussion: The relative importance of price and familiarity motives partly explained socioeconomic disparities in food intake over time. Nutrition promotion interventions among socioeconomically disadvantaged individuals may benefit from targeting affordability as well as familiarity or habitual intake of vegetables/fruit.

14:30 - 14:45

Food evaluations and eating decisions: are judgments contagious?

G. Kaptan¹, B. Fischhoff²¹University of Leeds, United Kingdom²Carnegie Mellon University, United States

Contagion studies have shown how attributes of one object can transfer to perceptions of another. Here, we extend that research by looking at how people think and feel about food, considering how contagion emerges (1) when attributes are treated as continuous rather than dichotomous; (2) when their distinctive value is positive, rather than negative; (3) with everyday objects, rather than stimuli designed for experimental purpose; and (4) for denotative, as well as connotative attributes. We examine the effects of these factors on attitudes (food evaluations) and behaviors (eating decisions), as a function of five attributes: being nutritious, being safe, being ethical, inducing craving, and causing disgust.

The first two of these attributes were chosen to represent denotative judgments and the last three connotative ones. A sample of 274 Americans completed a 10-min online survey asking (1) about their eating decisions and food evaluations regarding 21 foods and (2) for their ratings on the five attributes. Our analyses examine both individual- and group-level relationships. The results suggest that the connotative attributes are more strongly related to food evaluations and eating decisions, revealed most clearly when the two kinds of attributes point in opposite directions. People generally ate and gave high evaluations to foods with high ratings on the positive connotative attributes, even if they believed them to be non-nutritious.

Conversely, they did not eat or rate highly foods with negative connotative judgments, however nutritious and safe they seemed.

14:45 - 15:00

Evidence for conflict resolving qualities of self-licensing: an experience sampling study

S. Prinsen¹, C. Evers¹, D. de Ridder¹¹Utrecht University, Netherlands

Background: Self-licensing occurs when people rely on justifications to allow themselves to give in to food temptations. In the self-licensing literature it is generally assumed that this justification process resolves the motivational conflict between 'want' (indulge in forbidden foods) and 'should' (weight control) goals. However, there is only indirect empirical evidence for this assumption, as it is mainly inferred from behavioral outcomes.

Therefore the present experience sampling study aimed to provide more direct evidence.

Methods: A female community sample (N = 136) received prompts on their smartphones eight times per day over the course of one week. Following Hofmann et al.'s (2012) conceptual model of motivated behavior, participants registered experienced temptations, desire strength, experienced conflict, resistance and desire enactment. In addition, potential justifications were registered. Findings: The results of multilevel analyses showed that the significant association between desire strength and experienced conflict ($\beta = .23$) was moderated by the number of available justifications ($\beta = -.050$). Further significant associations were found between conflict and resistance ($\beta = .14$), desire strength and resistance ($\beta = -.036$), resistance and desire enactment ($\beta = -.78$), and desire strength and desire enactment ($\beta = .84$).

Discussion: The present findings support the assumption that selflicensing liberates people to indulge by resolving experienced conflict. Intervention aimed at improving healthy eating behaviors could benefit from tapping into this process. Furthermore, the obtained associations replicate the model of motivated behavior. Whether conflict resolution is the underlying mechanism of self-licensing needs further corroboration in future studies.

15:00 - 15:15

Visual deprivation hinders food recognition (but may improve monitoring of consumption quantity)

M. Stok¹, B. Renner¹¹University of Konstanz, Germany

Background: Visual cues have been shown to play an important role in shaping eating behavior. In the current study, we to examine the effects of visual deprivation on the ability to recognize food and to monitor quantity consumed.

Methods: Sixty-one students participated in an ice cream taste test twice, once when blindfolded and once while seeing normally (order cross-balanced). The same three types of ice cream were tested at both sessions; these were commonly known types of ice cream from a large retailer. In both sessions, food recognition was assessed by asking participants to indicate which types of ice cream they thought they consumed. Participants also estimated how much they consumed, while actual quantity consumed was unobtrusively recorded.

Findings: When tasting blindfolded, food recognition was 83% inaccurate, compared to 30% when tasting normally ($p < .001$). This effect was only present when the blindfolded session was run first; participants who tasted blindfolded in the second session were as accurate (34% inaccuracy) as seeing participants.

Furthermore, while participants overestimated consumption in both conditions, overestimation was more pronounced in the seeing ($M = 74\text{gr}$) than in the blindfolded ($M = 48\text{gr}$, $p = .028$) condition.

Discussion: Visual deprivation was shown to hinder food recognition, indicating that visual cues are an essential component to our ability to recognize food. Visual deprivation seemed to improve monitoring of the quantity of food consumed. This may be due to a lack of external (visual) cues distracting participants, causing attention to shift towards interoceptive cues.

14:00 - 15:30 | CROMBIE B SUITE

Symposium: Making an impact on older adults' well-being: resources and risk factors for active ageing

L.M. Warner¹, A. Devereux-Fitzgerald², L. McGowan², M. Melon³, E. Gruszczynska⁴, Y. Benyamini⁵

¹Freie Universität Berlin, Germany

²University of Manchester, United Kingdom

³University Catholic of Leuven, Belgium

⁴University of Social Sciences and Humanities, Poland

⁵Tel Aviv University, Israel

Aims: This symposium set out to a) investigate the development of physical activity and well-being after transition into retirement and b) to reveal age-related factors associated with decreases or increases in activity and well-being. It further aims to c) investigate active ageing from different perspectives (older adults, exercise programme providers), with different methodologies (quantitative, qualitative, meta-synthetic) and new concepts (effect of vacation) and d) to suggest innovative approaches for health promotion programmes.

Rationale: The potential for promoting active ageing and maintained well-being in older adults is often underestimated. The specific needs of this population differ from younger adults, but are not yet well understood. In line with this year's conference topic "**Behaviour change: Making an impact on health and health services**" this symposium extracts risk factors and resources for active and successful ageing. All five presentations contribute innovative and age-specific factors associated with active ageing and provide suggestions for activities and services tailored to the specific needs of adults aged 65+.

Summary: Lisa Warner investigates trajectories of physical activity after transitions to retirement and possible influencing factors. Angela Devereux-Fitzgerald **presents her insights on older adults' acceptability of physical activity** from interviews with older adults with lower socio-economic status as well as exercise programme providers. In her meta-synthesis, Laura McGowan **examines older adults' views and perspectives on being physically active** across different qualitative studies. Marlene Melon **is interested in the effect of vacations on older adults' well-being** and presents a number of different vacation characteristics as well as vacation activities that predict well-being. Ewa Gruszczynska examines trajectories of well-being after transition to retirement and whether these are related to meaning in life. Yael Benyamini will discuss these findings and suggest future directions for research and for the promotion of an active ageing process with maintained well-being.

14:00 - 14:15

Predicting trajectories of physical activity after transition to retirement

L.M. Warner¹, E. Gruszczynska², A. Kroemeke², N. Knoll¹

¹Freie Universitat Berlin, Germany

²University of Social Sciences and Humanities, Poland

Background: Transition to retirement is a turning point for many older adults. Whereas some studies find increases, others report decreases in physical activity after transition to retirement. Quantitative and qualitative research suggests socio-economic status, social factors, activity habits and purpose seeking as predictors.

This study aimed at describing longitudinal trajectories of activity after transition into retirement in Polish and German retirees with a special focus on sex differences, as these were hypothesized to relate to social factors.

Methods: N=596 newly retired participants aged 65 or older (n=266 Polish, n=330 German retirees) selfreported their moderate and vigorous physical activity (MVPA), socio-demographic data, social and individuals resources over 4 points in time (over 12 months, controls: age, time since retirement, health).

Findings: Growth Curve Models showed that gender predicts early (T1-T2) and later changes (T1-T4) in activity patterns in Germans: Whereas women increased their MVPA almost linearly over 12 months (T1:173min, T4:248min), men reported an initial decrease and remained on that level afterwards (T1:214min, T4:182min; change T1-T2 on sex $\beta=-.23$, SE=.09, p=.02; change T1-T4 in sex $\beta=-.19$, SE=.07, p=.02). In Poland both sexes decreased their activity initially, but increased to original levels afterwards.

Discussion: Trajectories of physical activity after transition to retirement were highly individual. First results for Germans show that women increased their activity and men decreased it, whereas no sex differences occurred in Poland. These differences will further be explored by taking marital status, social support and selfefficacy into account.

14:15 - 14:30

Perspectives on physical activity from older adults and exercise programme providers in low socioeconomic environments

A. Devereux-Fitzgerald¹, R. Powell¹, D. French¹

¹University of Manchester, United Kingdom

Background: Physical activity can reduce risks of chronic illnesses, frailty, and deterioration of cognitive function. Despite this, the number of older adults engaging in recommended levels of physical activity decreases dramatically with age. Older adults in lower socioeconomic status (SES) areas are less active and experience greater barriers to physical activity, yet are often absent from research studies. The present research aims to elicit issues affecting acceptability of physical activity from older adults and physical activity providers in lower socioeconomic areas.

Methods: Semi-structured interviews were conducted with 24 older adults aged 67-94 years, independently living in lower SES areas, and eight trainers/providers of physical activity working with older adults. Data were analysed using Thematic Analysis within the Framework Approach.

Findings: Key issues included low SES older adults' perception that society does not sufficiently value them. Lack of personal financial resources and cuts in existing services mean that increased flexibility of provision is needed. Low SES older adults also had multiple time commitments, so attending additional sessions may not be desirable. Providers in different domains focused on different goals (either social or health outcomes) rather than addressing both.

Discussion: Service provision needs to ensure older adults feel valued, and be manageable with available financial and time resources. Teaching and encouraging activities that can be performed outside of led groups could help individuals meet guidelines without additional cost (to individual or provider) or reduction of other valued activities. A more holistic approach by service providers could meet both social and health needs.

14:30 - 14:45

Acceptability of physical activity to inactive older adults: a systematic review and meta-synthesis

L. McGowan¹, A. Devereux-Fitzgerald¹, R. Powell¹, D. French¹

¹University of Manchester, United Kingdom

Background: Despite the significant health benefits of regular physical activity for older adults, only a minority achieve the nationally recommended levels. To develop effective interventions, the reasons for the low levels of physical activity in this population must be understood. The present review identifies and synthesises **qualitative studies concerning inactive older adults' perceptions of physical activity.**

Methods: A systematic search of four electronic databases identified 10 studies meeting inclusion criteria of being inactive, non-clinical samples, and all participants over 65 years old. These were appraised and findings combined and compared using Thematic Synthesis, a systematic three-step process of synthesising qualitative studies.

Results: The synthesis produced three overarching themes. Inactive older adults generally construed physical activity as a by-product of other activities, rather than as a purposeful activity of itself. This seemed to be linked to their self-perceptions as ageing members of society. Purposeful physical activity appeared to become less relevant to their changing values, goals and commitments within wider society, with physical activity perceived as having little relevance during the latter stages of life. Older adults also appeared to experience conflict between their desire to maintain autonomy and control and accepting the physical and social vulnerabilities associated with ageing.

Discussion: As many inactive older adults do not see physical activity as purposeful of itself, interventions promoting moderate or vigorous physical activity are likely to have limited success. As even small increases in physical activity benefits older adults, future interventions could instead target the reduction of sedentary behaviour in this population.

14:45 - 15:00

The effects of vacations on well-being in a large sample of Belgian elderly people

M. Melon¹, O. Luminet²¹University Catholic of Leuven, Belgium²Universite catholique de Louvain, Belgium

BACKGROUND: Ageing is associated with a variety of painful losses that together contribute to loneliness and decrease of well-being in older people. Vacations are a way to cope with these stressors. The aims of this study are to investigate whether vacations contribute to well-being and examine which types of activities practiced during vacations will have an impact on well-being of older vacationers.

METHOD: 4131 older members of a large Belgian health insurance service filled in an online questionnaire. Participants answered to questions related to their last vacations, their physical and psychological health and their lifestyle. Hierarchical multiple regressions analyses were computed in order to examine whether vacations could represent an incremental predictor for well-being.

FINDINGS: Results indicated that vacations are a significant predictor of well-being. They contribute to 4% increase of the variance explaining well-being of older people, over and beyond the explanation provided by socio-demographical data ($\Delta R^2 = .10$), health status ($\Delta R^2 = .28$) and of the level of physical ($\Delta R^2 = .01$) and social activity ($\Delta R^2 = .08$) in the daily life. Four dimensions that were included in the vacation block of predictors were significantly related to well-being: frequency, satisfaction, social activities practiced during vacations and perceived benefits of vacations.

DISCUSSION: The results of this study have important implications. They allow for a better understanding of the factors that contribute to well-being during aging. Future interventions could be based on the promotion of holiday departures by educating older people about their benefits as protective factors for mental health.

15:00 - 15:15

Heterogeneity of subjective health changes after retirement transition: is meaning in life a protective resource?

E. Gruszczynska¹, L.M. Warner², A. Kroemke¹

¹University of Social Sciences and Humanities, Warsaw, Poland

²Freie Universitat Berlin, Germany

Background: Subjective health (SH) is an important indicator of well-being, particularly due to its prediction of mortality among older adults. Meaning in life (MiL) may serve a protective resource towards its deterioration when facing critical life events. Thus, the aim of the study was to examine trajectories of SH within one year after transition to retirement. Changes in MiL and its cross-lagged relationships with SH were hypothesized to differ significantly between these trajectories.

Methods: As a part of larger project subjective health and meaning in life were assessed four times within 12 months among 596 newly retirees (n=266 Polish, n=330 German) aged between 53-74 years.

Findings: Latent class growth curve modeling with sociodemographic variables as covariates revealed four trajectories of subjective health change: 1. high and stable SH (resiliency, n= 162); 2. and 3. Different intercepts but similar quadratic slopes, i.e. first decrease then increase of SH (adaptation, n = 161 and 130, respectively) and 4. low and linearly decreasing SH (deterioration, n = 143). As expected, these trajectories differ in terms of MiL changes, however MiL and SH did not influence each other (all cross-lagged paths equal to zero).

Discussion: Pattern of SH change after normative life event was heterogeneous with a baseline SH as predictor of further changes over time of the study. MiL neither protected from deterioration nor supported adaptation although its higher values were related to better SH trajectories. The time frame of the study, sample characteristics and situational context are possible explanations to be considered.

14:00 - 15:30 | GORDON A SUITE

Symposium: Social exchange processes and their association with couples' health regulation and health-related outcomes

C. Berli¹, A. Rauters², J. Luscher³, D.H. Hohl², J. Keller², G. Stadler⁴

¹Columbia University, United States

²Freie Universität Berlin, Germany

³University of Zurich, Switzerland

⁴University of Aberdeen, United Kingdom

Aims: Our goal is to go beyond the well-researched notion of perceived available social support as a health correlate by emphasizing the role of more immediate accounts of social exchange processes in intimate relationships, including actually provided social support, emotional sharing, invisible and provided social control, and dyadic planning as health-regulating processes. In our studies, we **account for both partners' perspectives within dyads**. Our aim is to shed light on reciprocal social exchange processes that go on in intimate relationships and that may play an important role for **partners' health behaviours and affect under stress**.

Rationale: Investigating immediate social exchange processes in intimate relationships is of high importance for **adults' health promotion as the majority of adults are living in stable relationships and partners are often highly involved in each other's health practices**. To date, only few studies **accounted for both partners' actions to co-regulate each other's health**. In our symposium, we will **elaborate couples' exchange processes and their relation to health determinants** (e.g. health behaviours, affect) to provide implications for health practitioners and future research in this field.

Summary: First, Corina Berli presents findings on how partners relate to each other's daily physical activity and positive affect through social support provision. Second, Antje Rauters reports on both **partners' emotional sharing and its association with negative affect after stress-related events**. Third, Janina Luscher shows results on the role of invisible social control for affect regulation and smoking behaviour among dual-smoker couples. Within the context of enhancing daily physical activity, Diana Hilda Hohl presents **how social control is associated with both partners' physical activity-related self-efficacy**. Subsequently, Jan Keller compares associations of physical activity with plan specificity between an individual and a dyadic planning intervention group. Finally, Gertraud Stadler will discuss implications of the presented papers.

14:00 - 14:15

Couples' emotional disclosure and affect after negative events: a combined dyadic experience-sampling and laboratory approach

A. Rauers¹, M. Studtmann², M. Riediger^{1,2}

¹Freie Universität Berlin, Germany

²Max Planck Institute for Human Development, Germany

Background: Affective responses to daily hassles may contribute to associations between daily stress and health. Social exchange processes are assumed to influence these responses. For example, people may disclose negative experiences to others. Past research suggests that this spontaneous behaviour – emotional sharing – helps individuals to downregulate negative affects after the event.

Methods: We used multiple methods to test this hypothesis. In a dyadic experience-sampling study with 100 cohabitating, heterosexual couples, both partners repeatedly used mobile phones to document whether they had recently experienced a hassle and whether they had told their partner about it. Both partners also repeatedly rated their current affect. In an additional laboratory paradigm, we analysed the content of spontaneous dyadic conversations among 69 couples before and after watching emotional film clips. Both partners also rated their current affect before and after the session.

Results: Data from both studies suggest that emotional sharing in couples is a frequent behaviour after negative events. There was no evidence supporting the notion that such social exchange processes contribute to reducing negative affect. In the laboratory, emotional content in dyadic conversations increased after watching emotional videos compared to baseline, but associations with changes in affective experiences were inconclusive. Multilevel analyses of the experience-sampling data showed that **both partners' affect was worse** after one partner had experienced a hassle. **Both partners' affect was additionally worsened** after emotional sharing, compared to undisclosed hassles.

Discussion: We discuss these results considering potential functions of emotional sharing for emotion regulation, relationship regulation, and health.

14:15 - 14:30

The role of invisible social control for dual-smoker couples' joint quit attempt

J. Luscher¹, D.H. Hohl², U. Scholz¹

¹University of Zurich, Switzerland

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Background: According to the dual-effects model social control is expected to be beneficial for smoking cessation but to have emotional costs at the same time. Recent research suggests that the most effective control is, however, unnoticed by the receiver (i.e., invisible). Therefore, this study aimed at examining invisible social control in dual-smoker couples applying a dyadic approach.

Methods: Overall, 85 heterosexual dual-smoker couples reported in daily diaries for 22 consecutive days their smoking behavior (daily number of cigarettes smoked), positive and negative affect, as well as invisible (i.e., provided minus received) social control after a joint quit attempt.

Findings: Dyadic multilevel analyses showed at the between-person level, higher individual mean levels of invisible social control were associated with fewer smoked cigarettes, less positive affect and more negative affect in both partners.

Discussion: Although control was invisible to receivers, results are still in line with the assumptions of the dualeffects model of social control. Future research should clarify under what conditions visible or invisible social control unfolds positive effects on people's health behavior and affect in dyads.

14:30 - 14:45

Co-regulation in the context of physical activity: Inter-relations among social control and self-efficacy in couples

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Background: Given the well-known health benefits of regular physical activity and that many adults live in romantic relationships, the question arises whether couples can successfully regulate each other's physical activity via social exchange processes such as social control and how this regulative behaviour relates to their physical activity-specific self-efficacy. Both self-efficacy and social control were shown to predict couples' behaviour change, but little is known to date about how these predictors inter-relate over time. The aim of this study was therefore to investigate dyadic inter-relationships among physical activity specific-self-efficacy and social control within couples.

Methods: Within an RCT aimed to improve heterosexual couples' physical activity, data of 114 couples (18-80 years old) from the control group were used in this study. Participants reported on their provided social control to partners and their self-efficacy (both physical activity-specific) at baseline and 2 weeks later.

Findings: Dyadic multilevel analyses based on the actor-partner interdependence model revealed positive associations between female partners' own previously provided social control and their self-efficacy (actoreffect).

Furthermore, male partners' provided social control was also positively related to subsequent changes in female partners' self-efficacy (partner-effect). Male partners' self-efficacy was neither related to their own nor to female partners' previously provided social control.

Discussion: Our results suggest possible gender differences in the relationship between physical activity-specific social control and self-efficacy. Whereas female partners may benefit from the receipt as well as the provision of social control regarding their own self-efficacy, this seems not to be the case for the male partners.

14:45 - 15:00

Specificity of plans for physical activity: does a planning partner make a difference?

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Background: Planning to translate intentions into health behavior change has been shown to be an effective intervention strategy for individuals. In dyadic planning interventions, two partners jointly plan a target person's health behavior change. The aim of this study was to compare plan specificity of an individual and dyadic planning intervention to enhance physical activity. We also tested associations between plan specificity and plan commitment as well as physical activity.

Methods: Within two arms of an RCT with 346 heterosexual couples, randomly assigned target persons of an individual (n = 114) or dyadic planning intervention (n = 111) formulated up to 5 physical activity action plans which were rated regarding their plan specificity. Self-reported plan commitment and accelerometer-based moderate to vigorous physical activity (MVPA) were assessed 1 and 7 weeks post intervention.

Findings: Most target persons formed 5 plans (individual planning group: 92.1%; dyadic planning group: 90.9 %). Individual plans (M = 2.41) and dyadic plans (M = 2.39; scale: 1 to 3) were both highly specific. Plan specificity of plans generated in the individual planning condition was not related to plan commitment, but negatively linked to MVPA 7 weeks post intervention. Regarding specificity of dyadic planning, we did not find a relationship with MVPA, but a positive association with plan commitment 1 week post intervention.

Discussion: Plan specificity seems to be unrelated to the planning format (i.e., individual vs. dyadic). Future studies should address qualitative characteristics of the self-generated content of action plans as potential mechanisms of planning interventions.

Self-management interventions in long term conditions

9:00 - 10:30 | CROMBIE A SUITE

9:00 - 9:15

Development of a nurse-led self-management intervention for kidney transplant recipients using intervention mapping: the ZENN-study

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Background: Improving self-management is a potential way to optimize post-transplant outcomes. However, proven effective interventions aimed at promoting self-management after kidney transplantation are limited. The objective of this study was to describe the systematic development of a nurse-led self-management intervention for kidney transplant recipients.

Methods: The Intervention Mapping approach was used in order to develop a pilot intervention which **incorporates patients' needs, theories and evidence based methods**. The needs of kidney transplant recipients were assessed by reviewing the literature, conducting focus groups and a Q-methodological study (step 1).

Based on the needs assessment change objectives were formulated (step 2). Evidence-based methods to achieve these objectives were selected and subsequently translated into practical implementation strategies (step 3). The intervention protocol was developed accordingly (step 4). Implementation is scheduled for November 2015 – June 2016 (step 5), and feasibility will be evaluated using a pre-post questionnaire and interviews with patients and medical staff (step 6).

Findings: The intervention is designed to improve self-management utilizing evidence-based methods derived from health behaviour change theories, principles of solution focused brief therapy and motivational interviewing. Four sessions, each of which take 15 minutes, are added to the standard medical care provided by the nurse practitioners in the outpatient clinic. In this series of sessions patients will be encouraged to develop goal setting, action planning and pursuit skills and apply these to self-management issues they currently face.

Conclusions: The intervention mapping approach provided a useful framework for integrating patients' needs, evidence and theories in intervention development.

9:15 - 9:30

Self-management support for sodium restriction in patients with chronic kidney disease: randomised controlled ESMO trial

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Background: To date there are no theory-based self-management interventions to support patients with chronic kidney disease (CKD) to reduce their sodium intake.

Methods: 151 patients with moderate decreased kidney function and hypertension were included in this multicentre open randomised controlled trial. The self-regulation intervention comprised education, motivational interviewing, coaching, and self-monitoring.

To investigate the interventions' effectiveness immediately after the three-month intervention and at six-month follow-up, intention to treat analysis using linear mixed modelling was conducted while adjusting for baseline values.

Findings: Compared to regular care, at 3 months the intervention group showed reduced sodium excretion (adjusted difference in means -30.3 [95% confidence interval {CI} -54.7;-5.9] mmol/24h), daytime ambulant diastolic blood pressure (-3.4 [95%CI -6.3;-0.6] mmHg), diastolic office blood pressure (-5.2 [95%CI -8.4;-2.1] mmHg), protein excretion (-0.4 [95%CI -0.7;-0.1] g/24h), body weight (-1.5 [95%CI -2.7;-0.3] kg), and improved self-efficacy (0.5 [95%CI 0.1;0.9]).

At 6 months, group differences in sodium excretion and ambulant blood pressure were not found anymore, but differences were detected in systolic and diastolic office blood pressure (-7.3 [95%CI -12.7;-1.9] and -3.8 [95%CI -6.9;-0.6] mmHg), protein excretion (-0.3 [95%CI -0.6;-0.1] g/24h), body weight (-1.7 [95%CI -2.9;-0.5] kg), and self-efficacy (0.5 [95%CI 0.0;0.9]).

No differences in kidney function and health-related quality of life were observed.

Discussion: This trial showed that the ESMO intervention modestly decreased risk factors for disease progression in patients with CKD, although several effects diminish over time. To consolidate long-term behaviour change, the intervention could be intensified (e.g. by including low-sodium cooking lessons or a maintenance phase).

9:30 - 9:45

Quality of life in patients receiving telemedicine enhanced chronic heart failure management: a meta-analysis

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Background: Previous reviews (Inglis, Clark, McAlister, Stewart, & Cleland, 2011; Kotb, Cameron, Hsieh, & Wells, 2015) have investigated how heart failure (HF) disease management delivered via telemedicine has impacted outcomes including; hospitalizations, mortality rates and disease knowledge. No reviews, however, have aggregated effect sizes for health-related quality of life (QoL). This forms an important outcome of consideration given that research has indicated a relationship between low QoL and poor HF outcomes (Freedland, et al., 2003).

Methods: Relevant databases were searched using appropriate keywords with reference lists of relevant studies being hand-searched. One reviewer extracted all the data. Randomized controlled trials comparing the delivery methods of any form of telemedicine with usual care for the provision of HF disease-management were identified; where studies had to report QoL for inclusion. Moderator analyses were conducted on telemedicine modality and length.

Results: 29 studies met inclusion criteria involving 7,066 participants. When comparing mental and physical QoL, to usual care, telemedicine showed no significant effect (SMD 0.03, (95% CI -0.05-0.12), P = 0.45 and SMD 0.24, (95% CI -0.08-0.56), P = 0.14, respectively). However, comparison of overall QoL with usual care, resulted in telemedicine demonstrating a small significant effect (SMD 0.23, [95% CI 0.09-0.37], P = 0.001).

Discussion: Compared to usual care, telemedicine significantly increases overall QoL in patients receiving HF disease management. Moderator analyses found that telemedicine delivered **longitudinally (≥52 weeks) via remotemonitoring** was most beneficial. This provides preliminary support for the use of telemedicine in management of heart failure without jeopardising patient well-being.

9:45 - 10:00

The IMPACT Pso WellR practitioner training: motivational interviewing and psoriasis management

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Background: Psoriasis is a common long-term, immune-mediated skin condition exacerbated by smoking, excess alcohol and obesity. Engaging in a healthy lifestyle is important for management of psoriasis. Motivational interviewing (MI) is an evidence-based approach to supporting behaviour change but has not been used to help clinicians working with **patients with psoriasis**. The 'Pso WellR' (Psoriasis and Wellbeing) training was designed to provide clinicians with MI skills.

Aim: To investigate whether: 1) participating in the Pso WellR training intervention improves healthcare **professionals' behaviour change skills**; 2) intervention delivery is feasible and 3) the programme is acceptable to clinicians.

Methods: Clinicians' **behaviour change skills were assessed objectively before and after training using the Behaviour Change Counselling Index (BECCI) to score audio-recorded practitioner-patient actor consultations**. Feasibility and acceptability were explored in semi-structured interviews with practitioners following training and analysed thematically.

Results: Sixty-one practitioners completed the training (35 dermatology nurses; 23 dermatologists; 3 general practitioners). **Practitioners' BECCI scores increased significantly post-training** ($t(54)=8.37, p<.01; \eta^2=0.56$).

Thematic analysis revealed that practitioners valued the training and reported they gained new skills relevant to their practice, they also wanted further training to consolidate the skills.

Conclusion: The Pso WellR training may improve healthcare practitioners' behaviour change skills in relation to psoriasis management. Clinicians judged training content to be relevant and useful though further opportunity for skills consolidation may be needed. Given that psoriasis is mainly managed in primary care, unexpectedly few general practitioners attended. Investigation of the impact of the intervention on patient outcomes is now required.

10:00 - 10:15

Can a digital health program improve diabetes self-management and psychosocial functioning?

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BACKGROUND: Following the successful development and evaluation of an automated interactive conversational program (TLC Diabetes) that participants access via the phone to improve diabetes selfmanagement, a new program (My Diabetes Coach - MDC) is now being evaluated.

METHODS: The MDC program includes a mobile app that uses an animated virtual coach 'Laura' to guide users to improve diabetes self-management, including blood glucose monitoring, healthy eating, becoming more physically active, medication taking and foot care. The app provides users with support, monitoring, education and feedback. Further support is also provided via a website, which includes links to information about diabetes and a discussion board for program users. Participants also upload their blood glucose results via a cellphone. 1000 people with diabetes are being recruited to a randomised "real world" trial to evaluate the health outcomes of the MDC program.

FINDINGS: A published randomized study of TLC diabetes has demonstrated significantly improved glycemic control (10% improvement in HbA1c) and mental health functioning. Program use was high and medication costs were also lower for intervention participants. The MDC program is now being evaluated to see if it can achieve comparable engagement and health outcomes.

DISCUSSION: The presentation will discuss how digital health programs can enhance self-efficacy and motivation, teach new strategies and chronic disease self-management. Digital health programs also have great potential for wider implementation and scalability to a large number of people with chronic conditions in the population.

10:15 - 10:30

Changing patients' beliefs about acupuncture: testing the effects of a new educational website

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Background: Acupuncture is a popular alternative therapy for musculoskeletal pain. However, misconceptions may deter treatment-seeking and impact informed consent. Furthermore, positive beliefs about acupuncture may enhance its effectiveness. We aimed to develop and test an intervention to improve acupuncture knowledge and beliefs among people with musculoskeletal pain.

Methods: An educational website was developed using a combination of person-based, evidence-based, and theory-based approaches. Qualitative think aloud interviews with 10 adult volunteers were used to make the website accessible, engaging, and persuasive. An online experiment recruited 350 adults with back pain from general practices (55% acupuncture naive, mean age 48yrs, 56% female). Participants were randomised to view our new website or a control website (based on standard patient information leaflets for acupuncture) before completing validated measures of knowledge, informed choice and beliefs about acupuncture.

Findings: Compared to the control website, viewing the new website led to significantly better acupuncture knowledge ($F(1,315)=37.925, p<.001$) and more participants making an informed choice about acupuncture use ($\text{Chi-squared}(1)=5.141, p=.023$). The new website had no effect on concerns about acupuncture ($F(1,347)=.01, p=.908$), or perceptions of acupuncture's credibility ($F(1,346)=2.472, p=.117$), effectiveness ($F(1,342)=3.231, p=.073$) or personal suitability ($F(1,331)=0.787, p=.376$).

Discussion: A psychologically-informed educational website can significantly improve potential patients' knowledge of acupuncture and ability to make an informed choice about using acupuncture. The lack of commensurate changes in patients' beliefs suggests that factors other than knowledge shape patients' beliefs about acupuncture. More interactive and/or personal approaches might be needed to allay patients' concerns about acupuncture and enhance their beliefs.

Stress and health: processes and interventions in
healthy and clinical populations

9:00 - 10:30 | BALMORAL SUITE

9:00 - 9:15

The differential impact of interpersonal and health related chronic stress on HPA axis functioning

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Chronic stress has been found to have detrimental physical and psychological effects (McEwen, 1998). However, the impact of chronic stress on HPA functioning remains unclear, varying between increased and decreased cortisol secretion (Heim et al., 2000). This may be due to the effect of distinct types of chronic stress (Miller et al., 2007). The current study examined how interpersonal and health related chronic stress differentially impact diurnal cortisol secretion, the cortisol awakening response (CAR), and cortisol reactivity to the Trier Social Stress Test (TSST). Participants included 60 undergraduates aged 17-58 years (68.3% female).

The UCLA Life Stress Interview (LSI) was administered, assessing chronic stress over 12 months in 8 domains. Salivary cortisol was collected on two days at four time points including the CAR, and five time points across the TSST. Cortisol secretion was assessed using Area Under the Curve analyses relative to the ground (AUCG) and intercept (AUCI). Interpersonal chronic stress (Close Friend, Social, Romantic, Family) accounted for 18.1% of the variance in CAR AUCg ($p = 0.04$) and 17.9% of the variance in TSST AUCg ($p = .05$). Health related chronic stress accounted for 7.9% of the variance in TSST AUCg ($p = .04$), and 8.4% in AUCi ($p = .04$).

Increased health related chronic stress predicted a decrease, whereas interpersonal chronic stress predicted an increase in cortisol secretion. These distinct patterns may account for disparities in previous research findings, and may help us clarify whether distinct clinical and health outcomes are related to distinct types of chronic stress.

9:15 - 9:30

Walking in nature has a stress-buffering effect on chronic but not acute stress

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Background: We investigated the effects of experiencing nature on responses to acute and chronic stress. We hypothesised that exposure to nature in the context of leisure walking can have stress-buffering effects over and above the effects of exposure to nature scenes or physical exercise alone.

Method: Healthy, physically inactive university students (N=90) were randomly allocated to 1 of 3 groups: walking outside in a nature-rich setting, walking on a treadmill in a gym, watching a video-recording of nature in a laboratory setting. Self-report and psychophysiological responses (salivary cortisol, heart rate) to the socially evaluated cold pressor test (SECPT) were monitored twice: when students were not taking exams (relaxed period) and during the exam period (exam period).

Findings: There were no baseline differences between groups. Mean cortisol levels across groups were significantly higher during the exam period compared to the relaxed period ($p < .001$), with the lowest cortisol increase in the nature group ($p < .089$). No differences were found between groups in responses to the SECPT.

Discussion: These results indicate that responses to chronic stress can be mitigated by a 40 minute walk in nature, and this is more effective than watching nature scenes or physical exercise alone. Acute stress responses (SECPT) did not differ between groups, which may reflect a ceiling effect of stress responses to this standard laboratory stressor. These findings have important implications for local authorities to advocate the therapeutic agency of nature walks and to provide the public with easy access to nature-rich places.

9:30 - 9:45

Life satisfaction and cardiovascular reactivity to mental stress

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Background: Satisfaction with life has been considered a health protective variable, which could impact cardiovascular morbidity and mortality. However, there is a lack of studies examining the physiological pathways involved in the potentially salutary effect of life satisfaction. We hypothesized that life satisfaction should be associated with a cardiovascular response profile signaling challenge (i.e., higher cardiac output, lower peripheral resistance) rather than threat appraisals during a mental stress task.

Methods: A sample of 61 healthy men without clinical signs of psychological disorders participated in the study. They were working fulltime in a highly demanding position and performed two mental stress tasks (n-back) with a varying degree of difficulty. The task was embedded between a baseline and recovery period. Cardiovascular and hemodynamic variables (heart rate, heart rate variability, blood pressure, stroke volume cardiac output, total peripheral resistance) were recorded by means of impedance cardiography (Task Force Monitor, CNSystems).

Findings: Life satisfaction was associated with elevated heart rate variability throughout the experimental session, indicating higher vagal tone with increasing life satisfaction. Moreover, individuals who were more satisfied with their life showed higher cardiac output and lower peripheral resistance during the stress tasks, indicating a challenge rather than a threat profile. Findings were robust when controlling for physical activity, smoking, age, and depressive symptoms.

Discussion: Life satisfaction might be accompanied by beneficial cardiovascular stress reactivity, indicating a more adaptive way to cope with stress. Thus, beneficial cardiovascular stress reactivity could constitute one route through which life satisfaction could foster health.

9:45 - 10:00

Cognitive avoidance and the processing of self-threatening information: a neuroimaging study

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Background: Cognitive avoidant coping is a strategy to cope with stress that aims to shield the organism from stimuli that could threaten the self. It has been associated with adverse health and exaggerated physiological stress responses. However, little is known about respective brain processes that could underlie this coping style.

Methods: We used functional magnetic resonance imaging (fMRI) to study neural correlates of cognitive avoidant and vigilant coping during the perception of threatening and nonthreatening self-relevant information. A sample of 76 individuals (39 female) received faked expert-feedback on threatening and nonthreatening self-relevant attributes. Prior to this, participants rated the degree to which they agreed/disagreed to self-relevant positive or negative adjectives on a visual analogue scale. Cognitive and vigilant coping was assessed via questionnaire (Mainz Coping Inventory; Krohne et al., 2000).

Findings: A positive correlation between cognitive avoidant coping and greater brain activation in the right frontal cortex could be found. There were no significant differences in cortical activation concerning vigilance. **Conclusions:** Results indicate that frontal brain areas are substantially involved in threat-processing in repressive/avoidant copers, thus indicating increased cognitive resources to regulate negative emotions. Vigilance might be more strongly associated with the processing of ambiguous situations, thus calling for alternative paradigms.

10:00 - 10:15

The relationship between psychological and biological factors in patients with acute coronary syndrome (ACS)

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Objective: To determine whether psychological risk factors for coronary heart disease (such as depression, anxiety or Type D behaviour pattern) are linked in patients with ACS with determinants such as heart rate variability, markers of inflammation and elevated levels of cholesterol.

Method: The study involved 121 patients (41 women and 80 men) hospitalized with ACS in the Department of Cardiology and Resuscitation of the Cardiological Hospital in Zabrze, Poland. Psychological studies were performed 2-3 days after a coronary event. The HAD scale, examining levels of anxiety and depression, the DS14 questionnaire for the Type D personality and the MacNew Questionnaire to assess the quality of life of patients were used. We studied the correlation between the results of questionnaires and biological indicators obtained from medical records of patients.

Results: The DS14 Questionnaire correlated positively with the overall cholesterol ($r = .286$, $p < 0.005$); HDL ($r = .246$, $p < 0.05$) and triglyceride levels ($r = .222$; $p < 0.05$). Quality of life (assessed with MacNew Questionnaire) correlated negatively with the level of Aspart ($r = -.257$, $p < 0.05$). There was no correlation between psychological factors measured by questionnaires and indices of myocardial CK-MB and Troponin.

Conclusions: Further research in this area may allow a more precise assessment of physiological components of psychological factors in acute coronary syndromes.

10:15 - 10:30

A core eating network and its modulations underlie diverse eating phenomena

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Background: Multiple research literatures have examined the neural responses to food cues and actual eating in a variety of eating situations and populations. Our primary aim was to develop a theoretical framework that integrates the major findings across literatures to motivate evidence-based health interventions.

Methods: We reviewed neuroimaging research on food cues and eating, focusing on effects of palatability, hunger, BMI, eating goals, and eating disorders. We established the brain areas active in different eating situations and populations, and organized the results around previously published system-level accounts of food processing in the brain.

Findings: A core eating network and its modulations accounted for what is currently known about the neural activity underlying a wide range of eating phenomena, including a ventral reward pathway and a dorsal control pathway. Consistent with the theoretical perspective of grounded cognition, food cues activate eating simulations that produce reward predictions about a perceived food and potentially motivate its consumption. Palatability, hunger, BMI, eating goals, and eating disorders modulate the core eating network in predictable manners, increasing and/or decreasing activity in subsets of its neural areas.

Discussion: By viewing diverse eating phenomena as modulating a common network, it becomes possible to understand how they are related to one another within a common theoretical framework. This framework has the potential to help health researchers understand a wide variety of healthy and unhealthy eating phenomena, and to motivate evidence-based interventions. We discuss future directions for better establishing the core eating network, its modulations, and their implications for behavior.

Public health: screening and immunisation programmes

9:00 - 10:30 | GORDON A SUITE

9:00 - 9:15

Psychological effects of colorectal cancer screening participation: a randomised trial

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Background: Cancer is one of the largest threats to peoples' health, and participating in screening for cancer might therefore cause anxiety. Participation might cause worries in the population contributing to outweigh the benefits of screening. The present study aimed to investigate the long-term psychological reactions towards participation in colorectal cancer screening (CRC) in Norway.

Methods: In a prospective, randomized trial (Bowel Cancer Screening in Norway (BCSN) – a pilot project) participants were invited to either Flexible Sigmoidoscopy (FS) screening, Faecal Immunochemical test (FIT) screening, or no screening (control group) (1:1:1). Together with the invitations in the intervention groups and one year following study participants received a Health-related Quality of Life (HRQOL) questionnaire (The ShortForm-12) and an anxiety and depression questionnaire (Hospital Anxiety and Depression Scale) to complete and return by mail. A control group was invited to complete the questionnaires only.

Results: Number of invited individuals and questionnaire response rates were; 7270 (28%) in the FS arm, 7024 (35%) in the FIT arm, and 7650 (25%) in the control arm, respectively. Screening participation (FS and FIT combined) was associated with a statistically significant increase in proportion of cases of anxiety from **baseline (HADS score ≥ 8 11.4%) to one year follow up(13.4%)**, $p < .01$, as well as in mean anxiety score from baseline ($M=3.36$) to follow up ($M=3.49$), $p < .01$. Anxiety in control participants did not increase significantly during follow up. Screening- and control-participants showed a similar decrease in HRQOL.

Conclusion: The results indicate that screening participation might cause anxiety in some individuals.

9:15 - 9:30

'Not that one': understanding why women screen for breast and cervical, but not bowel cancer

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BACKGROUND: Screening can reduce deaths from cervical, bowel and breast cancer if the people invited participate. Among women in Scotland, uptake of screening is 58% for bowel compared to 74% for breast and 71% for cervical screening. It is important to understand why bowel screening fails to achieve the uptake rates of breast and cervical screening. **This study compared women's responses to the NHS Scotland's breast, cervical and bowel screening invitations, to better understand barriers to bowel screening.**

METHOD: We conducted individual interviews (n=60) with women aged 50 to 60 years who have participated in: i) all three screening programmes; ii) none, or iii) breast and cervical, but not bowel screening. Our purposive sample included women from areas of high and low deprivation. The data were analysed using Framework Analysis with reference to dual-process theory.

FINDINGS: Overall, most participants had difficulty explaining their screening decision-making; screened women described immediate willingness to participate in response to screening invitations, whereas women who avoided bowel screening responded with disgust, and unscreened participants saw less value in screening. Perceived screening barriers of pain (breast), humiliation (cervical), and disgust (bowel) were common across all groups; the screened women, however, reported that perceived benefits outweighed these barriers. In contrast, women who avoided bowel screening experienced these barriers more strongly.

DISCUSSION: Dual-process theory might help explain women's responses to screening invitations as intuitive reactions. Perceived screening barriers appeared to be more strongly endorsed among those avoiding bowel screening. Addressing barriers in screening information may help improve participation.

9:30 - 9:45

Can the question-behaviour effect enhance uptake of cardiovascular health checks in primary care?

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Background: In England, a national programme of health checks to identify cardiovascular disease risk is being rolled out, but encountering difficulties with low uptake. This trial examined whether an enhanced invitation method, using the question-behaviour effect (QBE), with or without offering a financial incentive for returning the QBE questionnaire, increased uptake of health checks.

Methods: Three-arm randomised trial (ISRCTN42856343). All individuals (n=12,459) invited for health checks from 18 general practices in London were randomised to either: (i) standard invitation only, ii) QBE questionnaire (Theory of Planned Behaviour and anticipated regret items) followed by standard invitation; iii) QBE questionnaire with financial incentive offered for questionnaire return, followed by standard invitation. The primary outcome, a completed health check, was objectively assessed from electronic health records.

Outcome data was available for 12,052 participants.

Findings: Health check uptake was: Standard invitation, 590/4,095 (14.4%); QBE questionnaire, 630/3,988 (15.8%); QBE questionnaire and financial incentive, 629/3,969 (15.9%). The increase in uptake associated with the QBE questionnaire was 1.43% (95% confidence interval -0.12 to 2.97%, P=0.070) and for the QBE questionnaire plus offered incentive was 1.52% (-0.03 to 3.07%, P=0.054). The difference in uptake associated with incentivising QBE questionnaire return was -0.01% (-1.59 to 1.58%, P=0.995).

Discussion: An enhanced invitation method using the QBE does not increase health check uptake a clinically significant amount, regardless of whether QBE questionnaire return is incentivised. These findings add to growing evidence that the QBE has only a small effect on screening uptake.

9:45 - 10:00

Impact of theory-based messages on intention to vaccinate against pandemic influenza

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Background: Vaccination is an effective preventive measure to reduce influenza transmission, especially important in a pandemic. Despite messages encouraging vaccination during the last pandemic, uptake remained low. This study investigated the effect of different types of messages regarding length, content type, and framing on vaccination intention.

Methods: An online experiment was conducted. A representative sample of 1424 people living in England read a mock newspaper article about a novel influenza pandemic before being randomised to one of four conditions: standard Department of Health (DoH) (long message) and three brief theory-based messages - an abridged version of the standard DoH and two messages additionally targeting pandemic influenza severity and vaccination benefits (framed as risk-reducing or health-enhancing, respectively). Intention to be vaccinated and potential mediators were measured.

Findings: The shortened DoH message increased vaccination intention more than the longer one ($F(1, 699) = 27.93, p < .001, \eta^2 = .04$), by increasing perceived susceptibility, anticipated regret and perceived message personal relevance while lowering perceived costs, despite the longer one being rated as slightly more credible. Intention was not improved by adding information on severity and benefits, and the health-enhancing message was not more effective than the risk-reducing.

Discussion: A briefer message resulted in greater intention to be vaccinated, whereas emphasising the severity of pandemic influenza and the benefits of vaccination did not. Future campaigns should consider using brief theoretically-based messages, targeting knowledge about influenza and precautionary measures, perceived susceptibility to pandemic influenza, and the perceived efficacy and reduced costs of vaccination.

10:00 - 10:15

The HIV self-test for gay men: a mixed methods exploratory study for intervention development

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Objective: To explore preparedness for the HIV self-test amongst men who have sex with men (MSM) and those involved in prevention and care.

Methods: A mixed methods exploratory research design was employed, detailing awareness and willingness to use the self-test and the perceived barriers and facilitators to implementation. Quantitative and qualitative data collection and analysis were completed in parallel. Descriptive and inferential analysis of cross-sectional barbased survey data collected from MSM through self-completed questionnaire and oral fluid specimen collection (n=999) was combined with qualitative, thematic, analysis of data collected through 12 expert focus groups (n=55) consisting of gay men, NHS staff, community organisations, entrepreneurs and activists.

Findings were subsequently combined and assessed for synergies.

Results: Amongst MSM self-test awareness was moderate (55%). Greater awareness was associated with increased educational attainment and previous history of STI testing. Willingness to use the test was high (89%) and associated with meeting sexual partners online. Experts highlighted overall acceptability of self-testing; it was understood as convenient, discreet, accessible, and with low burden to services. However, some ambivalence to self-testing was reported; it could reduce opportunities to engage with wider services, wider health issues and the determinants of risk.

Conclusions: Self-testing represents a major opportunity to reduce barriers to HIV testing and enhance prevention and access to care amongst MSM. Levels of awareness are moderate but willingness to use is high, but health inequalities could affect implementation of self-testing.

10:15 - 10:30

Collective immunity in the age of individualism: exploring arguments of vaccination opponents

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Background: Decreasing vaccination rates pose a significant challenge for public health. One of the principal reasons is thought to be effective campaigning by anti-vaccination groups. Following up on earlier research into vaccination promotion our objective was to interview vaccination opponents to explore their arguments.

Methods: We conducted 14 individual interviews with people who refused vaccination of their children. Participants were recruited using the snowball sampling technique. Data were transcribed, coded and analysed using Thematic Analysis.

Findings: The dominating theme tends to be individualism. Motivation not to vaccinate is often linked to deliberate free-riding on collective immunity while avoiding side-effects in own children. Another prevailing theme is mistrust toward medical professionals and authorities in general. Arguments of vaccination opponents could be grouped into the following categories: harmful vaccination side-effects, corporate greed of pharmaceutical companies, and doubtful efficiency of vaccination (e.g. claiming that vaccine preventable diseases were eradicated by changes in sanitation and lifestyle, not by vaccination)

Discussion: Anti-vaccination discourse combines perceptions and conspiracy with fears and doubts. Many narratives however include rational questions which seem to remain unanswered. Addressing these questions may help to increase the update of child vaccination.

Promoting healthy eating patterns and associated behaviours

9:00 - 10:30 | FORBES SUITE

9:00 - 9:15

Questioning behavioural intentions increases both healthy and unhealthy snacking in three studies

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Background: Asking questions about behaviour has been found to increase subsequent behaviour performance. This question-behaviour effect has rarely been applied to health risk behaviours, despite suggestions that it may act to increase these behaviours. We report three studies which manipulate question focus toward healthy and unhealthy snacking and whether participants are asked about intentions to perform or not perform these behaviours.

Methods: Three lab studies were carried out using participants from a University in the North of England (N = 302). Studies manipulated question wording of intention items to 'doing' vs 'not doing' behaviour and the specific behavioural focus on healthy vs unhealthy snacking. Behaviour was assessed using a food choice task and a week-long snack diary. Accessibility of attitudes toward snacking words was also assessed.

Findings: A meta-analysis of the results from the three studies was carried out in Stata. Results supported overall positive effects of asking individuals about healthy snacking, $g = .35$, 95% CI [.15, .56] where questioning intentions increased this behaviour. Questions relating to unhealthy snacking increased unhealthy snack consumption, $g = -.40$, 95% CI [-.63, -.16]. No clear effects of attitude accessibility were found. There **was no influence of whether questions related to 'doing' or 'not doing' behaviour**, where both frames of intention question increased behaviour.

Discussion: These three studies support an increase in both healthy and unhealthy behaviours based on the specific behaviour focused on in intention questions. This raises questions about the potential to unintentionally increase unhealthy behaviours by simply asking about them.

9:15 - 9:30

Modifying approach bias in the health domain: a systematic review of the literature

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¹Flinders University, Australia

Background: Approach bias modification is a novel intervention that can be used to modify automatic approach tendencies for appetitive cues. The current systematic review aimed to evaluate the effectiveness of techniques used to modify approach bias in the health domain, in particular for alcohol consumption, cigarette smoking, and unhealthy eating.

Methods: Searches were conducted in PsycINFO, ScienceDirect, Scopus and Google Scholar between October and December 2015 for published studies that used an experimental design to implement at least one training session and reported a health behavior related outcome.

Findings: From 437 identified papers, 15 papers (comprising 18 individual studies) were included and coded on a number of characteristics, including consumption behavior, participants, task, training and control conditions, number of training sessions and trials, outcome measure, and findings. All studies, except one, that found favorable outcomes for the training group on outcomes (e.g., reduced consumption in the laboratory, lower relapse rates, and improvement in self-reported appetitive behavior) had also successfully re-trained approach bias for appetitive cues.

Discussion: The current review concluded that approach bias modification is effective for modifying both automatic approach action tendencies for appetitive cues and consumption behavior. Future research should aim to identify the factors associated with success of approach bias modification to improve the clinical utility of this technique for use in the health domain.

9:30 - 9:45

Efficacy of neurofeedback vs. mental imagery for subclinical binge eating is differentially affected by impulsivity

J. Schmidt¹, A. Martin¹¹Bergische Universität Wuppertal, Germany

Background: Impulsivity is known to reduce the efficacy of interventions for dysfunctional eating behaviours. However, this relationship may depend on the specific type of treatment applied. The present study examined the relationship between impulsivity and treatment efficacy in two interventions against subclinical binge eating: neurofeedback and mental imagery. Neurofeedback is frequently and successfully used to treat disorders related to impulsivity. We thus hypothesised that neurofeedback would be more suitable for the treatment of impulsive individuals, showing less negative impact on treatment efficacy by impulsivity than a mental imagery treatment.

Methods: Female restrained eaters (n=50) with regular episodes of subclinical binge eating were randomised to one of two treatments, applying either neurofeedback or mental imagery (n=25 each) after food cue exposure. Impulsivity was assessed at pre-treatment and its relationship with treatment efficacy (reductions in binge eating to a three months follow-up) was analysed. Type of treatment served as a moderator.

Findings: There was a significant interaction between treatment type and impulsivity ($t = -2.72$, $p = .009$), with a negative effect of impulsivity on treatment efficacy in mental imagery ($b = -0.26$, $p = .022$), but not in neurofeedback ($b = 0.17$, $p = .141$).

Discussion: For neurofeedback, impulsivity did not affect treatment efficacy, whereas outcomes in mental imagery were influenced by this trait. For eating-related health interventions, we thus recommend to assess impulsivity prior to interventions, as it may help to choose a suitable treatment and assure sufficient treatment success and health behaviour improvement in impulsive individuals.

9:45 - 10:00

Can eating fruits compensate for missing a fitness session? Findings from a clustered controlled trial

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Even the most health conscious persons sometimes give in to unhealthy temptations. We tested whether compensatory beliefs, health motivation, and regret influence compensatory health behaviours occurring after a failure to take part in the intended physical exercise.

Physically active men and women (N = 133) attended a 6-session fitness course. After participants failed to show at a session, they were randomized to either the experimental group that received a regret-evoking text message (n = 69) or to the control group that received no text message (n = 64). Furthermore, participants reported whether they did something instead for their health in the previous 24 hours. Compensatory beliefs and health motivation were measured prior to the course.

Linear mixed-effects analyses showed no effect of regret on compensatory behaviours related to physical activity, nutrition, and substance use avoidance. However, the manipulation made participants to engage less in behaviours related to relaxation and socializing. Health motivation and compensatory beliefs were valid covariates in the tested models.

The identified factors appear to account for engagement in compensatory behaviours from various health subdomains.

10:00 - 10:15

Using mindfulness- and imagery-based techniques to reduce chocolate cravings

S. Schumacher¹, E. Kemps¹, M. Tiggemann¹

¹Flinders University, Australia

Background: Elaborated-Intrusion theory suggests that craving is a two-stage process during which initial craving-related thoughts are elaborated upon with vivid images. Two laboratory studies compared cognitive defusion (a mindfulness-based strategy targeting initial thoughts) and guided imagery (a cognitive strategy targeting mental imagery) as potential craving reduction techniques.

Methods: Study 1 (n = 90 women, aged 18-25) tested the effect of these techniques against a non-directive, mind-wandering control task on the intrusiveness and vividness of chocolate cravings, and on chocolate consumption in a taste test, using a mixed experimental design. As an extension, Study 2 (n = 90 women, aged 17-25) specifically recruited a sample that craved chocolate at least once per day, and wished to reduce its chocolate consumption.

Findings: In Study 1, mixed-factorial ANOVAs revealed that cognitive defusion significantly reduced the intrusiveness, vividness and subjective experience of chocolate cravings relative to guided imagery and mindwandering.

Study 2 found that for self-identified chocolate cravers, both craving techniques reduced selfreported cravings. However, neither study showed the predicted reductions in chocolate consumption.

Discussion: Findings support Elaborated-Intrusion theory, in that targeting the initial stage of the craving process (intrusive thoughts) may be more effective than targeting the later stage of that process (imagery based elaboration). Nevertheless, if cravings do progress to the elaboration stage, they could still be reduced by imagery-based tasks for self-identified cravers. Thus both techniques hold promise for combatting food cravings in clinical contexts. However, the techniques will require further development to effectively target consumption.

10:15 - 10:30

Effectiveness of a self-regulation intervention for non-western immigrants with a high risk for cardiometabolic disease

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Background: Various non-western immigrant populations have a high risk for cardiometabolic disease and tend to benefit less from existing lifestyle interventions. The Intervention Mapping Protocol was applied to develop a culturally tailored self-regulation intervention.

Methods: 193 non-western immigrants in the Netherlands were randomized in an open trial to receive the intervention or regular care at the GP's office. The intervention, consisting of a home visit, four group consultations, and two telephone consultations, was delivered by Community Health Workers (CHWs) and focused on improving self-regulation skills. Linear and logistic regression models were used to evaluate effects at 3 months after the intervention period.

Results: Only 102 participants completed follow-up measures with similar drop-out rates in both groups. The intervention was very well received: Participants graded the intervention with an average score of 8.1 (SD=1.1) and the CHWs with an average score of 8.8 (SD=0.9) on a 10-points scale. However, preliminary results show no effect of the intervention regarding cardiometabolic risk factors (e.g., BMI, $\beta=0.013$, 95% CI [-0.50,0.75]; systolic blood pressure, $\beta=0.088$, 95% CI [-2.87,8.02]; diastolic blood pressure, $\beta=-.050$, 95% CI [-4.57,2.54]), or health behaviours (e.g., activity score $\beta=-.054$, 95% CI [-2.87,1.76]).

Discussion: This theory-based self-regulation intervention for non-western immigrants was carefully tailored to the needs of the target population. However, the intervention did not improve cardiometabolic risk factors and health behaviours. Currently, process evaluations are conducted to better understand the lack of effectiveness and how this may be related to the high non-response rate and participants' personal health goals.

Creating reflective and impulsive choices for health behaviour change

11:00 - 12:30 | FLEMING AUDITORIUM

11:00 - 11:45

Unresolved questions in nudging research: putting the psychology back in nudging

D. de Ridder¹¹Utrecht University, Netherlands

Nudging interventions are defined as rearrangements of a choice context that gently suggest a desired choice. This type of interventions aims to make the healthy desired choice easier without making the alternative choice impossible. Their increasing popularity in the public health domain as an alternative for educational and motivational approaches has attracted attention and discussion from researchers, policy makers, and practitioners alike. Much debate has been inspired by ethical considerations about the alleged manipulative nature of nudges without taking into account psychological theorizing of behavioral change. These ethical concerns stipulate that rearrangements of the choice context, such as for example making healthy snacks more accessible at the cash register, influence choices without people being aware of this influence, which may ultimately violate a sense of autonomous decision making. In my talk I will argue that recent insights into the nature of decision making about health behavior respect rather than abuse the strategies people use in making choices.

Specifically, I will explain that so-called swift and effortless System 1 reasoning lies at the heart of many health decisions, making people vulnerable when they are surrounded by opportunities for engaging in unhealthy behavior. Accordingly, when the choice context is redesigned in such a way that it helps people to act more in line with their goals while taking advantage of their default way of reasoning, nudging can be used to promote decisions about healthy behavior. I will also discuss the conditions that make nudging interventions acceptable to the target population of people with unhealthy habits, arguing that disclosure of a nudging intervention does not make it less effective. Finally, I will discuss under which conditions nudging interventions can influence health behavior beyond a specific occasion and help to install new habits that will last even when the intervention is removed.

11:45 - 12:00

Behaviour change, dual processing-models and the ethics of health promotion

R. Brown¹, E. Mantzari²¹University of Aberdeen, United Kingdom²University of Cambridge, United Kingdom

Background: Research suggests health-related behaviours are strongly influenced by non-conscious processes. Dualprocessing models describe this in terms of system I (impulsive) and system II (reflective) mechanisms of behavioural control. System I-targeted behaviour change interventions may promote healthy behaviour whilst bypassing conscious processes. Such interventions are sometimes thought to be ethically suspect, often due to a concern that they undermine autonomy; system II-targeted interventions are generally preferred. This paper questions the justifiability of this preference.

Methods: In this conceptual analysis, we use psychological theory regarding dual-processing models of behavioural control to inform a philosophical analysis of the ethical permissibility of behaviour change interventions targeting reflective and impulsive systems.

Findings: Dual-processing models show a large proportion of behaviour to be under non-conscious control. A concept of autonomy that requires **significant conscious awareness and control over one's** behaviour is therefore unrealistic and unhelpful for guiding ethical intervention development. A useful concept of autonomy must accommodate the routine influence of non-conscious processes.

Further, health promotion via conscious, system II processes encourages false beliefs about the extent to which behaviour is subject to conscious control, rationalising the stigmatisation of those with 'unhealthy' behaviour. Additionally, system I-targeted interventions can be effective at promoting health and demand less effort from the individual.

Discussion: A psychologically informed analysis of system I-targeted behaviour change interventions suggests they are less ethically problematic than often assumed, and may have distinct advantages over system II-targeted interventions.

12:00 - 12:15

Reduction of unhealthy eating behaviour by diet priming

S. Ohtomo¹¹Konan Women's University, Japan

Background: In a food rich-environment, changing unhealthy behavior is quite a difficult endeavor for most people. Goal priming is one of the approaches that activate goal pursuit unconsciously. The study examined the process of diet priming that reduced unhealthy eating with the temptation of food in daily situations.

Methods: 400 people participated in the web-based experiment. The experiment measured motivational variables (diet intention, behavioral willingness), control variables (internal control, external control) and unhealthy snacking habit. Then, half of the participants were primed for a dieting goal by asking weight-related questions (body length, weight, satisfaction), i.e. priming condition, and the others were not primed, i.e. control condition. One week after the priming manipulation, consumption of snacks were measured.

Findings: GLM analysis indicated that diet priming determined snack eating behavior. People primed with the dieting goal ate fewer snacks ($M=3.05$, $SD=1.99$) than people without priming ($M=3.56$, $SD=2.34$). And, diet intention, behavioral willingness, internal control, external control and habit had effect on snack eating behavior. Moreover, the effect of external control on snacking was qualified by the diet priming. External control in the priming condition ($\beta=.27$) had a weaker effect on snacking than in the control condition ($\beta=.74$).

Discussion: The study showed that only subtle priming manipulation can reduce daily consumption of snacks, over and above the existing motivations and habits. The process of behavioral change was induced by shielding the influence of the external environment that promotes unhealthy eating. These findings suggested the possibility of diet priming approach in a food rich-environment.

12:15 - 12:30

Does inhibitory control training protect against the effect of ego-depletion on eating behaviour?

V. Allom¹, B. Mullan¹¹Curtin University, Australia

Background: Experimental evidence suggests that when self-control resources are low (i.e., via ego-depletion), individuals consume more unhealthy food. Additionally, interventions that train inhibitory control show promise at reducing unhealthy food consumption. To date, the interaction between these paradigms has not been examined.

Methods: A 2 (training vs control) x 2 (depletion vs no depletion) between participants factorial design was used to test whether inhibitory control training can protect against the negative effect of ego-depletion on eating behaviour. A community sample (N = 112) completed either stop-signal task training or control, followed by either a depletion task or a control task. Following this, unhealthy food consumption was measured by a taste test.

Findings: A significant interaction between training and depletion, $F(1,108) = 7.299$, $p = .008$; $\eta^2 = .063$, on food consumption was detected. Follow-up analyses revealed no differences in consumption between training and control conditions among participants who completed the depletion task.

Among participants in the no depletion condition, those who received training consumed less than those in the control condition, MD = 14.05 grams, $t(53) = 2.142$, $p = .037$.

Discussion: It appears that inhibitory control training does not protect against the effects of ego-depletion, and in fact, ego-depletion may eliminate any benefits experienced from training. Acts of self-control are rarely performed in isolation, therefore inducing a state of ego-depletion simulates an externally valid situation. As inhibitory control training was not effective under these conditions, this intervention technique may not be beneficial in changing eating behaviour in realworld settings.

Self-regulation of health and illness

11:00 - 12:30 | GORDON A SUITE

11:00 - 11:15

Regaining weight for emotional reasons: relationship with behavioural selfregulation and weight loss strategy use

K. Sainsbury¹, E. Evans¹, F. Sniehotta¹

¹Newcastle University, United Kingdom

Background: Many popular weight loss methods encourage the use of self-regulatory strategies such as goalsetting and self-monitoring; use of such strategies has been linked to improved weight outcomes in the shortand long-term. Difficulties in emotion regulation are associated with binge eating and may undermine successful weight loss and maintenance. The relationship between behavioural and emotion regulation in weight management, however, remains unclear.

Methods: Two-thousand adults from UK, Portugal, and Denmark completed an online survey assessing selfreported weight loss and regain, and strategy use. As a proxy for emotion regulation, respondents were asked if their regain was attributable to any of six emotional reasons (e.g., feeling stressed/emotionally drained, comfort eating). Regression analyses (controlling for age, gender, binge eating status) were used to determine the relationship between strategy use and emotion regulation.

Findings: Amongst the 1310 respondents who had lost a clinically significant amount of weight (>5%), a significant positive relationship between emotional reasons and self-reported regain was observed. Greater endorsement of emotional reasons was also associated with using more self-regulatory and dietary strategies in the previous weight loss attempt.

Discussion: Emotion regulation difficulties are related to less successful weight loss maintenance over and above the influence of binge-eating. People who experience emotion regulation difficulties are already making frequent use of self-regulatory and other strategies. Potential explanations for this relationship will be discussed. Simply encouraging the use of more numerous strategies without concurrently teaching emotion regulation skills may not be an effective means to improving weight outcomes in this group.

11:15 - 11:30

Childhood self-control predicts trajectories of weight gain and obesity throughout life in two British cohorts

M. Daly¹¹University of Stirling, United Kingdom

Background: We aimed to test whether childhood self-control contributes to weight gain and obesity throughout life.

Methods: 25,619 participants were drawn from two nationally-representative British prospective birth cohort studies; the British Cohort Study (BCS) and the National Child Development Study (NCDS). Child self-control was teacher-rated at age 10 in the BCS and ages 7 and 11 in the NCDS using measures which correlate strongly with contemporary self-control scales. Participants reported their height and weight at five time-points between ages 16 and 42 in the BCS and six time-points between ages 16 and 55 in the NCDS. Objectively recorded body mass index (BMI) was available at one wave in the NCDS. Childhood BMI, parental BMI, socioeconomic background, intelligence, and psychological distress were controlled for in all analyses.

Results: Early self-control negatively predicted weight gain and obesity in both cohorts ($p < .001$), an association that increased in strength with age ($p < .001$). In adjusted regression models, the difference in BMI/obesity levels between those with low ($-1SD$) and high self-control ($+1SD$) increased from 0.1 points/0.5% at age 16 to 1 point/4.9% by midlife across both studies. The association between childhood self-control and BMI did not differ depending on whether BMI was self-reported ($b = -0.282$, $SE = 0.059$, $p < .001$) or measured as part of a medical assessment ($b = -0.280$, $SE = 0.066$, $p < .001$).

Discussion: This study provides strong evidence that better childhood self-control predicts lower levels of weight gain and obesity throughout adulthood. The benefits of self-control in attenuating weight gain may increase markedly from adolescence to midlife.

11:30 - 11:45

Predictors of physical activity after bariatric surgery - the role of selfregulation abilities

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Background: Physical activity is an essential component of a healthy lifestyle, however the impact of physical activity following bariatric surgery remains unclear. This study aimed at identifying demographic, anthropometric and self-regulatory predictors of post-bariatric physical activity.

Methods: Measures of weight, age, sex, education, intention, planning, self-efficacy and action control were taken one year after surgery in a prospective cohort of 230 patients undergoing Roux-en-Y Gastric Bypass. 1.5-2 years postoperatively, 133 (57.8%) participants wore an ActiGraph GT3X accelerometer for seven consecutive days. The final sample consisted of 112 (48.6%) participants with valid accelerometer recordings (mean age 46.8 years (SD 9.3), 81.3% women). Patients were recommended to be physically active of moderate to vigorous intensity (MVPA) for at least 150 min/week.

Findings: Mean BMI before and one year after surgery was 44.8 kg/m² (SD=5.5) and 30.6 kg/m² (SD=5.0), respectively. Total weight loss was 28.9% (SD=7.5). 17.9% of the participants were considered sufficiently active (MVPA). As intention, planning, self-efficacy and action control were highly inter-correlated, a principal component analysis was conducted, suggesting one underlying factor (Eigenvalue =10.2, accounting for 57% variance) labelled 'self-regulation abilities'. Multiple regression analysis showed that being single, having higher education and greater self-regulatory abilities predicted postoperative physical activity, explaining 24% of the variance. Weight loss was not associated with post-surgical activity.

Conclusions: Targeting patients' self-regulation ability may be a mean for improving physical activity after bariatric surgery. Considering the high inter-correlations between the self-regulation scales, further examination of self-regulation measures in the context of bariatric surgery is warranted.

11:45 - 12:00

Temporal self-regulation theory: some methodological Issues

T. Berkes¹¹Eotvos Lorand University, Budapest, Hungary

Background: Temporal Self-Regulation Theory (TST; Hall & Fong, 2007) is a recent model of behaviour incorporating several findings of previous literature. Based on intention–behaviour link, the other predictors of behaviour are Behavioural Prepotency (frequency of past behaviour and/or presence of cues to action) and Self-regulatory Capacity (executive functions, energy level). The predictors of intention are Connectedness Beliefs and Temporal Valuations: the perceived temporal proximity of the positive and negative consequences of the behaviour. The model also assumes that ambient temporal contingencies affect behaviour performance. This model was employed in a sample of cardiac rehabilitation patients to predict exercise, relaxation and smoking cessation behaviours. During the operationalization of the model, several methodological difficulties were encountered; the aim of this presentation is to discuss these issues.

Methods: Design: longitudinal; 6 months follow-up. Participants: cardiac rehabilitation inpatients with acute ischemic heart disease. N=302, 278 (75%) males, mean age 55.61 ys (SD=7.31). Time 2 response rate: 60%.

Measures: self-report questionnaires about the variables of TST.

Findings: The main difficulties in the operationalization of the model: (1) measuring frequency of past behaviour and cues to action, and to calculate Behavioural Prepotency from these variables; (2) measuring executive functions and energy level, and to calculate Self-regulatory Capacity from these variables; (3) measuring and calculating Temporal Valuations; (4) defining the role of Ambient Temporal Contingencies.

Discussion: TST is a promising model, but several methodological issues need to be clarified.

12:00 - 12:15

Gratitude and health behaviours: the role of future-orientation

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Background: Gratitude is an orientation towards the positive in life that increasingly is shown to have relevance for physical health. Less is known about how gratitude relates to health behaviours. The self-regulation resource model (SRRM) posits that future-orientation is a resource that promotes self-regulation of health behaviours. Accordingly, we meta-analytically tested whether gratitude was associated with the practice of health-promoting behaviours, and if future-orientation explained the association.

Methods: Data from 14 samples (N = 4,111) from our labs were included in the meta-analysis as there was no published data. All samples completed measures of state or trait gratitude, and a measure of health behaviour frequency; six samples completed a measure of future orientation/self-continuity. Random effects metaanalysis was conducted on the correlations of gratitude with health behaviours, with subgroup analyses.

Indirect effects through FO were tested and meta-analysed.

Findings: Across all 14 samples, gratitude was significantly associated with more frequent health behaviours, avg. $r = .261$, [.22, .31]. The effects did not vary significantly across sample type (student/community), or gratitude measure (state/trait). Mediation analyses revealed significant indirect effects of gratitude on health behaviours through future-orientation in the six samples tested (N = 2,828), with an average index of mediation of $\beta = .068$ [.05, .08]. The direct effects remained significant.

Discussion: Findings are consistent with the SRRM and demonstrate that gratitude is associated with the practice of health-promoting behaviours, due in part to future-orientation. Further research is warranted to more fully investigate the potential of gratitude for promoting health behaviours.

12:15 - 12:30

Specific sensitivities or general vulnerability? Trigger beliefs moderate acquisition and generalization of symptom expectancies

T. Janssens¹, E. Caris¹, I. Van Diest¹, O. Van den Bergh¹

¹KU Leuven, Belgium

Background: Beliefs about allergic triggers often do not match objective trigger tests, which may be due to generalization of trigger beliefs to conceptually/perceptually similar triggers. In this study, we aimed to reduce overgeneralization of triggers, by manipulating information about the mechanisms of allergy triggers prior to participation in a trigger-learning task.

Methods: Healthy participants (N=48) received information that allergic reactions were a result of specific sensitivities versus general allergic vulnerability, and performed a trial-unique trigger acquisition task. CO₂ was used to induce symptoms, and CS's either shared (e.g. birds-mammals) or differed (e.g. birds-fungi) in category membership. During Acquisition, participants reported symptom expectancy and symptom intensity for all triggers. One day later, participants rated symptom expectancies for old and novel CS+/CS- triggers, and for exemplars of novel trigger categories. Data were analysed using multi-level models.

Findings: Only a subgroup of participants (n=22) showed differences between CO₂ and room air symptoms. These participants showed differential CS+/CS-symptom expectancies ($t(1920)=3.12$, $p=.002$), which were moderated by information and CS category relationships ($F(1,1920)=7.01$, $p=.008$): general vulnerability information led to increased CS+/CS- differentiation when CS's shared category membership, whereas information about specific sensitivities increased CS+/CS-differentiation when CS's did not share categories.

Furthermore, information about specific sensitivities reduced generalization to novel trigger categories ($F(4,3820)=17.08$, $p<.001$).

Discussion: Prior information about the mechanisms of allergic disease has an impact on the development and generalization of trigger beliefs. However, interactions between prior information and other characteristics of the learning task suggest difficulties in translating these findings into clinical applications.

Treatment adherence

11:00 - 12:30 | GORDON B SUITE

11:00 - 11:15

Barriers to adherence to treatment in chronic illness - patient perspectives

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Background: Adherence to treatment is a serious financial, psychological and social issue. Researchers aimed to identify barriers to adherence, but there are only few classifications that could provide a theoretical framework for future analyses. Little data on this issue has been reported from Eastern Europe.

Methods: 232 ambulatory patients (aged 13-85; M=53; SD=17.57) suffering from chronic illnesses listed perceived barriers to adherence and reported their adherence levels in a questionnaire. After preliminary analyses we decided to put their answers into 6 categories based on WHO's broad definition of health: physical (e.g. side effects), cognitive (e.g. forgetting), emotional (e.g. illness-related anxiety), material (e.g. no money), value-oriented (e.g. other things are more important) and time-related (e.g. being overworked). We asked competent judges to categorize the answers.

Findings: The two most common categories were cognitive and material barriers. Compared to low adherence, patients declaring high/moderate adherence identified emotional and cognitive barriers more often and material barriers less often. Surprisingly, patients with a higher education mentioned time-related and cognitive barriers more often than other patients, while emotional barriers were mentioned most often by patients with a primary education. For all adherence levels (low/moderate/high) physical barriers were least common and cognitive barriers were most common.

Discussion: The identification of perceived barriers to adherence is vital in planning to overcome low adherence. Our findings and proposed categorization of adherence barriers can serve as a theoretical framework for future analyses. The results show, that there are differences in perceived adherence barriers between patients with different characteristics

11:15 - 11:30

How an ordeal becomes the norm: home haemodialysis patients' experiences of self-cannulation

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Background: Despite home haemodialysis (HHD) being associated with significant health and psychosocial benefits, it remains an under-utilised form of renal replacement therapy for people with chronic kidney disease. Recent research suggests that self-cannulation is a barrier for patients, but there is little research which **examines patients' experience of self-cannulation** or the role it plays in decision-making about dialysis modality. This qualitative study, a sub-study of the BASIC-HHD study, addressed these questions.

Methods: Semi-structured interviews were conducted with 8 male HHD patients (duration on HHD ranged from 12-55 months). **During the interview, the researcher elicited the participants' lived experience of selfcannulation.** Topics included the decision to self-cannulate and the impact of self-cannulation on the patient. The data collected were analysed using interpretative phenomenological analysis.

Findings: A central theme was discussed **throughout the interviews: "self-cannulation as a process"**. Selfcannulation often begins as an ordeal but ends up becoming the norm. This theme was discussed in relation to four **superordinate themes: "motivation", "confidence", "acceptance" and "identity"**.

Discussion: The findings from this study suggest that initial fears of self-cannulation can be overcome. These findings offer healthcare professionals and patients alike a detailed view of how these particular patients who self-cannulate conceptualised it and its role in their mental and physical health. It also provides valuable insight as how to approach and overcome the barrier self-cannulation represents to some patients.

11:30 - 11:45

Understanding barriers to tamoxifen adherence in women with breast cancer: a qualitative study

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¹King's College London, United Kingdom

Background: Up to half of patients do not take tamoxifen as prescribed, which is associated with increased odds of recurrence and mortality in breast cancer survivors. However, little research has investigated factors that contribute to/reasons for non-adherence from the patient perspective. This study aimed to understand **womens' experiences of tamoxifen and to identify factors which may be associated with non-adherence.**

Method: Semi-structured interviews were conducted with thirty-two breast cancer survivors who had been prescribed tamoxifen. Interviews were conducted face to face or over the telephone. They were transcribed verbatim, and analysed using inductive thematic analysis with elements of grounded theory.

Findings: A key theme identified in the data was weighing up beliefs about treatment, which resulted in women being categorised into three groups; tamoxifen is keeping me alive, tamoxifen is not worth the reduced risk of recurrence, or conflicting beliefs. Additional themes were risk of recurrence and information & support.

Discussion: Women who believed that the necessity of tamoxifen outweighed its costs reported better adherence, whereas those who thought that the benefits did not outweigh the side-effects were more likely to have discontinued. A third more ambivalent group believed strongly in the importance of treatment, but were struggling with side-effects and were often non-adherent, reporting skipping and adjusting doses. Women described a lack of comprehensive information and support. To reduce non-adherence and discontinuation, future research needs to explore ways to increase beliefs around tamoxifen necessity and help women cope with side-effects, particularly in those with ambivalent feelings towards tamoxifen.

11:45 - 12:00

A measure to assess adherence to prescribed home exercise: the Exercise Adherence Rating Scale (EARS)

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Background: Research shows that between 30 – 70% of people are non-adherent to prescribed exercise. However, there is no gold standard for measuring exercise adherence. Self-report diaries are commonly used, yet inaccurate recall and self-presentation bias may affect the validity of this data. The Exercise Adherence Rating Scale (EARS) is a valid and reliable measure that may provide better assessment of adherence, which may facilitate improved physiotherapy interventions to increase adherence.

Methods: 150 patients with chronic low back pain (CLBP) were recruited from London-based hospitals (60% female; mean age 50 years, range 24 – 79 years). EARS items were developed based on literature searches, focus groups and interviews with CLBP patients, physiotherapists and psychologists. Exploratory factor analysis was used to assess the underlying factor structure of the EARS. Intraclass correlation coefficients and item response theory were used to assess reliability.

Findings: A 1-factor solution explained 66% of the variance in adherence to exercise. Internal **consistency** ($\alpha = 0.758$) and item-response theory methods (>0.7) indicated that reliability was acceptable, and test re-test reliability was high [ICC = 0.97 (0.94 – 0.98)]. The 6-item EARS is scored on a 5-point Likert scale (0-4, completely agree to completely disagree) where a higher score indicates better adherence.

Discussion: This research may improve physiotherapy treatment by providing additional information about adherence that could be used to improve patient outcomes. Exercise can reduce pain and disability for people with CLBP. The EARS will allow better assessment of adherence to exercise which may facilitate increased adherence behaviour.

12:00 - 12:15

'Manage backs' group intervention: applying a biopsychosocial explanation of low back pain at physiotherapy care pathway entry

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²Cardiff University, United Kingdom

Background: Disability outcomes for people with low back pain (PLBP) depend on biopsychosocial maintaining factors (Foster et al 2014) and ensuring they are at the centre of decisions about self-management. **Physiotherapists'** beliefs about pain and their ability to communicate biopsychosocial understanding are important to addressing **patients' unhelpful beliefs and promoting activation** (Darlow et al; 2012; Overmeer et al, 2011). 'Manage Backs' (MB) transformed the LBP care pathway using a group intervention (GI) to promote self-management decision making and compared outcomes with traditional 1:1 physiotherapy.

Methods: Eighty-five MB groups were delivered to 611 PLBP by a team of 12 physiotherapists across 6 localities. **Clinical outcomes were QoL, activation and functional activity measures.** **Physiotherapists'** beliefs were measured using the HC-Pairs and PABS-PT. A five-dimension physiotherapy LBP competence framework was tested and psychology-led mentoring promoted fidelity to the MB model. A questionnaire captured competence and qualitative methods evaluated mentoring.

Findings: **Compared with those delivering 1:1 therapy (n=25), MB physiotherapists' (n=9) beliefs** (HC-Pairs and PABSPT) changed significantly pre, during and post MB ($p < 0.05$) and 80% rated competence improved. Interview analysis yielded themes about group process management and communication with PLBP. Clinical self-reported outcomes demonstrated improvements in all measures across both models with activation greater in MB. Estimated MB cost savings in the LBP care pathway were approximately £ 48,000pa.

Discussion: PLBP benefited from a GI providing a biopsychosocial explanation of LBP at entry to physiotherapy. Mentoring maintained fidelity to the MB model. **Physiotherapists' beliefs and competence were key to PLBP' s selfmanagement decision making and activation.**

12:15 - 12:30

Determinants of objective adherence to nebulised medications among adults with cystic fibrosis

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Objectives: To understand the differences between high or low nebuliser adherers (i.e. used $\geq 80\%$ or $\leq 40\%$, respectively, of all nebulised treatments over one year) among adults with cystic fibrosis (CF).

Methods: Of 36 eligible adults with CF invited from a UK CF centre, 20 were recruited (10 high, 10 low adherers). Adherence was objectively measured using electronic data capture. Participants took part in a semi-structured interview and provided quantitative measures of habit, self-control, life chaos, perceived treatment burden, capability, motivation and opportunity. Quantitative measures were compared between groups and interview data were thematically analysed.

Results: High adherers reported stronger habit and greater opportunities, though habit and perceived opportunity scores were highly positively correlated. No other quantitative measure distinguished between groups. Habit strength attenuated the relationship between treatment complexity and perceived treatment burden. Indeed, in interviews, high adherers reported that routinisation and greater automaticity made treatment burden more manageable.

Conclusions: High adherers appear more likely to make nebuliser use habitual, and adapt more effectively to using nebulisers by creating and seizing opportunities for nebuliser use. Nebuliser adherence interventions might usefully target the development of routines for instigating nebuliser use, and identification of opportune moments for nebuliser use.

Caring and being cared for in later life

11:00 - 12:30 | FORBES SUITE

11:00 - 11:15

Maintaining effectiveness of the self-management of well-being intervention after implementation in health and social care

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Background: The Self-Management of Well-being (SMW) group intervention was found to be effective – in a randomised controlled study (RCT) - in improving self-management ability and well-being, and reducing loneliness, in older individuals. Subsequently, the intervention was implemented in health and social care organisations. In the current study we investigated whether the effectiveness of the intervention during the implementation (IMP) project was similar to the original RCT.

Methods: In the IMP project 18 organisations adopted the SMW group intervention. Forty-eight professionals were trained as SMW-teachers and performed 39 SMW group interventions with 287 women of 55 year or older. In the RCT 63 women participated in the intervention condition (IRCT) and 79 in the control condition. To investigate whether the effects of the SMW group intervention on **participants' well-being** and selfmanagement ability were similar in both the IMP and the RCT, ANCOVAs were performed, and effect sizes were compared. Session attendance and drop-out rates were compared using chi-square and t-test.

Findings: No significant differences between the IMP and the IRCT were found on well-being and selfmanagement ability ($p=1.00$). Controlled effect sizes were medium (0.46-0.59). Session attendance and dropout rates were not significantly different. Mean number of sessions was 4.9 (IMP) and 4.6 (IRCT) ($p=.153$).

Drop-out rates were 21% (IMP) and 27% (IRCT) ($p=.292$).

Discussion: The effects of the SMW group intervention on participants' outcomes were similar in both studies. Therefore, we conclude that the SMW group intervention was successfully transferred from a research setting to health and social care settings.

11:15 - 11:30

Developing and delivering a health psychology service across health and social care

H. Locke¹, B. Raftery¹, J. Hutton¹, S. Ross¹

¹North Lanarkshire Partnership, United Kingdom

Background: A Local Authority and NHS partnership in North Lanarkshire developed a Health Psychology Service to facilitate a shift in the balance of care from acute institutional to primary and community settings. Objectives were to develop and evaluate a health psychology service to improve the lives of older adults.

Methods: Needs assessment revealed a gap in psychological knowledge and skills of staff supporting older adults in the community. Training and support were delivered to the workforce to facilitate behaviour change. A consultancy service supported change on the ground by enabling health psychologists to contribute to thorough biopsychosocial assessment, develop formulation led intervention plans and help coordinate the plan with staff. Evaluation included process measures, focus groups and questionnaires.

Findings: Over 1000 health and social care staff completed questionnaires. To date 280 cases have been discussed in consultancy. Formal feedback has been positive. Cost effectiveness has been demonstrated in terms of hospital bed days saved, reducing care home admissions, facilitating timely discharge from hospital and preventing unnecessary hospital admission. The project won a national award in November 2014 for innovation in integrated working.

Discussion: Integration of Health and Social Care in Scotland provides opportunity to influence wider social determinants of health and well-being to the benefit of the older adult population, staff and services. Training frontline health and social care practitioners to deliver psychologically informed care and support has great potential and opportunity to strategically develop Health Psychology as a unique discipline within areas where it can have optimal impact.

11:30 - 11:45

Living well to the end: a phenomenological analysis of life in extra care housing

R. Shaw¹, K. West¹, B. Hagger¹, C. Holland¹

¹Aston University, United Kingdom

Background: Extra care housing for older adults offers enrichment activities alongside social and healthcare support. We explored experiences of moving in.

Methods: Semi-structured interviews were conducted in the first 18 months of living in extra care housing. Interpretative phenomenological analysis was used. Themes generated were examined against an existentialphenomenological theory of well-being.

Findings: Learning to live in an extra care community showed negotiating new relationships was not straightforward; maintaining friendships outside the community became more difficult as capacity declined. In springboard for opportunity/confinement, living in extra care provided new opportunities for social engagement and a restored sense of self. Over time horizons began to shrink as incapacities grew. Seeking care illustrated reticence to seek care, due to embarrassment and a sense of **duty to one's partner**. **Becoming aged presented** an ontological challenge. Nevertheless, some showed a readiness for death, a sense of homecoming.

Discussion: An authentic later life was possible but residents required emotional and social support to live through the transition and challenges of becoming aged. Enhancement activities boosted **residents' quality of life** but the range of activities could be extended to cater better for quieter, smaller scale events within the community; volunteer activity facilitators could be used here. Peer mentoring may help build new relationships and opportunities for interactive stimulation. Acknowledging the importance of feeling – empathic imagination – in caregiving may help staff and residents relate better to each other, thus helping individuals to become ontologically secure and live well to the end.

11:45 - 12:00

Shared decision-making in palliative cancer care: a life span perspective

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²Medisch Spectrum Twente, Netherlands

Background: Due to complex treatment decisions, shared decision-making is advocated for in elderly cancer patients and in palliative cancer care. However, the process of (shared) decision-making is not comprehensively understood in these groups. Studies suggest age-based differences in patients' level of preferences and actual involvement.

Methods: Patients with metastatic cancers (n = 77) were included in three age groups: 'middle aged' (40-64 years), 'young elderly' (65-74 years) and 'old elderly' (≥ 75 years). A cross-sectional questionnaire assessed patients' preferences (CPS), perceived involvement (PICS), level of information (decisional conflict scale) and self-efficacy in patient-physician interaction (PEPPI), health-related quality of life (EORTC QLQ-C30), loneliness and temporal perspective (TFS) as potential correlates.

Findings: X² testing revealed that preferences, perceived participation and degrees of concordance do not differ between age groups. A majority of patients preferred and perceived to be involved in decision-making. Nearly 20% of patients was less involved than preferred. Age related factors were not related to perceived and preferred decision-making, although 'old elderly' patients were less encouraged by their oncologist to talk about worries. Shared decision-making was more often perceived by women than men and was associated with higher levels of self-efficacy in communication with oncologists.

Discussion: Age-related differences with regard to decision making preferences and perceived participation seemed to be cancelled out in palliative cancer care, probably due to near-to-death perception. If clinical practice aims to achieve higher concordance levels, patients' preferences for involvement should be explicitly discussed. Increased attention to (older) patients' psycho-social needs is suggested.

12:00 - 12:15

Moderators of the effect of stress exposure on executive functioning in spousal dementia caregivers

M. Pertl¹, C. Hannigan¹, S. Brennan¹, I. Robertson¹, B. Lawlor¹

¹Trinity College Dublin, Ireland

Background: The challenges of dementia care may adversely affect caregivers' executive functioning because of the impact of stress on prefrontal cognitive processes.

We examined (1) whether greater psychological stress mediated a relationship between caregiver stress exposure and executive functioning and (2) whether greater self-efficacy and cognitive reserve moderated the indirect effect of stress exposure.

Methods: Spousal dementia caregivers' (n = 253) completed the Neuropsychiatric Inventory Questionnaire (stress exposure), the Perceived Stress Scale, the National Adult Reading Test (cognitive reserve), the Fortinsky dementia-specific caregiver self-efficacy scale, and the Color Trails Test (executive functioning). Moderated mediation was tested using the PROCESS macro in SPSS. Age, gender and dementia risk factors were included as covariates.

Findings: Greater stress exposure indirectly predicted executive functioning through psychological stress. Stronger relationships between greater psychological stress and poorer executive functioning were observed among caregivers with lower cognitive reserve. However, there was no evidence that self-efficacy moderated the indirect effect of stress exposure on executive functioning through psychological stress.

Discussion: Greater psychological stress in response to the challenges associated with dementia care may place caregivers at a greater risk of executive dysfunction. Having higher cognitive reserve may protect caregivers from the adverse effects of stress on cognition.

12:15 - 12:30

Mechanisms linking benefit finding and psychological wellbeing in spousal dementia caregivers

M. Pertl¹, J. Rogers¹, S. Brennan¹, I. Robertson¹, B. Lawlor¹

¹Trinity College Dublin, Ireland

Background: Benefit finding has been linked to better psychological outcomes among caregivers; however, the mechanisms underlying the positive effects of benefit finding are unclear. We tested whether relationships between greater benefit finding and lower anxiety and depression in spousal dementia caregivers were mediated by loneliness, self-efficacy, coping style, and perceived caregiver burden.

Methods: Spousal dementia caregivers (n = 253) completed the Positive Aspects of Caregiving scale, the Centre for Epidemiological Studies Depression, the Hospital Anxiety and Depression Scale, the De Jong Gierveld Loneliness scale, the Fortinsky dementia-specific caregiver self-efficacy scale, the Brief COPE Questionnaire and the Zarit Burden Interview. A multiple mediation model was tested using the PROCESS macro in SPSS.

Findings: Benefit finding was associated with lower caregiver burden and loneliness, which in turn predicted lower levels of anxiety and depression. No direct pathways, or indirect pathways through self-efficacy or coping, were supported; though self-efficacy and use of dysfunctional coping strategies were significantly related to both benefit finding and psychological wellbeing.

Discussion: Our findings indicate that benefit finding may enhance psychological wellbeing by impacting on appraisal processes rather than by promoting positive coping strategies. Caregiver intervention studies that target benefit finding should consider and examine cognitive adaptations as the mechanisms underlying intervention effects on depression and anxiety.

Measuring and managing stress: assessment and intervention in health

11:00 - 12:30 | ROOM 10

11:00 - 11:15

Stress of perceived threat: negative associations between HIV-cognitions and mental health for uninfected gay/bisexual men

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²Hunter College, City University of New York, United States

Background: Research on stress associated with illness-related cognitions traditionally focuses on patients or survivors. However, given both high rates of infection and pervasive threat messaging targeting gay/bisexual men, this study examined the prevalence, content, and correlates of HIV-related cognitions among uninfected (but at risk) individuals.

Methods: 456 gay/bisexual men were asked how often they thought about HIV, both day-to-day and during sex (7-point scale, never to all the time), and were asked for open-ended responses about the content of these thoughts. Responses were coded into thematic categories (all kappas > .80). Participants also completed a series of self-report measures.

Findings: 25% reported frequent daily HIV-related cognitions and 29% reported frequent cognitions during sex. Cognitions were grouped into 7 themes: fear of infection, physical impact of infection, social impact of infection, risk behavior, prevention behavior, partner mistrust, and friends living with HIV. Higher frequency of daily HIV cognitions was independent of objective risk (e.g., number of partners, condomless sex), but was associated with greater depression, anxiety, and sexual compulsivity. In regression models, the content of cognitions (threat of infection) was more important than frequency in predicting mental health.

Discussion: Persistent cognitions about the threat of HIV infection are significantly associated with depression and anxiety among gay/bisexual men, independent of actual risk behavior. The stress of this perceived threat may be a critical factor to consider in prevention messaging and programs for gay/bisexual men.

11:15 - 11:30

Assessing health anxiety with the Greek SHAI: psychometric properties and identification of correlates and predictors

C. Leonidou¹, G. Panayiotou²¹University of Cyprus, Cyprus²UCY, Cyprus

Background: The Short Health Anxiety Inventory (SHAI) is one of the most widely used measures of health anxiety. This study examined the psychometric properties of the Greek version of the SHAI, gender differences and the relationship of its two factors with experiential avoidance and attentional control. Methods: 355 university students (276 female; 18-27 years old) completed the SHAI, Acceptance and Action Questionnaire II and Attentional Control Scale. Findings: Results of principal component analysis with direct oblimin rotation supported the two factor structure of the SHAI, i.e. health anxiety score and consequences score, indicating good internal reliability within each factor and significant inter-correlation between the two factors. A t-test showed differences only for the health anxiety score, with females reporting higher levels compared to men.

Multiple regression analyses, controlling for gender, indicated that experiential avoidance significantly predicted health anxiety score, while both experiential avoidance and attentional control were significant predictors of the consequences score. Discussion: These findings provide evidence for the good psychometric properties of the Greek SHAI as a measure of health anxiety. Preliminary evidence is also obtained regarding the link between increased experiential avoidance and low attentional control with higher health anxiety levels, which replicates similar findings in the relevant research field.

11:30 - 11:45

Effects of a two-day stress management intervention - an experimental study

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²Institut für Kooperative Systeme GmbH, Germany

Background: Stress management interventions are a common instrument for health promotion. But how useful are short interventions? The scope of this experimental study was to evaluate short and long-term effects of a two-day multimodal stress management training (“Gelassen und sicher im Stress”). In accordance with the systemic demands-resources-model of health, we used following evaluation criteria: perceived chronic stress and maladaptive coping behavior as demands; resilience, adaptive coping behavior and job satisfaction as resources; burnout and stress reactivity as health outcome variables.

Methods: 155 participants (110 female, 45 male) with a mean age of 41 years (Range = 24 - 66) were randomized into two conditions: an intervention group (n = 59) and a waiting list control group (n = 96). We collected data on self-reported dependent variables (e.g. TICS, SVF-78, MBI) at four measurement points: before the training, two weeks, three and six months after the training. ANOVA with repeated measures, planned contrasts and mediation analyses were computed.

Findings: Analyses revealed a significant time x condition interaction effect for almost all criteria. Contrast analyses showed effect sizes ranging $.04 \leq \eta^2 \leq .15$ for short and mid-term and $.06 \leq \eta^2 \leq .21$ for long-term effects. Mid-term changes in maladaptive coping behavior mediated some of the long-term intervention effects.

Discussion: The results are in line with recent empiric findings and prove the sustainable effects of a two-day training format impressively. The stress management training concept on hand is an economic and effective instrument for health promotion.

11:45 - 12:00

Investigating the associations between stress and mindfulness

L. Duggan¹, E. Temple¹¹Federation University, Australia

Background: The experience of stress, both psychological and physical, differs substantially between individuals. A plethora of research has demonstrated that regular mindfulness practice can reduce the amount of **stress experienced by individuals, however the benefits of 'one-off' mindfulness exercises** has received less attention. Thus, the current study aimed to determine the effect of a single episode mindfulness exercise on both psychological and physiological stress responses within a performance context.

Methods: A random control design was used. Participants were required to complete a questionnaire package, wear a heart rate monitor, supply a number of cortisol samples, and take part in the widely used Trier Social Stress Test. The experimental group also participated in a short mindfulness activity. The study consisted of 22 participants (female n= 14, male n=8) ranging between 18 and 59 years of age.

Findings: Preliminary results indicate that the Trier Social Stress test successfully increased the amount of perceived stress in participants, with the experimental group reporting significantly greater stress during the task (M=22.30, SD=4.60) when compared to baseline (M=5.5, SD=1.78), $t(9) = -11.06$, $p < 0.01$. These results were consistent with those for the control group (task: M=19.67, SD=7.64; baseline: M=6.25, SD=2.18; $t(-11) = 6.06$, $p < 0.01$). Interestingly, however, was that the control group experienced a smaller increase in mean perceived stress scores (214.8%) than the experimental group (305%).

Discussion: These findings imply that the use of 'one-off' mindfulness exercises to reduce perceived and physiological stress may actually be counter-productive when applied within performance contexts.

12:00 - 12:15

Rumination, but not suppression contributes to gender effects in nonclinical disordered eating behaviour

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³University of Hagen, Germany

Background: The dysregulation of negative emotions is strongly associated with disordered eating behaviour (DEB). Even in non-clinical populations, women are more prone to show DEB than men. Moreover, gender differences are frequently reported in use of maladaptive emotion regulation strategies (ERS). This study aims at identifying, whether two maladaptive ERS – rumination and emotional suppression – mediate gender differences in DE in a non-clinical sample.

Method: A total of 271 participants (93 male) without purging behavior or underweight completed an onlinequestionnaire about the use of general ERS, eating concerns and eating behavior. The proposed mediation models were examined using the PROCESS Macro for SPSS, with 1000 bias-corrected bootstrap samples, while controlling for age and BMI.

Findings: Women reported significantly more symptoms of DEB and rumination, whereas men tended to use emotional suppression. Rumination partially mediated the association between gender and eating pathology (indirect effect $b = 0.12$, 95% CI [0.04, 0.21]), while no mediation effect of emotional suppression on disordered eating was found.

Discussion: The results are in line with research on gender differences in depression and anxiety and extend findings to DEB in a non-clinical sample. The relation between eating pathology and rumination may be reciprocal and should consequently be considered in therapeutic interventions. As DEB becomes increasingly frequent in men, it would be interesting to investigate in a male sample with more severe symptoms, if the role of rumination remains essential or if different underlying mechanisms contribute to eating dysregulations among men.

12:15 - 12:30

Interventions to combat and prevent cyberbullying

N. Gunther¹¹Open University of the Netherlands, Netherlands

Cyberbullying intervention resources can be classified into school-based and stand-alone interventions. The difference between both interventions will be described, but the focus of the presentation will be on the recently developed and theoretically based stand-alone interventions to combat and prevent cyberbullying.

Five stand-alone interventions will be described that are based on theory and tested on effectivity. They are all tailored on personality characteristics, coping strategies and needs and have common core themes, but differ in their development and procedures.

Several lessons can be learned from research on the effectiveness of these five interventions regarding the usefulness of interventions and implementation pitfalls. In the presentation the necessity of tailored advice in interventions and important aspects of the content and the structure of interventions will be discussed, as well as the necessity of guidance. Several recommendations for future interventions will be provided.

Chronic disease and transplantation

14:00 - 15:30 | CROMBIE A SUITE

14:00 - 14:15

Existential questions and modifications in the context of renal transplantation: a qualitative longitudinal research

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²Health Psychology, CerPsa, Switzerland

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⁴Center of Organ Transplantation, Switzerland

This study was aimed at exploring comprehensively the experience of 30 patients registered for first kidney transplantation.

They participated to qualitative interviews before and 6-12-24 months after transplantation.

Thematic analysis was applied, leading to a 10 final themes analytic framework among which existential questionings take an important place. Before transplantation, while in dialysis, existential rupture is described, and life projects are set aside. Death as a way-out is considered when life on dialysis becomes unbearable. Concerns about brain death of the donor are expressed.

After transplantation perspectives on life are modified: implementation of changes in in life style and existential reappraisal. Experiences about deceased or living donation modify the perspectives on life and death. In deceased donation, brain death and the limits between life and death are present in the interviews as important existential concerns. In living donation, when possible, living donation is ultimately accepted when the strains of dialysis increase psychologically and physically.

Transplantation allows patients to think about future, make projects anew. They become more open to other people, and must learn to trust life again, rediscover happiness. Being responsible towards the **graft, the donor and the donor's family leads patients to follow their medication regimen and modify their life-style in being more careful towards their body and to lead a more healthy life.**

Transplantation remains a complex and intense human experience and is accompanied by existential reappraisal. Patients know that these positive changes are limited in time and closely related to the **graft's care** and continuing function.

14:15 - 14:30

Effects of gender and type of transplantation on daily affect after hematopoietic stem cell transplantation

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Background: To explore the effects of gender differences and type of transplantation in daily emotional state dynamic following hematopoietic stem cell transplantation (HSCT).

Method: Positive and negative emotions were reported by 89 patients (45 women and 44 men) who underwent either autologous (75%) or allogeneic (25%) HSCT for 28 consecutive days after hospital discharge.

Results: The linear growth models for NA (negative) and PA (positive) were assessed separately, with both gender and type of HSCT as predictors and time as covariate. Fixed effects for positive emotions (PA) showed gender differences in both within- and between-person levels. PA increased in the both groups over 28 days, but this change was sixfold in among men when compared to women. The initial PA was on the same level in both groups. For NA only between-subjects and within-subjects random effects were significant. Patients after autologous HSCT reported increase in PA and decrease in NA, whereas participants who went through allogeneic HSCT showed opposite changes in emotional state – decrease in PA and increase in NA.

Discussion: The findings suggests heterogeneous but overall positive response to bone marrow transplantation. The type of transplantation turns out to be a significant predictor of direction of change in emotional adjustment after HSCT.

14:30 - 14:45

Liver transplantation: recipients' evaluation of life from the perspective of living donors

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Aim: Liver transplantation affects not only recipients and living donors' lives but also the nature and quality of their relationship. Moreover, the ways in which recipients of liver transplant experience life and views of living donors on how recipients experience life may differ. These differences may account for relational changes. It is also important to understand how recipients and their living donors' views differ if the aim is to devise psychoeducational programs for recipients and living donors. Therefore, the present study examined the recipients' experience of life following the diagnosis of ESLF and transplantation surgery from donors' perspective.

Methods: The sample consisted of 16 living donors who donated a part of their liver to a patient with ESLF. Thematic analysis was undertaken in parallel with interviews during which an interview guide was followed.

Findings: Donors felt that recipients evaluated life following the diagnosis of ESLF and transplantation surgery in terms of limitations, mixed relationships, emotional changes and improvement in life.

Conclusion: Experience of social limitations, negative emotions and the feeling that one is supported by others could be interpreted in terms of existing psychological theory. Some ways of adjusting which were not reported before within the context of ESLF extended the literature. These included others being frightened of being infected by ESLF and being insensitive, experience of positive emotions and ways of improving. Overall, as compared to the findings of previous qualitative work among recipients, these findings suggest that donors' evaluation of recipients' lives converge with that of recipients.

14:45 - 15:00

Cognitive processing of exercise and activity-related information in chronic fatigue syndrome, asthma and healthy controls

I. Alexeeva¹, M. Martin¹

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Background: The experiment investigated whether depressed mood would direct cognitive processing of physical activity and exercise-related information in people with CFS, compared to people with asthma and healthy controls.

Methods: CFS (N = 17), Asthma (N = 46), and healthy (N = 42) participants randomly assigned to a depressed or neutral mood induction completed a cognitive task measuring allocation of attention towards activity-related or neutral words and pictures.

Findings: Induced depressed mood exerted a significant influence on the allocation of attention of CFS, asthma and healthy participants as demonstrated by a significant group by mood interaction $F(2, 99) = 4.64, p = .012$.

Compared to the healthy controls CFS group demonstrated a significant degree of avoidance of physical activity and exercise, $p = .015$.

Discussion: Evidence for cognitive avoidance of activity in CFS may elucidate the cognitive and decisionmaking mechanisms behind behavioural avoidance of activity in CFS. This finding may have implications for graded-exercise treatment in CFS, and for the strategies for promotion of physical activity in people with chronic illness and in healthy individuals.

15:00 - 15:15

Illness trajectories in patients suffering from ALS: a qualitative study

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Background: Amyotrophic lateral sclerosis (ALS) is a neurodegenerative disease with a progressive and rapid course. To date, there are few qualitative studies on ALS patients' illness narratives and no research combining a comprehensive understanding of ALS patients' psychological characteristics with illness progression. The aim of this study is to identify illness trajectories in amyotrophic lateral sclerosis by analysing personal, social and functional dimensions related to ALS progression.

Methods: Eighteen patients in care at a Department of Neurology in Northern Italy participated in the study. We used ALSFRS_r to measure physical impairment, CRi_q for cognitive reserve, semi-structured interviews and dependency grids to assess personal experience and the distribution of dependency. To assess the progression of the disease, ALSFRS-R was re-administered after about eight months and mortality rate was considered. Data was analysed using the Grounded Theory approach.

Findings: Illness progression changed according to the perception of the disease, the trust placed in medicine, self-construction, and the distribution of dependency. On the basis of these categories, cases that had similar experiences were grouped, and four illness trajectories were identified: acceptance, threat, denial and guilt.

Discussion: The findings highlight that it is possible to identify different illness trajectories in ALS and subsequently construe personalized intervention strategies.

15:15 - 15:30

Infertility treatment? Adoption? Remaining childless? Psychological consequences of each decision

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Background: Coping with infertility demands taking life-changing decisions. Therefore a full analysis of psychological aspects of experiencing infertility should take into consideration all possible ways of coping with the problem.

Methods: The study included 1,044 women in different stages of experiencing infertility – i.e. women undergoing infertility treatment and adoption procedures, women having a child thanks to treatment or adoption, as well as women who decided to remain childless. Tools used in the study were: the original Attitudes towards Own Infertility Scale based on the Acceptance of Illness Scale AIS; HDS-M Scale (Zigmond, Snaith); the original Scale for Assessment of Hope as an Emotional State; the Satisfaction with Life Scale SWLS (Diener et al.); Mini-COPE – Stress Coping Inventory (Carver).

Findings: In the study statistically significant differences were found between the perception of social support and its types (emotional, informational, material, institutional, from significant others), **acceptance of one's own** infertility, levels of anxiety, depression, hope, satisfaction with life, and self-esteem based on the stage of experiencing infertility. The highest levels of factors suggesting better adaptation to the current state were observed in adoptive mothers, while the lowest levels of such factors were observed in women undergoing treatment or deciding to remain childless.

Conclusions: The acquired results have applicatory value and can be employed in the process of creating professional psychoeducational programs, as well as in the process of providing support for women experiencing infertility.

Understanding risk, risk perception and risky behaviour

14:00 - 15:30 | BALMORAL SUITE

14:00 - 14:15

Why ineffective medicines appear to work: online medical reviews suggest widespread over-reporting of positive outcomes

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Background: People often hold unduly positive expectations about the outcomes of medical treatment. One explanation for this phenomena is that those who have a positive outcome tend to tell more people about their disease/treatment than people with poor or average outcomes. Akin to the file drawer problem in science, this systematically distorts the information available to others and results in the development of inaccurate beliefs and expectations.

Method: If people with good outcomes are more inclined to tell other people, then they should also be more inclined to write online medical product reviews. Therefore average outcomes in these reviews should be more positive than those found in RCTs. I analysed 1,675 Amazon reviews of cholesterol reduction (Benecol, CholestOff) and weight loss (Orlistat) treatments. Data on duration of treatment and outcome (i.e., weight / cholesterol change) was extracted and compared to RCT data for the same treatments using ANOVA.

Findings: In three independent tests, average outcomes reported in reviews were substantially more positive than outcomes reported in the medical literature (eta squared: .01 to .06; p: .04 to .001). For example, average cholesterol change following use of Benecol is -14mg/dl in RCTs and -45mg/dl in online reviews.

Discussion: People with good outcomes are more inclined to share information and this distorts the information available to others. Explanations for erroneous medical beliefs usually focus on flawed reasoning; these results suggest that patterns of communication may be equally important.

14:15 - 14:30

Patterns of defensive responding to health risk information

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Background: People may fail to effectively process health-risk information by using defensive strategies, i.e., avoiding all information (attentional avoidance), avoiding threatening information (blunting), avoiding personally relevant information (suppression), or counter-arguing. A new paradigm that allows a choice of type/ amount of information was used to explore the type/ number of strategies used.

Methods: Participants in two studies (N = 692; N = 705) completed a lifestyle questionnaire and had the opportunity to read about health behaviors. Participants were given a choice of (a) whether to read information, (b) the topic (i.e., different health behaviours) and (c) the type of information (i.e., generic/ personalized, counter-arguing); the type/ amount of information read reflected the type of defensive strategy used. The differences between evaders (read a non-relevant health-risk) and non-evaders were explored. Study 2, investigated the effectiveness of self-affirmation (SA) in reducing defensiveness.

Findings: All defensive strategies were evident. Evaders were more likely to continue to blunt, $2(1, N = 372) = 4.52, p = .033$, and to counter-argue, $2(1, N = 372) = 5.64, p = .018$, than non-evaders. SA decreased the tendency to suppress, $2(1, N = 318) = 4.11, p = .043$.

Discussion: When given a choice of the type/ amount of information to process a range of defensive strategies are used. People who displayed initial defensiveness will continue to use further strategies. SA can reduce suppression. The paradigm is a useful tool for measuring patterns of defensive responding to health information.

14:30 - 14:45

Modern health worries are not associated with health protective behaviours

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Background: Worries about modern technologies and harmful effects of modern life (MHWs) have increased over the past decades. Based on empirical results, MHWs are often unsubstantiated and negligible compared to the threats posed by other risk factors (e.g. tobacco use, physical inactivity, obesity, etc.). The aim of our study was to explore associations between modern health worries (MHWs) and some 'non-modern' risk factors. According to our hypothesis, MHWs and traditional risk factors are differently represented in people's mind; therefore individuals with more MHWs don't show higher levels of health protective behaviour.

Methods: 325 participants (mean age=31.16, SD=12.63; female 68.6%) completed the Modern Health Worries Scale. Objective risk factors (smoking, alcohol consumption, sleep quality, perceived stress, exercise frequency, body mass index) were also assessed.

Findings: No association between MHWs and any of the indicators of health protective/risk behaviour was found. Self-rated health was connected to the objective risk factors (smoking (Spearman's $\rho = -0.14$, $p=0.013$), BMI ($\rho = -0.16$, $p<0.005$), perceived stress ($\rho = -0.28$, $p<0.001$), physical activity ($\rho = 0.37$, $p<0.001$) and sleep quality ($\rho = 0.293$, $p<0.001$)).

Discussion: Higher levels of MHWs are not associated with health protective behaviours, so concerns about modern life seem to be independent from well-known risk factors.

14:45 - 15:00

Psychosocial predictors of genetic testing uptake in a cluster-randomised non-inferiority trial of telephone counselling

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Introduction: Telephone counseling (TC) increases access without conferring psychosocial risks beyond inperson genetic counseling (IPC), but genetic testing rates are lower. We evaluated predictors of genetic testing among geographically dispersed women at high risk of hereditary breast and ovarian cancer (HBOC) who completed TC or IPC.

Methods: A population cancer registry approach identified 877 women aged 28-74 with breast or ovarian cancer who were randomly assigned by family to IPC or TC. Demographic and cancer-specific factors were assessed at baseline and counseling variables were assessed 1-week following counseling. Multivariable logistic regression with clinically relevant variables as well as backward selection approach was used to identify predictors of BRCA1/2 testing 12 months following genetic counseling.

Findings: Testing uptake was low (27% TC, 35% IPC). Women in the TC arm were less likely to complete testing (OR = 0.53 [95% CI: 0.37-0.75]). The odds of undergoing testing were higher for women without cost barriers (OR = 21.63, [7.69 - 60.81]) and with higher perceived HBOC risk (OR = 1.33 [1.11- 1.58]). The odds of undergoing testing were lower for women with higher decisional conflict (OR = 0.95[0.94-0.97]) and who reported more patient-centered counseling (OR = 0.44 [0.30-0.67]). No significant geographic differences were observed.

Discussion: Genetic testing among women at increased risk for HBOC was low, especially those who receive TC and have low risk perceptions. Cost was as a major barrier to testing. Counseling that is perceived as more patient-centered may lead to lower uptake, supporting an informed decision-making model. (Funding: NIHR01CA129142)

15:00 - 15:15

Driving through floodwater: exploring driver decisions through the lived experience

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BACKGROUND: Drowning is a major public health issue and drowning risks increase with floods. A risk factor for many flood-related drownings is intentional driving through floodwater. Despite this fact, there is currently a critical knowledge gap in understanding why individuals choose to drive through floodwater and the decisions that may lead to such actions. We propose that a more complete **understanding of individuals' decisions to drive through floodwater** needs to be considered in the context of the lived experience.

METHODS: Australian drivers (N=20) who had intentionally driven through floodwater participated in semi-structured interviews. Data were analysed using a thematic analysis based in an interpretivist approach.

FINDINGS: Past experience, individual perceptions (e.g., situation perceived as different to warnings), and the social and environmental context (e.g., pressure and encouragement from others, seeing other motorists driving through) emerged as major themes. Most salient was that although there was a common awareness of the risk posed by driving through flooded waterways, the decision to take this risk emerged as **being heavily reliant on one's ability to construct a sense of self-efficacy** in the lead-up to the incident.

DISCUSSION: This study is the first to explore **through people's lived experience the reasons why individuals' decide to drive through floodwater**. Campaigns can use this knowledge to combat this risky driving behaviour and ultimately save lives.

15:15 - 15:30

Correlates and outcomes of different suicidal ideation presentations in the emergency department: a longitudinal study

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OBJECTIVES: This study examined individuals who were assessed for suicidal ideation in the emergency department in order to determine whether ideation subtypes (active desire for death versus ambivalence about living) differentially predict risk for future suicide attempt.

METHOD: Participants were individuals presenting to psychiatric services in the emergency department between January 2009 and December 2013 at two hospitals in Canada. Ambivalent suicidal ideation, active suicidal ideation, and presentations that included both subtypes of ideation were examined as predictors of suicide attempt within 6 months.

RESULTS: Of the 8413 individuals presenting with to the emergency room 333 presented with a repeat attempt. Ambivalent suicide ideation, and active ambivalent ideation were predictive of suicide attempts in 6 months [Adjusted odds ratio (AOR)=1.94, 95% confidence interval (CI) 1.11-3.39; AOR (both) = 4.72, 95% (CI) 3.0.9 to 7.21, respectively). Active ideation; however, was not predictive of a suicide attempt within 6 months. (AOR)=1.54, 95% confidence interval (CI) 0.651-3.65.

CONCLUSION: Psychiatric presentations to the emergency department often include suicidal ideation. Differentiating between active and passive suicidal ideation does not help in predicting outcomes, and the terminology may be downplaying the severity of presentations that include passive ideation. Mental health professionals should view presentations involving any form of suicidal ideation as a serious risk for future attempts and consider appropriate resources, support and treatment.

Understanding and measuring well-being and quality of
life in patient and community populations

14:00 - 15:30 | FORBES SUITE

14:00 - 14:15

Predictors of enhanced mental wellbeing in women 13 months postmiscarriage

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²NHS Grampian, United Kingdom

Background: Although women's experience of miscarriage is individual, up to 50% suffer some form of psychological morbidity, which can be enduring. Given this impact and the possible deleterious effects socially, psychologically and on future pregnancies, it is important to understand how wellbeing can be enhanced over time. The objective of the research was to determine predictors of higher mental wellbeing amongst women 13-months post-miscarriage, to include health locus of control, coping style, and resilience.

Method: Forty-nine women participated in a 13-month prospective study, with assessment by standardised questionnaires including: Warwick-Edinburgh Mental Wellbeing Scale (Tennant et al. 2007); Multidimensional Health Locus of Control Scale (Wallston et al. 1978); Connor Davidson Resilience Scale (Connor and Davidson 2003) and Coping Style Questionnaire (Endler and Parker 1990) at baseline, 6 and 13-months postmiscarriage. Pearson correlation and multiple-regression were used to determine the best predictors of wellbeing at 13 months.

Results: Multiple regression was carried out with resilience, avoidant, emotion and task focused coping, and explained 51.4% (adjusted R Sq= 46.9%) of the variance in wellbeing, $F(4, 44) = 11.61$, $p < 0.01$. Of the four variables, resilience (beta=0.52, $p < 0.01$) made the largest unique contribution, although avoidant focused coping (beta=-0.24, $p < 0.05$) was also significant.

Conclusion: These findings indicate that higher resilience and less use of avoidant coping styles predict higher mental wellbeing post-miscarriage and may be usefully applied both as a screening tool to identify women at risk of prolonged psychological distress and as an avenue for intervention work.

14:15 - 14:30

A salutogenic perspective of wellness: a comparative study of those with and without miscarriage

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Background: The main aim was to explore the effect of miscarriage on women's psychological wellness using a salutogenic perspective (Antonovsky, 1987). Levels of anxiety, depression and wellbeing were compared across women who experienced miscarriage and a comparative group of matched women who had not. Potential moderators of psychological wellness (perceived social support, health locus of control, resilience and coping style) were identified and explored across each group.

Method: Participants (N= 137, 66 in the Miscarriage Group, 71 in the Comparative Group) completed the Hospital Anxiety and Depression Scale (Zigmond and Snaith 1983; Warwick-Edinburgh Mental Wellbeing Scale (Tennant et al. 2007); Multidimensional Scale of Perceived Social Support (Zimet et al. 1988); Multidimensional Health Locus of Control Scale (Wallston et al. 1978); Connor Davidson Resilience Scale (Connor and Davidson 2003) and Coping Style Questionnaire (Endler and Parker 1990). Differences in the levels of depression, anxiety and wellbeing were analysed by independent samples t-tests, and the effects of the moderators were analysed by Pearson or Spearman correlations.

Results: The Comparative Group had significantly lower levels of anxiety ($p < 0.05$), depression ($p < 0.01$) and higher wellbeing ($p < 0.01$) than the Miscarriage Group. Of the proposed moderators; internal health locus of control, perceived social support (of significant other and family), resilience, and positive coping strategies were significantly associated with psychological wellness.

Conclusion: Findings indicate that the comparative group have higher levels of psychological wellness; positive factors that predict enhanced wellness across both groups were also identified. These have implications for developing future interventions offered to women who miscarry.

14:30 - 14:45

Multiple sclerosis carers' views on their quality of life: an interpretative phenomenological analysis

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Background: Existing evidence suggests that carers of individuals with Multiple Sclerosis (MS) experience a number of unique obstacles within their caregiving role due to the complex and unpredictable nature of the disease. There is limited research explicitly investigating the quality of life (QoL) of MS carers from a qualitative perspective. Therefore, Interpretative Phenomenological Analysis (IPA) was utilised to conduct indepth online interviews with MS carers to explore QoL issues in an MS caregiving context.

Methods: Online asynchronous semi-structured interviews were conducted with six MS informal carers who were recruited using a purposive sampling method. The interviews focused on an exploration of disease specific aspects of QoL that were deemed important to MS carers. Transcripts were analysed using IPA.

Findings: Three super-ordinate themes emerged from the analysis: Difficulties of MS caregiving; dissatisfaction with life; and the consequences of caregiving.

Discussion: These findings illustrate that the QoL of MS carers is substantially compromised, and highlight the need for supportive strategies for this population of carers. Focusing on caregiver gains could particularly complement and support psychosocial interventions as our findings suggested there were also some positive aspects of caregiving that helped enhance QoL.

14:45 - 15:00

Understanding psychological distress and mental well-being in partners of cancer patients: the role of self-compassion

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Background: Self-compassion has been defined as comprising three components: mindfulness, self-kindness and common humanity. Recent studies have shown that self-compassion is an important factor in psychological health. Yet, its role in understanding the mental health of partners of cancer patients has not been studied thus far. In this study we examined to what extent self-compassion is related to psychological distress and mental well-being in partners of cancer patients, and whether self-compassion can add to the understanding of levels of distress/well-being after controlling for other psychological resources (post-traumatic growth, psychological flexibility, mastery and resilience).

Methods: In this cross-sectional study, 203 partners of cancer patients filled in a questionnaire, including demographics, cancer-related variables, psychological distress (HADS), mental well-being (MHC-SF) and self-compassion (SCS-SF). In addition, the following psychological resources were assessed: Posttraumatic growth (PTGI-SF), Resilience (BRS), Psychological flexibility (AAQ-II) and mastery (PMS).

Findings: Consistent with previous research, self-compassion was significantly negatively correlated to distress ($r=-.38$) and positively to well-being ($r=.35$). Self-compassion was associated with caregiver strain ($r=.19$, $p=.007$) but not with any of the demographics or the disease-related characteristics. Multiple regression analyses revealed that self-compassion could significantly improve the prediction of distress ($p=.05$) and nearly significantly ($p=.06$) the prediction of well-being, after controlling for posttraumatic growth, resilience, psychological flexibility, and mastery.

Discussion: Self-compassion appears to be a significant, unique factor in understanding levels of distress in partners of cancer patients and could serve as a clue for future supportive interventions.

15:00 - 15:15

The impact of “coming out” on the psychological wellbeing of British Pakistanis with same-sex attraction

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Background: The relationship between individuals with same-sex attraction (SSA) and poor psychological wellbeing is well-known. Whilst acceptance of sexual identity is assumed to promote psychological functioning, this may be more difficult amongst BAME populations for whom SSA is culturally taboo and highly stigmatised. This study examines British Pakistanis reporting SSA and its impact on psychological wellbeing and quality of life.

Methods: A qualitative, mixed-modal, design was employed using purposive and snowball sampling to recruit from this “hidden” population. Twenty British Pakistanis with SSA (10 men, 10 women) aged between 18-43, from London, Midlands, and Scotland participated via online and personal interviews. Data was analysed using thematic analysis.

Findings: Respondents largely reported being “closeted” due to fears of social ostracisation, exposure, and family rejection. Maintaining familial social support was paramount and a reason for hiding their/not engaging in same-sex behaviour (SSB). Despite pressures and expectations of heterosexual marriage, more “lesbians” stated being in monogamous gay relationships, whilst “gay” men reported more fleeting same-sex encounters. Psychological dissonance was clear with respondents dissociating identity from behaviour and reporting isolation, suicide ideation, self-harm, feeling trapped, and self-hatred.

Discussion: As respondents felt a “gay lifestyle/identity” did not accord with their ethno-cultural background, they felt unable/unwilling to access referral services. This has implications in psychological interventions based on acknowledgement and acceptance of behaviour/identity. The social support structures in collectivist cultures have implications for psychologists in managing mental health needs of BAME LGBT and being mindful of the patients own self-concept and internalisation of their behaviour.

15:15 - 15:30

Validation of the English version of the Scale for Psychosocial Factors in Food Allergy (SPS-FA)

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Background: The Scale for Psychosocial Factors in Food Allergy (SPS-FA) is based on a biopsychosocial model of health and was developed and validated in Chile to measure interactions between the carer, child and the environment and how that might impact on the carer and food allergy-related symptoms in the child. We sought to validate this scale in an English speaking population and explore its relationship with parental quality of life (QoL).

Methods: Parents (n=434) from the general population in the UK, who had children with a clinical diagnosis of food allergy, completed the SPS-FA and validated scales on food allergy specific parental QoL (FAQLPB), parental self-efficacy in food allergy management (FASE-P) and their general mental health (GHQ12).

Findings: The SPS-FA had moderate to good internal consistency (Cronbach's alphas for overall scale = .86 and sub-scales of parent/child QoL = .82; conflict=.61; social impact=.80). Higher scores on the SPS-FA significantly correlated with poorer parental QoL, self-efficacy and mental health. All predictors explained 59% of the variance in parental QoL with SPS-FA the biggest single predictor (beta=.50).

Discussion: The SPS-FA is a valid scale for use in the UK and provides a holistic view of the impact of food allergy on the family. In conjunction with health-related QoL measures, it can be used by health care practitioners to target care for patients. It will also enable the development and evaluation of psychological interventions for specific areas of need in the improvement of food allergy management and quality of life.

Delivering healthcare services to meet patients' needs

14:00 - 15:30 | ROOM 10

14:00 - 14:15

Testing a theory of clinic attendance behaviour among young adults with type 1 diabetes

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Background: Clinic non-attendance is common among young adults with type 1 diabetes, a group at risk of diabetes-related and psychosocial problems. An in-depth understanding of the factors contributing to clinic attendance was needed to inform intervention development. The aim of this study was to test a theory of clinic attendance, developed in previous studies, in an international sample of young adults with type 1 diabetes.

Methods: Young adults (n = 154), with type 1 diabetes and aged between 18 and 30 years, completed a questionnaire which was compiled based on the theory of clinic attendance. Structural Equation Modelling and moderation analyses were used to analyse the data.

Results: In line with the theory of clinic attendance, good relationships between young adults and service providers predicted higher levels of engagement, informal contact with the diabetes clinic (e.g. by telephone), and attendance rates among young adults. Gender and treatment modality were the only additional variables which explained clinic attendance behaviour. Satisfaction with the clinic was important in relation to clinic attendance among young adults who were less engaged but only predicted clinic attendance among young adults who had a good relationship with service providers.

Conclusion: Interventions to improve clinic attendance behaviour should prioritise the development of relationships between young adults and service providers. Addressing issues related to relationship development will benefit young adults and service providers. Future intervention research based on our theory of clinic attendance will provide further insights into the role of the diabetes clinic in **supporting young adults'** self-management.

14:15 - 14:30

Choice, communication and relaxation: co-designing patient-centred breast diagnostic services

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Background: Barriers to accessing breast diagnostic services can delay help-seeking while the clinic environment and processes can increase patient anxiety. Meeting future demands whilst delivering excellent care requires radical service review. We explore patients' experiences of diagnostic pathways and patients' and clinical staff's ideas for patient-centred redesign.

Methods: We used a qualitative co-design approach comprising 13 patient focus groups and 13 patient interviews with a total of 100 patients. Discussions were audio recorded and transcribed verbatim. Thematic analysis was used to answer the question "How can diagnostic services be redesigned to enhance patients' experiences?". Clinical staff developed the themes into a new model of care.

Findings: Three themes were found. 'Letting patients choose what works' is about providing options so patients can choose how they access the clinic and get their test results. This included a nurse-led helpline or triage clinic and same day results. 'Being more informed' is about patients wanting more informative and empathetic communication from the clinic about waits, organisation of tests and how to deal with any future symptoms. 'Feeling able to relax' is about how the clinic environment could be redesigned to reduce anxiety and allow access to holistic health services whilst waiting.

Discussion: This research provides insight into how to promote behaviour change in accessing the diagnostic service, improving patient health outcomes and reducing patient anxiety, whilst enhancing patient experience. The results were used in a clinical staff workshop to redesign services around the needs of patients.

14:30 - 14:45

Psychosocial mechanisms underpinning PROMs in clinical practice for pain: a realist review and theoretical framework

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³Back2Health, United Kingdom

Background: The theoretical basis underpinning the use of Patient Reported Outcome Measures (PROMs) in clinical practice remains underdeveloped; research has tended to focused on the impact PROMs may have in clinical practice rather than the psychosocial mechanisms underpinning any effects. This realist review aimed to identify the psychosocial processes by which PROMs might influence health outcomes when used in routine clinical practice for non-malignant pain.

Methods: A realist review was conducted examining reviews, letter, editorials, commentaries and discussion articles to identify theories and less formal ideas concerning how PROMs might work in routine clinical practice. All text from papers was coded inductively with codes then aggregated to create themes; this permitted the development of a preliminary conceptual explanation of the processes by which clinical **applications of PROMs might impact patients' health.**

Findings: Sixty-one papers were identified as relevant. The review suggests that PROMs may affect patients **through multiple processes: increasing clinicians' knowledge of patients**, facilitating patient-doctor interaction, enabling patient-centered care, monitoring, informing strategies to improve care, enhancing therapeutic relationships, improving patient satisfaction, and encouraging positive patient health behaviour. Factors which **moderate clinicians' use of PROMs were also identified.**

Discussion: The processes identified through the review tended to focus on clinical processes with little attention to psychological processes. To address this limitation, we then reviewed the findings in relation to formal psychological theories. We thus developed a novel theoretical framework depicting the multiple components of PROMs within routine clinical practice and specifying hypothesised outcomes, mechanisms and parameters.

14:45 - 15:00

General practitioners' perspectives on prostate cancer patients' discharge from secondary care to primary care

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¹University of East London, United Kingdom

²Whipps Cross Hospital, United Kingdom

Background: Survival times for prostate cancer have increased substantially meaning more survivors will be discharged to GP services. There is a need for a greater focus on recovery, health and well-being after treatment and for planning a pathway of follow-up. In order to address these, the transition from hospital to primary care must be managed effectively. We aimed to describe and analyse the preparedness, concerns and experiences of GPs in relation to their role.

Methods: 20 telephone interviews were conducted to explore GPs' perspectives and views on the role of primary care in prostate cancer follow-up. They were audio-recorded and transcribed. An inductive thematic analysis was employed.

Findings: Participants described their current role in follow-up pathway, a number of challenges and barriers in assuming this role and potential ways to resolve these and improve their involvement. GPs had reservations about workload, lack of resources, expertise and communication with hospitals.

Discussion: Primary care has a significant role in providing follow-up care for prostate cancer survivors, and steps need to be taken to address the barriers identified by this study. GPs recommended better information, additional training and quicker access to specialists. These improvements would help GPs to provide better services to, and improve the experience of, patients. Future research should identify models of best practice to make the process of transferring care from secondary to primary teams a simple and straightforward task for patients and GPs and to inform the development of policy and practice in relation to discharge to community care.

15:00 - 15:15

Transition to adult care in survivors of childhood cancer: a review of psychological obstacles

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Background: Transition from paediatric to adult care is an important step for many childhood cancer survivors when they reach adult age. Various barriers have been recognised on the patient/survivor, provider and health system level. Knowledge about cancer, treatment and the adult care system, or readiness to assume responsibility have been acknowledged as important aspects for successful transition. Other psychological aspects might be important barriers to successful transition. We aimed to summarise the findings on psychological obstacles preventing successful transition to adult care in childhood cancer survivors.

Methods: We searched PubMed without language restrictions including all years up to 5 August 2015. We used search terms addressing childhood cancer, transition, and psychosocial aspects.

Findings: We found 213 articles fitting the search terms, and excluded 175 and 30 articles after screening titles/abstracts and full texts, respectively. We extracted the information on psychological obstacles for transition from 8 articles (6 qualitative and 2 mixed-methods studies). The following obstacles for successful transition to adult care were reported: worry about leaving paediatric oncology, avoidance of bad memories (anxiety-provoking health-related information or reminders about cancer history), wanting to be normal and leaving cancer behind, fear and anxiety of adverse outcomes, lack of self-advocacy and communication skills.

Discussion: Psychological aspects are of great importance in addition to knowledge, availability of a competent adult care provider, insurance and other system related aspects. Transition programmes should aim to address psychological obstacles at an early stage of the transition process to guide survivors successfully to long-term follow-up in adult care.

15:15 - 15:30

Pre-operative psychological interventions' impact on post-surgical pain, affect and hospital stay: systematic review and meta-analysis

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Background: Psychological preparation for surgery was found to improve post-operative outcomes in a 1993 meta-analysis. Since then, many more studies have been completed and hospital procedures have developed. The present study aimed to examine research evaluating the impact of pre-operative psychological interventions on post-surgical pain, negative affect and hospital stay length.

Methods: This was a systematic review and meta-analysis conducted using Cochrane methodology. Seven electronic databases were searched: CENTRAL, MEDLINE, PsycINFO, EMBASE, CINAHL, Dissertation Abstracts and Web of Science. Included studies were randomised controlled trials of adults undergoing elective surgery under general anaesthesia. Trials evaluated pre-operative psychological interventions: procedural information; sensory information; behavioural instruction; cognitive interventions; relaxation; hypnosis; emotion-focused interventions. Outcomes were post-surgical pain, negative affect and hospital stay length. Random effects meta-analyses were conducted to combine data across studies for each outcome.

Findings: Searches identified 5116 papers from which 105 studies were included. Studies measured the outcomes pain (61 studies), negative affect (49), and hospital stay (58). Data were available for meta-analysis in 38 (pain), 31 (negative affect) and 36 (hospital stay) studies. When considering any type of intervention, there was evidence that interventions improved pain (Hedges' $g=-0.20$, 95% CI=-0.35 to -0.06), negative affect (Hedges' $g=-0.35$, 95% CI=-0.54 to -0.16) and hospital stay (mean difference=-0.52 days, 95% CI=-0.82 to -0.22). High levels of heterogeneity were found, necessitating exploratory secondary analysis.

Discussion: Pre-operative psychological interventions improved post-surgical pain, affect and hospital stay length. However, caution is required in interpreting findings because of considerable heterogeneity in surgery types and interventions.

eHealth and mHealth 1

15:30 - 17:00

15:30 - 17:00

Therapeutic affordances and outcomes of online support groups: an online study of women with endometriosis

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Background: The Internet has provided women living with endometriosis new opportunities to seek support online. Online support groups may provide a range of therapeutic affordances which may benefit these women, therefore the present study seeks to explore these affordances.

Methods: Sixty-nine women (aged 19 to 50 years; Mean = 34.2; 65.2% UK; 21.7% USA) participated in an online interview exploring online support group use. Participants had been using online support groups on average 2 years and 4 months (Range = 1 month to 14 years, 9 months). Responses were analysed using inductive thematic analysis.

Findings: The analysis revealed 4 therapeutic affordances related to online support group use; i) “**connection**” i.e. the ability to connect in order to support each other, exchange advice, and to try to overcome feelings of loneliness; ii) “**exploration**” i.e. the ability to look for information, learn and bolster their knowledge; iii) “**narration**” i.e. the ability to share their experiences, as well as read about the experiences of others; and iv) “**self-presentation**” i.e. the ability to manage how they present themselves online. The associated outcomes of use were predominantly positive, such as reassurance and improved coping, with few negative aspects arising from online support group use.

Discussion: The findings provide partial support for the SCENA model (Self-presentation, Connection, Exploration, Narration and Adaptation) proposed by Merolli et al., (2014) as ‘Adaptation’ was not revealed by participant responses. By considering the therapeutic affordances of online support group use, we can further understand the needs of women living with endometriosis.

15:30 - 17:00

Web-based computer-tailoring to improve practice nurses' adherence to smoking cessation guidelines: protocol for an RCT

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Background: Dutch practice nurses' adherence to smoking cessation guidelines could be improved by providing them personal advice through a web-based computer-tailored program. We describe the development of such a program, the design of an effectiveness trial, and the results of usability tests.

Methods: A web-based program was developed, consisting of e-learning modules with personal advice (i.e. tailored on psychosocial determinants), an online forum, project information, background information, frequently asked questions and a counselling checklist. Five experts (heuristic evaluation) and five practice nurses (think aloud method) tested the program's usability. The effectiveness trial compares practice nurses in an intervention group to a control group (i.e. full versus limited access to the program) after six and twelve months and also assesses smoking behaviour of counselled patients.

Findings: Experts and practice nurses reported similar usability issues: modules contained too much text; program navigation was complex; 'print' and 'save' functions did not work; and a visual analogue scale was unclear. Improvements were made by a) adding more images to modules with a lot of text; b) adding 'return-to-home' buttons; c) providing instructions for printing and saving; and d) changing the visual analogue scale to a numerical scale.

Discussion: By adapting the content and design of the program based on feedback of experts and practice nurses, the program's usability was optimized. The randomised effectiveness trial will prove whether a web-based computer-tailored program can enhance practice nurses' adherence to smoking cessation guidelines adherence and hence improve the quality of smoking cessation care in Dutch general practices.

15:30 - 17:00

WebParc - Evaluation of a website for parents of children with Juvenile Idiopathic Arthritis (JIA)

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Background: Having a child with JIA presents parents with many challenges. Interventions that offer parents support to help **them manage their child's illness are therefore important; however attending face-to-face sessions may be difficult to fit into their lives and staff resources may be scarce.**

The aim of this trial is to evaluate the benefits to parents of having access to a specifically designed website for **parents of children with JIA called "WebParc", in combination with standard clinical care when compared to standard care alone.**

Methods & Design: Design: Multi-centered randomised controlled trial (RCT)

Participants: Parents of approximately 200 children with newly diagnosed JIA attending rheumatology clinics.

Measures: Measures include parenting stress, parent self-efficacy in managing their child's illness, parent mood, child health related quality of life, and website usage statistics.

Randomisation: Once baseline questionnaires are received, parents will be randomised (by household) to either the intervention arm (access to website and standard care) or the control arm (standard care alone).

Expected results: The primary outcome is parenting stress, and we expect to see a reduction in stress in the intervention group. We also predict that parent self-efficacy in managing their child's illness will improve.

Current stage of work: Currently setting up NHS sites for recruitment and have started recruitment of participants for the trial across England (UK).

Discussion: The trial evaluates the effectiveness of the website when compared to standard care alone, and will emphasise a need for additional support for parents of children with a chronic illness like JIA.

15:30 - 17:00

Ecological momentary assessment of depression, anxiety and coping using smartphones after mild stroke

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Background: The aim of the study is to assess daily life depression and anxiety symptoms, and coping strategies with the Ecological Momentary Assessment method over a 4-month period in early discharged mild stroke patients.

Methods: Fifty early discharged (<2 weeks after admission) patients with a first ever mild stroke (NIHSS<6) presenting no functional impairment (Rankin score<3) are planned to complete standard depression (MADRS, BDI-II, HADS) and anxiety (HARS, HADS) measures at hospital discharge (T1), at 2 months (T2) and at 4 months after stroke (T3). At home, patients use smartphones configured with the Ad Scientiam ResearchR program. Five brief electronic interviews per day are completed during seven days at T1, T2 and T3. DSM-IVTR depression symptoms (happiness, sadness, anhedonia, fatigue, attention trouble and pessimism), and anxiety symptoms (worry, agitation, physical tension, and irritability) as well as coping strategies with daily stressors are assessed during these interviews.

Statistical analysis is performed using Hierarchical Linear and Nonlinear Modeling. Means-as-outcomes and intercept-and-slopes models are used.

Expected results: Results will describe the associations of daily depression and anxiety symptoms, and daily coping at T1, T2 and T3 with depression and anxiety scores at T1, T2 and T3. Thus, predictors of later depression and anxiety will be identified from the early stages of stroke.

Current stage of the work: Patients' recruitment in progress.

Discussion: Findings about the evolution of depression and anxiety symptoms following a stroke and their relations with coping in daily life could lead to improve diagnosis and treatment for at-risk patients.

15:30 - 17:00

Acceptability of technology that detects fatigue while driving

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Background: Fatigue is one of the main reasons for road accidents. New technologies that can detect fatigue while driving have emerged, yet public acceptance is unclear. The present work examined degree of public acceptance of fatigue-detecting technologies for lay and professional drivers and examined predictors to acceptance.

Methods: Participants were 200 drivers who filled an online questionnaire tapping acceptance of the technology for lay and professional drivers as the dependent variable. Predictors were attitudes towards technology, perceived efficacy of technology, risk perception of fatigue in driving as well as demographic variables of age, gender and education. Design was cross-sectional.

Findings: Acceptability of fatigue-detecting technology was significantly higher for professional drivers (92%) than for lay drivers (60% who responded "acceptable" and "highly acceptable"). Predictors of acceptability were different for professional and lay drivers; perceived risk was the strongest predictor for professional drivers and attitudes towards technology was the strongest predictor for lay drivers. Women and younger drivers were more accepting of the fatigue-detecting technologies.

Discussion: Public acceptance for the fatigue-detecting technologies is high, especially for professional drivers. These results even pave the way for legislating such technologies among professional drivers and carrying awareness campaigns for adoption among lay drivers. The difference in acceptability of fatigue detecting while driving is attributed to more severe consequences of accidents in the case of professional drivers (number of riders, size of vehicle).

15:30 - 17:00

Can a text message programme modify illness and medication beliefs in people with inflammatory disease?

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Background: Tailoring text messages based on patients' illness and medication beliefs has shown significant improvements in medication adherence, however this has not been tested within the IBD population. Unintentional and intentional medication adherence is problematic, therefore this research will establish an understanding of the efficacy of text messages designed to modify illness and medication beliefs associated with adherence.

Methods: An evaluation study was conducted with a sample of 32 IBD patients within the UK. Medication beliefs and illness perception scores determined the set of personalised daily text messages participants received over a duration of 12 weeks. A bank of 112 messages were developed. Self-reported medication adherence was measured pre and post evaluation.

Findings: Self-reported medication adherence increased post intervention, a significant increase in treatment control $t(31) = -6.04$, $p < .001$ and coherence $t(31) = -5.63$, $p < .001$ and a decreased level of concern surrounding their condition was evident. Medication concerns decreased, this difference was statistically significant, $t(31) = 2.16$, $p < .038$, interestingly medication necessity increased by 66%.

Discussion: Tailoring text messages can improve medication adherence in patients with IBD. Addressing patients preconceived medication concerns and illness beliefs associated with their condition can increase medication adherence which will not only improve patient outcomes but save a significant amount of money within the NHS.

15:30 - 17:00

A B C digital heart manual: lessons learned

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The Heart Manual (HM) NHS Lothian, is the UK's leading home-based cardiac rehabilitation programme evidenced by three RCTs. The HM clinical specialists provide training for health professionals (HPs) and support for sustained programme implementation across NHS and internationally. The team's collaboration extends to other conditions, cancer, stroke and heart failure. The latest challenge was to steer the transition of the entire HM to a digital platform. This resource had to be fit for purpose within considerable constraints facing NHS ehealth.

Challenges: There is disconnect between scope for digital developers, researchers and what can be implemented across the NHS. Ehealth strategies for NHS have not been fully achieved. WiFi in wards is not the norm, or if available may only be via NHS owned devices. Restrictions exist for social media (Facebook, Skype) and video streaming (Youtube).

A health 'digital divide' exists perceivably between older and younger users. Regarding choice of format (digital or paper) there is discrepancy between HPs' perceived preferences of patients and those articulated by the patients.

Methods: Adopting an agile development approach the team worked closely with ehealth experts, patients and HPs to finalise a version taking account of known constraints and those identified via thematic analysis.

Solutions: The award winning resource can be used across the NHS. Its introduction does not rely on the presence of WiFi on wards. HPs are encouraged to offer choice and avoid ageist assumptions on patient preference.

Conclusion: A pragmatic approach led to users generating and implementing solutions to digital engagement barriers.

Lifestyle, health behaviours, and resilience factors

15:30 - 17:00

15:30 - 17:00

Does personality matter for physical activity and sport involvement?

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The promotion of physical activity (PA) has mainly based its effectiveness on the adoption of behavior change theories that scarcely consider the impact of personality dispositions. The present study aims to investigate the relationship between personality traits and involvement in physical activity and sports. In particular, it aims to evaluate personality individual differences in athletes and non-athletes, team-sport and individual-sport athletes, male and female athletes. A sample of 1555 participants (1347 athletes; 208 non-athletes) took part in this research. Participants filled out a questionnaire assessing socio-demographics and sport related information. Personality traits were assessed through a short list of adjectives referring to the Big Five model.

One-way multivariate analysis of covariance (MANCOVA) and separate analysis of covariance (ANCOVA) were performed to estimate main effects and interaction effects. Results showed that athletes score higher than non-athletes in each of the Big Five (energy, agreeableness, conscientiousness, emotion stability and openness) [$F(10,3100)=18.974$, $p<0.001$, $\eta^2=0.058$]. Interaction analysis suggested that gender might moderate the differences in energy [$F(2,553)=4.010$; $p<.05$; $\eta^2=.014$] and conscientiousness [$F(2,553)=4.740$; $p<.01$; $\eta^2=.017$]. Further results indicated that individual sport athletes tend to be more conscientious, more open minded but less emotional stable than team sport athletes [$F(5,1340)=10.290$, $p<0.001$, $\eta^2=0.037$].

Current findings may help to clarify personal determinants that are related to the tendency to be involved in physical activities as well as personality risk factors associated to physical inactivity. They might be useful to outline focused preventive PA programs tailored on personality individual differences.

15:30 - 17:00

Spontaneous self-concept in successful weight losers – a pluralist qualitative study

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Background: People with overweight/obesity might express negative self-perceptions; moreover, the weight loss process often has an impact on a domain of self-concept: body image. Despite the vast literature on selfconcept in adolescence, little research has been done with adults. Thus, this study aims to explore the spontaneous self-concept in adults who have done a successful weight loss.

Methods: Thirty men and women who achieved a successful weight loss (a minimum loss of 7% of the initial weight and maintenance of at least 12 months) were interviewed. The interviews were transcribed and analysed both through content and thematic analysis (pluralistic analysis), by a jury of two psychologists. A quantitative exploration of the emergent categories' was performed.

Findings: An inter-rater agreement (Cohen's k) was satisfactory (0.734). The analysis revealed themes such as the 1) physical self-concept (entailing positive, negative and ambivalent/neutral valences), 2) investment in one's appearance and body, 3) interpersonal self-concept, with positive and negative ambits, 4) global self-esteem, and 5) explicit personality self-concept (comprehending positive and negative aspects).

Discussion: Exploring characteristics referent to one's knowledge of the self in a weight loss background increases information to a lacking literature. Theoretically, this understanding will shed a light on how different constructs (e.g. body image, self-esteem, explicit personality self-concept), usually researched apart form each other, have emerged together from the narrative of the adults interviewed.

Clinically, this study may contribute to a greater knowledge about healthier self-perceptions of people how have undergone/performed a significant body/weight change.

15:30 - 17:00

Effects of beliefs and coping on resilience and stress responses in Japanese nurses

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Backgrounds: Recently, medical treatment has improved, but patients are getting older, symptoms are getting serious. Japanese nurses are doing different jobs, including supporting patients, reducing hospitalizations, and educating and guiding junior nurses. Therefore, they experience many stresses leading to mental and physical exhaustion that result in nurses leaving their jobs. This study examined correlations among beliefs, coping, resilience, and stress responses. Furthermore, support required for improving nurse's resilience is discussed.

Methods: Participants were full-time nurses working in hospitals. Correlations among beliefs, coping, resilience, and stress responses in nurses were examined through path analysis using Covariance Structure Analysis. Collected data were analyzed using SPSS 22.0 and AMOS 22.0.

Results: Beliefs had a significant negative correlation with resilience, whereas they had a significant positive correlation with stress responses. Also, positive coping had a significant positive correlation with resilience, whereas negative coping had a significant negative correlation with resilience. Moreover, negative coping had a significant positive correlation with stress responses. Furthermore, positive coping did not show a significant path to stress responses. In addition, resilience had a significant negative correlation with stress responses ($\chi^2 = .384$, $df = 3$, $p = .943$, $GFI=1.000$, $AGFI=.999$, $NFI=1.000$, $CFI=1.000$, $RMSEA=.000$).

Discussion: Beliefs might make it difficult to flexibly adapt oneself to different conditions and values, which could lower resilience. It is suggested that changes to beliefs and strengthening resilience would decrease stress responses.

15:30 - 17:00

Personality predictors of health behaviours as means of affective regulation among Slovak health professionals

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Many health professionals regularly experience severe stress during their practice. The way they cope with the resulting emotions may create additional health concerns. The aim of this study is to assess the relationships between Big Five personality traits, sensation seeking, and health behaviours as means of affective regulation among health professionals.

Data were collected in 2010 among emergency medical dispatchers, paramedics and nurses across Slovakia (N=206; 22.3% males; mean age 39.4±9.0 years). The Big Five traits, sensation seeking and affective regulation styles (alcohol use, smoking, and physical exercise) were measured by Ten Item Personality Measure (TIPI), Brief Sensation Seeking Scale (BSSS), and Measure of Affect Regulation Styles (MARS), respectively. The associations between the personality traits and health behaviours were calculated using **Pearson's correlation coefficient**.

No associations between Big Five traits and health behaviours were found, except for openness to experience, associated with alcohol use ($r=.15$; $p<0.05$) and physical exercise ($r=.25$; $p<0.001$). Sensation seeking was **positively associated with all three behaviours (r's between .22 and .29; all p-values under 0.01)** but within the sub-scales, the relationships varied widely by particular behaviour.

Sensation seeking was associated with both positive and harmful health behaviours as means of affective regulation. This suggests that highly sensation-seeking individuals might benefit from health promotion activities that provide greater arousal, in order to compensate for the pleasure derived from the use of psychoactive substances. However, further studies need to explore this, and confirm the causal nature of the given relationships in the first place.

15:30 - 17:00

Procrastination, discounting and personality traits relations to health behaviour

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Background: Health procrastination e.g., delayed or postponed visits to doctor, and avoidance of primary and secondary prevention, is a problem with serious consequences for both, a society and an individual. These behaviours result into number of issues: untreated illnesses, which demand longer and more complicated medical care, worse prognosis for recovery, higher costs of treatment, etc. Delay and postponing can be also linked to the health behaviour habits. Two most common explanations of procrastination are discounting and personality traits, while personality traits explain health behaviour. The goal of this study is to explore relations between procrastination, discounting, personality traits and health behaviour and to test, which of abovementioned concepts better predicts health behaviour.

Method: The size of the sample $n=275$, the data were obtained using Big Five Inventory (John & Srivastava, 1999), Pure Procrastination Scale (Steel, 2010), as well as discounting questions and health behaviour scale designed for this study. Multiple regression was conducted to determine the best linear combination of procrastination, discounting and personality traits for predicting health behaviour.

Findings: Conscientiousness, agreeableness, extraversion, openness, neuroticism, procrastination, and discounting significantly predicted health behaviour, $F(7,267) = 15.64$, $p < .001$, with all variables except openness significantly contributing to the prediction. Conscientiousness, agreeableness and procrastination contributed most to predicting health behaviour.

Discussion: This study confirms the role of personality traits in health behaviour. Procrastination can partly predict health behaviour – higher level of procrastination is related to lower level of health behaviour.

15:30 - 17:00

Attitudes towards risky driving in a sample of traffic offenders: does personality profile matter?

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Personality can influence how individuals approach and behave in driving situations. Certain personality traits may determine drivers' **specific attitudes about risky driving**. But research show that combination of few personality traits together better explains risky driving. The relationship between attitudes towards risky driving and personality profile is not well studied, especially in a sample of traffic offenders. Therefore, the aim of this study is to identify personality profiles of traffic offenders and according to them evaluate if there are any differences in expression of attitudes towards risky driving.

688 traffic offenders (611 males and 72 females) who had lost driving license participated in this study. Personality traits were measured using Big Five Inventory (John, Naumann, Soto, 2008), Barratt impulsiveness (Patton, Stanford, Barratt, 1995) and Aggression scales (Markšaitytė, Endriulaitienė, 2010). Risky driving attitudes were measured using Risk-taking attitudes for drivers scale (Iversen, Rundmo, 2004).

The results have shown that there are two different personality profiles. Traffic offenders (males and females) with high-risk personality profile have higher expression of impulsivity, aggression and neuroticism, but with low-risk personality profile there are higher expression of extraversion, agreeableness, conscientiousness and openness. Males and females with high-risk personality profile have more risky attitudes towards careless driving of others, rule violations and speeding, as well as risky attitudes towards drinking and driving.

The results imply that traffic offenders with high-risk personality profile are emotionally unstable, spontaneous drivers, who follow their impulses in an unrepressed manner because of personality profile as well as risky driving attitude.

15:30 - 17:00

Psychological inflexibility, externalizing and internalizing problems and satisfaction with life in children and adolescents

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Background: The Avoidance and Fusion Questionnaire for Youth (AFQ-Y8, Greco, Lambert, & Baer, 2008) measures the psychological inflexibility in childhood. Although the questionnaire is a well-known tool in clinical practice, its psychometric properties have not been widely investigated, especially not among school-aged, healthy children. The aim of the present study was to assess the psychometric properties of AFQ-Y8.

Methods: We tested the measurement model of AFQ-Y8 on a representative sample (N=1572) of healthy, school-aged children and adolescents (mean age=15.39 ys, SD= 2.26 ys). We applied confirmatory factor analysis and used BFQ-C (Barbaranelli, Caprara, Rabasca, Pastorelli, 2003), for assessing the Big Five factors in youth, the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1998), measuring externalizing and internalizing problems, along with the Cantril's ladder (Cantril, 1965) for assessing the children's satisfaction with life.

Findings: Our results confirmed the single-factor structure of AFQ-Y8. The reliability of the questionnaire was good. Experiential avoidance showed positive relation to emotional instability, and was negatively related to extraversion and conscientiousness. Experiential avoidance had positive relationship with internalizing and externalizing problems, as well. Satisfaction with life had negative relationship with experiential avoidance.

Discussion: AFQ-Y8 proved to be a valid and reliable measure in healthy young adolescents. Based on previous findings avoidance is related to internalizing psychopathologies. We found that experiential avoidance was also linked to externalizing problems, highlighting that emotion dysregulation is an important feature of externalizing symptoms. However, more research should be conducted to analyze the factors beyond experiential avoidance and psychopathological and health related problems.

Assessing and combating stress

15:30 - 17:00

15:30 - 17:00

DIMENSIONS underlying the Brief COPE in surgical patients: psychometric construct validation of new scales

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Background: The Brief COPE is a 28-item measure of coping used widely in health research, including studies in surgical settings. However, its psychometric properties have not been validated with a sample of surgical patients and scores have been interpreted with a general model proposed by the original author. Evaluation of the Brief COPE's factor structure was conducted to present psychometrically robust scales that inform use in the surgical setting.

Methods: Brief COPE data from 606 patients awaiting surgery were analysed using a priori models from previous research and confirmatory factor analysis. These models failed to converge due to empirical underidentification. Exploratory factor analysis (EFA) with principal axis extraction and parallel analysis was used to identify alternative psychometric models, which were interpreted alongside theory to identify a suitable measurement model for further research.

Findings: EFA identified a psychometrically robust measurement model for Brief COPE responses, with seven factors and no cross-loadings or items that loaded below .32. Interpretation of loadings identified the latent variables as Approach coping (8 items), Avoidant coping (8 items), Use of social support (4 items), Humour (2 items), Substance-use (2 items), Religion (2 items) and Self-distraction (2 items). All scales also demonstrated high internal reliabilities.

Discussion: A psychometrically valid method of aggregating Brief COPE responses into scales is presented to inform research on coping in surgical patients. The proposed model is discussed alongside psychological theories of coping, and the measurement model is compared with those validated in other samples, such as adults with minor traumatic brain injury.

15:30 - 17:00

Validity and feasibility of a nurses' coping questionnaire for its use in ecological momentary assessment

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Background: Easy measures are needed in EMA. We explain the construction, validity and feasibility of a 10- item coping questionnaire, based on COPE, following a structure of one item for each strategy, grouped on four dimensions: problem-focused (active coping and planning); emotion-focused (acceptance, reinterpretation and relaxation); seeking for social support (emotional and instrumental support); and disengagement (denial, venting, and self-blame). **Method:** Three experts selected the items, according to its representativeness and applicability to EMA. Complementary data was obtained from 85 nursing students, who filled out two coping questionnaires, the COPE and the CRI-A. **Experts' proposal was readjusted based on factorial loadings and correlation with other coping questionnaire.** 10 hospital ward nurses completed the final version of the questionnaire using a dichotomous scale (yes/not), during five working days, in a smartphone programmed with random alarms. They responded in relation to the coping used to deal with the task they were undergoing when the alarm rang.

Findings: 5 nurses used coping strategies in between 20% and 40% of the situations, while 4 used **strategies in between 90% and 100% of the situations, and one of them didn't cope any time.** When coping, all of them reported mostly the use of one unique strategy, and in less than 3 of the maximum of 28 reports for each nurse, two combined strategies were reported. Problem-focused and emotion-focused strategies were the most frequently used, and disengagement the less.

Discussion: results from both studies show that this questionnaire could be valid and feasible for use in EMA.

15:30 - 17:00

The relationship between hardiness, coping with stress and psychosocial adjustment in adult psychology students

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The problem addressed by this study was to explore the effect of hardiness and coping strategies on psychosocial adjustment in adult psychology students. The aim of the present study was to establish connections between hardiness, coping behavior and psychosocial adjustment in adult students. The sample included 105 psychology students (age M=37.7; men=18; women=87). To collect the data, the Hardiness Scale, the Ways of Coping Questionnaire and the Psychosocial Adjustment questionnaire were used. We applied Pearson, dispersion and Stepwise Multiple Regression analyses for data analysis.

The results of this study were summarized as follows. The mean scores of all investigated characteristics were within norm. We found no significant differences in adjustment and all of its components between the subgroups with different scores of hardiness. However, there were significant differences in the use of self-control, seeking social support, accepting responsibility and positive reappraisal. There was found a model predicting several components of psychosocial adjustment: acceptance of others (commitment and self-controlling); emotional comfort (accepting responsibility); escapism (accepting responsibility and commitment). There were two coping strategies predicting hardiness: seeking social support and positive reappraisal. The major limitations of this study were imbalance on the sex criterion within the sample and the lack of control group for comparative analysis.

We are planning to use the research results as the empirical base for creating supportive training interventions that will increase students' level of adjustment to their future profession. It could be done through hardiness training and increasing student's ability to use positive coping strategies.

15:30 - 17:00

The ABI-MS: a coping inventory focusing on medical settings

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Background: Medical treatment can be stressful for patients, which could negatively affect wound healing and adjustment during recovery. Hence, the assessment of how individuals cope with stressful medical procedures seems important. This study reports on the construction and empirical evaluation of a coping inventory focusing on medical settings.

Methods: The ABI-MS, is based on the model of coping modes (Krohne, 1993) and aims to assess vigilant and cognitive avoidant coping in potentially threatening medical scenarios. It is organized as a stimulus-response inventory. To evaluate the factorial structure of the inventory an online survey was used. 471 individuals (345 women, 126 men) with a mean age of 28.4 years participated. After completing demographic questions, they worked on the ABI-MS and related coping questionnaires. Psychometric properties were examined and confirmatory full-information factor analysis based on the item response theory was calculated.

Findings: Four scenarios proved particularly suitable to assess vigilance and cognitive avoidance (venipuncture, wound care of a cut injury, narcosis prior to surgery, and colonoscopy). Each scenario allows forced-choice ratings (true/not true) on four vigilant and four cognitive avoidant strategies, resulting in a total of 32 items. Cronbach's alpha is satisfactory between .74 and .77. To assess convergent validity spearman-rank correlations revealed that the ABI-MS significantly correlates with the physical threat subtest ($r=.426$, $p<.001$) and with the ego threat subtest ($r=.346$, $p<.001$) of the Mainz Coping Inventory. Taken together, the results indicate that the ABI-MS is a reliable and valid instrument to assess vigilant and cognitive avoidant coping on medical settings.

15:30 - 17:00

Comparing effectiveness of heart rate variability biofeedback, mindfulness, and mindfulness-based heart rate variability biofeedback for work place stress reduction: a three-armed randomised controlled trial

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Background: Psychophysiological disorders due to work-related stress continue to be highly costly for health systems and new approaches for stress reduction are much needed. Both heart rate variability-biofeedback (HRV-Bfb) and mindfulness-based interventions (MBI) have been empirically shown to reduce stress. A combination of both methods could produce an even greater improvement of psychophysiological parameters by increasing autonomic regulation through mindfulness. This study compares these three interventions in the work context.

Method: In this three-armed randomized controlled trial (RCT), 60 healthy adults employed in the same organization were randomized to participate in HRV-Bfb, MBI or the wait-list-control-group (WLCG). The WLCG later received a combined training (MBI-HRV-Bfb). Participants trained for 6 weeks. Primary outcomes were psychophysiological parameters of stress: Stress perception, coping, psychological wellbeing, HRV parameters and cortisol. Secondary outcomes were mindfulness, self-compassion and depressive symptoms. Outcomes were assessed at four assessment points.

Expected results: MBI-HRV-Bfb is expected to produce a greater reduction in stress indicators than the singular interventions, which in turn are expected to produce greater stress reduction compared to the WLCG. Preliminary results of the comparison will be discussed as well as the implementation of the interventions in corporate health management.

Current stage of work: The 60 participants were trained and assessed. Data are now being analyzed.

Discussion: This study evaluates a novel approach to stress reduction on an organizational level as well as provides a comparison of two established methods. In addition, it highlights issues and challenges of the implementation of such interventions in corporate health management.

Self-regulation in illness

15:30 - 17:00

15:30 - 17:00

Comparing two models of health behaviour to explain tamoxifen nonadherence in women with breast cancer

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Background: Tamoxifen non-adherence is apparent in up to half of breast cancer survivors and is associated with increased risk of recurrence and reduced quality of life. However, factors contributing to non-adherence are currently poorly understood. This study investigated the predictive validity of the Common Sense Model of Illness Representations (CSM) and the Theory of Planned Behaviour (TPB) in explaining intentional and unintentional non-adherence in a large sample of women prescribed tamoxifen following primary breast cancer.

Methods: 817 women took part in the questionnaire study. Participants were recruited in clinic or online and completed questionnaires assessing illness perceptions, treatment beliefs, adherence, quality of life, social support, distress and the key TPB components. Patients (n=357) in their first year of treatment were sent follow-up questionnaires at three, six and twelve months.

Expected results: Longitudinal data will be analysed using structural equation modelling to identify predictors of non-adherence, as well as mediators and moderators.

Current stage of work: Baseline data were analysed using logistic regression to investigate if the TPB or the CSM successfully predicted non-adherence after controlling for confounders. Patients were classified as nonadherent based on Medication Adherence Rating Scale scores. Both intentional and unintentional nonadherence were best predicted by a combination of TPB and CSM variables. These health behaviour models were better able to predict intentional (R² = 36%) than unintentional non-adherence (R² = 17%).

Discussion: Understanding modifiable predictors of tamoxifen non-adherence will facilitate the development of interventions to support women, with the aim of increasing adherence and improving clinical outcomes.

15:30 - 17:00

Medication non-adherence in hypertension: the role of health literacy, empowerment and medication beliefs

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Background: The goal of the present study is to investigate the underlying factors of non-adherence in hypertension. Based on the Health Empowerment Model, we examined the role of health literacy and empowerment in patients' decisions regarding medication adherence.

Methods: The cross-sectional survey was administered to a sample of patients (n=101) diagnosed with hypertension (65 male, average age: 64). The patients filled in the following questionnaires: MARS-5 (a medication adherence measure), Newest Vital Sign and Judgment Skills Scale (measuring health literacy), Health Empowerment Questionnaire, Adherence Self-Efficacy Scale and Medication Beliefs Questionnaire. The present preliminary results are based on a correlational analysis. The final sample will consist of 200 participants.

Results: There was a significant positive association between participants' judgment skills regarding medication management and adherence ($r=0.267$), but not with functional health literacy. There was a significant positive association between adherence and self-efficacy ($r=0.541$), the meaningfulness subdimension of empowerment ($r=0.265$), and beliefs regarding the necessity of medications ($r=.350$), while there was a negative link with medication concerns ($r=-.428$). Older age was associated with greater level of adherence ($r=0.255$). Beliefs in the necessity of medication taking might be a mediator of this relationship as it showed a positive correlation with age ($r=0.379$).

Discussion: Our preliminary results suggest that exploring patients' health literacy and empowerment alongside their medication beliefs and self-efficacy can provide a deeper understanding of medication nonadherence. The findings can be useful for designing interventions for increasing compliance in hypertension as well as in clinical practice.

15:30 - 17:00

Physiotherapists' fidelity to delivery of a self-determination theory based, group self-management programme: needs supportive communication

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Background: According to self-determination theory (SDT), provider communication may influence **patient's** self-regulation of self-management behaviours. Prior to delivering the SDT based, Self-Management of Osteoarthritis and Low back pain through Activity and Skills (SOLAS) group-based intervention, within the SOLAS cluster randomized controlled feasibility trial (Hurley et al., 2016), physiotherapists were trained to deliver the intervention using needs supportive communication. This study aimed to assess the fidelity of **physiotherapists' delivery of the SOLAS intervention using this needs supportive style overall and between individual physiotherapists.**

Methods: Eight physiotherapists were audio-recorded delivering all six SOLAS intervention classes (n=48). Two raters independently analysed recordings (50%; n=24) using an adapted version of the Health Care Climate Questionnaire (HCCQ). Mean and standard deviations (SD) were computed for the HCCQ. Intra-class correlation coefficients (ICC) evaluated inter-rater reliability. Differences in mean results across classes and between physiotherapists were calculated using linear mixed-effects **modeling**. **Spearman's rank correlation** coefficients assessed the impact the following variables had on fidelity; class size, years qualified, group experience, previous communication training.

Results: Physiotherapists were needs supportive during delivery (mean HCCQ (SD)= 5.4 (0.7)). All physiotherapists (n=8; 100%) demonstrated acceptable fidelity (mean HCCQ>4/7) with variability between them (range=4.5-6.2). Inter-rater agreement was excellent (ICC=0.81). Selected variables did not correlate with needs supportiveness.

Discussion: Physiotherapists were fidelitous to the SOLAS intervention communication style. Fidelity was not affected by class size, years qualified, group experience or previous communication training. The effects of the SOLAS training programme on fidelity, and the evaluation of specific SDT intervention strategies are being undertaken to further explore fidelity.

15:30 - 17:00

From day hospital back to school: identifying conditions for successful school reintegration

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The transition from child and adolescent psychiatric day hospitals back to regular school settings is a potentially challenging transition for patients, their parents, and teachers. Frequently, teachers express feelings of deficient self-efficacy regarding their capability to meet individual needs of a child after discharge in the classroom context. Presumably, such concerns lead to a setback to improvements achieved during day hospital treatments. Therefore, our aims are (1) to understand conditions for successful school-reintegration in the transition from day hospital back to regular schooling experienced by children/adolescents, parents, and teachers and (2) to reveal same-person and across-person associations between self-regulation and self-efficacy on between- and within-person levels.

Taking an everyday life and multi-informant perspective assessment, we implement a smartphone-based diary study. Children, their parents and their teachers rate self-regulation, self-efficacy and daily stressors on 50 consecutive days, starting two weeks before discharge.

We expect to gain insights on the impact of a child's context on its ability to regulate its behavior during that transition phase. In particular, we expect an impact of the teacher's and parent's pedagogical self-efficacy on the child's self-reported self-regulation on a daily basis.

So far we completed the item selection, programmed the web-based experience sampling software and piloted the procedure. The main data collection will start in March 2016.

The obstacles and benefits of a smartphone-based diary study in a sample of children suffering from psychological burden are discussed and considerations for the improvement of a post day hospital intervention are made.

15:30 - 17:00

Perceived autonomy supportiveness of the health care climate and anxiety in sarcoma patients

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Sarcomas are a rare type of solid cancer associated with several negative psychological outcomes, namely emotional distress. According to the Self-Determination Theory, health care climate is vital to promote autonomy that leads to better health and wellbeing.

This study aimed to characterize the perceived autonomy supportiveness of the health care climate and the level of anxiety in patients with sarcoma, in two phases of treatment: 4 (Ph1) and 9 (Ph2) months after the beginning of treatment, as well as socio-demographic and clinical determinants. Participants were 24 adult patients of both sexes diagnosed with sarcoma and a mean age of 40.5 years (SD=16.8).

Participants completed a Socio-demographic and Clinical Questionnaire, and the Portuguese versions of the Health Care Climate Questionnaire and the Hospital Anxiety and Depression Scale. Results show a positive perception of the support provided by nurses in the two phases and a decrease in levels of anxiety from the Ph1 to Ph2.

The results evidence that a more autonomous perceived treatment climate is associated with lower levels of anxiety in the second phase of treatment ($R=-0.61$; $p<0.01$). Overall, younger patients, with more education and without a partner, reported a more autonomous perceived treatment climate and lower levels of anxiety. The study emphasizes the importance of the autonomous perceived support provided by health professionals in the disease management process, and the need to identify the most vulnerable patients in terms of emotional distress, in order to plan psychosocial interventions aimed to promote patients' wellbeing.

15:30 - 17:00

The roles of goal cognitions and goal achievement in behavioural activation treatment for depression

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Background: Behavioural activation (BA) is an evidence-based and NICE-recommended low-intensity treatment for mild to moderate depression, wherein patients pursue goals related to re-engaging in pleasurable, routine and necessary activities. BA is assumed to alleviate depression through this goal striving process, but to date, the mechanisms behind BA's effectiveness have not been investigated quantitatively. This study aimed to draw parallels between goal striving in behavioural theories and clinical BA treatment for depression, by investigating whether goal achievement and self-regulation theory-based goal cognitions predict response to BA.

Methods: Patients referred to clinical BA treatment for depression (n=112) received treatment as usual, and set three goals in each of three BA sessions. For each goal set, patients completed items from the Selfregulation Skills Battery to assess goal cognitions and goal achievement at the beginning of the next session. Depressive symptoms were assessed with the PHQ-9 before each treatment session and post-treatment.

Findings: BA significantly reduced depressive symptoms curve-linearly over the course of treatment ($B=.41$, $p<0.001$). Achievement of patients' most important goals was significantly associated with improvement in depressive symptoms ($r=-0.14$). The goal cognitions ownership, planning, attention control, emotion control and problem solving all predicted goal achievement (all $p<.005$).

Discussion: This study provides quantitative evidence for the importance of goal achievement in BA treatment for depression, and demonstrates that links between goal cognitions and achievement from behavioural theories also apply to clinical settings. Future investigations may examine specific goal content to identify the types of goals which, when achieved, best alleviate depressive symptoms.

Pain

15:30 - 17:00

15:30 - 17:00

It's not fair. The effects of a recalled injustice on the experience of acute pain

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Background: Research suggests that social justice cognitions can affect health. Specifically, perceived injustice, defined as loss and blame/unfairness in relation to injury, is consistently associated with poor pain outcomes. Little is known about who is most likely to be affected by injustice, thus needing intervention, although evidence indicates that strong just-world believers are most threatened by underserved outcomes, a central ingredient of perceived injustice. The present study investigated the relationship between the just-world belief and perceived injustice in an experimental pain context.

Methods: A between-groups experimental design was adopted. Following the completion of just-world belief and state anxiety scales and the cold pressor task, 114 healthy participants were interviewed about either an experienced injustice or the characteristics of their home (control condition), before repeating the cold pressor task. Pain and anxiety measures were completed following each cold pressor task. Repeated measures analyses of covariance were used to analyse the data.

Findings: Opposing the hypotheses, no differences were found on pain and anxiety between the two interview conditions and individuals with a strong just-world belief did not report higher pain and anxiety levels following a recalled injustice. However, within the recalled injustice condition, unfairness ratings associated with a past or present injustice were associated with significantly increased pain and anxiety.

Discussion: Overall, the findings support previous research on the adverse effects of a perceived injustice and extend them to suggest these effects may occur for a resolved or unresolved injustice that is unrelated to pain, thus carrying implications for intervention development.

15:30 - 17:00

Distress, fear of movement, walking behaviour and disability in fibromyalgia

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Background: Walking regularly is a simple, safe and accessible exercise that can be self-managed by fibromyalgia patients. However, adherence to exercise guidelines is low. Our aim is to study the role of distress and fear of movement on walking behaviour and disability perception in fibromyalgia women.

Methods: Self-reported measures of fear of movement, pain, disability, anxiety, depression and walking behaviour were completed by 277 women with fibromyalgia.

Findings: 51.6% of patients do not walk, 18.9% were regular walkers (between 2-4 times a week, over 50 minutes, in bouts of 30 minutes, with a small rest between bouts, over six consecutive weeks) and 29.5% walk below the minimum (at least twice a week over 30 minutes over six consecutive weeks). Significant differences were found between groups in pain ($p=.002$) and disability perception ($p=.006$), anxiety ($p=.04$) and depression ($p=.002$). Depression was the only significant predictor of walking meeting the minimum ($p=.04$) and disability ($p <.000$). Fear of movement was a significant predictor of anxiety ($p <.000$) and depression ($p <.000$).

Discussion: Fear of movement has been studied as an important inhibitor of activity in fibromyalgia and chronic pain patients. However, in this study the main role was for depression. It is worth underlying the role of fear of movement only on emotional variables. Interventions to increase walking adherence and reduce disability in these patients should focus on reducing levels of depression. This can be reached decreasing fear of movement.

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15:30 - 17:00

Investigating the biopsychosocial factors involved in chronic pain in people with a spinal cord injury

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It is estimated that over 62% of people with a spinal cord injury (SCI) experience chronic pain, (Ullrich, Jensen, Loesser & Cardenas, 2007), and yet in the UK there is currently no tailored pain management programme. SCI pain is unusually resistant to standard pain management programmes (Perry, Nicholas & Middleton, 2010).

The development of a tailored programme requires a profile of the biological, psychological, and social characteristics of chronic pain sufferers with SCI but the existing knowledge base is fragmented. This study is examining the range and interactions of the characteristics that could be involved. This will inform the development of appropriate and specific treatment programmes. A longitudinal, multiple assessment-point design will be used with 60 spinal cord injured in-patients at the National Spinal Injuries Centre (NSIC), Stoke Mandeville. Participants will be asked to complete a set of two pain assessment questionnaires and six psychological assessments at three, six and twelve months after admission to the NSIC and to provide salivary cortisol samples on each occasion to assess the biological marker of stress.

Additionally, a cross-sectional study using the same questionnaires and cortisol sampling will be undertaken with 60 out-patients of the NSIC who have been out of hospital for a minimum of two years. Data has been collected from 80 participants and time-two data collection has begun with the in-patients. It is anticipated that the outcome of the research will be the generation of a knowledge base from which a SCI-specific pain management programme will be designed and piloted.

15:30 - 17:00

Daily dynamics of positive and negative affect in the context of chronic migraine

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Background: In patients with chronic migraine, frequent pain and the disturbance of personal goals have been found to be stressors that may trigger negative affect. The Dynamic Model of Affect (DMA) suggests that in stressful situations, positive affect (PA) may act as a protective buffer against the impact of stress on negative affect (NA). The aim of this study was to examine the moderating role of PA in the relationship between pain, daily goal disturbance, and NA in the context of chronic migraine.

Methods: The Experience Sampling Method was used to assess positive and negative affect, pain and goal disturbance at 10 random moments per day for 7 consecutive days. Data were analysed using multilevel modelling.

Expected results: it is expected that higher momentary pain and goal disturbance will be concurrently and prospectively associated with higher NA. Furthermore, it is expected that these associations are weaker in the presence of higher PA.

Current stage of work: Currently 20 participants have been included in the study. At the time of the conference, it is expected that at least 50 participants will be included and that preliminary analyses will be completed.

Discussion: This study is the first to examine the DMA in the context of CM. If positive affect indeed protects against the impact of migraine-related stressors on negative affect, this suggest that CM patients may benefit from interventions targeting PA.

Chronic disease

15:30 - 17:00

15:30 - 17:00

Disease-specific quality of life: End-Stage Renal Disease Symptom Checklist –Transplantation Module (ESRD-SCL-TM) in “public domain”

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Background: The End-Stage Renal Disease Symptom Checklist – Transplantation Module (ESRD-SCL-TM) was developed to assess the specific physical and psychological quality of life of renal transplant recipients, with a special focus on side effects of immune system suppression therapy. It consists of 43 items in six dimensions: 1) Limited physical capacity, 2) Limited cognitive capacity, 3) Cardiac and renal dysfunction, 4) Side effects of corticosteroids, 5) Increased growth of gum and hair, 6) Transplantation-associated psychological distress, and a global score. All questions are scored on a five-point Likert scale.

Methods: 1.687 patients after kidney transplantation (42% female), mean age 48 years (+/- 13, 18-76) served as the normative group. Reliability and validity were investigated; gender- and age-specific Stanine-scores were presented.

Results: Minor gender (women scored higher on scales 1, 3, and 6) and moderate age effects (older patients scored higher on scales 1, 2, and 3; younger patients higher on scale 4), and no interactions between the two factors were found. Cronbach's Alpha was good (scales 1, 2, global score) to moderate (scales 3, 5, 6 > 0.70; scale 4 > 0.60). Correlations with SF-36 Health Survey were to be expected.

Conclusion: The ESRD-SCL-TM serves as a short screening tool for assessing disease-specific quality of life of patients after kidney transplantation. Stanine scores ≤ 6 are unproblematic. A Stanine score ≥ 7 is considered to be increased. Further investigations should be carried out and subsequently appropriate health psychological interventions should be offered.

15:30 - 17:00

The relationship between psychological distress and somatic symptoms in organic neurological disorders

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Background: The prevalence of psychological distress in patients with organic neurological disorders (ONDs) is high. The detection and treatment of anxiety and depression in the population however, remains low. Mental health difficulties may exacerbate physical ailments. No published study has examined the relationship between psychological and somatic symptoms in this group.

Methods: The study used a cross-sectional design with standardised self-report measures. Participants were recruited from a large, urban neurology department. Psychological distress was measured using the Hospital Anxiety and Depression Scale. Somatic symptoms were measured using the Patient Health Questionnaire-15.

Results: N=103 patients with ONDs took part. The most common diagnoses were Multiple Sclerosis (39.9%), neuropathy (10.6%) and epilepsy (5.9%). The most prevalent somatic symptoms were fatigue, pain in limbs/joints/back and sleep disturbance, with over 69% of participants experiencing any one of these symptoms. The majority of participants reported that these symptoms 'bothered them a lot'. Multiple regression showed that psychological distress accounted for 35% of the overall variance in somatic symptoms. Anxiety ($\beta = .40$, $t = 4.34$, $p < .001$) was shown to have a stronger effect when compared to depression ($\beta = .25$, $t = 2.35$, $p = .021$).

Conclusions: Two out of four of the most prevalent somatic symptoms, fatigue and trouble sleeping, overlap with signs of clinical depression. This study has uniquely captured the significant role of anxiety in the physical health of neurology patients. Findings demonstrate the need for increased liaison between Psychology and Neurology to screen and support patients with ONDs.

15:30 - 17:00

Time is (not) on my side: time-related factors and distress after heart transplantation

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Aim: The aim of this study is to compare the prevalence of distress among adult heart transplant (HTx) recipients in relation to their age, years of age at the moment of surgery and number of years they live after HTx.

Method: 108 HTx patients (age range 19-75; M=52,68; SD=14,35; 11(10,18%) F/ 97(89,82%)M; 1-24 years after HTx) filled out self-report questionnaire assessing mental well-being (General Health Questionnaire - 28). **Data was analyzed using Student's t statistic, one-way ANOVA and Gabriel's Pairwise Comparisons Test.**

Results: Older patients shown significantly higher level of overall distress ($p<0,01$), somatic symptoms ($p<0,01$), anxiety with insomnia ($p<0,05$) and social dysfunctions ($p<0,05$). Patients who had HTx in older age reported higher prevalence of overall distress ($p<0,001$), social dysfunctions ($p<0,05$) and depression ($p<0,05$). Those who lived longer with heart transplant shown higher level of social dysfunctions ($p<0,05$).

Conclusions: Among heart transplant recipients time-related factors can be related to the level of distress. Interventions performed by transplant team should be more focused on older patients and those who live longer with a new organ to prevent developing psychopathology symptoms.

15:30 - 17:00

Impact of depression on cognitive performance of brain tumour patients

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Background: Depression is common complication in brain tumour (BT) patients. Both depression and BT may cause decreased cognitive performance. This study aimed to compare cognitive performance of BT patients with and without depression.

Methods: Sixty-three patients (18 [28.6%] glioma, 32 [50.8%] meningioma, 13 [20.6%] other types of BT), admitted for elective BT surgery were assessed using Trail Making Test (TMT), Rey Auditory Verbal Learning Test (RAVLT) and phonemic and semantic fluency tasks. Presence of depression was evaluated using The Mini-International Neuropsychiatric Interview.

Findings: Twenty-two (35%) patients met diagnostic criteria for current Major Depressive Disorder (MDD), and 14 (22%) reported episodes of depression in the past. Fifty-nine percent of patients with current MDD and 71% of patients with past MDD were diagnosed with meningioma. No significant differences were observed in cognitive performance of patients with different types of tumours. Partial correlation analysis controlling for age revealed that current MDD was related to lower verbal fluency ($r=-0.33$, $p<0.05$). MDD episodes in the past were related to decreased psychomotor speed and executive functioning (TMT, Part A, $r=0.34$, $p<0.05$; Part B, $r=0.51$, $p<0.01$), and recognition errors (RAVLT, $r=0.31$, $p<0.05$).

Discussion: Current depression has negative impact on verbal fluency of BT patients making verbal communication more difficult. MDD episodes in the past are related to psychomotor retardation, problems with attention and executive functioning that may cause problems in daily functioning. BT patients with current or past MDD should be given special attention in the process of medical treatment.

15:30 - 17:00

Cowhage-induced itch is associated with neuroticism in patients with atopic dermatitis

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Background: There are different ways to induce itch in laboratory settings, e.g. the presentation of itch-related audiovisual stimuli or the application of pruritogens like cowhage. Itch, induced by audiovisual stimuli, is significantly related to depression and self-consciousness in patients with chronic itch. This study is the first to investigate whether also cowhage-induced itch is related to psychological variables in patients with chronic itch.

Methods: 40 patients with atopic dermatitis (AD; 31 female) were shown two non-itch inducing videos lasting 10 minutes each. Immediately before the second video presentation, cowhage was applied to the forearm of the patients and not removed until the second video was over. Immediately after each video, patients rated their maximal itch intensity during the last video presentation. Increase of maximal itch due to cowhage was determined and correlated with personality factors, depression- and anxiety-scores.

Findings: The application of cowhage led to a significant increase of maximal itch intensity in AD-patients [$p < 0.001$]. Induced itch was significantly positively related to neuroticism [$p < 0.001$; $r = 0.544$], which means that 29.6 % of the variance of induced itch could be explained by this factor.

Discussion: This study showed that AD-patients, who report to be rather emotionally instable, vulnerable to stress, insecure and lack confidence, are more prone to experience itch due to cowhage than patients with the opposite psychological phenotype. Therefore, psychological interventions aiming to improve the patients' assertiveness and self-confidence might also help to improve their itch.

Interventions for weight loss

15:30 - 17:00

15:30 - 17:00

Effect of commitments and contracts on outcomes among obese and overweight populations: a systematic review

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Background: Poor adherence to weight loss interventions can lead to poor outcomes, and including adherence strategies, such as formal commitments, has been identified as important. This review aims to identify the short and long-term effect of including a commitment BCT (commitment or behavioural contract) alongside lifestyle interventions on weight loss, and identify the most appropriate delivery mechanisms and target behaviours.

Methods: We searched five databases and hand-searched reference lists for trials of interventions targeting diet and/or physical activity to achieve weight loss among obese or overweight adults (age \geq 18, BMI \geq 25 or % overweight). Interventions including a verbal commitment and/or behavioural contract were included. Contracts including financial incentives were excluded.

Findings: Of 2488 unique studies, nine met the inclusion criteria. Preliminary results suggest that contracts may improve short-term weight loss outcomes (4-6 months). Long-term evidence is limited, and suggests that contracts may improve attendance, but not weight loss maintenance. Commitments appear to be most successful when made publicly or witnessed by others. The most suitable target behaviours for commitments remains unclear, as all but one of the studies targeted both dietary and physical activity behaviours.

Discussion: The findings suggests that using contracts as part of a weight loss intervention may be useful in improving short-term weight loss outcomes, but evidence is limited so results must be interpreted with caution. Poor reporting of individual behaviour change techniques may have limited the number of identified studies. More rigorous methodology and longer term follow ups are needed in the future to determine their effectiveness.

15:30 - 17:00

Predicting long-term success in adolescents' overweight reduction after participation in a lifestyle intervention trial

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Background: Overweight, but not obese children and adolescents are an important, yet understudied target group for weight management interventions. The present study aims to analyse which characteristics of overweight participants predict long-term success of a youth lifestyle intervention.

Methods: Data are from a long-term follow-up on a RCT. Overall, 49 participants (43.8%; baseline age 8-16 years) took part in a follow-up measurement 5 to 8.5 years after completing the intervention. The study was approved by the ethics committee of Bielefeld University. Changes in BMI z-score between baseline and follow-up will be regressed on baseline characteristics and changes during treatment. Socio-demographic and anthropometric variables, health behaviours, and well-being will be analysed as potential predictors.

Expected results: Initial evaluation shows that the intervention overall resulted in a stable weight reduction, but not all participants were successful. Results for the potential predictors of weight reduction are presented. Because of the small sample size mainly bivariate analyses will be used. Preliminary analyses point to changes in well-being as main predictors of success.

Current stage of work: The follow-up measurement is completed, and data cleaning is in progress.

Discussion: The study contributes to knowledge on a somewhat neglected target group for prevention and on the predictors of long-term success of youth weight management interventions. Knowledge on predictors of success is important for improving interventions for thus far unsuccessful participants. The study is limited by a high attrition rate. However, successful and unsuccessful participants are included, and most drop-out was due to missing contact information.

15:30 - 17:00

Quasi-experimental pilot trial: 6 months follow-up of a multidisciplinary intervention for obese adults

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We evaluated the effects of a one-year multidisciplinary group intervention for obese adults (psychological training, information about healthy diet, physical exercise program). The main research question was whether participants in an intervention including volitional aspects of behaviour change (action and coping planning) become more physically active and loose more weight than participants in a motivation-only intervention.

Obese persons were invited by public calls to participate and were assigned to the intervention and control group (IG n = 36; CG n = 33). Both groups received the same intervention, except that we addressed for the IG additional to motivational aspects also volitional aspects of behaviour change. Up to now, questionnaires (psychological, behavioural variables, weight) were completed at t1 (baseline) and t2 (6 months follow up). At t2, both groups reduced significantly their BMI (t1-t2 IG: -2.29, p<.001; CG -2.44, p<.001; group differences n.s.). Only the CG increased their level of action planning (t1-t2 p<.03), leading to group differences at t2 (p<.007). Both groups increased their level of coping planning, significant differences between groups occurred in favour of the CG (IG: t1-t2 p=.002; CG t1-t2 p=.001; group differences t2 p<.03). Both groups are physically active at t1 and can increase their level (hours/week) at t2 (IG t1: 2.09, t2: 2.96, n.s.; CG t1: 2.56, t2: 3.19, p<0,6; group differences t2 n.s).

Up to now, findings do not confirm that the intervention with focus on action planning has better potential to evoke substantial differences in cognitions and behaviour than the motivation-only intervention.

The presentation is now part of an Oral session, [click here to view](#).

15:30 - 17:00

Evaluation of a weight management programme for individuals in a forensic, high- secure psychiatric setting

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Obesity is epidemic among individuals with serious mental illness, representing an under-represented and at risk group in weight management research. The 'healthy living programme' is a group based intervention designed by practitioners at the State Hospital, offered to patients with a body mass index (BMI) of over 25. It aims to maintain patients in conversations regarding diet and activity and begin the process of making longterm lifestyle changes. The aim of the evaluation was to explore the effectiveness of the 'Healthy Living Programme' in enabling patients to engage in weight management.

Methods: The evaluation is a mixed methodological design. The quantitative component includes anthropometric (weight, BMI and waist circumference) and psychometric measures (weight related quality of life, motivation, psychological health and self-efficacy) collected pre and post intervention. Qualitative semistructured interviews will be conducted in evaluating patient perception and experience. Data generated will be analysed using Interpretative Phenomenological Analysis (IPA).

Current stage of work: Two cohorts have completed the ten session group programme (n=6, n=4) and a further cohort is due to commence in April. Quantitative data will be collected and analysed and IPA analysis undertaken over the coming months.

Discussion: The evaluation aims to determine whether the Healthy Living Group is feasible in effectively supporting patient's motivation and self-efficacy to engage in health behaviour change. The evaluation will also enable patients' to feedback their personal experiences of the group, highlighting areas that could be improved to facilitate a positive and effective experience for other group members in the future.

15:30 - 17:00

24 months follow-up of a multidisciplinary intervention for obese adults – preliminary results

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Our multidisciplinary intervention for obese adults includes 12 sessions psychological training (motivational volitional intervention), 6 sessions dietary advice, and 40 units guided physical exercise. We investigated whether participants in the IG become more physically active and loose more weight than participants in the CG.

Obese persons were invited by public calls; up to now, we assigned n=18 persons (IG) and n=17 persons (CG). Both groups received the same intervention, except that we addressed for the IG additional to motivational aspects also volitional aspects of behaviour change. Questionnaires were completed at baseline (t1), at 6, 12, 18, and 24 months follow up (t2-t5).

There are no relevant differences between groups at baseline. At t3 and t5, both groups lost weight (BMI t1-t3 IG: -2.57, CG: -3.06; BMI t1-t5 IG: -1.57, CG: -3.79, group differences ns). Results yielded that both groups were active at t1 and could increase their physical activity level at t3 on a descriptive basis (IG t1: 2.09hrs/week, t3: 2.89hrs/week; CG t1: 2.56hrs/week, t3: 3.62hrs/week). Up to t5, both groups decreased their physical activity (IG t5: 0.46hrs/week, CG t5: 1.86hrs/week). Regarding action planning, both groups showed similar values at t1 and t3. Only the CG could further increase their values until t5.

We are currently recruiting more participants and expect complete data from 35 persons per group until the end of 2017. Changes in the level of physical exercise and weight are seen on a descriptive basis for both groups. Findings do not confirm the expected superiority of the IG.

15:30 - 17:00

Psychosocial versus surgical weight loss interventions and their effect on body image: a systematic review

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Background: Patients undergoing bariatric surgery lose around 25% of their body weight in the first year (Karlsson, 2007), significantly greater than 10% for those taking part in psychosocial interventions (Wadden- Thomas, 2005). Body image dissatisfaction is reported to play a significant role in people seeking weight loss treatment (Sarwer et al, 2005). It would be logical to assume that as weight is lost, body image improves, yet this remains unclear. The aim of this systematic review was to investigate the effect that psychosocial or surgical weight loss interventions have upon body image and the role of weight loss.

Method: In August 2015 electronic databases were searched for studies that delivered a psychosocial or surgical weight loss intervention and provided pre-post treatment data on body image and weight loss. Following multiple stages of the review, 21 studies were eligible for in depth evaluation and quality assessment (Surgical: 10, Psychosocial: 11).

Findings: There were differences in the relationship between weight loss and improvements in body image across studies in this review. Some studies reported weight loss improving body image (or vice versa), whilst some reported improvements in body image despite no actual weight loss. Calculation of Hedges g effect sizes representing the magnitude of pre-post intervention body image improvement for surgical ($d=0.66-12.82$) and psychosocial interventions ($d=0.19-1.70$) did not clarify this.

Discussion: Further research is needed, (particularly RCTs) to fully understand the relationship between weight loss and body image and to establish whether body image improvements are an outcome or mediator of weight loss.

Caregiving in older age: Integrated perspectives

15:30 - 17:00

15:30 - 17:00

The influence of relatives' expressed emotion on psychological wellbeing in persons with dementia

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Background: Expressed Emotion (EE) refers to a number of key aspects of interpersonal relationships. **Relatives' EE has been shown to significantly predict illness outcomes in people with health conditions, but relatively few studies have focussed on wellbeing as an outcome.** This longitudinal study will test the hypothesis that people recently diagnosed with dementia who have high-EE relatives will experience lower wellbeing than people with low-EE relatives. We expect this association to be greater in patients whose relatives experience higher burden and lower wellbeing, and where relationship quality is low.

Methods: Sixty patients who have been diagnosed with dementia within the past 24 months and who live with, or have regular contact with their relative, will be recruited, along with their relatives. Data will be collected at baseline and 6 months later. Patients will complete measures of wellbeing, relationships and quality of life. **Relatives' EE will be coded from the Camberwell Family Interview** at baseline and relatives will complete measures of wellbeing, burden and relationships at both time points. Regression analysis will be used to predict patient wellbeing on the basis of relatives EE and relationship variables.

Expected results: See background/hypothesis.

Current stage: 30 dyads have been recruited to the study to date and have completed baseline measures. 6 dyads have completed the 6 month follow up.

Implications: It is anticipated the finding will provide insight into relative-patient relationships and outcomes, which will be used to develop interventions to improve these factors and the quality of life for relatives and patients.

15:30 - 17:00

The lived experience of having a parent in a residential home – the daughters' perspective

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Introduction: Immediate family members are a critical source of support and informal care in late life, such family members play an important role in the admission and transition of the older person into residential homes (RH). Research has shown that, after spouses, daughters of older people are usually those who take up most of the responsibilities of care within the care-receiver's family. This study therefore aimed at exploring the lived experience of daughters whose parents were currently living in a RH.

Methods: A qualitative method using interpretative phenomenological approach was adopted. Data was collected via audio recorded individual semi-structured interviews with six participants who were recruited through purposive sampling from the state residential home.

Results: Results highlight the stressful nature of tending to one's frail relatives. The findings uncovered a variety of elements that influence the subjective quality of the participants' experience with care-giving and residential home placement. A sense of filial obligation and duty to care were found to be central motives for care-giving. Furthermore, spirituality was a common method of coping. Finally, having control with the parents, over the decision for admission to residential care, coupled with positive relationships with formal carers and non-familial residents, were found to appreciably enhance the resultant overall experience of RH.

Conclusion: The study emphasises that open communication between informal caregivers and service providers is critical to avoid conflicting views of care and enhance the overall experience for all parties involved by taking their needs preferences into consideration.

15:30 - 17:00

The perceived value of complementary therapy for carers

A. Killen^{1,2}¹Staffordshire University, United Kingdom²Newcastle University, United Kingdom

Background: Carers receive little statutory support to the detriment of their own health and well-being. Complementary therapies can benefit carers accompanying hospitalised relatives but community provision had not been assessed. This study appraised the perceived value of a community based service from the perspectives of carers, carer support workers and a therapist.

Methods: Participants were 114 carers attending complementary therapy appointments over eight weeks within a voluntary carer support service. Using a three word task carers described their feelings before and after therapy. Similar words were sub-grouped. Separate staff and carer focus groups were held and analysed using thematic analysis with an inductive approach.

Findings: 'Before' words (247) revealed subgroups related to tiredness, stress and anxiety. 'After' words (276) related to being relaxed, calm and energized. Overarching focus group themes were the value of the service to carers as individuals (8 sub-themes including feeling valued for themselves and providing a safe space to be listened to) and as community members (5 sub-themes including providing an alternative to the G.P. and a route to maintain regular contact with a supportive organisation and its members).

Discussion: Complementary therapy provides immediate benefits as evidenced by the word task. Focus groups revealed multi-dimensional value. However it remains unclear how long positive effects last. Financial constraints mean complementary therapy may be viewed as non-essential pampering. However awareness of the embedded beneficial components and their potential contribution towards psychological well-being offers health psychologists involved in carer support evidence to encourage this effective non-medicalised provision.

15:30 - 17:00

“Inside out”: developing the MEDREV intervention for carers of people with dementia using COM-B

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²University of Dundee, United Kingdom

Background: People with dementia (PwD) can exhibit behaviours that challenging which are sometimes managed inappropriately with psychotropic drugs. MEDREV is a feasibility study testing a medication review to reduce psychotropics. Alongside that, we aim to deliver a behaviour change intervention for care staff caring for PwD to help them manage challenging behaviours with reduced medication.

Methods: We employed the COM-B model to develop the intervention for care staff. We will conduct pre- and post-intervention interviews with care staff to gather experiences of the intervention, lessons learned, and potential barriers to long-term implementation.

Expected results: A workshop and environmental intervention package, “Inside Out”, has been developed. It focuses on promotion of person-centred care and challenging behaviour as an expression of unmet need: **the challenging behaviour is evident on the outside, so we get to what’s inside by knowing the PwD through person-centred care.** We expect this to provide strategies for dealing with and potentially reducing challenging behaviour; **it will refresh care staff’s commitment to person-centred care;** quality of life will be improved among PwD and care staff.

Current stage of work: We are about to begin pre-intervention interviews and delivering the intervention in the first care home recruited.

Discussion: This study will demonstrate the practicability of COM-B for the development of a multi-purpose complex intervention aimed at PwD and care staff. It benefits from an interdisciplinary and collaborative approach working closely with care homes to establish ways of working that will increase the quality of life for residents and care staff.

15:30 - 17:00

Hospital at home compared to in-patient care in exacerbations of COPD: patients' and carers' perspectives

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Background: In a randomised controlled trial, patients admitted to hospital with an exacerbation of COPD were risk-assessed with the DECAF prognostic tool, and low-risk patients assigned to Hospital at Home (HAH) or usual hospital care (UHC). HAH treats patients in their own home by hospital staff, and may improve clinical care and reduce costs, provided it is acceptable to those involved.

Method: We aimed to explore patients' and carers' experiences of HAH and UHC through semi-structured interviews. Thirty patients were interviewed (15 HAH and 15 UHC) and 14 carers. Thematic analysis was performed as set out by Braun and Clark (2006).

Findings: Six themes (including subthemes) are presented. HAH improves patients' overall well-being (and shortens recovery, provides freedom and improves sleep). HAH facilitates positive relationships between patients and nurses (with respect to personalised relationships and patient/carer information and education). HAH is more convenient for patients (and for visitors and reduces visitors' costs). Discharge from HAH differs from UHC, manifest by challenges in appropriately discontinuing treatment. HAH is safe. There is a lack of carer-burden with HAH.

Discussion: Patients experienced HAH as safe and beneficial to their overall well-being. Counterintuitively, carers of HAH patients did not report an increase in carer-burden and prefer not to relinquish their carer role (though some objected to the term "carer"). Of 44 participants interviewed, 41 stated a preference for HAH. Following the national recommendation that the DECAF score be used in all UK hospitals, these results support the national implementation of our HAH model.

15:30 - 17:00

How is autonomy promoted in care home settings from entry to the end of life?

I. Yeh¹, T. Vandrevalla¹, E. Lyons¹¹Kingston University, United Kingdom

Background: Autonomy and empowerment of residents are important considerations in the study of end of life care, particularly in a care home setting. Person centred care suggests that residents should be involved in their own care at the end of life, however there is little known on how self-efficacy and empowerment are promoted in care homes. The aim of the current study is to investigate how staff, working in nursing and residential care homes conceptualise and promote autonomy among residents from entry into care homes to the end of life.

Methods: Face to face, in-depth, semi structured interviews were conducted with 22 care home staff from 2 nursing and 2 residential care homes. The data were analysed using Thematic Analysis.

Findings: Participants' understanding and implementation of resident's autonomy differed according to their level of professional training and peer experiences. At the point of entry into a care home, staff felt that residents experienced a lack of control and their primary task was to help residents regain control of their own care. This **enabled staff to learn about resident's values, beliefs and preferences**, which facilitated personalised care in the later stages of life. In contrast, residents who were approaching the end of the life were required to **relinquish control and staff's primary responsibility was to cater to the resident's basic needs**.

Conclusions: While working in vulnerable settings, staff struggle to find a balance between promoting personal autonomy and relinquishing control from residents to provide quality end of life care.

Health in the family

15:30 - 17:00

15:30 - 17:00

Promoting self-regulation and executive functions in children: evaluating the effectiveness of brief physical activity interventions

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Background: Self-regulation refers to the ability to engage in adaptive and goal-directed behavior and executive functions describe the related cognitive processes involved. Self-regulation and executive functions are critical for successful transition from kindergarten to school and successful school adjustment (Suchodoletz et al., 2014). Physical activity interventions have been shown to improve executive functions in studies with adult samples (Barenberg, Berse, & Dutke, 2011). Potential moderators of this effect are qualitative (e.g., coordinative) and quantitative (e.g., intensity level) demands of the specific type of physical activity (Best, 2010). The present study aims at investigating which of the mentioned type of physical activity is most effective to promote self-regulation and executive functions in preschool children.

Method: In a between-subjects randomized trial, we will compare children's self-regulation and executive functions after their participation in either one of two physical activity interventions with varying intensity levels but equivalent coordinative demands or a sedentary control condition. Executive functions will be assessed immediately after the intervention with the Head-Toes-Knees-Shoulders task (Ponitz et al., 2009) and the Day- Night task (Berlin & Bohlin, 2002). In line with power analyses we will assess a sample of 160 children and compare the effects of intervention type using regression analyses.

Expected results: The study will provide first evidence about the acute effects of physical activity interventions on preschoolers' self-regulation and executive functions.

Current stage of work: We will start data collection in March, 2016.

Discussion: Implications for effective physical activities in early education will be discussed.

15:30 - 17:00

Electronic communication with parents as a predictor of family functioning and adolescents' life satisfaction

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Background: The aim of the study was to investigate relationships between electronic media communication (EMC) in family, family functioning and adolescents' life satisfaction.

Methods: The study applied a mixed method approach; it combined the quantitative analysis (anonymous survey conducted in Poland on the sample of 844 students 10-18 years old) and the qualitative analysis (focus groups study - 6 groups of adolescents, 2 groups of parents; 63 participants). The questionnaire contained scales concerning different types of EMC in family (phone use, Skype, texting, e-mail, messenger), family functioning (quality of communication (Family Dynamics Measure II), social support (Multidimensional Scale of Perceived Social Support), common activities in family, monitoring) and adolescents life satisfaction (Cantril ladder). The guidelines for focus groups study contained questions concerning favorite types of EMC in family and their role in parent-adolescent relationships (controlling, supporting, bonding).

Findings: Almost 42% of surveyed adolescents use electronic media for communication with parents every day; the most often phone (everyday: 36,2%) and SMS (everyday: 15,6%). All analysed dimensions of family functioning as well as adolescents' life satisfaction are higher in families using electronic media for everyday parent-child communication. Regression analyses and path analyses revealed that EMC is an indirect predictor of life satisfaction – it facilitates clear communication, support, monitoring and common activities. Both adolescents and parents perceive EMC as a very useful way of controlling children (younger adolescents) and building close relationships (older adolescents).

Discussion: Good family functioning is a mediator in relationship between electronic media communication and adolescents life satisfaction.

15:30 - 17:00

The persuasiveness of British accents in enhancing parental self-efficacy to promote children's oral health

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This is an exploratory investigation of how language attitude research can inform the development of interventions to improve children's oral health. This work builds on a clinical trial with over 2,000 families across the UK. The trial uses an intervention of eight children's storybooks containing embedded behaviour change techniques. These techniques aim to improve parental self-efficacy to deliver effective tooth brushing and control sugar consumption for their child, which was the most significant variable predicting dental caries in young children in our previous research. The storybooks are being adapted into eight animated cartoons, providing an opportunity to examine the relationship between persuasion and accent.

Phase one, in progress, is an experiment with 50 parents per area, evaluating the effect of six British accents on implicit attitudes, using a reaction time test, and explicit attitudes via a matched-guise test. Results will be analysed using a mixedmodel regression.

Phase two is a randomised controlled trial which tests these results, using the most and least persuasive accents identified in phase one as voice-overs for the cartoons. 165 parents per area will watch one cartoon weekly with their children for eight weeks. Parents will complete standard measures of selfefficacy and behaviour change pre-/post-trial. Sociolinguistic research predicts that **the parent's own accent or Received Pronunciation** will be the most persuasive which, in turn, is expected to change parental self-efficacy.

This study has the potential to advance our understanding of the impact of accent on self-efficacy, bridging a gap between Sociolinguistics, Health Psychology and Public Health.

15:30 - 17:00

Analysis of dyadic relationships between mothers and adolescents cancer survivors using the actor-partner interdependence model

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²Universite de Lorraine, France

Teenagers' situation in remission phase is described as being complicated, particularly because they are neither sick nor cured. This phase is likely to affect their quality of life. The understanding of this situation involves the identification of the disease impact on the mothers who are often very concerned during this period. The main objective of this research is to identify what positively affects teenagers quality of life, while considering the possible influence of maternal resources.

To examine each member of the dyad influence, 100 dyads will respond to different questionnaires measuring self-regulation, as well as emotional and subjective well-being. Will be used during data analysis phase:

- 1/ Regression analysis: to identify predictive variables of a higher quality of life among adolescents in remission;
- 2/ Moderator analysis: to study the influence of mothers quality of life (as a moderating variable) on teenagers in remission quality of life;
- 3/ Actor-Partner Interdependence Model (Cook & Kenny, 2006): to assess the extent to which adolescents quality of life is influenced by mothers resources and to analyze mutual influences.

We hope this study will allow us to highlight the most predictive maternal resources of a good quality of life among teenagers in remission, and a better understanding of dyadic challenges after cancer treatment. We are currently reviewing the literature, and will start the analysis of reciprocal influences using the Actor- Partner Interdependance Model.

This study should have implications for prevention and intervention programs that focus on parenting in adolescents cancer survivors.

15:30 - 17:00

Siblings of children with autism spectrum disorder. Distressed and restricted in their quality of life?

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Background: Siblings of chronically ill and/ or disabled children may have an increased risk of developing behavioural problems; this is particularly true for siblings of children with Autism Spectrum Disorder (ASD).

Methods: Distress (LARES sibling questionnaire) and quality of life (QoL; KIDSCREEN) of 5 siblings of children with ASD were examined using self- and external assessment (parents). Guideline-based interviews were conducted with the siblings and their parents and analysed using qualitative content analysis according to Mayring.

Results: The siblings were between 12 and 15 years old. Both siblings and parents described in total low to medium distress (LARES). Distress resulted from sibling relationship, school competence, disease knowledge and social integration. QoL described by the children resembled the normative sample; parents described a decreased QoL in the subscales body ($M = 63.75$, $SD = 28.09$), self-esteem ($M = 63.75$, $SD = 11.18$) and family ($M = 67.05$, $SD = 02.12$) - these results differ from the normative sample. Interviews revealed that healthy children have to take responsibility for their siblings with ASD. Parents assume that the healthy children hardly suffer from the ASD of the sibling, but their children were "annoyed" by ASD-associated behaviour and partly feel "treated unfairly". The healthy children wish that their sibling no longer suffer from ASD or that their sibling would behave "normally".

Conclusion: Siblings of children with ASD are not restricted in their QoL, contrary to the parents' ratings, but they feel stressed by ASD-associated behaviour and the transferred responsibilities.

15:30 - 17:00

Psychoeducation for people with intellectual disabilities and anxiety or schizophrenic disorders

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Background: The prevalence of mental disorders in persons with an intellectual disability is 3-4 times higher than in the general population. Psychoeducation is an essential aspect to deal with mental disorders, to follow treatment, to reduce inpatient care and thus reduce costs in the health care system. German psychoeducation manuals for people with an intellectual disability and mental illness are still lacking. Aim of the work was to design concepts for psychoeducation for this target group.

Methods: In the first step, a comprehensive literature search was conducted – there are only manuals for psychoeducation for patients without mental retardation. Secondly, established manuals for psychoeducation were used as the basis, they were adapted and modified in easy language, assisted by pictograms.

Results: Two concepts for psychoeducation have been developed. They are designed as closed group programs and should be performed interactively. At the meetings, e.g. aspects such as drug-compliance as well as creation and use of an emergency plan are mediated. Aims are that patients learn that they can influence the course of the disease, that it is important to talk with other people about the disorder and to identify early warning signs.

Conclusion: People with intellectual disabilities have a significantly increased risk of developing mental disorders. Two programs for psychoeducation in anxiety and schizophrenic disorders for people with mental retardation are available now. These programs may help to stabilize/ improve the state of health and to increase the quality of life of mentally disabled patients.

Well-being and quality of life in clinical, work and community settings

15:30 - 17:00

15:30 - 17:00

The social experience of exercise in public places: an exploratory qualitative study

F. Quinn¹, B. McCann¹¹The Robert Gordon University, United Kingdom

Background: Much exercise occurs in public places, such as a gym, pool, class, or park. Social psychology shows that the real or perceived presence of others influences behaviour and experience. However, this has rarely been studied with exercise except for specific constructs such as social physique anxiety and a small literature on social anxiety. These have a negative effect; there may also be benefits, but research here has been limited except for social support. We aim to create a richer picture of the experience of exercise in public places and effects on behaviour.

Methods: We conducted semi-structured interviews with 27 exercisers (median age 34, range 20 to 55 years, 40% male), recruited at city leisure centres and on campus. Exercise activities varied and settings included gyms, pools, parks, classes and sports facilities. Using thematic analysis (Braun and Clarke, 2006) from a critical realist epistemology, data will be analysed inductively, providing a rich description of the dataset.

Expected Findings: Themes identified suggesting positive, negative or no effects of public setting.

Current Stage of Work: Interviews are being transcribed.

Discussion: Social influences feature in few of health psychology's theories or play a limited role (e.g. subjective norm), so rarely inform interventions. These exploratory findings will inform further qualitative and quantitative research. They may contribute to understanding maintenance of exercise (currently poorly understood) and content of theoretical constructs that explain behaviour. Findings may inform behavioural interventions by suggesting appropriate social opportunities to create, and coping strategies for social stressors or barriers.

15:30 - 17:00

Social networks behaviour as predictor of life satisfaction and health related outcomes

I. Zinovieva¹, M. Kiryakov¹¹St. Kliment Ohridski Sofia University, Bulgaria

The omnipresence of social networks in contemporary everyday life draws increasing attention of researchers. However, the negative aspects of studied health-related issues in social networks activity prevail, i.e. increasing dependency, narrowing attention scope, shorter sleep hours. The aim of our study is to approach social networks participation from the point of view of life satisfaction and possible positive health outcomes. We include a wide range of characteristic behaviours in social networks participation and test them as possible predictors of satisfaction with life (SWLS – Diener et al., 1985) and health-related outcomes. The social networks participation includes information search, sharing experience, keeping contact with close people, emotion expression, opinion expression, artistic self-presentation.

All scales were derived from in-depth interviews on social networks behaviour. The Chronbach alphas range between .65 and .83. In the empirical study, a structured questionnaire was administered to 302 participants, most of them women (69%) and young people between 18 and 30 years of age. About half of them are active Facebook users and log into their profile several times a day. Results show that this model has good explanatory power yielding adjusted $R^2=.489$.

Only two of the studied behaviours appeared as predictors of satisfaction with life. Free opinion expression is highly significant negative predictor, possibly being connected with frequent experiencing of negative emotions Artistic self-presentation, however, is highly significant positive predictor. According to our results, stimulating artistic self-presentation in social networks is an interesting option towards improving life satisfaction. In a further analysis we address health-related outcomes.

15:30 - 17:00

Perceived social support as a moderator of QoL and self-efficacy among Greek CKD patients

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Background: A chronic illness severely affects a patient's functional ability and quality of life causing at the same time escalating health care costs. Despite an increased amount of research there are no studies demonstrating evidence documenting psychosocial factors of perceived social support and self efficacy affecting quality of life in CKD patients under dialysis, also documenting differences between treatment duration in Greece.

Aim: The primary objective of this study was to test whether significant differences exist between two groups of dialysis patients regarding treatment duration and perceived social support level. A secondary objective of the study was to test for associations and examine the moderator factor of MSPSS upon the variables.

Method: The current study used a between groups design, in a sample of 101 dialysis patients. The SEMCD, MSPSS, and the WHOQOL-BREF scales were used to measure patients' self efficacy for managing chronic illness, perceived social support and quality of life respectively.

Results: Significant differences were found to exist in dialysis patients upon the psychosocial factors between the two groups of high and low perceived social support. In addition significant associations were found between quality of life, self efficacy for managing chronic illness and perceived social support. A final equation supports the moderator factor of perceived social support upon the QoL-SES interaction, duration of therapy also moderates the interaction.

15:30 - 17:00

Reciprocal influences in the adjustment of couples facing return to work after cancer

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Background: An increasing number of people surviving the cancer has led to assist them more often in order to return to active working life. This period may be accompanied by a sense of vulnerability that can lead to burnout (Bezy, 2013). In the literature, it has been shown that the spouse has a protective role concerning the psychological distress among the other member of the couple during cancer. The aim of this dissertation is to **explore partner's influence in the context of returning to work after cancer.**

Method: 200 couples (100 affected by a history of cancer and 100 without cancer experience) will respond to different questionnaires. Quantitative variables, which are protective of burnout on the one hand and predictive of well-being at work on the other, will be the subject of intra-dyadic analysis using the model APIM (Kenny & Cook, 1999). In contrast, qualitative data obtained by semi-structured interviews conducted with 20 volunteers couples (10 affected by a history of cancer and 10 without cancer experience) will be analyzed by a thematic analysis using NVivo software Version 10.

Expected results: We expect identify and examine the variables that protect from burnout and those that positively affect the well-being of people at work after cancer **through couple's resources.**

Current stage of work: We are going to start the collection of quantitative data through online questionnaires.

Discussion: Finally, this work should help to develop useful recommendations to support people to improve return to work process after cancer.

15:30 - 17:00

The motivations to volunteer in therapeutic care and impact on psychological well-being

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Background: Research has previously identified how undertaking voluntary roles can have a positive impact on psychological well-being and overall health. The study aims to explore the impact on happiness, well-being, life satisfaction and stress, to also understand the volunteer's enthusiasm to take part in unpaid roles.

Method: Participants were recruited from a hospital in the North East of England, whilst attending mandatory volunteer training. Forty volunteers were surveyed before and six weeks after volunteering started. The obtained scores were analysed using a paired sample t-test, against the hours completed and the motivation to volunteer. As well as this, 6 participants took part in a semi-structured qualitative interview to elaborate on their motivations to volunteer. Transcripts were analysed using Thematic Analysis.

Findings: Happiness, life satisfaction and stress were significant against the hours completed and the motive to volunteer. Well-being was only found to be significant for the hours volunteered. The interviews identified five themes; allowing the volunteers to gain experience and repay the NHS. Volunteers also felt their presence had a positive impact on staff and patient care, and highlighted improvements to the support given to volunteers.

Discussion: Practically, the research help to understand the need to account for psychological wellbeing in volunteers, and indicates a potential for volunteering as interventions to improve health. Future research is required to identify the benefits for patients who engage in therapeutic interaction.

15:30 - 17:00

Application of character strengths, work-engagement and burnout: implications for health and well-being in medical education

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High rates of burnout, illness and dissatisfaction among physicians show the need for change of medical education and training. Aim of this analysis was to examine relations between application of character strengths (ACS), well-being and health of medical students in their first year (n=167), clinical practical year (n=67) and doctors in internship (n=92). Regression analysis showed a medium effect on well-being, a small effect of the ACS on mental health and no effect on physical health.

Mediation models were tested hypothesizing that work-engagement and burnout are mediating the ACS-mental health and ACS-well-being links. Results showed that both factors (partially) mediated the direct links, whereby differences between the samples were identified. Furthermore we found a trend that well-being and work-engagement was steadily decreasing whereas burnout was increasing over the education period.

Results indicate the importance of promoting the individual character strengths to foster well-being and to prevent burnout, in particular during medical internship.

Identifying barriers and facilitators of health behaviour change

15:30 - 17:00

15:30 - 17:00

Ongoing development of a typology of physical micro-environment, or choice architecture, interventions

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Background: We have previously published a provisional typology of physical micro-environment (or choice architecture) interventions to change health-related behaviour, derived from a large-scale scoping review of the empirical literature

(<http://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-13-1218>). Such interventions include altering the size, availability or presentation of food, alcohol or tobacco products and related objects. The primary objective is to develop a new, more conceptually coherent typology that can be applied reliably, in order to improve our ability to describe and classify such interventions.

Methods: In the first stage of planned development, the study team has produced a draft version of the typology, to be iterated over a series of formal exercises. The developing typology will then be subject to reliability and validity testing by a group of external behaviour change experts, involving the coding of intervention descriptions, to inform the production of a final version.

Expected results: Production of a typology that is both more conceptually coherent and a more reliable means of describing this evidence base than what has been available previously.

Current stage of work: A draft version of the typology has been developed. This will be presented along with data from reliability and validity testing exercises which will be completed by July 2016.

Discussion: The development of our typology will provide a more valid and reliable way than currently exists for describing and classifying physical micro-environment interventions to change health-related behaviour. This and other related typologies can provide a foundation for building the evidence base for effective ways of changing behavior across populations.

15:30 - 17:00

Barriers and enablers to diabetic retinopathy screening attendance: a theory-based systematic review

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Background: Diabetic retinopathy is a sight-threatening complication of diabetes. Population screening among people with diabetes has been shown to be clinically effective; however, suboptimal screening attendance with wide geographic disparities has been reported. To develop and evaluate quality improvement interventions to maximise retinopathy screening attendance, it is important to understand the theoretical determinants of screening behaviour. This systematic review aims to identify modifiable barriers/enablers associated with screening attendance.

Methods: Studies will be identified from published and grey literature through multiple sources. Primary/secondary studies will be included if they report perceived barriers/enablers to diabetic retinopathy screening, elicited from the perspective of adults diagnosed with diabetes and healthcare providers.

Data may include: participant quotations, statistical analyses from questionnaire studies, interpretive descriptions and summaries of results in published reports. Extracted data will be coded into domains (i.e. groups of explanatory factors proposed to mediate change) using the Theoretical Domains Framework and, for organisational level data, the Consolidated Framework of Implementation Research. The importance of each domain in influencing behaviour will be considered in terms of: frequency with which beliefs emerge across included studies; presence of conflicting beliefs; perceived strength of the themes impacting screening attendance.

Expected results: There is likely to be a core number of domains important in determining attendance. However, some variation according to demographics (e.g. socio-economic status, ethnicity) and between patient/provider perspective, is expected.

Current stage of work: The review protocol is registered on PROSPERO (CRD42016032990).

Discussion: The results will form the basis for developing targeted interventions to increase attendance.

15:30 - 17:00

Determinants of medication adherence in children presenting to the emergency department with asthma

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Background: Inhaled corticosteroids (ICS) are the mainstay of asthma treatment, however adherence remains poor, leading to morbidity and mortality. In order to target adherence interventions to those who need it most, it is important to identify factors associated with adherence, yet these are not fully understood in children. This study aimed to identify factors associated with ICS adherence in children.

Methods: Adherence was monitored electronically over six-months in children aged 6 to 15 who attended the emergency department for asthma and were prescribed ICS. Participants completed questionnaires assessing family demographics, such as household size, access to primary care, relationship with health professionals and family cohesiveness; asthma responsibility, asthma knowledge and learning styles. Multivariable analysis of factors associated with adherence was conducted.

Findings: One hundred and one children (mean age 8.9 years, 51% male) participated. Median preventer adherence was 30% of prescribed (25th percentile 17%, 75th percentile 48%). Four factors were statistically significantly associated with adherence: female sex (12% greater adherence), Asian ethnicity (19% greater adherence versus non-Asian ethnicities), living with a lower number of people in the household (adherence decreased by 3% per person), and younger age at diagnosis (adherence decreased by 3% for every later year of diagnosis) (all $p < 0.02$).

Discussion: In children attending the emergency department for asthma, males and children of non-Asian ethnicity were at higher risk for poor ICS adherence, indicating that they may benefit most from adherence intervention. Further research is recommended to replicate and extend our findings in other children with highrisk asthma.

15:30 - 17:00

Motivational process of eating behaviour in diabetes patients: applying theories of planned behaviour and self-determination

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Background: The aim of the study is to examine the relationships in the applied integrated model of selfdetermination theory (SDT) and theory of planned behavior (TPB). Each reflects motivation on contextual and situational levels, accordingly.

Methods: Study included 394 adult patients with type 1 (T1D) (41.6%) and type 2 (T2D) (58.4%) diabetes. Diet was measured by two items from Diabetes Self-Care Activities (SDSCA) questionnaire (Toobert et al., 2000). Variables within TPB were developed in accordance with the recommendations made by Ajzen (2006). **Anticipated regret and practitioners' subjective norms were added. Autonomy support** was measured by HCCQ (Williams et al., 1998) for diabetes management. Treatment self-regulation style measured by TSRQ for diet (Williams et al., 2004). Cronbach alphas varied from .69 to .94. Multi-group Structural equation modeling was conducted to test model fit and to determine model invariance between two types of diabetes.

Findings: The integrated model showed good model fit (CFI=.97, TLI=.92, RMSE=.07, SRMR=.05). SDT and TPB variables explained 55 and 59% of intentions in T1D and T2D, respectively. Diet behavior was predicted **by autonomous motivation ($\beta=.242$) and anticipated regret ($\beta=.201$) in T1D and autonomous motivation ($\beta=.307$) and intention ($\beta=.243$) in T2D.**

Discussion: The findings provide evidence of the utility of integrated model in population of diabetes patients. Strengthening the autonomous motivation in both types of diabetes could be promising seeking positive effect on their diet behavior.

15:30 - 17:00

The role of men's body attitudes, implicit, and explicit motivation toward gym attendance

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Background: A dual-systems approach was taken to investigate the role of men's body attitudes with implicitly and explicitly measured motivation, in relation to gym attendance. Self-determination theory was chosen as a measure of motivation, as it has been extensively used in relation to health, fitness, and exercising. Whereas the majority of research focuses on promoting exercise and fitness regimens, there is increasing concern regarding reasons for excessive exercising.

Methods: A cross-sectional approach was used to measure the predictive validity of body attitudes, implicit, and explicit motivation to attend gyms and work-out regularly. Individuals who regularly attended a gym were recruited to participate.

Findings: Attitudes related to body fat, as well as explicitly-measured autonomous motivation, significantly predicted gym attendance. However, implicitly-measured motivation significantly and negatively predicted gym attendance.

Discussion: While measuring men's explicit, self-reported motivation and body attitudes may predict some reasons for gym attendance, implicit motivation may add to our understanding of reasons men attend gyms regularly. Practitioners and professional trainers may improve gym attendance by focusing on both explicit, autonomous reasons to attend the gym, while also minimising the influence of unplanned, controlling reasons for exercise. The presentation will finish by discussing the next steps in this research program: understanding the sequence of events of post-injury gym behaviours in men who over-exercise.

15:30 - 17:00

Predicting and explaining 'at-risk' online older women's condom use intentions using an extended two-component TPB

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Background: UK sexual health surveillance data shows a recent rise in sexually transmitted infections [STIs] among women in the 45+ age group. However, current government policies and services that aim to reduce STIs are not typically tailored for the specific needs of this population. Further, the existing evidence base of condom use interventions for older women is restricted to one study from the USA.

Aims: Using an extended two-component TPB, the aims of this study were to: (1) determine the significant independent predictors of 'at-risk' online older women's condom use intentions; and (2) identify the key beliefs underlying the significant independent TPB predictors.

Methods: A cross-sectional online survey was employed. 109 UK-based sexually active single women that were 45+ years and looking for a new sexual partner(s) were recruited through Facebook adverts. Participants completed measures of direct and belief-based (established via an elicitation study) two-component TPB constructs, anticipated regret, moral norm, self-identity, future time perspective, and past behaviour. A threestep hierarchical regression analysis was conducted for the first aim, while correlational analyses were undertaken for the second aim.

Findings: The extended two-component TPB accounted for 78% of the variance in condom use intention. Experiential attitude, injunctive norm, perceived behavioural control - capacity, anticipated regret, and selfidentity emerged as significant independent predictors. A total of seven key beliefs (one behavioural, one normative, and five control) were identified.

Discussion: This study addresses a gap in the literature and provides guidance for the development of condom use interventions for 'at-risk' online older women.

Understanding when and how behaviour change
techniques work

15:30 - 17:00

15:30 - 17:00

Is there an upward spiral between mastery experiences and self-efficacy during smoking quit attempts?

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Background: If mastery experiences are attributed internally they should increase self-efficacy. Self-efficacy in turn increases the opportunity for mastery – creating an upward spiral. To investigate these fine-grained temporal dynamics between daily mastery experiences, attributions and self-efficacy in the process of quitting smoking, two intensive longitudinal data studies were analysed.

Methods: In two intensive longitudinal mobile phone studies N=100 (Study 1) and n=85 female and n=85 male smokers (Study 2) reported whether they had experienced mastery (smoked or not) and their smoking-specific self-efficacy for 21 days after a self-set quit date. Study 2 additionally assessed internal and external attributions for mastery experiences. Time-lagged multilevel analyses were conducted using changepredicting- change models.

Expected results: In Study 1 prior and concurrent increases in mastery experiences relate to increases in self-efficacy; with concurrent mastery changes having a stronger effect. Prior and concurrent changes in self-efficacy were associated with increases in mastery as well, with prior changes in self-efficacy having equally strong effects on mastery than concurrent self-efficacy changes. Models controlled for prior changes in the respective outcomes.

Current stage of work: Data analyses are terminated for Study 1 and started for Study 2.

Discussion: Findings from Study 1 emphasize an upward spiral between mastery experiences and self-efficacy on a day-to-day basis in smokers, who try to quit. A replication of this finding is planned for Study 2, which will also allow looking into the role of internal and external attributions for mastery experiences.

15:30 - 17:00

To slack off or not to slack off? Regulatory focus moderates paradoxical effects of feedback

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Background: A positive feedback validating one's past behaviour could lead to a paradoxical relaxation of efforts in a variety of domains. Goal-completeness theory can explain such effects, the positive feedback leading to a feeling of goal-completeness and thus to a reduction of further efforts. We hypothesize that the individual's motivational system determines whether the feedback would lead to this feeling of goal completeness, because the individual focuses on a different goal, namely a minimal versus maximal goal. People regulated towards prevention (promotion) would set a minimal (maximal) goal for themselves, causing the positive feedback to translate into a feeling of goal-completeness (or not) and to a relaxation (consistency) of further behaviour.

Methods: We propose two experimental studies, in which the regulatory focus will be once measured and once manipulated. In both studies, participants will receive a positive versus negative feedback about their health habits (Study1: sport practice; Study2: healthy diet). Dependent variables will include intention to engage in healthier conducts and actual behaviour assessed during one week.

Expected results: We expect a focus by feedback interaction, so that intention and behaviour decrease in the prevention condition when the feedback is positive, as compared to the promotion condition.

Current stage of work: We are currently preparing the studies' material. We are likely to have collected and analysed data by the time of the conference.

Discussion: Given the growing tendency to rely on providing feedback (e.g. activity trackers), we could contribute to a better conceptualization of these feedbacks to avoid undesirable boomerang effect.

15:30 - 17:00

Does diagnosis of gestational diabetes provide a "teachable moment"?

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Background: In order to control blood glucose levels, women diagnosed with gestational diabetes mellitus (GDM) are required to adapt their diet, monitor glucose levels, and in some cases take medication to avoid serious health complications. Research regarding the determinants of adherent behaviour among women diagnosed with GDM is limited.

Methods: This study employed a quantitative longitudinal design. Fifty-nine participants completed a questionnaire at diagnosis, and reported adherence to glucose monitoring, dietary recommendations and medication one month later. Forced entry linear regression was used to examine the prospective relationship between social support, self-efficacy, intention to adhere, the psychosocial factors identified in the TM model (change in affect, risk perception and identity), and adherence.

Findings: Levels of self-reported adherence were high, and regression analysis revealed that higher levels of risk perception and social support were significantly associated with higher levels of adherence at follow-up. All participants rated their identity as 'mother to be' important, and the majority reported an increase in negative affect following GDM diagnosis. These two factors were not related to levels of adherence at follow-up.

Conclusions: The participants in this sample reported changes in the dimensions outlined by the TM model. Future interventions designed to increase adherence may benefit from a focus on risk perception and social support, as these factors appear to be most strongly associated with adherence to GDM treatment recommendations.

15:30 - 17:00

Health goal priming: how to benefit from nonconscious motivational routes to health behaviour

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Recent research has shown the limited effects of intentions on behavior, so that novel methods to facilitate behavior change are needed that do not rely on conscious intentions. In this talk, I will argue that nonintentional effects on health behavior, such as the effects of habits, impulses, and nonconscious goals, occur through the activation of cognitive structures by environmental cues. Interventions can therefore focus on changing these cognitive structures (training interventions, such as conditioning, attentional bias modification, response inhibition, etc.), or on changing which cognitive structures get activated (cueing interventions, such as priming, nudging, etc.). I will then introduce goal priming as a cueing intervention tool to activate health goals and thus facilitate healthier behavior, even in tempting environments that typically activate short-term hedonic goals.

After a review of empirical evidence, mainly from the domain of eating behavior, five principles for the effective application of health goal primes will be proposed, namely 1) to target individuals who value the primed goals, 2) by activating their long-term motivation 3) through cues that effectively tap into that motivation and which 4) attract attention at the right time. Finally, 5) an effective goal-directed behavior needs to be known and accessible to the primed individual. I will briefly illustrate these principles in order to facilitate their application for successful behavior change.

15:30 - 17:00

Regulatory focus moderates the boomerang effect of positive feedback on individuals' further behaviours

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Background: A positive feedback validating one's past behaviour could lead to a paradoxical relaxation of efforts in a variety of domains (diet, moral or environmental behaviour, and health). Goal-completeness theory can explain such effects, the positive feedback leading to a feeling of goal-completeness and thus to a reduction of further efforts. We hypothesize that the individual's motivational system determines whether the feedback would lead to this feeling of goal-completeness, because the individual focuses on a different goal, namely a minimal versus maximal goal. People regulated towards prevention (promotion) would set a minimal (maximal) goal for themselves, causing the positive feedback to translate into a feeling of goal-completeness (or not) and to a relaxation (consistency) of further behaviour.

Methods: In an experimental study (N = 114), we assessed participant's chronic regulatory focus, then provided them with a positive versus negative feedback about their environmental behaviour. We then measure to what extent they were willing to participate in a pro-environmental event.

Findings: Regression analyses revealed a focus by feedback interaction ($t(109) = 3.32, p = .001$), so that positive feedback led prevention-oriented participants to a lesser engagement ('boomerang effect') while it led promotion-oriented participants to a greater engagement.

Discussion: We showed that the potential paradoxical effect of positive feedback is moderated by motivational factors, with important application to other domains such as promoting health behaviour. Given the growing tendency to rely on providing feedback (e.g. activity trackers), we contribute to a better conceptualization of these feedbacks to help avoiding undesirable boomerang effect.

Interventions targeting implicit and explicit processes

15:30 - 17:00

15:30 - 17:00

Tailored action planning improves decontamination practice when providers are hugely variant in implementing guidance recommendations

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Background: In Scotland, 180 million instruments are decontaminated annually in dental primary care. There was evidence that dentists were unlikely to change current poor compliance with guidance recommendations.

Objective: Increase best decontamination practice.

Research Question: Can tailored action plans (TAP) improve decontamination best practice in addition to standard support (an education course on the guidance topic).

Methods: Pragmatic RCT: Practices randomised to attend the decontamination education course or to attend the course as well as receive one 3 hour in-practice visit by a NES support team member, trained to deliver the action planning intervention in a standardised way: Use the list of 13 key behaviours derived from the decontamination guidance to help practices identify areas for improvement, set goals, identify barriers, if/then plans; prompts and monitoring schedules. Postal questionnaires assessed decontamination practice prior to attending the course and 12 months later. Primary outcome: Best practice (performing all 13 behaviours).

Findings: N=103 (Course alone N=56; Course+TAP N=47). Course+TAP increased best practice significantly compared to attending the course alone (31% to 11%; odds ratio 3.5; 95% CI 1.2 to 10.5; p-value 0.02).

Discussion: The decontamination guidance recommended many simple and complex behaviours, not necessarily performed by any one member of the dental practice. Tailored action planning proved a successful way to address implementation challenges faced by dental practices of different list sizes, deprivation indexes, staff composition, number, and motivation to comply. This result was fed back at policy level and the intervention is now a routine part of service support and delivery.

15:30 - 17:00

Psychological, behavioural and clinical effects of Intra Oral Camera use in adults with gingivitis

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Objective: To evaluate the improvement in dental hygiene behaviours and gingival health after the introduction of an intraoral camera (IOC) in a Supportive Periodontal Therapy (SPT) and examine the underlying psychological mechanisms of effectiveness.

Methods: A clinical trial was conducted over 4 months with 78 adults with gingivitis. Self-reported behavioural (dental hygiene behavior) and psychological variables (outcome expectancies, self-efficacy, planning and IOC opinion), and objective clinical outcomes (bleeding index: BOMP) were evaluated one week before or during the SPT appointment and four months later during among control and IOC groups.

Results: At baseline the level of gingivitis was high (BOMP = 1.6), and most of the patients brushed their teeth daily, while 80% never used dental floss. In comparison to control, patients from the IOC group decreased significantly the level of bleeding ($p < .001$) and increased flossing frequency ($p < .05$) and self-efficacy levels ($p < .05$) at 4 months follow up. The evaluation of the use of the IOC was highly positive.

Conclusions: The use of the IOC helps significantly to improve clinical, behavioural and psychological determinants of gingival health up to 4 months. The IOC may be considered an important tool to help dental professionals to achieve better therapeutic results and change behavior of their patients in the short and medium term.

15:30 - 17:00

The effect of approach-avoidance training on approach bias and healthy food intake

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Background: Previous research shows that automatic tendencies to approach unhealthy food cues can be modified using the Approach-Avoidance Task (AAT) and that this technique can reduce subsequent consumption. This study aims to use the AAT to not only train an approach tendency away from unhealthy food cues, but also one toward healthy food cues so as to (a) discourage unhealthy food consumption, and (b) promote healthy eating.

Methods: Undergraduate women (aim n = 160) aged 17-25 will be randomly allocated to one of four training paradigms in a 2 (Condition: approach, avoid) x 2 (Stimuli: healthy food, unhealthy food) x 2 (Time: pretraining, post-training) mixed factorial design. Healthy and unhealthy food consumption will be measured in a so-called taste test, and food choice will be assessed by a touch-screen task.

Expected results: It is expected that training participants to avoid unhealthy food cues will induce an avoidance tendency away from such cues, while training participants to approach healthy food cues will induce an **approach tendency toward these cues**. **Additionally, it is expected that the 'approach-healthy food' group will eat relatively more of the healthy than unhealthy snacks compared to the 'avoid-unhealthy food' group.**

Current stage of work: Data collection is scheduled to commence in March.

Discussion: The findings will provide insight into the usefulness of an intervention that focusses on automatic processing of both healthy and unhealthy food cues with a view to encouraging healthy eating, an issue of considerable importance particularly in individuals with eating or weight related issues.

15:30 - 17:00

Comparing self-regulatory and automatic processes in a computer-tailored physical activity intervention in frontline healthcare professionals

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Background: The present study aimed to develop and test the feasibility, acceptability, and efficacy of a theory based tailored intervention to increase physical activity and quality of life, and reduce stress and absenteeism in healthcare professionals. The study compares the unique and interactive effects of two sets of behaviour change techniques: intentional self-regulatory processes as compared with habit development.

Methods: Participants are midwives, nurses and patients' assistants (N=364) recruited from hospitals in Western Australia. They are randomised to one of the four conditions: self-regulation, habit, self-regulation and habit combined, and control. All groups received basic online information on physical activity with intervention groups receiving tailored behaviour-change messages with supporting text messages relevant to each condition. Intervention effectiveness was tested on physical activity measured by accelerometers, quality of life, stress, anxiety, sleep, and absenteeism assessed at 3 and 6 months controlling for baseline.

Expected results: We expect greater post-intervention physical activity participation for participants in all intervention groups relative to the control group while adjusting for baseline, with similar adaptive patterns on other outcomes. We also expect participants in the combined self-regulation and habit condition to have greater physical activity participation and adaptive patterns on other outcomes relative to conditions with each of the techniques alone.

Current stage of work: Data collection.

Discussion: This is the first study to develop and test a tailored online intervention to increase physical activity in healthcare professionals. Results are expected to provide evidence base assessing the effectiveness of selfregulatory and habit-forming strategies in promoting physical activity.

15:30 - 17:00

Does implementing intentions rely on automatic or controlled processes? A test through inhibitory motor training

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Background: Theory of planned behavior predicts that intention necessarily precedes behaviors and that intentions depend on “top – down” processes (i.e. controlled). However, other models suggest that helping individuals to form intentions and to plan their behaviors would rely on “bottom-up” processes (i.e. automatic; implementation intentions). Several studies showed that approaching or using a specific object can be triggered by automatic motor or affective activation and inhibited via training. Training could rely on automatic (i.e. response suppression) or controlled (i.e. inhibitory control) processes.

Methods: One hundred and thirty participants will be randomly assigned to a 2 (implementation intention: yes vs. no) x 2 (inhibitory training: response suppression (modified go-no go task) vs inhibitory control (modified stop signal task)). Participants will complete self-report measures of cigarette consumption, smoking cessation intention and the Fagerstrom questionnaire. We will also measure exhaled carbon monoxide. Next, half the sample will complete an implementation intention to reduce smoking. Participants will then be randomly assigned to either response suppression or inhibitory control training. We will assess self-reported consumption and exhaled carbon monoxide, as well as manipulation checks measure for inhibitory training one week later.

Expected results: We expect lowest levels of cigarette consumption and exhaled carbon monoxide in participants who formed an implementation intention and received inhibitory control training relative to participants receiving no implementation intention or response suppression training.

Current stage of work: Data is currently being collected (45 participants).

Discussion: Implications for the theories and efficiency of implementation intentions will be discussed.

15:30 - 17:00

Lights out and off to bed: combining implementation intentions and nudging to combat bedtime procrastination

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¹Utrecht University, Netherlands

Background: Many people get insufficient sleep because they needlessly delay going to bed despite expecting to be worse off as a result (bedtime procrastination; Kroese et al., 2014). Implementation intentions (ii's) may be a useful strategy for combating bedtime procrastination, but has proven ineffective in previous research (Kroese et al., in prep). We hypothesize that the ineffectiveness can be traced to individuals' reliance on time-based cues (e.g., "if it's 11 o'clock, I will go to bed") when forming ii's, since these cues will be ineffective whenever bedtime procrastinators "lose track of" the time during immersive activities such as playing video games or watching television.

Method: In the present study (N = 46), we investigated whether the effectiveness of ii's could be improved by adding a nudge (i.e., a subtle change in the environment that cues the desired behavior). Participants in the intervention condition formed an ii and had lamps installed in their living room that changed color and dimmed at their intended bedtime. In the control condition, participants did not form an ii, and had lamps installed that did not dim or change color.

Expected results: We expect that participants in the intervention condition (compared to those in the control condition) will be less likely to engage in bedtime procrastination, as measured by the difference between their intended and actual bedtimes.

Current stage of work: We are analyzing the data.

Discussion: If proven effective, this intervention may provide a low-cost, easy-to-use way to improve sleep quantity in the general population.

Promoting healthy eating

15:30 - 17:00

15:30 - 17:00

Obesity among farmers and an effective public health approach for weight reduction

R. Schoberberger¹¹Medical University of Vienna, Austria

Background: Obesity has a high prevalence among the agricultural population. Illnesses associated with obesity are continuously increasing, and generate costs for health and social systems. However, high quality data from representative samples of the agricultural population is sparse and public health programs are rarely offered.

Methods: A structured questionnaire was randomly distributed to more than 30.000 farmers. The high response rate of 36.3 % (54 % women, 46 % men) and the balance in terms of gender and provinces assumes representativeness of Austria's rural population. At a public health program, based on personal modification of eating and exercise behaviour through self-control, more than 4.000 participated.

Findings: In Austria, about 20 % of farmers are obese. Many of them have unrealistic assessments in term of their body weight and do not have the desire to reduce this risk factor. The offer of a public health program for weight reduction shows that great interest and acceptance exists among the rural population, and that a considerable number of people originally at very unhealthy weight managed to achieve sustainable weight loss.

Discussion: Target groups should be informed about the health benefits in healthy weight compared with overweight and obese people, in order to raise health awareness and motivate people at risk for the modification of lifestyle.

15:30 - 17:00

How do people respond to nutrition claims on vegetables? A quantitative and qualitative analysis

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Background: Investigating the influence of different nutrition claim labeled vegetables on purchase behavior. How do people respond to nutrition claims on vegetables, and do different claims have different effects? Investigated by a quantitative as well as qualitative analysis.

Methods: Participants were recruited online (n=305, 152 males) where they were given a choice scenario, open questions, questionnaires (e.g. the nutrition involvement scale) as well as demographic questions. Data was analyzed with logistic regression, using SPSS, and with a **qualitative thematic analysis**. **Additionally, we're** currently investigating if these themes can predict claim use.

Findings: Logistic regression revealed that individuals had a tendency to prefer vegetables with a claim when **controlling for other factors (e.g. BMI, age)** ($\chi^2 (1, N= 305) = 3.972, p < .05$). **Additionally, Nutrition Involvement** was positively correlated with claims: participants with higher nutrition involvement chose vegetables with **claims more frequently** ($\chi^2 (1, N= 305) = 6.453, p = .01$). **We found** four main factors in the qualitative thematic analysis, indicating most people chose due to the vegetable, the label, the combination of the two or other reasons (i.e. random choice). This is further proof that nutrition claims may make fresh vegetables more attractive to buy.

Discussion: Results show potential for the use of nutrition claims on vegetables in order to make them more **salient options for participants**. **Currently we're** analyzing if the themes of the qualitative analysis (potentially when specifying additional themes) can predict the choice for vegetables with claims, which will also be detailed in the presentation.

15:30 - 17:00

University students' dietary practices and significations regarding their health perception: qualitative exploration of discourses

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Sedentary life is the origin of the appraisal of non-communicable diseases (NCDs) which is an important Public health challenge for the future. Food behaviours may influence the occurrence of diabetes or high blood pressure. In this context, young adults studying at the university (18 to 26 years old) are a specific "in between" vulnerable population. They gain some autonomy but are keeping their families' habits. They are tempted by new (and sometimes unhealthy) food behaviours. Meanwhile, they develop their personal food conducts in a stressful context. The present study aims to explore university students' dietary practices and significations regarding their health perception.

Semi-structured interviews were conducted with 138 Bachelor students and analysed with a thematic content analysis of discourses. As results, after coders' agreement, we can assess five themes: Food and health: physical wellness; Studies: life breakdowns and schedules; Social relationships: sharing and support; Lay knowledge and information; Context constraints: food location and lack of money.

Results show that students want to overcome learning difficulties thanks to the pleasure of eating healthy and cheap food in good company that make them fit for studying. They have a good knowledge about diet and aspire to be actors in their food choice. To solve the paradox of knowing the health promotion messages and not practising them, they create their personal balance.

Concerning Public Health systems, these results advocate in favour of taking more into account the next generation food and diet representations and knowledge in order to better target health promotion messages.

15:30 - 17:00

Promoting healthy product choices among (aware) cafeteria customers

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Background: Nudges are subtle rearrangements of a choice context that gently suggest “better” choices and that do not require conscious processing. The present poster describes two field studies with two aims. First, they examined the effects of nudges (i.e., social proof, priming, accessibility) to promote healthy food choices and second, they examined whether awareness of being nudged moderates their effectiveness.

Method: In study 1, customers of a cafeteria were given food trays with placemats that primed healthiness either explicitly or implicitly. In study 2, different healthy products in a snack shop were nudged, either by making them more easily accessible or more popular. This study ran for five weeks. Week 1 served as baseline and Week 2 as the experimental phase, followed by two washout weeks and an additional experimental week. In this latter week, the nudges were disclosed to customers with an explicit sign. Product sales data were recorded as the outcome variable.

Results: Results show that the nudges were effective to significantly increase sales of healthy products compared to the baseline. Disclosing the nudging interventions did not alter their effectiveness, regardless of whether the nudge itself was disclosed (Study 1) or whether the goal of the intervention was disclosed (Study 2).

Conclusion: The present field studies show that it is possible to nudge people into buying more healthy foods while at the same time being upfront about the interventions.

15:30 - 17:00

Perceived impact of small-sized bottles of sugar-sweetened beverages on consumption: a qualitative analysis

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Background: Consumption of sugar-sweetened-beverages (SSB) increases energy intake and the risk of obesity. Our Cochrane systematic review has previously reported that large packages increase the risk of overconsumption, implying that smaller bottle sizes may help to curb consumption of SSBs. This qualitative study explores the experiences of consuming SSBs in different bottle sizes among participants in a feasibility trial assessing the impact of bottle size on in-home SSB consumption.

Methods: Sixteen households in Cambridge, UK received a set amount of cola each week for four weeks (in modest excess of their typical weekly purchasing), in bottles of one of four sizes: 1500ml, 1000ml, 500ml, or 250ml, in random order. At the end of the study, household representatives were interviewed about their experiences of using each bottle size. Interviews were semi-structured and data analysed using the Framework approach.

Findings: Preliminary analysis revealed clear differences in perceptions of the different bottle sizes. Consumption rate and amount were perceived to be higher with smaller bottles. The 250ml bottles were considered as facilitating both in and out-of-home consumption by allowing consumption directly from the bottle, thus minimising effort, and being more portable. Smaller bottle sizes were perceived to increase the frequency of consumption and encourage consumption of more than one bottle at each drinking occasion.

Discussion: These findings raise the possibility that smaller bottle sizes may not reduce intake and reinforce the need for empirical evidence of the effect of bottle sizes on consumption of SSBs.

15:30 - 17:00

How you eat doesn't affect what you eat: a study among French adolescents

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Background: This correlational study determines if eating behaviors are related to two different mealtime factors: the presence or absence of a screen (whether TV, computer or tablet) and whether alone or accompanied by friends or family.

Methods: Participants (N=416) were French adolescents (M age= 16) from a high-school located outside Paris, France. Self-reported diet was assessed with a questionnaire. This was then coded by a nutritionist for number of portions of various foods such as fruit and vegetables, protein, and products with added sugar, fat and salt. For each meal (breakfast, lunch, after-school snack, dinner), they reported whether they had eaten in front of a screen and whether they had eaten either alone, with friends or with family.

Findings: MANOVAs conducted for each meal separately indicated that there were no multivariate effects of screen, or meal companions, or the interaction between the two, for all meals (all ps > .05).

Discussion: Past research showed that young people consume more unhealthy foods and beverages when eating in front of television. The present study goes against those results. Indeed, this may be explained by how France government decided to ban vending machines in all schools or that TV advertisements for snack foods carry health warnings (like cigarettes). Our study extends our understanding of adolescents mealtime media use beyond television viewing to include cellular phones, computer and tablet.

15:30 - 17:00

The efficacy of nationally distributed Smart Family - lifestyle counselling method

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Background: In Finland maternity and child welfare clinics reach 98% of their target group. Smart Family is a lifestyle counselling method coordinated by Finnish Heart Association and applied in 110/320 municipalities. Smart Family method is based on self-monitoring and motivational interviewing. The aim in this study was to investigate if clients who received Smart Family lifestyle counselling perceived more autonomy support (AS) and had higher self-efficacy for healthy diet.

Methods: Nurses who delivered intervention were educated for the Smart Family method. Parents completed questionnaires after a visit at maternity or child welfare clinic (T1: n = 210 Smart Family, n = 152 control) and after next visit 6 -25 weeks (T2: n = 126 intervention; n = 104 control; expected end of data collection 4/2016).

Findings: There were no significant changes in AS [$F(1,218) = .53, p = .468$] or self-efficacy for healthy diet [$F(1,219) = .28, p = .596$] between T1 and T2. Although the direction of the means favored Smart Family, the repeated measures ANOVA showed that the groups did not differ either in AS [$F(1,218) = 2.54, p = .113$] or in self-efficacy for healthy diet [$F(1,219) = .17, p = .684$]. In the multiple regression model neither AS ($\beta = .13, SE = .042, p = .057$) nor study arm ($\beta = .06, SE = .050, p = .350$) predicted change in self-efficacy for healthy diet ($R^2_{adj} = .013$).

Discussion: Possible explanations including dose of lifestyle counselling in health care and fidelity of the intervention will be discussed.

Risk perception, risk communication and
understanding risk behaviour

15:30 - 17:00

15:30 - 17:00

Society's understanding and perception of risk descriptors in medicine

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Background: The current verbal descriptors used to describe the five different levels of side-effect risk in patient information leaflets (PILs) are greatly overestimated compared to their corresponding numerical risk frequency band (e.g. Common – up to 1 in 10 people). The aim of this research is to establish what verbal descriptors we should be using (if at all) for each frequency band identified by the EU.

Methods: A cross-sectional survey of 1067 members of the general public aged 18-65 will be carried out by an online polling company. Participants will be asked for their probability estimates for a range of different verbal risk descriptors used to communicate side-effect risk for an imaginary drug. These will include verbal descriptors currently in use and alternative ones. Analyses will determine the verbal risk descriptors which are consistently given probability estimates that match each of the five EU frequency bands.

Expected results: It is expected results will be equivocal as it is likely there will be no verbal risk descriptors which result in consistent probability estimates that match each frequency band.

Current stage of work: Ethical approval has been obtained and recruitment is starting shortly.

Discussion: This will be the first study representative of the English population to highlight the problem of using verbal descriptors to communicate side-effect risk in PILs. This is intended to encourage the development of better ways to verbally communicate side-effect risk in PILs, or depending on the extent of the results, the abandonment of verbal risk descriptors altogether.

15:30 - 17:00

Young people's beliefs about the risk of bowel cancer and its link with physical activity

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Background: the primary aim was to explore young people's bowel cancer risk appraisals, including whether they had a coherent understanding of the preventative relationship between physical activity (PA) and bowel cancer. A secondary aim was to examine the fit of the Illness Risk Representations Framework (IRR) to beliefs underlying bowel cancer risk appraisals.

Methods: Qualitative design. Semi-structured interviews with 25 people aged 14-17 years. Framework analysis employed.

Findings: Themes reflected the five illness risk attributes of the IRR. **Identity:** participants believed that those with a family history of (bowel) cancer were most at risk, a factor largely absent amongst the group.

Cause: participants suggested lifestyle causes relating to foods/drinks ingested hypothesising the need for direct contact between a harmful substance and the bowel. Most felt that their current lifestyle choices reduced their future risk. The link between PA and bowel cancer was unknown and difficult to fathom.

Timeline: bowel cancer was perceived as a disease of ageing and therefore a distal problem.

Consequences: were most frequently identified as emotional and financial. Few talked about the effects on health and wellbeing.

Control: All participants knew bowel cancer was potentially fatal. They were uncertain how treatable it was but knew that only conventional medicine would work.

Discussion: Interventions should aim to make future risk of bowel cancer more tangible and the full range of consequences understood, provide coherent explanations of how preventative efforts work, and emphasise the typical late presentation of symptoms which reduce treatability. The IRR fit the data well.

15:30 - 17:00

Fear or humour in anti-smoking campaigns? Effects on emotions, perceived effectiveness, and anti-smoking policies

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This study analysed the impact of anti-smoking campaigns (fear vs. humour) on emotions, perceived effectiveness, support for anti-tobacco policies, urges to smoke, and susceptibility to smoke. Participants (N = 108; 54 smokers; 54 non-smokers) were randomly assigned to one of two types of anti-smoking ads: inducing fear (N = 52) or humor (N = 56). During exposure, participants reported their emotions continuously, while physiological data (e.g., heart rate, skin conductance) was being collected using Flowsense – a multi-sensory system developed to register emotions in real time. Perceived campaign effectiveness, support for antitobacco policies, urges, and susceptibility to smoke, were measured after exposure. Results showed that participants in the fear appeal condition felt fear and sadness more frequently, more intensively, and for longer periods. Fear ads were also perceived more effective and decreased the urges to smoke among smokers.

Nevertheless, fear was the only emotion that mediated the effects of fear appeals on the perceived effectiveness of these campaigns. Non-smokers were also more supportive of anti-tobacco policies than smokers. The data corroborate with prior studies by emphasizing the role of fear in anti-smoking advertisements on perceived effectiveness and urges to smoke, and explored how the flow of emotions can be captured continuously in persuasive campaigns.

15:30 - 17:00

How to conduct alcohol screening and counselling? Attitudes of social work professionals and their clients

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Background: Social work professionals frequently encounter clients with alcohol-related problems. However, there has been little research on how professionals or their clients argue alcohol screening and counselling should be done. The present study aimed to improve this knowledge. Social work professionals and clients were asked to comment on the following statement: Alcohol screening and counselling can be done in the right or in the wrong way.

The analytical focus is on how the two parties commented on the statement and whether the professionals and their clients do this in a same way or whether there are differences between them.

Methods: The study employs a qualitative attitude approach. The aim of the approach is to explore the construction of attitudes in argumentative talk. The data consist of interviews of social work professionals (N=14) and their clients (N=14).

Findings: Both the professionals and the clients mainly accepted the statement and described the right way –as neutral, sensible and client-oriented– and the wrong way –as excessively structured, arrogant and judgemental. In few comments, the interviewees rejected the statement and argued that the rightness or the wrongness of any approach always depends on the context of interaction.

Discussion: According to findings the professionals and the clients appear to have a common understanding of how alcohol screening and counselling should be done. The right way described bears a resemblance to empowering approaches. Besides, the findings suggest that some methods developed for alcohol screening and counselling might appear too structured for social work practice.

15:30 - 17:00

Relationship between risky driving attitudes and difficulties in emotion regulation in the sample of driver-learners

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Background: The main aim of driving training is to prepare for safe driving, but research show that inexperienced drivers are the most risky group for road traffic safety in most countries. Various personality features as though as attitudes and emotion regulation features might contribute to the **future drivers'** behaviour on the road. So information about relations between risky driving attitudes and emotion regulation problems of the driver learners before their independent driving might help predicting future driving. The aim of this study is to evaluate the relationship between risky driving attitudes and difficulties in emotion regulation in the sample of Lithuanian driver-learners.

Methods: 524 driver-learners (206 male and 318 female) who registered for the practical driving exam participated in this online study. The Difficulties in Emotion Regulation Scale (DEARS; Gratz, Roemer, 2004) and Risk-taking attitudes for drivers scale (Ulleberg, Rundmo, 2002) was used for measurement.

Results: The results have shown that riskier both attitudes towards driving were related to all scales of difficulties in emotion regulation except lack of emotional awareness. Regression analysis revealed that more risky attitudes towards driving were predicted by being a male, younger age and having more expressed impulse control difficulties and more expressed limited access to emotion regulation strategies taking into account the age of the respondents.

Discussion: The results imply that more attention is needed for emotional regulation training while preparing driver-learners in order to change their risk-taking attitudes towards driving as though as driving behavior in the future.

15:30 - 17:00

Relationship between resistance to peer influence and risky driving attitudes in sample of Lithuanian driver-learners

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Driver-learners face pressure and certain expectations from social environment to drive in a certain, usually, risky manner. In order to be accepted by peers, inexperienced drivers tend to formulate positive attitudes towards risky driving right from the start of driving learning. However, relationship between peer resistance and attitudes towards risky driving is not clear, especially in predicting future risky driving of inexperienced drivers.

Therefore, the aim of this study is to evaluate the relationship between resistance to peer influence and risky driving attitudes in the sample of Lithuanian driver-learners.

524 driver-learners (206 males and 318 females) who registered for the practical driving exam have agreed to participate in online study. Peer resistance was measured using modified Resistance to Peer Influence Scale (Steinberg, Monahan, 2007; Sumter, Bokhorst, Steinberg, Westenberg, 2009) and risky driving attitudes were measured using Risk-taking attitudes for drivers scale (Ulleberg, Rundmo, 2002).

The results have shown that male driver-learners have lower resistance to peer influence in comparison to female participants. Lower resistance to peer influence was related to more positive different attitudes towards risky driving female driver-learners group. Lower resistance to peer influence was related to more positive different attitudes towards except attitude towards joyriding and showing off driving skills to others in male driver-learners group.

The results imply that the reduction of sensitivity to peer pressure is needed in order to change positive attitudes towards risky driving of driver-learners as well as to encourage safe driving in the future.

15:30 - 17:00

Contribution of attentional bias, emotional promiscuity, sexual promiscuity, and affective outcome expectancies for condom use

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Background: Sexually transmitted infections and unplanned pregnancies continue to be a worldwide problem (WHO 2014) and rates in the United Kingdom remain amongst the highest in Europe (ONS 2014). Public Health England has recognised that young people are particularly at risk and have produced a strategic plan to reduce unwanted outcomes (Department of Health 2013; 2015). The current research explores the contribution of emotional promiscuity, sexual promiscuity, and negative affective outcome expectancies to safer sex decision-making and behaviour and concurrently investigates whether safe sex decision making is related to biases in attention for safe sex-themed and sexualised stimuli.

Method: The current study uses a visual probe task to test attentional bias for sexually themed and safe sex images in a young adult population. Participants are asked to complete a visual probe task and self-report measures of sexual promiscuity, emotional promiscuity, condom use attitudes, intentions and behaviour. This study employs a mixed design and young adults aged 18-24 are being targeted (n=165). Analyses will include multi factorial mixed ANOVA.

Expected results: Anticipated results include the possibility sexually and emotionally promiscuous individuals, particularly females, selecting affective outcome expectancies of condom use as salient, will show an attentional bias for safe sex stimuli.

Current stage of work: data collection in progress (n=165)

Discussion: Findings will seek to identify predictors of risky sexual behaviour and demonstrate whether biases in attention are an important factor in safe sex decision making and relevant to the design of public health campaigns.

Improving mental health services

15:30 - 17:00

15:30 - 17:00

Mentally ill parents with minor children – a nationwide survey in German adult psychiatric services

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Children with mentally ill parents are at a significant greater risk for the development of mental disorders. In Germany, 19-27% of psychiatric patients admitted to inpatient treatment are parents with minor children. Early identification and support of affected families may strengthen the mental health of both parents and their offspring. The present study aimed to investigate barriers and facilitating factors for supporting minor children of inpatient psychiatric patients in Germany.

Based on the German Hospital Register mental health practitioners of all psychiatric clinics in Germany were asked to answer a 37-item questionnaire. Overall, N = 425 psychiatric clinics were addressed. Up to now, n = 207 clinics (response rate 48.7%) participated in the survey. Descriptive and thematic analyses of the data have been conducted.

First findings indicate an overall positive attitude of mental health practitioners towards supporting the children of their patients. Most important barriers were:

- 1) Psychiatric workforce: Scarce resources, patient-focused treatment, and lack of contact with the children
- 2) Mentally ill parents: Fear of loss of custody, feelings of guilt and shame, and the high psychological strain
- 3) Structural obstacles: Lack of policy to coordinate interagency collaboration, lack of declaration of competences between service agencies, lack of supporting services

Data collection and analyzes will be completed by the end of March 2016. Cooperation between the social and health sector is necessary in order to offer appropriate support to families with mentally ill parents. One step in this direction is the provision of family sensitive services in psychiatric clinics.

15:30 - 17:00

Developing a clinically meaningful and feasible suicide risk assessment measure for use in emergency settings

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Background: Suicide is a major cause of death in Scotland and despite the prevalence, no official policy exists for assessing suicide risk within emergency wards. The aim of this project is to develop an evidenced-based, clinically informed suicide risk assessment screening measure, suitable for use in emergency settings.

Method: The project has three stages. Stage 1) systematic reviews exploring risk and protective factors of suicide will be conducted. Stage 2) will identify current suicide risk assessment practice in A&E units across Scotland. Stage 3) data from Stages 1 and 2 will be collated and a screening measure will be developed in line with fast and frugal decision science and presented to a panel of experts to seek validation.

Expected Results: The systematic reviews have uncovered new risk and protective factors that have been brought about by recent societal changes. Also, it is expected that different reGENCY departments in Scotland will have different methods of assessing for risk.

Current Stage of Work: At present, the systematic reviews have been completed and ethical approval has been granted for a number of NHS health boards thus far, to which questionnaires are being sent.

Discussion: This project will provide information on current suicide risk assessment practice across Scotland, which will be used to develop a screening measure that can be used in emergency settings. It is hoped that the measure will guide clinicians to provide patients with the appropriate care, and that clinicians will gain confidence in assessing for suicide risk.

15:30 - 17:00

A systematic review and expert consensus study of patient safety in mental health

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Background: Despite the growing international interest in patient safety as a discipline there has been a lack of exploration of its application to mental health. It cannot be assumed that findings based upon physical health in acute care hospitals can be applied to mental health patients, disorders and settings. This systematic review and expert consensus study will explore the research base on patient safety in mental health and identify future research priorities for understanding and improving patient safety in mental health.

Methods: A systematic search will be conducted across multiple databases based upon three search facets (mental health, patient safety and research). Screening, quality assessment and data extraction will be conducted in accordance with the research questions. Extracted information will be analysed and synthesised thematically. Alongside the review, an international expert consensus study will be conducted.

Expected results: We expect to identify key patient safety incidents in mental health and a list of future research priorities to guide the development of a broader programme of translational research studies at Imperial.

Current stage of work: The search strategy has been developed with input from the National Reporting and Learning System taxonomy of patient safety incidents and the Diagnostic and Statistical Manual of Mental Disorders (Version Five). A roundtable event to launch the expert consensus study is planned for 23rd February 2016.

Discussion: This work will help set the agenda for academics and policy makers and support the development and implementation of interventions to improve the quality of care experienced by patients.

15:30 - 17:00

Changes in self-harm ideation and self-rated health in depressive patients during hospitalization

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Background: Suicide is one of the main interdisciplinary problems challenging mental care providers, including health psychologists. Suicide ideation is common among inpatients with depression, undergoing medical treatment.

The aim of current investigation was to reveal changes in suicidal ideation and self-rated health during Hospitalization

Methods: The investigation was conducted in psychiatric department of Kaunas hospital, approved by local ethical committee. The semi-structured clinical interview included 3 questions on suicidal ideation over the past two weeks and was used twice with 28 males and 99 females, diagnosed with depression (ICD-10; F32- F33). **Additional to interview 23 written items SRH scale (Cr.α-0.8) was used.** Mean age of patients was 47.8±12.9 years. Contingency tables and were calculated, level of statistical significance $p < 0.05$.

Findings: Initially 85.7 % of males and 84.8 % females reported about having suicidal thoughts, 46.4 % and 66.7% – intentions and 46.4% and 45.5% indicated attempts. At discharge 46.4% of males and 64.6% females reported thoughts about suicide, none confirmed having suicide intentions or attempts over past two weeks being in hospital.

Self-rated health indicators increased substantially on discharge $p < 0.0001$.

Discussion: These findings emphasize that psychiatric treatment during the hospitalization positively contributes to increase in SRH and reduces suicide risk. However incomplete recovery from suicidal ideation points to the need of improving interdisciplinary approach and increased involvement of health psychologists and psychological interventions.

15:30 - 17:00

Sexual health in the mental health care setting: experiences and perceptions of health care providers

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From a biopsychosocial perspective, sexuality and sexual health are essential components of health and wellbeing and **should not be excluded from other aspects of care. However, clients' sexual health needs continue to be under addressed in the mental health context.** Health care providers' varied understandings of sexual health and its relevance to mental health may be a major contributing factor. This study aimed to develop a deeper understanding of the experiences and perceptions of sexuality and sexual health among mental health care providers.

Qualitative in-depth interviews were conducted with psychiatrists, psychologists and mental health nurses to explore their experiences and perceptions of sexuality and sexual health and its relevance to their clients and professional roles. Interviews were transcribed verbatim and data analysed using thematic analysis. Three major themes were generated: Mind-body split, the therapeutic relationship, and autonomy. Sexual health was constructed as being either a sense of well-being that included sexual fulfilment or biological and belonging in the realm of physical biomedicine. The therapeutic relationship was both improved and **threatened by discussion of sexual health.** Participants' constructions of mental health oscillated between granting autonomy to clients and withholding autonomy, serving to allow or deny sexuality.

The findings indicate that mental health providers' varied understandings of sexual health, including its relevance to mental health care, and attitudes toward mental health may contribute to the inconsistent delivery of sexual health care. Further research is required as to how best address this problem to improve practice and client care in mental health settings.

Cultural aspects in health and health behaviours

15:30 - 17:00

15:30 - 17:00

Factors associated with sexual risk for HIV among women in Russia

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Background: The HIV epidemic is a major health concern worldwide. In Russia, HIV transmission is increasingly affecting young women in the general population. This study is aimed at identifying cultural influences and gender-specific HIV transmission risk factors associated with high risk in women in the general population.

Method: Women at high risk for HIV were identified among a clinical trial study participants recruited at OB/GYN clinics in St. Petersburg, Russia. A total of 363 participants completed an HIV risk survey and women at higher HIV transmission risk were identified (N=51). The HIV risk criterion was based on the following: multiple sexual partners combined with inconsistent condom use or sexually transmitted infections and no HIV testing in the last 12 months. The risk groups were compared on multiple variables, including alcohol use and **partners' risk factors**.

Findings: The risk group reported higher alcohol use problems compared to the lower risk group. In both groups, alcohol use prior to sex by women and their partners was correlated with risky sexual behaviors, such as a higher number of casual sexual partners and inconsistent condom use.

Discussion: There is a complex set of factors that put Russian women at risk for HIV, including alcohol consumption and risky sexual behaviors. The study was supported by research grants R01AA016234 from the National Institute on Alcohol Abuse and Alcoholism (NIAAA)/Fogarty International Center and the U.S. - Russia Collaborative HIV/AIDS Research Initiative, the National Institutes of Health (NIH), USA, Supplement 3R01AA016234-05S1 and the Russian Foundation for Basic Research12-06-91444.

15:30 - 17:00

“If you listen to the doctor, you still have to die”

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Background: Little is known about the processes underlying cultural differences in health behaviour. Leventhal's (2011) CSM was adopted as a theoretical framework to investigate differences in illness perceptions between the UK (individualistic culture) and Pakistan (collectivistic culture).

Methods: Participants were recruited in Pakistan (N = 71) and the UK (N = 68). A 2 (culture) x 5(illnesses) mixed design was used with culture as a between group and illness as a repeated measure factor. Five illnesses were included, two with higher prevalence in Pakistan (malaria, tuberculosis), two with higher prevalence in the UK (diabetes, lung cancer) and one with equal prevalence (flu), to control for relative prevalence across the two countries. Participants completed a booklet in their native language. For each of the five illnesses participants responded to open ended questions concerning their beliefs about symptoms, cause, consequences, cure and prevention. Responses were coded according to domains (e.g. the dimension cause was coded according to 6 categories such as environmental, biological, long and short term behaviour, chance/faith and stress) for subsequent statistical analysis.

Findings: Analysis confirmed that participant's perceptions of illness prevalence in their home countries mapped on to the WHO prevalence data. A series of culture by domain MANOVAs revealed significant cultural X domain interactions. For example, Pakistani participants anticipated more depressive affective responses, more functional consequences and were less likely to anticipate seeking medical treatment.

Discussion: Data revealed distinctive patterns of cultural difference that can be interpreted in terms of collectivism and individualism across cultures.

15:30 - 17:00

Illness perceptions, psychological well-being, and unmet needs among Indian parents of children with neurological illnesses

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Background: This study examined the relationship between illness perceptions, psychological well-being and unmet needs among parents of children with a neurological illness.

Methods: Using purposive sampling, and after obtaining informed consent, 205 participants (mother/father) were administered questionnaires on illness perceptions (Brief Illness Perception Questionnaire; Broadbent et al., 2006), psychological distress (Hospital Anxiety and Depression Scale; Zigmond & Snaith, 1983), coping (Coping Inventory for Parents; McCubbin et al., 1983), and unmet needs (Unmet Needs in Families with Children with Disabilities; Thyen et al., 2003). The variables were analysed using correlation and multivariate analysis of variance.

Findings: Bivariate analyses indicated that among the demographic variables only parents' education significantly correlated with their unmet medical and physician's care coordination and communication needs ($r = -.23, p < .01$ & $r = -.26, p < .01$ respectively) and negative illness perceptions ($r = .27, p < .01$). MANOVAs were conducted with two demographic variables (i.e., educated vs. uneducated) as independent variables, and with the three psychological variables (illness perceptions, coping, unmet need) as dependent variables. Significant associations were examined further by non-parametric testing (Kruskal-Wallis). Findings revealed significant association between the psychological variables and parents' education ($F(9,194) = 4.062, p < .05$).

Discussion: The study findings indicated that uneducated parents were more likely to experience unmet medical and physician care and communication needs, use unhelpful coping strategies, and to perceive their child's illness as threatening. These findings emphasize the need to provide additional psychological and information support regarding paediatric neurological illnesses to parents who are not educated.

15:30 - 17:00

Omani parents' customs, knowledge and beliefs regarding their children's diet and nutrition

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Background: The purpose of this study was to explore Omani parental customs, attitudes and beliefs relating to their children's diet and nutrition, in the context of a significant decline in childhood malnutrition and infectious diseases, and increasing incidence of childhood obesity.

Methods: Semi-structured interviews with nine Omani parents facilitated an inductive approach, to be open to new or culturally-specific ideas. Data was analysed thematically and researcher triangulation was used to enhance thoroughness, validity and objectivity. This type of qualitative approach captures phenomena that might otherwise be missed or dismissed, and is considered useful when the subject is relatively unexplored.

Findings: A range of parenting-styles were recognised, indicating detrimental and beneficial customs and beliefs. Parents struggle with family influence and a lack of control outside of the home. Food availability and accessibility has changed significantly, and there is a lack of government regulation.

Discussion: A multitude of factors potentially contribute towards the increase in childhood obesity in Oman. Rapid social and economic development, in combination with historic health concerns and traditional customs, and detrimental parenting styles, call for governmental regulation and legislation in schools and in the commercial food sector, health campaigns, and more involvement for health professionals in advising and supporting parents.

Occupational health: individual and organisational issues

15:30 - 17:00

15:30 - 17:00

Selected predictors of occupational burnout of healthcare workers. Implications for interventions

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Background: Generally speaking, professional burnout may be understood as the psychological reaction to chronic work stress. According to the model of Christina Maslach, burnout is the sequence of three dimensions: emotional exhaustion, depersonalization and reduced personal accomplishment.

Objectives: The aim of this study is to analyze the relationships between occupational burnout and specialized, demographic healthcare workers.

Methods: The research was carried out in Poland and involved 1785 healthcare workers. 627 of whom were specialized in operation, 944 non-operation, and 213 worked in primary healthcare.

The following research methods were used:

- Maslach Burnout Inventory (MBI)
- Sociodemographic Questionnaire.

Findings: The surveyed from the operating wards showed the largest burnout on all the measures of MBI, and the displayed differences were of high significance ($p < 0,001$). Men showed a higher DEP level ($p < 0,05$), and age and work experience influenced the increase of the PAR scale results ($p < 0,001$).

Conclusions: The results of surveying physicians and nurses confirm the need of preventing occupational burnout as it lowers healthcare quality and affects the health of workers.

15:30 - 17:00

Social-demographic profile, professional training and practices of psychologists in health services in Brasilia, Brazil

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²University of Brasilia, Brazil

Background: In Brazil, advances in professional insertion of psychology in health services have been observed, as the greater diversity of services and teams where they work. The study aimed: to characterize the socio-demographic profile and professional training of psychologists working in health services in Brasilia; and to describe the types of services where they work, professional practices and theoretical-methodological frameworks adopted. **Methods:** A survey design, cross-sectional study. Ninety six health psychologists participated (represents 30% of the health psychologists working in Brasilia), 91.6% women. The age ranges from 24 to 54 years (M=35,5; SD=6,6). The instrument was a self applicable online questionnaire and data analysis included descriptive statistical techniques. The study was approved by a Research Ethics Committee.

Findings: Thirty one (32.3%) professionals have lato sensu specialization courses and 34,4% have master's degrees. The majority (88,4%) worked in public health services, contract of 40 hours per week (52.1%). Regarding the type of service, 66,7% work in hospital. On the practices carried out frequently, they cited: individual psychological care (93%), psychological care for family members (69%), educational activities in health (59%) and group intervention with patients (55%). On the theoretical and methodological frameworks adopted, the most frequent were cognitive-behavioral (42.7%) and psychoanalysis (29.2%).

Discussion: It was observed that the majority of participants were women, young and had done postgraduate courses. The results indicate the strengthening of health psychology in Brasilia, especially in public health services, but still remains a high concentration of professionals in tertiary care and few professionals in primary care.

15:30 - 17:00

Leadership style in Romanian police. Implications for well-being at work

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Only a limited amount of leadership literature has discussed the impact of leadership on subordinates. An even smaller amount of studies has investigated how leadership affects the health of subordinates (Nyberg et al., 2005). This study aimed at describing leadership style in Romanian police elite units. LBDQ-XII (Stogdill, 1963, 1964) has a long history of use in military settings (officers), showing a good predictive validity for initiating structure and consideration (Schriesman & Kerr, 1974). 92 leaders (91 males and 1 woman, aged 25-52, age mean 37,8, 84 officers and 1 NCO) completed the questionnaire.

Applying Hotteling principal component method, with Varimax rotation and Kaiser normalisation, we found three factors: organizing in uncertainty, task orientation and relationship orientation. The results confirmed „the military model myth” (Cowper, 2000), showing that police leaders are displaying many different behaviors as expected by former police leadership theories, trying to face daily mission uncertainties (Gerber & Ward, 2011).

Decision authority and the support provided to subordinates and fellows are powerful predictors of future health among subordinates (Oxenstierna et al., 2004). The initiating structure behaviours of leaders are expected to be positively related to job satisfaction among subordinates (Alsubaie, 1997), since leadership dimensions explain 9% of the variance in emotional exhaustion (Stordeur et al., 2001, Langner, 2002).

A leader who balances task and relationship orientation creates the lowest levels of stress or burnout among subordinates (Harris, 1999). With respect to the health and job satisfaction of subordinates, the study also addresses various health promoting factors.

15:30 - 17:00

The quality of voice emission and the professional burnout among school teachers

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The subject of the research is the connection between school teacher's quality of voice emission and the professional burnout. 68 school teachers have been examined. The group was examined by interview and questionnaire methods. The questionnaire methods used were as follows: Maslach Burnout Inventory, The Voice Handicap Index, The Phonatory-Breathing Test. It has been proved, that the professional burnout is a relevant problem among teachers and there is a relationship between the quality of voice emission and the professional burnout in the study group.

A significant correlation between depersonalization and the quality of voice emission points to the need for analysis of the interaction between teacher and pupil in the context of improving the quality of teacher's voice emission. Subjective assessment of the teacher's state of health was related to the quality of voice emission and the professional burnout. The research allows to formulate practical conclusions.

There is a clear need to prevent teacher's stress and burnout, taking into account aspects of voice emission in the considered context. Teachers require prevention and education in the field of voice hygiene and the connection between stress, burnout and the effective use of voice at work.

15:30 - 17:00

Real-time perception of demand-control and effort-reward related to daily tasks and burnout in nurses

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Background: The aim of this study is to analyse how the perception of demand, control, effort, and reward changes as a function of the task performed by ward nurses, through real-time assessment, and depending of the level of burnout.

Method: A three-level hierarchical model with repeated measures design was used to assess the momentary self-report of 95 hospital ward nurses, through a smartphone programmed with random alarms, along five working days. They answered which task they were doing, following the WOMBAT classification, and the perceived level of demand, control, effort, and reward, on a 10-points single-item scale for each variable. Burnout was also assessed once, using MBI.

Findings: Demand, effort, and control perception depend mostly on factors related to the moment, compared to factors related to the person (ICC: .42, .45, .40 respectively). Reward was mostly related to nurses' factors (ICC: .59), being higher levels of burnout related to lesser reward perception in all tasks ($B = -0.093$; $p < .001$; $CI = -0.13$:-0.05), and documentation task the less rewarding one ($M = 5.3$; $SE = 0.64$). Direct care was the task assessed as the most demanding one ($M = 6.53$; $SE = 0.46$) and effortful ($M = 6.24$; $SE = 0.46$) but also the one with higher level of control ($M = 7.36$; $SE = 0.7$), and not less rewarding than others ($M = 5.75$; $SE = 0.65$). **Discussion:** The main feature of burnout is the lack of perception of reward in the daily activities and not the perception of more demand and effort, nor less control.

15:30 - 17:00

The importance of work – life balance for well-being of Lithuanian emigrants and non-emigrants

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Background: Scholars agree that work – non-work life conflicts lead to decrease of well-being and satisfaction with life. Emigration can also be considered as a threat to the well-being even if many people choose emigration in order to increase their quality of life. Emigrants face many changes in their work and private life as they need to adapt to new society and new organizational requirements. However, the nature of work – nonwork life balance of emigrants is addressed insufficiently. Thus, this presentation is aimed to explore the relationship between work – life balance and well-being in the group of Lithuanian emigrants and nonemigrants.

Methods: 953 working Lithuanians (52.8 % emigrants; 22.2 % males) participated in the cross-sectional online survey. Work – life balance was measured with Work Spillover into Family Life scale and Mental Health Continuum Questionnaire was used for the evaluation of well-being of study participants.

Findings: Emigrants reported lower levels of job-marriage, job-parent, job-leisure and job-home management conflicts and higher psychological, social, and emotional well-being compared to non-emigrants (even when other socio-demographical variables were controlled). Regression analysis revealed that lower levels of jobhome management conflict predict higher emotional, social, and psychological well-being of emigrants while lower job-marriage conflict was found to be an important predictor of emotional and psychological well-being of Lithuanians living in their country of origin.

Discussion: The well-being of emigrants and non-emigrants is related to different domains of work – private life conflict, thus different strategies for balancing between work and non-work are needed.

15:30 - 17:00

Development and analysis of effect of the team communication training for Japanese care staffs

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Objectives: This study was to examine the effect of team communication training for Japanese care staffs in the causal model of teamwork (Okuta et. al. 2013). Japanese care staffs worked in nursing homes for elderly and disabilities and nursery schools have troubles on his hands healthily. The one of cause of the troubles was human relations of the workplace. So we developed the training program to make the human relations at the workplace and to improve the performance of work.

Methods: The training program consisted of three elements, building, initiative and trust. The participants experienced conflict of the group works and tried to solve conflicts. After experiencing a group activity with the various sizes, the participants split up into a group of 6 - 7 people and did a group activity. The participants assumed it twenty seven care staffs who agreed to the participation in this training after having participated in two day's session. This training was performed by Yokohama social welfare council sponsorship. The participants answered the team communications scale in 3 times with the team process.

Results: Analyses of the training showed significantly effects on team communications of "Analyses and Clear of labor"(F(2,24)=10.21, p<001), "Feedback" (F(2,24)=6.31, p<05) .

Conclusions: This study indicated that the training have effects in the teamwork model. In future, we'd like to consider the way to raise the score of the item which wasn't efficacious and follow-up after training.

Psychophysiology of health

15:30 - 17:00

15:30 - 17:00

Priming and prevention of risk taking in winter sports: physiological correlates

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Background: The winter sports practice causes injuries each season on ski slopes. A solution to reduce risktaking and prevent injuries would be the use of priming procedures as developed in social psychology. This laboratory study tested a priming procedure on a specific risk-taking task in winter sports associated to physiological reactions.

Methods: Participants (n = 116) were exposed either to a poster including a message advocating to slow down on the slopes, or to a poster with the message "breathe". Both posters included a specific logo. Then they performed a computerized risk-taking task related to the speed on the slopes. Between each trial (30) of the task, participants were re-exposed briefly to the logo from the posters (vs. a control logo). The electrodermal and electrocardiogram activity were continuously recorded during the task.

Findings: The risk-taking score was lower in the condition with the logo derived from the poster (with the message "breathe"), compared to the control logo condition, $F(1, 112) = 4.46$, $p = < .05$. However, we observed no significant effect of the logo (vs. control logo) from the posters on the heart rate and electrodermal reactions.

Discussion: Priming procedures and the understanding of associated physiological reactions offer new perspectives in the prevention of risk-taking in winter sports. It would be of interest to test directly on the slopes **the effect of the logo derived from the poster (with the message "breathe") on the speed and on the physiological responses of skiers (e.g., wristband measuring the heart rate).**

15:30 - 17:00

What makes sense in our body? Psychological and sensory correlates of somatosensory amplification

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Background: Somatosensory amplification (SSA) was connected to a variety of medical conditions (e.g., health anxiety, somatization, chronic pain), modern health worries, and the nocebo phenomenon in past studies. Despite its practical importance, its conceptual understanding is quite poor.

Methods: 212 students completed questionnaires (Somatosensory Amplification Scale, Body Awareness Questionnaire, PHQ-15 measuring subjective somatic symptoms, Big Five Inventory), and 118 students also participated in sensory measurements assessing pain threshold/tolerance, balancing ability, sensitivity to bitter taste, and heartbeat detection ability.

Findings: SSA was connected to pain threshold (Spearman's $\rho = -.32$, $p < .001$) and tolerance ($\rho = -.25$, $p < .01$), perceived unpleasantness of a bitter solution ($\rho = .18$, $p < .05$), body awareness ($\rho = .26$, $p < .01$), and somatic symptoms ($\rho = -.33$, $p < .001$). The final equation of the multiple linear regression analysis (explaining 26.8% of the total variance of SSA) included four significant predictor variables: body awareness ($\beta = .297$, $p < .001$), pain threshold ($\beta = -.254$, $p = .003$), somatic symptoms ($\beta = .249$, $p = .003$), and bitter unpleasantness ($\beta = .189$, $p = 0.023$). Of the five factors of personality, SSA was connected to extraversion ($\rho = -.15$, $p < .05$) and emotional stability ($\rho = -.21$, $p < .01$).

Discussion: Body focus and perceived symptoms are important psychological concomitants of SSA. Concerning the sensory stimuli, only information that (1) reaches conscious processing and (2) might be interpreted as threats to health (e.g. pain and bitterness) is impacted by SSA.

15:30 - 17:00

The influence of emotion regulation on experiential, expressive, and physiological reactions while experiencing sadness

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Background: Emotion regulation plays an essential role in health and illness. This study investigates the influence on five different maladaptive (rumination, avoidance, passivity, dysregulation, and expressive suppression) and two adaptive (reappraisal and social support) emotion regulation strategies (ERS) and their associations with alexithymia as well as their influence on experiential, expressive and physiological responses to sadness.

Method: Expressive (corrugator und zygomaticus activity) and physiological reactions (measurement of cardiovascular and electrodermal system) of 105 subjects (M age: = 26.8, female = 64) were recorded while evoking sadness using two induction methods (films and music). Emotional experience was assessed by explicit and implicit ratings. Measurement of alexithymia and habitual ERS were taken one week prior to the experiment.

Findings: The use of dysfunctional-passive ERS (avoidance, passivity and expressive suppression) was associated with higher alexithymia, less report of negative emotional experience and less arousal, and higher heart rate variability in both sadness induction conditions. Subjects with more dysfunctional-active ERS (rumination and dysregulation) displayed more corrugator activity.

Discussion: The parasympathetic reaction to sadness of subjects with dysfunctional-passive strategies could indicate a withdrawal tendency from emotional situations, while reporting fewer emotions could be part of the strategy itself. The more intense negative expression of subjects with dysfunctional-active strategies may be an attempt to communicate their negative emotions without actively requesting for help. The findings help to clarify some underlying mechanisms of maladaptive ERS which have an impact on health and well-being.

15:30 - 17:00

Electrophysiological correlates of chocolate stimuli in binge disorders and healthy controls

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Background: Chocolate is a naturally rewarding stimulus, it is perceived as highly problematic with regard to controllability of its intake and appears to be one of the most craved foods. This stimulus has been reported to elicit binge eating in Eating disorders –ED. So far, very little attention has been paid to the role of food odour in the generation of craving and their associated brain functionality.

Goals: The aims of the study were to compare event-related potentials of motivated attention towards chocolate stimuli (visual and smell) in binge-disordered patients when compared with healthy participants and their effect on craving.

Method: 19 ED patients, diagnosed according to DSM-5 criteria, and 20 healthy controls participated in the study. All were females and performed a chocolate visual-flavours paradigm. The former consisted of 56 neutral and 56 chocolate pictures, presented in random order in a block design. Participants gave subjective ratings of craving before and after each block and electroencephalogram was recorded continuously.

Results: Subjective craving towards chocolate stimuli, although increased in ED, did not differ significantly among the groups. However, there was a main effect of category in that neutral pictures with neutral smell led to the lowest craving, chocolate pictures with chocolate smell to the highest. The Late Positive Potential was higher for chocolate stimuli than for neutral stimuli, patients having lower amplitudes than healthy controls.

Conclusions: Chocolate might be partially responsible for differential subjective craving effects and differences in brain activity, when comparing ED with binge episodes and healthy controls.

15:30 - 17:00

Emotional, personal and behavioural correlates of arachnophobia

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Phobic responses can be described as a deficit of effortful automatic and voluntary regulation of emotions. In neurobiological models of anxiety the Threat Evaluation System evaluates the emotional significance of stimuli before they are processed consciously. The quick automatic processes are followed by voluntary vigilance avoidance reaction. Prefrontal cortex is involved in up and down regulation of emotional responses by modulating activity in the insula and amygdala. The behavioral activation/inhibition systems (BAS/BIS) provide the motivational basis for individual differences in behavior, mood and affect.

Hypothesis: Special interests concerned to six facets of individually unique emotional profile proposed by Davidson within the framework of affective neuroscience –and whether they might show gender differences in relation to the phobia.

Methods: The sample of 162 medical students filled out set of questionnaires (Spider phobia, General health, Trait emotional intelligence quotient, Emotional style and BIS/BAS scales) which were furthermore statistically processed by ANOVA and regression analyses.

Findings: Gender, resiliency, awareness, general anxiety and coping accounted for small but significant variance of arachnophobia. In men was level of subclinical phobia significantly lower than in women. The buffer effect of gender was shown up in the models for interaction between arachnophobia and self-control, awareness, resiliency, coping, respectively. Gender also mediated relationship between phobia and BIS motives.

Conclusion: Self-control, resiliency, awareness and coping influenced differently level of arachnophobia in relation to gender. Especially awareness that displays characteristics of interoceptive signals seems to have big potential for decreasing of symptoms of phobia via cultivation of bodily perceptions in psychotherapeutic settings.

Service development and training in implementation research

15:30 - 17:00

15:30 - 17:00

Use of theory in process evaluations of healthcare professional behaviour change interventions: a systematic review

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Background: Understanding how, why, and under what conditions interventions are effective remain critical issues for advancing health psychology and improving health care delivery. Process evaluations (PEs) explore such issues. The Medical Research Council guidance for designing and conducting PEs of complex interventions recommends explicitly using theory. However, whether and how theory has been applied in PEs of healthcare professional (HCP) behaviour change interventions is unclear. This review aims to investigate (a) to what extent, and (b) how theory has been used in PEs of HCP behaviour change interventions.

Methods: Electronic databases will be searched using terms related to: process evaluation, healthcare professionals, behaviour/practice change, and intervention. Eligible studies will report a PE of a HCP behaviour change intervention. Data extraction will include study characteristics and the extent to which theory is used. Extracted data from PEs employing theory will include: types of theories used, theoretical constructs measured, and description of cause-and-effect associations between theoretical constructs.

Expected results: This review will provide an overview of current theory use in PEs, and describe the state-of-the- science in PE literature.

Current stage of work: Search strategy, eligibility criteria, and data extraction sheets have been drafted. Based on scoping searches for 'gold-standard' articles, precision of the search strategy is acceptable (11%).

Discussion: Establishing current theory use in PEs is essential for optimising the application of theory in PEs. Review findings will inform a theory-based PE of an audit-and-feedback intervention aiming to improve blood transfusion practice and may similarly inform the design of other theory-based PEs.

15:30 - 17:00

Is there scope to use the COM-B model for developing an online health psychology module?

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Background: Digital technologies are increasingly being used for training future healthcare professionals. User attrition is an issue in online learning as it is in digital behaviour change interventions. This study aims to review an online Health Psychology module to explore how behaviour change techniques (BCTs) linked to components of the capability, opportunity, and motivation (COM-B) model may be integrated to the module for potentially improving future healthcare professionals' motivation, engagement, and retention.

Methods: An online module titled 'Health Promotion and Behaviour Change' is deconstructed in terms of the online tools, learning materials and, formative and summative assessments. Each element is coded in terms of occurrences of BCTs, which are then mapped on to the COM-B constructs. Additional opportunities for integrating BCTs are identified.

Findings: The study reports the challenges and opportunities for integrating BCTs in the module. Currently some elements in the module contain BCTs, including tools for self-monitoring behaviour, social support, and prompts and cues related to online learning experiences. Findings suggest a lack of theoretical underpinnings in the development of the module but there appears to be scope for using the COM-B model for informing module development.

Discussion: There is potential for going beyond teaching future healthcare professionals about theoretical models to actively use them (e.g. COM-B model) as a framework for guiding module development, delivery, and evaluation. Future research could investigate the use of other approaches for developing digital behaviour change interventions (e.g. the person-based approach) to improve retention rates in future healthcare professionals' online learning experiences.

15:30 - 17:00

Students' experiences of studying MSc health psychology programmes in the UK: a qualitative study

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Background: Thirty-three UK universities offer an MSc Health Psychology. However, little is known about how students perceive this training, why students chose to complete these programmes and how their studies fit with their future career goals. To attract students to the discipline, health psychology programmes need to understand the expectations of potential trainees. This study aimed to explore students' reasons for, and experiences of, studying MSc Health Psychology programmes in the UK.

Methods: Universities offering an MSc Health Psychology programme were contacted to obtain details about the course. Five universities were purposively selected to give variation in course characteristics and course directors were contacted to invite students to participate. Students were purposively selected to obtain variation in age, gender and nationality. Semi-structured interviews were carried out in person or by telephone. Transcripts were analysed using thematic analysis.

Expected Results: Information on 30 out of the 33 courses in the UK was collected. Six students have been interviewed to date. Students report being attracted to health psychology because of the range of career opportunities it can open up. For some an MSc Health Psychology is perceived as a route into clinical psychology. Students are particularly enthusiastic about placements during their MSc with preference for opportunities outside academia. Some confusion exists amongst students about routes to become a Chartered/Health Psychologist.

Current Stage of Work: Interviews are ongoing and are expected to be completed by June 2016.

Discussion: These results will help inform existing and future training programmes in health psychology.

15:30 - 17:00

Critical implementation conditions in interventions and policies for obesity prevention: findings from DEDIPAC case study

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Background: The aim of the qualitative case studies was to gain a better understanding of what health promotion professional and policy makers think are important facilitators and barriers to a successful implementation and transfer of both multi-component interventions and policies in Poland.

Method: Interviews were conducted with 8 stakeholders and implementers of three policies and one intervention. **The cases were:** (1) The “European Schools for Healthy Food – Slow Food in the Canteen” an intervention promoting the consumption of fresh and healthy foods in primary school canteens, (2) “Fit Student” policy preventing obesity among children and adolescents through identifying students at risk for obesity, (3) “Tasty, Healthy, Valuable” policy promoting a healthy diet through advice provided by a municipality-employed specialist, and (4) “Fit City” a city-based program aiming to form pro-health behaviors in the local community. Thematic analysis was applied, guided by the RE-AIM model for implementation and findings from a systematic review on 83 conditions for successful implementation.

Findings: For the intervention, thirteen facilitating conditions (including process evaluation, simplicity, training for implementation) and two barriers (e.g. referring to setting characteristics) to implementation were found.

For policies, ten facilitating conditions (including delivery characteristics such as dose and fidelity) and nine barriers (e.g. referring to government involvement, adoption to physical environment) to implementation were identified.

Conclusions: The vast majority of elicited conditions referred to the adoption and implementation components of the RE-AIM model whereas reach and maintenance conditions were rarely indicated by the stakeholders and implementers.

15:30 - 17:00

Development and implementation of evidence-based practice guidelines for psychological interventions in post-stroke rehabilitation

H. Kampling¹, C. Reese¹, O. Mittag¹

¹Medical Center - University of Freiburg, Institute for Quality Management and Social Medicine, Germany

Background: Main objectives of neurological rehabilitation are improvement of impairment and cognitive performance, as well as promotion of activities and participation. It is conducted in a multidisciplinary and setting, and psychological diagnostics and interventions are a pivotal part of it. Goal of this project was to develop practice guidelines for psychological interventions in the rehabilitation of stroke patients (funding: German Statutory Pension Insurance).

Methods: In order to foster implementation of the recommendations, we incorporated the following steps: 1) in order to base the content on best available evidence, we conducted a systematic search for guidelines, reviews and literature, 2) we surveyed all neurological rehabilitation facilities in Germany for information on current structures and practices, and 3) we discussed a preliminary draft of the recommendations with national experts (psychologists, physicians, scientists, therapists for occupational, speech and physical therapy, nurses, patients). In addition, a sample of stroke patients was asked for their opinion on certain recommendations.

In a final step we then consulted psychologists and medical directors of all neurological rehabilitation centres (N=344 questionnaires; N=172 centers), and asked for their appraisal on each recommendation (approval, rejection, or alternate suggestions).

Findings: Response rate was 35% (n=121). We received 870 suggestions. Approval was 97% on average (range: 88-100%).

Conclusion: The broad participation of clinicians, scientists and patients allowed us to develop detailed recommendations based on current evidence and best practice. Now, evidence-based and widely accepted recommendations for psychological interventions in post-stroke rehabilitation are available. We expect that their implementation will improve neurological rehabilitation.

15:30 - 17:00

Journal clubs for postgraduate health psychology students: experiences and perceived impact on skills development

S. Dean¹, A. Burton¹, H. Atherton¹

¹Staffordshire University, United Kingdom

Background: Understanding and being able to critique methodological issues is vital to ensure high quality health psychology research. However, students often have difficulty becoming proficient in critical thinking. Journal clubs have been used to enhance critical skills and promote the use of evidence based practice in medical students, and have the potential to enhance training in other disciplines. In 2014/15 tutors at Staffordshire University introduced journal clubs to provide Health Psychology trainees the opportunity to discuss and evaluate research. This project will explore **students' experiences of taking part in these clubs** and perceptions of the value of this strategy for developing critical thinking skills.

Methods: Semi-structured interviews will be conducted with 6-12 participants who engaged with journal club in the 2014-15 or 2015-16 cohort. Thematic Analysis (Braun & Clarke, 2013) will be used to analyse the data.

Expected results: Themes will seek to explain: (1) What it is like for students to be part of journal clubs; (2) the skills developed as a result of engaging in the clubs; and (3) recommendations for future strategies to help develop critical evaluation in Health Psychology Trainees.

Current stage of work: Ethical approval has been granted. Data collection starts in February.

Discussion: Results will inform the development of health psychology journal clubs. Such clubs could be used more widely to develop understanding of methodological issues in research and critical thinking in trainee health psychologists and other health care professionals.

15:30 - 17:00

Implementing enhanced recovery pathways: a literature review with realist synthesis

A. Coxon¹, K. Nielsen¹, C. Fox¹, J. Cross¹

¹University of East Anglia, United Kingdom

Background: Enhanced Recovery Pathways (ERPs) are increasingly popular across a broad range of surgeries within NHS hospitals. Existing research shows that when properly implemented, ERPs improve patient outcomes and reduce length of hospital stay. However, ERP implementation can require significant changes in ward procedures, and staff adherence to ERP protocols is often low. This review explored which ERP implementation strategies are most effective in which circumstances.

Methods: Realist synthesis methodology was adopted to explore the interaction between hospital context, implementation mechanism and protocol adherence. The scope of the review was defined, and a search of the literature (including grey literature) conducted. Evidence was appraised, data extracted and findings synthesised.

Findings: Literature related to UK ERP implementation is limited, with little detail given about context or implementation strategies. Three a priori propositions were **identified**: (1) **The use of an “ERP champion”** or change agent improves fidelity and long-term sustainability of the ERP protocol, (2) ERP protocols which are tailored to the local ward context (taking into account existing practices) are more likely to be adhered to, (3) Consultation with all stakeholders in the design and implementation of ERP protocols reduces resistance to change and ultimately improves fidelity and sustainability.

Discussion: ERP literature lacks sufficient detail regarding implementation strategies. However, comparing the available data with existing implementation theory from other research areas suggests that ERP implementation is more successful (with regards to protocol adherence and sustainability) when tailored to local contexts, and when the design and implementation are guided by stakeholder input.

15:30 - 17:00

From theory based research to service development: integrating behaviour change with psoriasis management

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Psoriasis is not considered a serious enough medical condition to warrant a dedicated psychological service despite the role of mood and behavioural factors in psoriasis being well established. Half of patients with Psoriasis are obese and inactive; nearly half smoke and a third use alcohol excessively. Up to 30% of people are depressed or anxious. Disease severity is not related to degree of distress and clinicians are not good at either guessing or systematically detecting distress or psychological (lifestyle issues). Patients report spending long periods being unmanaged, under-managed or even mismanaged in primary care; often given out of date information and treatments and no hope for future effective treatments. By the time they access specialist care they have well-established skin disease, low mood and motivation and have developed ineffective self-management skills and health behaviours.

Many report cumulative life course impairment: low education levels; not seeking work –or doing jobs where they can easily hide; having poor relationship history and high levels of reported suicidal ideation.

Our research programme (www.impactpsoriasis.org.uk) provides a platform for a new integrated dermatology and psychology clinic. This presentation will do the following:

1. Outline the process of working from research study outputs to establishing a fit for purpose, cross-specialty service.
2. Identify the potential pitfalls to creating a new service in this 'Cinderella' specialty within a rapidly shifting landscape of care provision.
3. Discuss advantages of using this service development for future research idea generation and building research capacity.

15:30 - 17:00

The feasibility of delivering a physical activity intervention for adults within routine diabetes care

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Aim: To explore the feasibility of delivering a physical activity intervention for adults within routine diabetes care.

Methods: A 12-month intervention was delivered for adults with Type 1 or Type 2 diabetes within one area of the National Health Service (UK). Participants (n=89) received a 30-minute face-to-face physical activity consultation, monthly follow-up consultations for 6-months (e-mail or telephone), and further face-to-face consultations at 6 and 12-months. Consultations were delivered by an Exercise Health Psychologist, guided by behaviour change strategies, and tailored to stage of change. Outcome measures at baseline, 6 and 12-months included: physical activity (IPAQ), HbA1C, BMI, and psychological wellbeing (PANAS and HADS).

Findings: 15% (n=13 of 89) met current physical activity guidelines prior to intervention which increased to 69% and 78% at 6 and 12 month follow up (p=0.004). An increase was observed from baseline in positive affect (PANAS) at 6 and 12-months (30.5 vs 32.1 vs 34.6, p=0.018). At 12-months an improvement from baseline was observed in BMI (33.1 vs 32.kg/m², p<0.005) and perceived depression (HADS) (5.1 vs 2.7, p=0.006). No further significant changes were recorded.

Discussion: The 12-month intervention cost GBP152 per participant. Process evaluation observed high protocol fidelity and adoption by health professionals. The role of champions was identified as a key factor. Several minor amendments were made to increase support for participants with complex support needs.

Conclusions: Physical activity consultation can be a feasible method of supporting people with diabetes to increase their levels of physical activity, lose weight and improve psychological wellbeing.

Thursday, 25 August

17:00 - 18:00 | GORDON SUITE

Making behavioural science fit for behaviour change interventions

Professor Marie Johnston, University of Aberdeen, Scotland

The evidence that behaviour influences health and health outcomes continues to increase exponentially. As a result, governments, policy-makers, practitioners and scientists urgently seek effective behaviour change interventions. Since behavioural science has been building evidence about how to change behaviour for over a hundred years, it is important that this knowledge contributes effectively to the development of BCIs. In this talk I will identify challenges to behavioural science, and discuss how challenges to theory, methods of investigation and the ways we communicate our science might be met.

9:00 - 10:30 | FLEMING AUDITORIUM

Symposium: Making an impact on health services: the influence of context on healthcare professional behaviour

M. Johnston¹, C. Bell¹, S. Tonkin-Crine², S. Potthoff³, N. Fahy², B. Farquharson⁴, J. Presseaus⁵

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⁵Ottawa Hospital Research Institute, Canada

Aims:

- To bring together studies that investigate the influence of context on healthcare professional (HCP) behaviour
- To assess contextual influences in real-time in the delivery of patient care
- To examine theoretical explanations of variation in HCP behaviour with a focus on non-deliberative processes
- To identify opportunities for HCP behaviour change

Rationale: Healthcare professional behaviour has important implications for the professionals themselves, patient outcomes and wider health service delivery. There remain problems in accurately assessing what healthcare professionals do during their clinical work. Implementing change can also be problematic because of a limited understanding of the non-deliberative (e.g. contextual/habitual) influences on targeted healthcare behaviours which may have some bearing on the effectiveness of interventions. This symposium aims to present novel ways of assessing and explaining automatic, associative influences on behaviours involved in clinical practice with a focus on guiding methods of change.

Summary: In keeping with the conference theme, making an impact in health services, the symposium will highlight several approaches to understanding healthcare professional behaviour in order to design and develop theory-based behaviour change interventions. Studies presented adopt diverse methods and cover a range HCP behaviours and healthcare contexts.

Specifically, the programme will comprise: a systematic review investigating the relationship between habit and healthcare professional behaviour (Potthoff); a qualitative study identifying the role of context in influencing the antibiotic prescribing behaviour of doctors in two primary care settings (Tonkin-Crine); an observational investigation of situational factors associated with stress in trainee doctors (Bell); a real-time diary study exploring nursing tasks and perceptions of stress (Farquharson); and a study examining the use of psychological theory to support implementation of evidence-based practice in healthcare (Fahy). A discussion (lead by Presseaus) will complete the symposium.

9:00 - 9:15

The relationship between habit and healthcare professional behaviour: a systematic review

S. Potthoff¹, O. Rasul¹, F. Sniehatta¹, F. Beyer¹, A. Bryant¹, R. Thomson¹, L. Avery¹, J. Presseau^{2,3}

¹Newcastle University, United Kingdom

²Ottawa Hospital Research Institute, Canada

³University of Ottawa, Canada

Background: Translating clinical research evidence into routine practice regularly involves healthcare professional behaviour change. Theories used in behavioural science typically assume that healthcare professional behaviour is the result of a reflective decision-making process. The current study aimed to systematically review the literature investigating the influence of automatic processes on healthcare professional behaviour (i.e. habit).

Methods: A systematic search of five electronic databases identified 66 potentially relevant papers. Two reviewers independently selected nine studies for inclusion. The same reviewers extracted data using a structured extraction form to capture details of study characteristics; methodological quality; measures of clinical behaviour and habit; and correlation coefficients of the habit-behaviour relationships.

Results: Eight of the nine identified studies found a statistically significant correlation between habit and behaviour ranging from $r = 0.25-0.68$. The overall quality of studies was moderate with considerable variation across studies. Habit was assessed using three different types of self-reported habit measures across the studies. Seven studies made explicit use of theory to predict clinical behaviour. Habit was measured as a construct within Operant Learning Theory or a Dual Process Model. Potential effect modifiers included the type of clinical behaviour, job title, type of habit measure and theory.

Discussion: Results suggest that habit is an important predictor of healthcare professional behaviour. Effective behaviour change interventions should target both reflective and impulsive processes that underlie healthcare professional behaviour. Future studies would benefit from the development of objective measures of habit as current measures are limited to self-report.

9:15 - 9:30

The influence of context on the antibiotic prescribing behaviour of healthcare professionals: implications for intervention

S. Tonkin-Crine¹, S. Walker¹, S. Segal¹, M. Sharland², D. Crook¹, C. Butler¹

¹University of Oxford, United Kingdom

²St George's University Hospitals NHS Foundation Trust, United Kingdom

Background: Antibiotic resistance is a global threat and requires prudent use of antibiotics across healthcare contexts. Many antibiotics are prescribed unnecessarily in primary care for children with acute. Behavioural interventions have been successful in changing prescribing behaviour in general practice but research has not been undertaken in emergency departments (EDs). This study sought to identify influences on antibiotic prescribing behaviour in EDs.

Methods: Semi-structured interviews were carried out with clinicians working in two EDs. Purposive and opportunistic sampling was used to recruit clinicians with variation in role and speciality. HCPs were asked about their views on antibiotic prescribing for children with fever. Interviews were analysed following thematic analysis.

Results: In twenty five interviews, clinicians discussed the management of acutely unwell febrile children as routine with a variety of resources available to them to aid diagnosis. Few clinicians were aware of any antibiotic stewardship efforts in EDs and few reported incentives to prescribe more prudently. Clinicians' views between the two EDs varied. Patient demand for antibiotics was discussed infrequently, with nurses most often reporting parent pressure to prescribe.

Discussion: Clinicians in EDs report different influences on their antibiotic prescribing behaviour compared to GPs, despite caring for similar populations. Whilst ED clinicians have more resources than GPs they lack incentives to improve their prescribing. Health psychology theory can help identify the mechanisms influencing behaviour in different contexts to design tailored interventions for specific healthcare settings. Behavioural interventions in EDs will help support consistency in care across all acute sectors.

9:30 - 9:45

Healthcare behaviours associated with stress in trainee doctors: a real-time investigation of ward rounds

C. Bell¹, J. Allan¹, M. Johnston¹, D. Johnston¹

¹University of Aberdeen, United Kingdom

Background: More than a quarter of doctors report experiencing significant stress. Interview studies with trainee doctors commonly report workload, interruptions and time pressure as particularly stress-inducing. These stressors are thought to occur frequently during wards-rounds (daily visits paid by hospital medical teams to each of the patients under their care). This study aimed to investigate **trainee doctors' ward-round** behaviour in real-time to establish if there is evidence of putative stress-related situational factors during this work period.

Methods: 38 trainee doctors (19 medical, 19 surgical) were observed individually over two ward-rounds at a large UK teaching hospital. Work activity, multitasking and interruptions were recorded continuously using the Work Observation Method by Activity Timing, an Android app for classifying clinical activity.

Results: Mean ward-round duration was 106 minutes (SD=44). The frequency of interruptions varied considerably (median=2 interruptions, range=12). Time spent multitasking ranged from 0-44% of the wardround (median=16%). **Periods of inactivity ("waiting" or "on a break") were virtually non-existent, taking up <1% of all ward-rounds.**

Discussion: The ward-round is a substantial and relentless period of a trainee doctor's day, as evidenced by **the lack of time spent "off-task"**. **Stress**-related situational factors such as interruptions and multitasking occur to varying degrees, and may be indicative of error-provoking conditions, high workload and time pressure. As much of the work trainee doctors carry out throughout a typical shift is shaped by jobs generated during this work period, ward-rounds are likely to provide the setting conditions for stress and may be an appropriate point for intervention.

9:45 - 10:00

A real-time investigation of nursing tasks and stress

B. Farquharson¹, C. Bell², J. Allan², D. Johnston², M. Jones³, P. Schofield⁴, M. Johnston²

¹University of Stirling, United Kingdom

²University of Aberdeen, United Kingdom

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⁴Anglia Ruskin University, United Kingdom

Background: Stress is a common reason for nurses' absence from work. It is thought stress is related to the demands associated with nursing tasks. However, little is known about the relative demands or stress associated with particular nursing tasks. Previous studies have relied upon retrospective and observational methods of assessing tasks. We used real-time methods to relate tasks to perception of the task, concurrent mood, heart rate and energy expenditure.

Methods: 100 qualified ward nurses completed electronic diary (PDA) measures of (i) nursing tasks using the WOMBAT coding system (ii) moods (hedonic tone, tense arousal and energetic arousal) using the UWIST methods (iii) perceptions demand, control and reward every 90 minutes for 2 work shifts. Heart rate (HR) and activity level were recorded continuously using Actiheart monitors, providing measures of physiological arousal and energy expenditure. Data were analysed using multi-level modeling.

Results: Direct patient care was the most frequent 'main task' but the distribution of tasks varied over the working day. Positive mood (hedonic tone) was generally high, while stress (tense arousal) was low. Direct care was the most physically demanding task and also perceived as the most effortful and demanding. HR was highest during direct care. Tense arousal and energetic arousal were greatest during direct patient care which was also perceived as the most rewarding activity.

Discussion: Generally, nurses' mood at work is positive and stress ratings are low. The dominant task, patient care, is associated with highest energy expenditure and most stress but is also the most rewarding.

10:00 - 10:15

Using psychological theory to better implement evidence in healthcare: literature review and proposed theoretical framework

N. Fahy^{1,2}¹University of Oxford, United Kingdom²Management Centre Innsbruck, Austria

Background: Clinical practice often fails to draw on best available evidence to meet the needs of patients. The reasons for this are not well understood, but involve factors at the individual, organisational and system level. Psychology can shed light on this health professional behaviour, but is currently under-used in implementation research. This paper aims to assess the use of psychology to support implementation research, and proposes a novel, multi-level theoretical framework for using psychological theory to better understand implementation.

Methods: A systematic review of literature on the use of psychological theory to support implementation of evidence-based practice in healthcare, drawing on a protocol-driven search strategy supplemented with emergent strategies including snowball searching, theoretically-driven searches drawing on the diffusion of innovations framework and professional networks.

Results: The literature review identified four strands of psychological research that are used to support implementation of best evidence in healthcare:

- use of individual psychological theories, principally the theory of planned behaviour;
- use of multiple psychological theories adapted to the individual professional;
- use of compendiums of psychological constructs, principally the Theoretical Domains Framework;
- and integration of psychological constructs into wider implementation models.

Discussion: Psychology remains largely detached from implementation research; its use is limited and mostly not theory-based. One reason is the difficulty of incorporating complex psychological theories into already complex multi-level implementation models. Integrating psychological theories into the diffusion of innovations framework (widely used in implementation research in healthcare settings) offers a practical means of bridging this gap.

9:00 - 10:30 | CROMBIE B SUITE

Symposium: Cost-effectiveness and dissemination of Internet interventions for the treatment of somatic and mental health conditions

J. Lin¹, S. Paganini¹, S. Schlicker², A. Zarski², J. Hudson³, K. Bradbury⁴

¹University of Freiburg, Germany

²University of Erlangen-Nurnberg, Germany

³King's College London, United Kingdom

⁴University of Southampton, United Kingdom

- 1) Increase insight in the general effectiveness of Internet interventions for somatic conditions and mental disorders.
- 2) Giving an overview of existing economic evaluations focusing on the cost-effectiveness of Internet interventions for the prevention or treatment of depression.
- 3) Explore how Internet interventions need tailoring to the unique psychosocial needs of the user – focusing on the role of applied health psychology models.
- 4) Discuss future development with regard to opportunities and limitations of Internet interventions and recommendations for developing, recruiting dissemination and implementation.

Rationale: Internet interventions have a high potential to effectively and cost-effectively treat somatic and mental health conditions. However, whereas the evidence-base of Internet interventions is mainly established for anxiety disorders and depression, the effectiveness of Internet interventions for many other disorders remains unclear. This symposium aims to provide a state-of-the-art insight of Internet interventions for different somatic (chronic) conditions and the cost-effectiveness of Internet interventions for depression.

Summary: First, Sarah Paganini will report the first systematic review on the cost-effectiveness of Internet interventions for depression and highlight economic implications. Jiayi Lin will present effectiveness data of a largescale study on a online acceptance- and commitment-therapy for chronic pain, depending on the provision of guidance. Third, Joanna Hudson will discuss the unique challenges of engaging, recruiting, and retaining patients in Internet interventions with co-morbid psychological distress and end-stage renal failure. Sandra Schlicker will talk about the usability of an Internet intervention of comorbid depression in chronic back pain patients on sick leave. Anna-Carlotta Zarski will present the effectiveness data of the first RCT trial on an internet intervention for vaginismus.

The discussion will be led by Katherine Bradbury who will integrate the above presentations.

Furthermore, new directions for opportunities and limitations of Internet interventions and recommendations for developing, recruiting, dissemination and implementation will be discussed.

9:00 - 9:15

Economic evaluations of Internet- and mobile-based interventions for depression: a systematic review

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²University of Ulm, Germany

Background: Depressive disorders are highly prevalent and associated with personal and societal burden such as high economic costs. It is a primary challenge for health care systems worldwide to provide treatment for depression and to prevent new onsets. However, healthcare resources are restricted. Internet- and mobilebased interventions (IMIs) are highlighted as clinically effective in many studies and are often suggested to be cost-effective as well. The present study systematically reviewed the evidence on the cost-effectiveness of IMIs for depression.

Methods: A systematic database search was conducted according to PRISMA-guidelines. The search focused on economic evaluations of IMIs for the prevention or treatment of depression. Studies were included that met following eligibility criteria: 1) internet-based treatment or prevention for depression 2) comparison to a control group, 3) economic outcomes, 4) adult participants, 5) RCT.

Findings: The search revealed 7 economic evaluations of IMIs for depression (n= 2069 participants). None of these studies focused on prevention. Quality of the studies (according to CHEERS) could be rated as good and four economic evaluations could be judged as cost-effective. Regarding incremental cost-effectiveness ratios (ICER) as additional costs per clinically significant change in depressive symptom severity, ICERs ranged from €1,248 to €1,817. ICER per quality-adjusted life year gained ranged from €2,899.87 to €532,959.

Discussion: IMIs are a promising approach in the treatment of depression and show high probabilities to be cost-effective. However, the evidence is still sparse and there is particularly a need for economic evaluations of IMIs for the prevention of depression.

9:15 - 9:30

Effectiveness of an online-based acceptance and commitment therapy for chronic pain: a three-armed RCT

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⁵Linköping University, Sweden

⁶Karolinska Institute Stockholm, Sweden

⁷University of Ulm, Germany

Background: Internet interventions might be an effective way to overcome treatment barriers of traditional face-to-face pain interventions. This study aims to investigate the effectiveness of a guided and unguided acceptance- and commitment-therapy-based online-intervention for persons with chronic pain (ACTonPain).

Method: In this pragmatic three-armed RCT with 300 participants, the programs ACTonPain guided and unguided are compared to a waiting list control group. ACTonPain consists of 7 modules that should be processed weekly. Assessments took place before, 9 weeks, and 6 months after randomisation. The primary outcome is pain impairment (Multidimensional Pain Inventory, MPI). Secondary outcomes are physical and emotional functionality (PHQ-9, GAD-7), pain intensity (NRS) and ACT-related variables (FAH-II, CPAQ).

Findings: Preliminary data (n = 68; post-9-weeks) showed greater improvements for the scales MPI (MD: 1:16; SD: .25), BPI (MD: 2:24; SD: .57), PHQ-9 (MD: 4.98; SD 1.45) and CPAQ (MD: 27.76; SD 4.73) in ACTonPain guided compared to the waitlist (p = .05). Even though the scales FAH-II (MD 3.57; SD: 2.1), GAD-7 (MD2.81; SD: 1.23) and NRS (MD: 1:24; SD: .39) yielded positive effects, these effects were not significant. ACTonPain unguided also showed positive, but lower effects than ACTonPain guided.

Discussion: The present study contributes to the evidence-base for online-based pain interventions and provides central information on the treatment success in relation to the intervention's level of guidance. In the presentation, the final post and follow-up results (recruitment completed; data cleaning in progress) of this large scale trial will be presented.

9:30 - 9:45

Feasibility evaluation of a tailored online cognitive-behavioural therapy intervention for improving distress in dialysis (iDiD)

J. Hudson¹, R. Moss-Morris¹, A. Carroll², F. Picariello¹, D. Game², M. Hotopf¹, L. Yardley³, J. Chilcot⁴

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BACKGROUND: Psychological distress is common in haemodialysis patients, yet provision of psychological treatment is scarce. The Improving Distress in Dialysis (iDiD) study aimed to assess the feasibility and acceptability of a tailored seven session online cognitive-behavioural therapy (CBT) programme for distress in dialysis.

METHODS: This feasibility randomised controlled trial aimed to randomise 60 haemodialysis patients to either online CBT with three therapist support calls or online CBT alone. Participants with mild-moderate depression (patient health questionnaire; PHQ-9) and/or anxiety (generalised anxiety disorder; GAD-7) were eligible. Patients completed baseline and three months follow-up questionnaires, and a qualitative exit interview. Statistical analysis: preliminary descriptive statistics on recruitment rates and treatment adherence.

RESULTS: Ninety-nine patients (53% of those screened) had mild-moderate depression and/or anxiety. Sixtyone patients met additional inclusion criteria and 25 (41%) were randomised. The main reason for non-consent **was patients not identifying with the distress "label"**. Patients with no therapist support completed a mean of four online sessions compared with a mean of three sessions in the telephone support arm. Only 38% of patients randomised to receive telephone calls completed all three calls; work/family commitments or illness exacerbation/hospitalisation were reasons for telephone non-adherence.

DISCUSSION: Uptake and adherence to an online intervention for the management of distress in dialysis was relatively low. Reasons for low engagement were not challenges unique to online modes of CBT delivery. Presenting CBT as an intervention that can improve overall illness management as opposed to distress may improve treatment engagement in people with co-morbid distress and physical illness.

9:45 - 10:00

Internet- and mobile-based treatment of comorbid depression in chronic back pain patients on sick leave

S. Schlicker¹, H. Baumeister², S. Paganini³, J. Lin³, L. Sander³, M. Berking¹, I. Titzler¹, D. Lehr⁴, D. Ebert¹

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⁴Leuphana University Lueneburg, Germany

Introduction: The high frequency (21-50%) of comorbid depression in chronic back pain patients (CBP) can lead to reduced life quality and increased health care costs. In routine care there is a lack of specialized treatment options for comorbid depression in CBP. In order to reach patients that might need treatment, the usage of health care insurance data might be helpful.

Objectives: This study will investigate the usability and effectiveness of an internet and mobile-based intervention for depressed CBP patients in a pilot study with recruitment through a German health insurance company.

Methods: For the usability study Think Aloud-Protocols for every treatment module (Introduction, 1-7 and 2 optional modules) were used to examine the intervention in design, user friendliness, user satisfaction, understandability as well as service quality. In a first alpha test, 25 participants tested the general usability. Following the usability study, a RCT will be conducted, comparing the intervention to treatment-as-usual.

Adults with CBP, depressive symptoms and currently on sick leave will be included. Primary outcome will be depressive symptom severity; secondary outcomes include biomarkers, self-reported changes in absenteeism, anxiety and life quality. Assessments take place at baseline, 9 weeks, 6 and 12 months after randomization. Participants will be identified using diagnostic data of a large health insurance company.

Results: Preliminary results suggest an overall good usability for the intervention. Further results will be presented (research in progress).

Discussion: Specific recommendations and improvements were extracted and implemented in the intervention to enhance usability and adherence for the upcoming effectiveness evaluation.

10:00 - 10:15

An internet-based guided self-help intervention for vaginismus. Results of a randomised controlled proof-of-concept trial

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Background: Difficulties with desired vaginal penetration during intercourse pose a huge burden for women with vaginismus. Vaginismus is associated with low sexual functioning, reduced sexual behaviours, low sexual satisfaction, a negative self-image and relationship to partners. To date, only few treatments addressing this issue have been evaluated.

The aim was to assess the effectiveness of a guided self-help Internet-intervention for vaginismus compared to a waitlist control condition in a randomised controlled superiority trial.

Methods: 77 women with severe vaginismus were randomly allocated to the intervention or waiting condition. The intervention comprised 10 modules based on psychoeducation, relaxation exercises, self-exploration, sensate focus and gradual exposure. Guidance consisted of feedback on completed modules. Assessments took place prior to randomisation, at 10-week and 6-month-follow-up. The primary outcome was sexual intercourse. Secondary outcomes were fear of sexuality, female sexual functioning and dyadic coping.

Results: In the ability to have sexual intercourse, no significant differences were found between groups ($F=0.16$, $p=.69$; $F=0.07$, $p=.79$). The intervention group showed higher noncoital penetration abilities at both time points compared to the control group ($d=0.30$, $CI:-0.26-0.86$ - $d=0.64$, $CI: 0.07-1.20$). Within the intervention group, a significant reduction in coital fear and dyadic coping between pre- and postmeasurements was found ($d=0.26$, $CI:-0.40-0.91$ - $d=0.56$, $CI: -0.29-1.42$).

Discussion: This first randomised controlled trial evaluating the efficacy of an Internet-intervention for vaginismus shows the potential usefulness of low-threshold self-help interventions in treatment of vaginismus. Recommendation of action for interventions on the new DSM-5 diagnosis genito-pelvic pain / penetration disorder could be derived.

9:00 - 10:30 | GORDON A SUITE

Symposium: Considering the dyad in promoting positive health change: from observation to intervention

T. Revenson¹, E. Karademas², N. Vilchinsky³, C. Rini⁴, K. Grivas⁵

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²University of Crete, Greece

³Bar-Ilan University, Israel

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⁵National University of Singapore, Singapore

Summary: A large literature suggests there are health benefits to close relationships, particularly being married or in a long-term intimate relationship. Consistent with this, marriage has been related to the practice of healthier behaviors, faster recovery and better health across a number of chronic illnesses. However, interventions that have attempted to capitalize on the influence of close others, including marital partners, have achieved more limited success. We examine a number ways in which partners improve health behavior and health outcomes. The first paper examines how dissimilarity **between partners' illness representations affects the psychological well-being** of recently-diagnosed cancer patients and their spouses. The second paper examines whether improvements in CVD risk factors in one partner within a couple are associated with improvements in the other partner among 1,662 married couples who have a preventive physical examination in each of two successive years.

They are, particularly for couples in which one partner had high levels of the risk factor. The third paper documents how the association between cardiac patients' sense of relational entitlement and **their level of medication adherence is moderated by their partner's caregiving styles** (i.e., sensitive and compulsive). The fourth paper is a longitudinal study examining spousal influences on increasing exercise behavior among 104 couples in which one partner has osteoarthritis. Two emotional regulation skills – mood clarity and mood repair – influenced the initiation of physical activity. Together, these papers highlight the importance of examining self-regulatory processes from a dyadic perspective.

Aims: The symposium identifies some dyadic-level psychological mechanisms that lead to positive health outcomes and identified the potential benefits of engaging both partners in self-management behaviors in behavioural medicine interventions.

Rationale: Understanding health-behaviour change in social context and identifying target points for effective behaviour change (i.e, couples) is likely to lead to the design of more effective interventions.

9:00 - 9:15

Illness representations and psychological symptoms of couples dealing with cancer: dyadic, interaction and perception-dissimilarity effects

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¹University of Crete, Greece

²Bank of Cyprus Oncology Center, Cyprus

Background: The aim of this study was to examine the impact of the dyadic, interaction and dissimilarity effects of the illness representations of recently diagnosed cancer patients and their spouses on their psychological health.

Methods: Cancer patients who received a formal diagnosis of cancer less than a month ago, and their spouses were invited to participate in the study. The final sample consisted of 298 individuals nested in 149 couples. Effects were examined with the Actor-Partner Interdependence Model (APIM).

Findings: The findings revealed several actor (i.e., within person) effects. Personal control and emotional representations were related to patients' and spouses' psychological symptoms, while treatment control was also related to patients' symptoms. Certain partner (i.e., between partners) effects were also found. Patients reported better psychological health when their spouses perceived cancer as a less burdensome and understandable condition, while spouses reported better psychological health when patients perceived their condition as more controllable. Furthermore, the negative association of patients' psychological symptoms with their representations of illness coherence was weak at the higher and medium levels, and stronger at the lower levels of spouse corresponding representations. Patient-partner discrepancy in perceived illness consequences was associated with more psychological symptoms in patients.

Discussion: Adaptation to cancer is a dyadic process within the context of which patient and partner psychological well-being is affected by each other's understanding of illness. Thus, the parallel examination of the illness representations of both partners is needed from the early phases of the illness trajectory.

9:15 - 9:30

Synchronous improvements in cardiovascular disease risk factors within married couples

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⁶Irving Cancer Center, Columbia University, United States

Background: Cardiovascular disease risk factor scores of married individuals are correlated; however, there is little prospective data on whether changes in risk factors are synchronous. The objective of this study is to determine whether improvements in CVD risk in one partner are associated with improvements in the other partner.

Method: We conducted secondary analyses of data from 1,662 married or domestic partnered couples. Measures of cardiovascular risk were obtained two times one year apart: body mass index (BMI), high density lipoprotein (HDL), low density lipoprotein (LDL), triglycerides, and blood pressure. The Actor Partner Interdependence Model was used to conduct statistical analyses. We tested **whether Individual's and partner's own scores for the CVD risk factors at an initial health examination affected their partner's CVD risk factor scores one year later.**

Findings: Except for triglycerides, improvements in the partner's CVD risk factor scores were significantly associated with an improved score for the corresponding CVD risk factor for the other partner at examination 2 (BMI -0.72; Systolic blood pressure -5.24 units; Diastolic blood pressure -4.54 units; HDL 4.96 units; LDL -6.67 units, all $p < .01$). The effects of improvements in one partner on **the other partner's** scores at time 2 were significantly stronger for BMI, HDL and triglycerides if the other partner had higher scores for these risk factors at the first examination.

Conclusions and Relevance: These findings suggest that new interventions to maintain or achieve health should consider dynamics of behaviours within partnered couples to capitalize on partner effects within couples.

9:30 - 9:45

Patients' relational entitlement, partners' caregiving style and cardiac patients' medication taking

N. Vilchinsky¹, S. George-Levi², R. Tolmacz³, A. Khaskiaa⁴, M. Mosseri⁴, H. Hod⁵

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⁵Sheba Medical Center, Ramat Gan, Israel

Background: Partners' support has been associated with both patients' increased and decreased inclination toward health-promoting behaviors. Our hypothesis for understanding this enigma is that it is the interplay between partners' manner of care provision and patients' ability to accept these care efforts that may best predict patients' adherence. The proposed presentation will describe the results of a longitudinal study designed to examine whether the interaction among cardiac patients' sense of relational entitlement (i.e., restrictive, exaggerated, expectations and assertive) and their partners' caregiving styles (i.e., sensitive and compulsive) contributes to patients level of medication taking.

Methods: A sample of 114 male patients diagnosed with Acute Coronary Syndrome (ACS) and their female partners were interviewed during patients' hospitalizations and six month later. The Adult Caregiving questionnaire was administered to partners, and the Sense of Relational Entitlement Scale (SRE) was administered to patients. The Medication Adherence Report Scale (MARS) was applied.

Findings: Hierarchical regression analysis confirmed the interaction hypothesis: the lowest levels of medication adherence were detected among patients high on restricted entitlement who were married to partners high on compulsive caregiving style.

Discussion: the negative aspect of relational entitlement on medication adherence was evident only when partners' caregiving was deficient. These findings strengthen our claim that it is the interaction between recipients' personality and providers' support style which explain self-regulatory processes that arise during times of family medical crises.

9:45 - 10:00

Partner support in couples-focused physical activity interventions as a complex, skill-based behaviour affecting behaviour change

C. Rini^{1,2}¹University of North Carolina at Chapel Hill, United States²UNC Thurston Arthritis Research Center, United States

Background: Physical activity reduces osteoarthritis symptoms, but most people with osteoarthritis (PWOA) are insufficiently active. Although receiving social support for physical activity from a partner reliably predicts increases in physical activity, couples-focused physical activity interventions produce only modest, short-lived behavior change. We propose that this is because giving and getting this support is a complex, skill-based behavior that not all couples enact effectively, and that ineffective partner support can hinder behavior change. The present study investigated the role of emotion regulation skills in this process.

Method: Ongoing longitudinal study for couples in which one person is an insufficiently active PWOA. All couples completed baseline measures (including measures of support-related emotion regulation skills—attention to feelings, mood clarity, and mood repair), a couple-focused physical activity intervention, and a 3-month follow-up.

Findings: PWOA reported receiving more partner support for physical activity when they self-reported being better at repairing their own negative moods (e.g., through positive thinking), $p=.01$. Partners reported providing more support for physical activity when they self-reported being better at paying attention to their own feelings, $p=.03$, and when they were partnered with PWOAs who self-reported better mood repair, $p=.01$. However, getting more partner support only predicted accelerometer-measured increases in PWOA's moderate to vigorous activity when PWOA's appraised their partner's support as more effective—a better match to their needs (interaction $p=.02$).

Conclusion: Our findings highlight a potential causal pathway through which couples' support-related emotion regulation skills influence their ability to work together well enough to benefit from a couples-based physical activity intervention.

9:00 - 10:30 | GORDON B SUITE

Symposium: Adherence to medication: measurements and cognitions

C. McAdam-Marx¹, S. Vluggen², H. de Vries³, M. de Bruin⁴, L. van Dijk⁵, G. Molloy⁶, L. Mellon⁷

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⁶Chair of the Psychological Society of Ireland, Division of Health Psychology, School of psychology, National University of Ireland, Galway, Ireland, Ireland

⁷Lecturer and researcher in Health Psychology, Royal College of Surgeons in Ireland, Dublin, Ireland, Ireland

Aims: The aim of the symposium is twofold. It will focus on ways to measure medication adherence, and on predictors/determinants of (non)-adherence. It is essential to find consensus on how adherence is measured/assessed, and to identify cognitions and determinants involved in (non)-adherence.

Rationale: Adherence to medication is essential to control diseases, and to delay disease progression. Across studies, prevalences of adherence range from 40% to 90%. The variety of instruments used, either self-reports or objective measures, may explain this wide variety. The **complexity of 'what really encompasses' medication adherence, makes** it difficult to capture whether someone should be characterized as adherent or not. It is therefore important to identify existing instruments which measure adherence, and to clarify which measurements are most suitable in measuring medication adherence. As non-adherence is related to disease worsening and early mortality, it is important to identify **why some people are, and some aren't adherent. Therefore it is essential to identify predictors/determinants of (non)-adherence.**

Summary: The symposium consists of five oral presentations, preceding a symposium discussion by Professor Marijn de Bruin.

The chair of the symposium will be Professor Hein de Vries. The oral presentations will either focus on one of the main themes (measurements or cognitions), or will combine both themes. McAdam-Marx will focus on factors influencing adherence, as on objective versus subjective measures used to assess medication adherence. Molloy will focus on conscientiousness and mechanisms involved in adherence to oral contraceptives. Mellon will present a study which compares a self-developed adherence instrument to the Morisky Medication Adherence Scale. Dijk will focus on planning and health literacy in relation to adherence. Vluggen will combine two studies on adherence to diabetes medication: a qualitative study on beliefs and cognitions involved in adherence, and a quantitative study comparing adherence to oral antidiabetics and insulin.

9:00 - 9:15

Conscientiousness and adherence to oral contraceptives: what are the mechanisms?

G. Molloy¹, D. Leahy¹, N. Eustace¹, J. Murphy¹¹NUI Galway, Ireland

Background: Approximately half of those using oral contraceptives fail to adhere to the daily regimen, therefore a considerable gap between contraceptive efficacy and effectiveness remains for this method. The personality trait of conscientiousness has been reliably associated with medication adherence, including adherence to the OCP. In this study we present analyses that aim to identify what the primary modifiable social cognitive mediators of this association are.

Methods: Two cross-sectional samples (N=150) of current users of oral contraceptives were recruited from a University setting. Conscientiousness and a range of social cognitive predictors were assessed using standardised measures modified for this context. OCP adherence was measured using a modified version of the Medication Adherence Report Scale. Data were collected online. The main study questions were addressed using mediation analyses.

Findings: Higher conscientiousness had a medium sized association with better adherence to the OCP. There was evidence for a range of social cognitive mediators of this association including action and coping planning, however there was variability in the replicability of findings in the two samples.

Discussion: The modifiable mechanisms that account for the association between conscientiousness and adherence to oral contraceptives may help in the design of interventions to enhance adherence to OCP in those with lower levels of conscientiousness. Low levels of conscientiousness might represent a potential 'psychological contraindication' to medications that require significant on-going self-regulatory capacity.

9:15 - 9:30

The INCA (Inhaler Compliance Aid) – validation against established measures of adherence

K. Moran¹, F. Doyle¹, I. Sulaiman¹, G. Molloy², R. Reilly³, R. Costello¹, L. Mellon¹

¹Royal College of Surgeons in Ireland, Ireland

²NUI Galway, Ireland

³Trinity College Dublin, Ireland

Background: Despite evidence for long-acting inhaled therapy, non-adherence in COPD is common, resulting in higher exacerbation rates, increased mortality and poorer quality-of-life. The Inhaler Compliance Aid™ (INCA) is a novel device that records both when and how medication is inhaled by using an electronic acoustic recording. This study aimed to validate the INCA device against established adherence measures (self-report and prescription refill) and establish predictive validity for health outcomes.

Method: COPD patients consented to use a salmeterol/fluticasone inhaler fitted with INCA device, and completed baseline and 1-month measures of self-reported adherence (Morisky Medication Adherence Scale; MMAS), assessment of quality-of-life (St Georges Respiratory Questionnaire) and health status (COPD Assessment Test). This project established concurrent validity of the INCA™ device by correlating self-reported adherence (Morisky Medication Adherence Scale; MMAS) and prescription refill data (national pharmacy claims records 1-year prior to study enrolment) with attempted and actual adherence (INCA).

Results: Preliminary analysis (n=75, 48% female, mean age=69 (±9.9)) showed a correlation between attempted adherence (INCA) and self-reported adherence (MMAS) ($r=.35$, $p<0.001$), and a correlation between actual adherence (INCA) and self-reported adherence (MMAS) ($r=.56$, $p<0.001$). Study recruitment is ongoing, and future work will establish predictive validity of INCA, and the correlation of attempted and actual adherence (INCA™) with adherence measured by prescription refill.

Discussion: The study findings suggest that the INCA device is a valid measure of adherence. The INCA is a unique device that has potential to become a gold-standard adherence measure for respiratory diseases.

9:30 - 9:45

Adherence to diabetes medication: perspectives of patients and professionals on adherence and involved cognitions

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²Professor in Diabetes Care, Maastricht University Medical Centre, Netherlands

³Associate Professor, School CAPHRI, Department of Health Promotion, Maastricht University, Netherlands

⁴Professor in Health Communication, School CAPHRI, Department of Health Promotion, Maastricht University, Netherlands

Background: Diabetes medication adherence is essential to delay disease progression. Research shows that prevalences of adherence range from under 40% to over 90%. As non-adherence is associated with disease worsening and early mortality, it is important to identify the current situation and cognitions underlying (non)-adherence. An extensive qualitative study was used to identify: 1) diabetes medication adherence, and 2) salient cognitions of (non)-adherence, using the I-Change Model.

Methods: Data was collected from 18 type-2 diabetes (T2D) patients, and 9 healthcare professionals. Semi-structured, audio recorded, individual interviews were transcribed, anonymized, and analyzed using Nvivo content analysis.

Findings: Patients report a more positive perspective on their own adherence, than professionals. Still many patients report any form of non-adherence, either intentional or unintentional. Concerning medication beliefs, patients **see more advantages than disadvantages towards medication**, e.g. “it keeps me healthy”, and “it prevents worsening”. Many patients receive social support, by e.g being reminded/prompted by a partner/peer or professional. Although many patients can't explain the working mechanism and purpose of their medication, many state to be adherent because “the doctor says so”. In line with professionals, patients indicate out of routine situations like vacation, irregular shifts, and experiencing stress as underlying non-adherence, often explained by professionals as 'excuses'.

Discussion: Adherence to diabetes medication is suboptimal. Professionals and patients have different perspectives with regard to adherence rates. Professionals' autonomy and social support are potentially important determinants of adherence. Medication knowledge, and self-efficacy in out of routine situations could be targeted in interventions to enhance adherence rates.

9:45 - 10:00

The impact of human and social resources on medication and lifestyle adherence: a sociological perspective

L. van Dijk¹, Y. Weesie¹, M. Vervloet¹

¹NIVEL, Netherlands

Background: Non-adherence is a topic that has been studied including perspectives from different disciplines. So far, sociological theories seem to be underrepresented in explaining non-adherent behavior. Sociologists use concepts such as human and social resources to explain differences in human behaviour. This study used these concepts to explain variation in medication and lifestyle adherence between patients with type 2 diabetes.

Aim: To investigate the relationship between social and human resources on the one hand and medication adherence and lifestyle adherence on the other hand.

Methods: Data were collected through an online survey among patients recruited through various channels. Social resources were measured using items from the Diabetes Care Profile and human resources such as routinization skills using items from the Diabetes Time Management Questionnaire. Medication adherence was measured by the Morisky Medication Adherence Scale and lifestyle adherence by the Summary of Diabetes Self Care Activities scale. Multivariate linear regression was used. Analyses were controlled for sociodemographic characteristics and beliefs about medicines.

Results: 143 respondents were included in the analysis. Social resources were not associated with neither medication adherence nor lifestyle adherence. Routinization skills did have a positive effect on both types of adherence. Having time-management skills was related to both medication and lifestyle adherence. Daily routine was important for medication adherence while planning was positively related to lifestyle adherence.

Conclusion: Having more human resources, i.e. routinization skills, improves adherence in patients with type 2 diabetes. Interventions should take these skills into account.

10:00 - 10:15

Differences in common medication adherence measurements illustrated through a diabetes outcomes study

C. McAdam-Marx¹¹University of Utah, Department of Pharmacotherapy, United States

Background: Medication Adherence is a key aspect of type 2 diabetes (T2D) patient education and selfmanagement counseling. Adherence measures based on pharmacy dispensing data and patient surveys are commonly used, but clinicians and researchers should be aware of the strengths and limitations of these indirect measurement approaches.

Methods: Data from a T2D treatment outcomes study will be discussed to illustrate measurement approaches, behaviors the measures reflect, and approach limitations. Diabetes medication adherence was quantified in 166 adult patients using the modified Medication Possession Ratio (mMPR) and the 5-item Medication Adherence Reporting Scale (MARS-5). Correlation between measures was assessed using a Kappa coefficient. A structural equation model (SEM) assessed the associations between patient characteristics, diabetes medication class, adherence, and treatment outcomes.

Findings: Diabetes medication adherence was 77.1% per mMPR and 72.3% per MARS-5. Only 58.4% were classified as adherent per both measurements; correlation was weak (kappa coefficient 0.142). Self-reported adherence was associated with weight loss. Both measurements were associated with improved glycemic control. No association was found between medication beliefs or diabetes drug class and adherence.

Discussion: Low correlation between adherence measures was anticipated. Self-reported adherence represents patient medication taking behavior and intentions but is subject to reporting bias. Claims-based measures objectively report medication purchasing behavior, but do not reveal information on actual consumption. Thus, neither approach is considered a gold standard. Both are predictive of diabetes outcomes and could be used to target patients for adherence counseling that addresses the behavior reflected by the measurement approach.

11:00 - 12:30 | GORDON B SUITE

Symposium: Testing and integrating social cognitive models of health behaviour (change)

S. Gomez Quinonez¹, H. de Vries¹, P. Norman², M. Conner³, P. Teixeira⁴

¹CAPHRI, Maastricht University, Netherlands

²University of Sheffield, United Kingdom

³University of Leeds, United Kingdom

⁴University of Lisbon, Portugal

Aims: The symposium aims to give an overview of international research on different social cognitive models to explain health behaviour (change). Furthermore, the symposium will clarify the separate and combined contribution of current social cognitive models to create a better understanding of a wide range of health behaviours such as smoking cessation, physical activity, and alcohol consumption. Additionally, it will give insight into how the integration of models can lead to more effective interventions.

Rationale: Health behaviour (change) is complex and often influenced by many different factors. Testing and integrating models of health behaviour (change) will contribute to a better understanding of health behaviour (change). This is necessary to effectively construct new interventions to promote health and prevent diseases.

Summary: The symposium will consist of four unique presentations (a 15 minutes) that focus on the integration and testing of different social cognitive models with regard to health behaviour (change). Teixeira will open the symposium with a review of how Self-Determination theory has been applied and tested for health behaviour change, alongside other social cognitive models. Gomez Quinonez will then focus on the added value of an integrated change model with regard to different health behaviours. Conner will address the integration of affective influences and social cognitive models, and how this can improve our understanding of health behaviours.

Finally, Norman will present an intervention on students' alcohol consumption based on a combination of selfaffirmation, messages based on the theory of planned behaviour and implementation intentions.

11:00 - 11:15

Motivation and behaviour change techniques based on self-determination theory: a consensus analysis

P. Teixeira¹, M. Hagger²¹University of Lisbon, Portugal²Curtin University, Australia

Background: Self-determination theory (SDT) is increasingly being used to inform the design of health behavior change interventions. Despite ongoing theoretical and empirical work, a formal characterization of the intervention elements of SDT that actively contribute to autonomous motivation and sustained behavior change has not yet been fully developed. This study aims to identify, isolate, and describe the techniques most likely to influence the three psychological needs described by SDT as key mechanisms of action underlying motivation change.

Methods: An initial list of intervention techniques was produced based on the available narrative and empirical SDT literature, and on measures of psychological need support. A panel of SDT experts was then consulted in a systematic and iterative fashion to evaluate and refine the techniques until a structured final set of autonomy-, competence-, and relatedness-supportive techniques was produced. Techniques were also classified according to their central (vs. complementary) nature regarding effective need support; to their specificity (vs. generality) to the needs; and to their focus on content vs. form/style.

Findings: Nine techniques were isolated for autonomy (e.g. “Facilitate discussion of client’s views on condition or behavior”); eight for relatedness (e.g. “Acknowledge and accept the client’s perspectives”), and nine for competence (e.g. “Offer concrete, clear, and relevant feedback”). This talk will present an overview of an initial consensus on SDT-based motivation and behavior change techniques and address its usefulness and limitations.

Discussion: Discussion will address the application of this knowledge to future health behavior change interventions and its evaluation in research studies.

11:15 - 11:30

The I-Change Model and how it contributes to explaining health behaviour

S. Gomez Quinonez¹, H. de Vries², S.M. Eggers², L. van Osch¹, N.E. Stanczyk¹

¹CAPHRI, Maastricht University, Netherlands

²Maastricht University, Netherlands

Background: Existing socio-cognitive models have been criticised with regard to their explained variance of health behaviours. The I-Change Model integrates factor of different theories and models. To test its suitability this study tests the I-Change Model with regard to different behaviours.

Methods: The study is an overview of several longitudinal quantitative studies with regard to socio-cognitive model testing. SEM and regression analyses were used to investigate the unique contribution of different factors to the predictive value of the model with regard to delayed sexual activity, condom use, smoking cessation, fruit consumption and physical activity.

Findings: The first study (delayed sexual activity) indicated that the effect of risk perception on intention and behaviour is mediated by attitude and self-efficacy. The second study (condom use) showed that the effect of knowledge on behaviour is mediated by social norms, attitudes and self-efficacy. The results of the third study (smoking cessation) showed that the effect of the proposed intervention is fully mediated through self-efficacy and coping plans. The fourth study (fruit consumption) illustrated that the effect of planning on behaviour is fully mediated by plan enactment and that this mediation is moderated by self-efficacy, intention and habit. The fifth study (physical activity) demonstrated that the integration of Self-determination Theory added little unique contribution to explaining behaviour but may be useful in understanding underlying processes.

Discussion: Despite critics with regard to existing social cognitive models, our studies showed that the integration and testing of models leads to a better understanding of health behaviour.

11:30 - 11:45

Experiential attitude and anticipated affect as influences on health behaviours

M. Conner¹¹University of Leeds, United Kingdom

Recent research has explored the effects of two affective influences within models such as the theory of planned behaviour and reasoned action approach: experiential attitude and anticipated affect. Published and new primary and meta-analytic data supporting the role of these two affective variables on health behaviour will be presented.

The correlational data uses prospective designs and controlled for other health cognitions and past behaviour where possible. The experimental data examines whether the affective variables mediate the impact of the intervention on behaviour. Strong support is found across studies for both experiential attitude and anticipated affect as important determinants of health behaviours even when controlling for other health cognitions and past behaviour. The need for further experimental studies with objective measures of health behaviour is noted. Further the testing of the combined effects of manipulating both affective variables is highlighted for further attention.

11:45 - 12:00

Combining self-affirmation, theory of planned behaviour messages, and implementation intentions to reduce students' alcohol consumption

P. Norman¹, D. Cameron¹, T. Epton², T. Webb¹, P. Sheeran³, P. Harris⁴, A. Millings¹

¹University of Sheffield, United Kingdom

²University of Manchester, United Kingdom

³University of North Carolina at Chapel Hill, United States

⁴University of Sussex, United Kingdom

Background: Messages based on the theory of planned behaviour (TPB) may fail to reduce students' alcohol consumption because they are derogated/dismissed or because positive intentions are not translated into behaviour. Self-affirmation (the process of reflecting on cherished values) may decrease defensive processing of messages and implementation intentions may help people translate positive intentions into behaviour.

Methods: One month before starting university, students (N=2,951) completed measures of their typical weekly alcohol consumption and were randomly assigned to condition in a 2 (self-affirmation) × 2 (TPB-based messages) × 2 (implementation intention) between-participants factorial design. Participants then completed measures of TPB variables towards binge drinking. Alcohol consumption was assessed six months later.

Findings: Participants who received the TPB messages had significantly lower (i.e. less positive) scores on all TPB measures. Self-affirmed participants had significantly more positive attitudes, norms and intentions towards binge drinking. Participants who received the TPB messages consumed fewer units of alcohol and engaged in binge drinking less frequently at six-month follow-up; furthermore, these effects were mediated by TPB variables. All other main effects and interactions were non-significant.

Discussion: The findings support the use of interventions based on the TPB to change students' alcohol consumption. In contrast, the findings add to those of recent studies that have questioned the use of self-affirmation to reduce alcohol consumption in university students. The non-significant effect of forming implementation intentions may have been due to participants having limited knowledge and experience of the pressures to drink alcohol prior to starting university.

14:00 - 15:30 | FLEMING AUDITORIUM

Symposium: From theory-inspired to theory-based interventions: linking behaviour change techniques to their mechanisms of action

S. Michie¹, R. Carey¹, M. Johnston², A. Rothman³, M. Kelly⁴, K. Davidson⁵, M. de Bruin²

¹University College London, United Kingdom

²University of Aberdeen, United Kingdom

³University of Minnesota, United States

⁴University of Cambridge, United Kingdom

⁵Columbia University Medical Center, United States

Aims: To outline the role and current state of theory in designing and evaluating behaviour change interventions; To present a methodology for linking behaviour change techniques with mechanisms of action; To report findings about links between behaviour change techniques and hypothesised mechanisms of action as a) reported in the scientific literature and b) identified through expert consensus; To promote discussion about future work to advance theoretical development and application to health and health services.

Rationale: Interventions are frequently described as based on theory – but are they truly theory-based or only theory inspired? To advance the science, and to realise the potential of theory to improve health and health services, we need to develop a clearer understanding about the mechanisms of action through which behaviour change techniques have their effect. This requires the development of a methodology to synthesise evidence about how this is a) reported in published literature and b) agreed by experts in the field. Such a methodology can lead to a valid framework for linking behaviour change techniques to mechanisms of action. This is an important step towards empirically testing the hypothesised links, which may, in turn, lead to the development of more effective interventions.

Summary: This symposium will present four papers on a programme of research linking behaviour change techniques with their hypothesised mechanisms of action. Susan Michie will outline the role and current state of theory in behaviour change interventions. Findings will be presented about links between behaviour change techniques and hypothesised mechanisms of action as: reported in the scientific literature (Rachel Carey) and identified by expert consensus (Marie Johnston). Alex Rothman will report the triangulation of these studies. Two discussants from within (Mike Kelly) and outside (Karina Davidson) the research team will promote discussion about future work and applications to health and health services.

14:00 - 14:15

The application of theory to designing and evaluating interventions to change behaviour

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Background: Despite the importance of using theory to inform the development and evaluation of behaviour change interventions, the explicit links between behaviour change content and theory are not fully understood. To (i) advance the application of theory to intervention development and evaluation, (ii) maximise the theoretical understanding of empirical evaluations, and (iii) develop methods for testing and refining theory, we require an explicit methodology for linking behaviour change techniques (BCTs) to their mechanisms of action.

Methods: A corpus of 900+ published reports of behaviour change interventions were identified as likely to report links from BCT to theoretical mechanisms of action. Interventions were coded for theory use, including which (if any) theory guided the intervention development and, drawing on the Theory Coding Scheme, whether BCTs were hypothesised to link to individual theory-relevant constructs.

Findings: No link between the intervention content (i.e. BCTs) and a theoretical construct was made in 400+ of the papers. Of the 400+ reporting a link, approximately 10% did not mention any overarching theoretical basis for the intervention.

Discussion: These results are consistent with findings from other reviews indicating that a majority of reports of behaviour change interventions have not explicitly linked behaviour change techniques to theoretical constructs or mechanisms of action. To advance the science of behaviour change, we need to develop agreed methods for understanding theoretical processes of change underlying effective behaviour change interventions.

14:15 - 14:30

Links between behaviour change techniques and mechanisms of action: evidence from the published intervention literature

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Background: This study aimed to examine links between behaviour change techniques (BCTs) and mechanisms of action, as explicitly hypothesised in a corpus of published reports of behaviour change interventions.

Methods: Data on hypothesised links between BCTs and mechanisms of action were extracted from >300 published intervention reports. The frequency (e.g. number of times a link was reported), explicitness (whether or not coding the link required inference) and precision (whether or not there were multiple links to the same BCT/mechanism of action) of each link was examined.

Findings: Approximately 10 links per intervention paper were identified, and there was substantial variation in the level of explicitness afforded to their description, with 30% of papers requiring some inference to code a link. High frequency BCTs and mechanisms of action included Goal Setting (Behaviour) and self-efficacy, respectively. BCTs found to frequently link to self-efficacy included Behavioural Practice/Rehearsal and Instruction on How to Perform the Behaviour. The frequency of each BCT-mechanism of action link as reported in the literature corpus is represented in a heat map.

Discussion: There is a need for reports of behaviour change interventions to more explicitly state the full causal sequence hypothesised to underlie intervention effects (i.e. BCT – mechanism of action – behaviour), as well as the rationale behind these hypotheses. The heat map of BCT-mechanism of action links resulting from this study contributes to our understanding of the processes that have been hypothesised to underlie individual behaviour change intervention components within the published literature.

14:30 - 14:45

Links between behaviour change techniques and mechanisms of action: examining experts' consensus

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Background: This study examined links between behaviour change techniques (BCTs) and mechanisms of action, as hypothesised by experts in the field using consensus methodology.

Methods: 105 experts from 18 countries participated in a formal consensus development study, involving 3 rounds. Each expert was randomised to one of 5 groups, and each group was asked to consider the links between 13 or 14 BCTs (total 61) and 26 mechanisms of action. Rounds 1 and 3 asked experts to provide numerical ratings of these links, while Round 2 involved an anonymous discussion among the expert groups, to gain consensus and discuss discrepancies.

Findings: For 302 (19%) of the Round 3 links, there was $\geq 90\%$ agreement that a given BCT was (a) linked or (b) not linked to a given mechanism of action. Ten BCT-mechanism of action links had 100% agreement, including: Goal Setting to Behavioural Regulation, Discrepancy between Current Behaviour and Goal to Feedback Processes and Social Reward to Reinforcement. There was high disagreement for some BCT mechanism of action links. For example, approximately 40% of experts judged the BCT Habit Formation to 'definitely' change behaviour through (a) Intention, and (b) Skills, while a similar percentage judged that these were 'definitely not' linked.

Discussion: There is clear consensus for certain BCT-mechanism of action links. The development of a matrix of agreed links, which encapsulates current thinking among behaviour change experts, can aid our understanding of the processes believed to underlie effective interventions. However, further work is necessary to clarify links where disagreement persists.

14:45 - 15:00

Does expert consensus reflect the literature? Triangulation of results from the theories and techniques project

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Background: This study aimed to evaluate the agreement and differences between published reports and expert consensus on the links between behaviour change techniques (BCTs) and the hypothesised mechanisms of action (MoAs) through which they have their effects.

Methods: Agreement and differences between two matrices of BCT-mechanism of action links (one based on published reports of interventions and the other based on a consensus of behaviour change experts) was analysed. These comparative findings were discussed by 12 behaviour change experts in a consensus development exercise with a particular focus on disagreements between the findings of the two matrices.

Findings: Agreement and differences between hypothesised links in the literature compared to those rated through expert consensus, are presented in an integrated matrix of BCT - mechanism of action links in the form of a heat map. Both matrices identified links between Verbal Persuasion about Capability (BCT) and Beliefs about Capabilities (mechanism of action). Overall, a larger number of BCTs were linked to Beliefs about Capabilities in the literature, than were agreed by experts.

Discussion: The development of an integrated matrix of BCT-mechanism of action links, informed by both literature reports and expert consensus, contributes methodological resources for behaviour change intervention researchers and theorists. These results may be useful in selecting BCTs for a theory-based intervention. **This work is an important step towards the development of an 'ontology' of behaviour change, specifying relationships between BCTs, MoAs, modes of delivery, population, setting and type of behaviour.**

14:00 - 15:30 | CROMBIE B SUITE

Symposium: Implicit cognitions in health behaviour change

C. Muschalik¹, M. Hagger², T. Berry³, G. Hollands⁴, S. Pereira⁵, B. Renner⁶, H. de Vries¹

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Aims: The symposium addresses the necessity to also take implicit next to explicit processes into account when trying to understand and change health related behaviours. Different studies will illustrate the significant role implicit processes play in the guidance of various health behaviours. In order to achieve more stable and successful health outcomes, the necessity to embed implicit processes in social cognitive models will be discussed.

Rationale: During the last decades a variety of social cognitive models have been developed and used in order to understand and change health related behaviours. Explicit cognitions are the main focus of these models. Thereby it is assumed that human behaviour is rational and deliberate. Research has shown however that automatic and less conscious, so called implicit processes also trigger and determine behaviour next and also above and beyond explicit cognitions.

The strong focus on latter ones could be a reason why interventions that are based on the aforementioned models fail to achieve long-term behavioural changes. Therefore, we are convinced that implicit cognitions present a promising premise to foster and improve behavioural changes.

Summary: The symposium will consist of five unique presentations (a 15 minutes) that focus on the significant role implicit processes play in the guidance of behaviour. Berry will open the symposium with a study on the relationship of implicit associations of exercise with health or appearance, and explicit motives on adherence to a one year long exercise intervention. Subsequently, Muschalik will focus on the moderating role of implicit attitudes on people's intention and physical activity behavior. Renner will address the influence of implicit social cues on food intake. Pereira will present the effects of priming of social influences on explicit and implicit measures. Finally, Hollands will present a study on increasing healthy food choices by non-conscious means.

14:00 - 14:15

The relationship of implicit health or appearance associations to explicit motives and adherence to exercise

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¹University of Alberta, Canada

²Western University, Canada

Background: This research examined relationships among automatically associating exercise with health, or appearance/ body shape, and explicit health, appearance, or weight motives to 1) the decision to participate in an exercise program and 2) adherence to the program. Gender was assessed as a moderator.

Methods: Participants completed Go/No Go Association Tasks to measure automatic associations and the Exercise Motivations Inventory-2 at baseline, three, six, nine, and twelve months. Program adherence was recorded in terms of weeks (1 – 52). 456 participants (316 women and 140 men, 33 - 72 years; mean BMI = 29.81) participated at baseline, 270 chose to start the program, and 92 completed the program. Analysis of variance and regression models were used to test hypotheses.

Findings: Men who chose to enroll had significantly higher automatic associations of exercise with appearance/body weight ($p = .02$) and higher explicit weight motives ($p = .008$) than men who did not enroll; women who enrolled had lower automatic associations with appearance/body weight than women who did not ($p = .07$). There were no changes in any constructs over the course of the full year-long program in men or women who completed. Automatic appearance/body weight associations ($\beta = .227$) and explicit health ($\beta = -.166$) and appearance motives ($\beta = .215$) predicted the number of weeks of participation among women.

Discussion: A key finding is that automatically associating exercise with appearance/body shape influences exercise-related decisions, a relationship that likely differs between genders. This is important information for intervention efforts.

14:15 - 14:30

The moderating role of implicit attitudes on intention and physical activity behaviour

C. Muschalik¹¹Maastricht University, Netherlands

Background: Social-cognitive models which focus on explicit cognitions are commonly used to explain and change physical activity (PA) behavior. The proportion of behavioral variance these models are able to explain is about 30%. More research is needed to assess which factors may explain additional variance. Little is known about the role of unconscious and automatic cognitions in this context. The aim of this study is to investigate the influence of implicit and explicit attitudes regarding PA.

Methods: Participants (N=166) completed measures of explicit cognitions (explicit attitude, social norms, self-efficacy, intention, self-reported PA) and a Single-Category IAT to assess implicit attitudes towards PA. Linear and hierarchical multiple regression analyses were used to assess moderating associations between implicit and explicit factors.

Findings: Of all participants, 99% had a positive explicit attitude and 49% a positive implicit attitude towards PA. Explicit attitudes, social norms, and self-efficacy explained 40% of the variance in intention ($R^2=.40$). Implicit attitudes did not improve model fit. However the aforementioned variables explain considerably more of the variance in intention for people with a positive ($R^2=.57$) compared to those with a negative implicit attitude ($R^2=.46$). Also an effect of implicit attitudes x intention on PA has been found. Hence, intention is a better predictor for PA for people with a positive ($R^2=.21$) than for those with a negative implicit attitude ($R^2=.01$).

Discussion: Results indicate that implicit attitudes act as a moderator on intention and PA behavior. PA promotion efforts could be improved by also considering and changing implicit attitudes.

14:30 - 14:45

Implicit social cues and food intake

B. Renner¹, G. Sproesser¹, H. Schupp¹¹University of Konstanz, Germany

Background: Studies report consistent associations between gender and specific foods, where unhealthy foods and hearty portion sizes are often associated with masculinity. In present experiment we tested whether also implicit social cues preceding food consumption can modulate intake according gender consumption stereotypes.

Methods: In the present experiment, participants (N = 216) were assigned randomly to two different implicit social cue conditions. Specifically, participants were made to believe that due to a mistake by the investigator they saw a fixed-image on a computer screen which was supposedly an image of the previous participant. The displayed fixed image was either a female or a male student. Afterwards, they completed a bogus ice cream taste test. Taste perceptions were assessed during tasting, and actual and perceived intake, afterwards.

Results: As expected, male participants ate more ice cream than females ($F(1,200) = 11.36, p = .001$). However, this main effect was qualified by the implicit social cue condition ($F(1,200) = 4.5, p = .035$). Male participants ate significantly more ice cream when presented with a female social cue as compared to a male social cue. Conversely, female participants tended to show a lower intake when exposed to a female social cue. These effects were still significant after controlling explicit attitudes such as liking of the ice cream.

Conclusions: Implicit social cues (a non-eating fixed image of unacquainted person) appear to modulate food intake supporting the notion that implicit processes can also trigger and determine behaviour next to explicit cognitions.

14:45 - 15:00

Do social groups have an automatic impact on smoking?

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The main goal is to test the impact of social relationships on physical health behaviour (smoking) at a group level in terms of automatic processes (activation of social norms). Primes of groups with social norms more or less favourable of smoking were manipulated, and the identification with these groups was assessed. It is hypothesised that smoking will be promoted under the prime of pro-smoking groups, specially for those who identify with smokers.

In a preliminary study on-line, 112 participants were asked to nominate groups associated with smoking (e.g., students) and non-smoking (e.g. athletes), and we assessed perceived descriptive norms, identification with smokers and smoking behaviour. Results demonstrate that greater perceived descriptive norms ($b=.360$, $SEb=.055$, $\beta=.269$, $p<.001$) and **greater identification with smokers** ($b=.445$, $SEb=.201$, $\beta=1.202$, $p<.001$) were associated with more cigarettes smoked. The interaction between perceived descriptive norms and identification with smokers was also significant ($b=.195$, $SEb=.027$, $\beta=.069$, $p=.011$), **suggesting that the effect of perceived descriptive norms on the number of cigarettes smoked depended on the level of identification with smokers.**

In the main study, an adaptation of the supraliminal priming paradigm by Smith et al. (2004) was used (participants wrote about one of these groups). Identification with each group was measured using the Inclusion of the Other in the Self Scale (Aron et al., 1992; Tropp e Wright, 2001). The dependent variable was an IAT towards smoking (De Houwer et al., 2006). Results stress the importance of the automatic effects of social relations on smoking and their implications for intervention.

15:00 - 15:15

Impact of presenting images of foods with images of health consequences on attitudes and choices

G. Hollands¹, T. Marteau¹¹Behaviour and Health Research Unit, University of Cambridge, United Kingdom

Background: The existing evidence base for the impact of affective imagery on health-related behaviour is most plentiful in relation to graphic picture warnings and smoking, with few experimental studies focused on food products. Our aim was to examine the impact of presenting images of food products paired with images of positive and negative health consequences, on food choice and implicit attitudes.

Methods: Participants (N=711) were randomly allocated in a 2 x 3 factorial design (food type x affective valence) to one of six conditioning procedures that paired images of either energy-dense snack foods or fruit, with: (a) images of negative health outcomes, (b) images of positive health outcomes, or (c) a no image control. The primary outcome was food choice assessed post-intervention with a behavioural choice task. Secondary outcomes were implicit attitudes (assessed pre- and post-intervention) and explicit attitudes (assessed postintervention).

Findings: Presenting images of negative health outcomes led to more healthy food choices relative to control and positive image conditions, irrespective of whether they were paired with images of energy-dense snack foods or fruit. This relationship was partially mediated by changes in implicit attitudes, and also by explicit attitudes. Images of positive health outcomes did not alter food choices.

Discussion: This study replicates and extends previous research showing that presenting images of negative health consequences increases healthy food choices. Because effects were elicited by manipulating affective valence irrespective of paired food type, these results appear more consistent with an explanation based on priming than on evaluative conditioning.

14:00 - 15:30 | GORDON A SUITE

Symposium: Parental influences on childhood obesity

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Aims: This symposium will highlight new findings related to the influence of parents on childhood obesity. It will include a discussion of the influence of how parents talk to children about their weight, it will highlight parental influences on childhood obesity (e.g., their attitudes and beliefs how to raise children, their perceptions of accessibility and availability of health-promoting environmental factors, and their opinions with regard to different types of exercise), and give a description of an exercise program for middle and high school students. New findings will be discussed in order to inform the development of childhood obesity intervention programs.

Rationale: The familial environment is an important target to focus on when developing childhood obesity intervention programs as parents can set the context and influence children in their choice of dietary and activity behaviors. The **full extent and mechanism of their influence on children's behavior** is not yet fully understood.

Summary: Following a short introduction to the symposium, the first speaker will present the findings of a systematic review investigating the relationship between parent-child weight-related **communication and a child's wellbeing**. The second speaker will present a study of the effects of child and parental perceptions of obesogenic environments on diet, exercise, and body fat. The third speaker will discuss the validation of a general parenting questionnaire and how its use helps us to **understand influences on children's energy balance-related behaviors**. The fourth speaker will present on parental opinions about aerobic and strength exercises among their children. In addition, this speaker will provide a description of an intervention program promoting aerobic and strength exercise among high school students. The discussant will highlight the key findings uncovered in all the talks and will make recommendations for the improvement of existing childhood obesity interventions.

14:00 - 14:15

The association between parent-child weight-communication and indicators of children's wellbeing: a meta-analysis

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Background: Many parents express concern that raising the issue of weight may risk harming their child's physical self-perceptions and wellbeing. Such concerns can deter families from engaging with obesity prevention services. This systematic review aimed to investigate the evidence behind these concerns by analysing the association between parent-child weight-talk and child wellbeing.

Methods: A systematic search of eight databases identified four intervention studies and 38 associative studies involving five to 18 year old children. Meta-analysis was only possible for the associative studies, for which weight-talk was categorized into four communication types (encouraging weight loss, encouraging healthy behaviours without reference to weight loss, criticising a child's weight, and neutral/impersonal weighttalk), and effect size estimates for associations with wellbeing indicators (self-perceptions, depression, dieting and dysfunctional eating) calculated through a random effects model.

Findings: Data from associative studies indicated that encouraging children to lose weight and criticizing weight were associated with poorer physical self-perceptions and greater dieting and dysfunctional eating practices. Conversely, the two studies reporting on parental encouragement of healthy lifestyles without explicit reference to weight both reported positive wellbeing outcomes. Of the four intervention studies, only one isolated the effects of parent communication training on child wellbeing, in which direct discussion of body and weight satisfaction with girls' improved physical self-perceptions.

Discussion: The findings indicate that some forms of parent-child weight-talk are associated with poor wellbeing, but that this is not inevitable. Encouraging healthy behaviours without reference to weight-control, and positive parenting practices acknowledging and addressing weight-concern may avoid such effects.

14:15 - 14:30

Effects of child and parental perceptions of obesogenic environment on diet, exercise, and body fat

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Background: We aimed at testing the indirect effects of perceptions of accessibility and availability of healthpromoting environmental factors on child's body fat tissue. Study 1 investigated the associations between child's and parental perceptions of availability of feasible healthy eating promotion, child's fruit and vegetable intake and body fat tissue changes in children. Study 2 tested the associations between accessibility of feasible physical activity facilities, vigorous physical activity, and changes in body fat among children.

Methods: Overall, 882 dyads participated in Study 1; 838 dyads took part in Study 2. Both studies applied the longitudinal design (with a Time 2 [T2] data collected at 7-8 months after Time 1 [T1]). Children (age 6-10) and parents provided their self-report data. Body composition was measured with bio-impedance method.

Findings: Analyses conducted for Study 1 indicated that parental perceptions of higher availability of healthy diet promotion programs (T1) explained higher fruit and vegetable intake (T2) among children. In turn, healthier parental diet (T1) was predictive of lower fat tissue among children (T2). The results of Study 2 suggest that parental perceptions of higher availability and accessibility of built facilities (T1) had an indirect effect on more frequent vigorous physical activity in children (T2) and that more frequent vigorous physical activity among parents and children (T1) explained a lower increase of body fat among children (T2).

Conclusions: Parental evaluations of accessibility and availability of feasible health-promoting facilities/programs and parental behaviors explain changes in child's body fat.

14:30 - 14:45

Validation of the comprehensive general parenting questionnaire and associations with children's overweight-related behaviour and BMI

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Background: The Comprehensive General Parenting Questionnaire (CGPQ) was developed to assess the five key constructs of general parenting, including nurturance, structure, behavioral control, coercive control, and overprotection. This paper aims to determine the psychometric properties of the 85-item CGPQ and to **assess relationships with children's energy balance-related behavior (EBRB) and BMI.**

Methods: In this study, the CGPQ was completed by caregivers of 5-13 year olds in the Netherlands (KOALA study, N=1821), Belgium (ChiBS study, N=318), and the United States (POETV study, N=212). Moreover, children's food intake, activity behavior, and height and weight were assessed (except for the POETV study only assessing screen time). Confirmatory Factor Analyses were used to assess the underlying parenting constructs. Finally, we regressed general parenting on BMI z-scores and EBRB of the children using cluster analytic approaches on the parenting constructs.

Findings: Psychometric analyses show that the items cluster around five key constructs to define authoritative, authoritarian, permissive and indulgent forms of parenting. Only overprotection was positively related to children's BMI within the KOALA study. **No associations with BMI were found within the ChiBS study.**

Parenting was related to children's use of screen media (but not in the ChiBS study) and children's food intake. Generally, authoritative forms of parenting were related to healthy-weight promoting behaviors, whereas more overly controlling forms of parenting were related to obesity-promoting behaviors.

Discussion: The proposed questionnaire may facilitate research exploring how general parenting influences children's weight status, probably moderating on the relationship between more specific food- and activity related parenting practices and children's EBRB.

14:45 - 15:00

Aerobic and strength exercises for youngsters aged 12 to 15: what do parents think?

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Background: Although strength exercises evidently have both physiological and psychological health benefits across all ages, they are erroneously considered to adversely affect health status in youngsters. The aim of this **study was to examine parental attitudes towards their child's physical activity** in general, as well as aerobic and strength exercises in particular. In addition, a description of an intervention program promoting aerobic and strength exercise among high school students will be discussed.

Methods: In total, 314 parents from an online panel representative of the Dutch population completed an online survey about their own physical activity and that of their child (12–15 years old). The study also explored reasons for non-participation, and **attitudes about the parents' own and their child's physical activity level.**

Findings: Parents consistently reported a positive attitude towards aerobic exercises, but a less positive attitude regarding strength exercises. Parents were more likely to indicate that their child was not allowed to participate in strength exercises (29.6 %) than aerobic exercises (4.0 %). They thought that strength exercises could interfere with optimal physical development.

Discussion: This study consistently shows that parents have a positive attitude towards aerobic exercises, but a less positive attitude regarding strength exercises. We suggest testing interventions to increase parental understanding of the advantages of and possibilities for (e.g., facilities) **strength training on their child's health.**

Behaviour change in health promotion

9:00 - 10:30 | CROMBIE A SUITE

9:00 - 9:15

Effectiveness of motivational interviewing on adult behaviour change: an overview of reviews

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Background: Motivational Interviewing (MI) is one of the most widely researched and reviewed behaviour change methods and is recommended for widespread implementation in various behaviour change guidelines. We aimed to identify, appraise and synthesise evidence for the effectiveness of MI on adult health behaviour change.

Methods: An overview of structured reviews and meta-analyses. We systematically searched CDSR, DARE, PROSPERO, MEDLINE, CINAHL, AMED and PsycINFO from 2000 to November 2014. Inclusion criteria were: review of MI RCTs, used pre-planned review methods, addressed a health problem or risk behaviour. Comparisons from meta-analyses were extracted and the GRADE criteria used to rate quality of the evidence.

Findings: Searches identified 4231 records, 66 reviews met the inclusion criteria. Meta-analysis data was available for 96 comparisons from 23 reviews. Moderate quality evidence for short-term (<6 months) statistically significant benefits were found in 12 of 96 comparisons for reducing alcohol consumption, substance abuse, and increasing physical activity. Moderate quality evidence for longer-term benefits (12 months) were only found for smoking cessation. For changing other health behaviours the quality of the evidence for MI was low. No data provided high quality evidence for the effectiveness of MI.

Conclusions: There is moderate quality evidence of small beneficial effects of MI for changing dependency related health behaviours and promotion of physical activity participation. However, despite a large volume of reviews and meta-analyses, there is no high quality evidence to support the use MI for changing single or multiple health behaviour in any other health or social care setting.

9:15 - 9:30

Virtual traveller: a behaviour change intervention to increase physical activity during primary school lessons

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Background: Children spend a large amount of their time in obligatory seated school lessons, with notable **effects on health and cognitive outcomes**. The 'Virtual Traveller' programme tests Virtual Field Trips (VFTs) as physically active lessons and Behaviour Change interventions. These utilise existing classroom interactive whiteboards to integrate globe-based educational content with related physical movements. This study aimed to test the effects of a 6-week 'Virtual Traveller' intervention on health and educational outcomes in primary school children.

Methods: Design – A Randomised Controlled Trial compared pupils receiving the Virtual Traveller Intervention and waiting-list control.

Participants – N=264 pupils from ten Year 4 classes (8-9 years old) provided usable data across all data collection points

Measures – Data was collected before (T0), during (T1 & T2), 1 week- (T3) and 3 months- (T4) post intervention. Physical activity was assessed via Actigraph GT1M accelerometers, on-task behaviour was observed using the Observing Teachers and Pupils in Classrooms tool (OPTIC) tool and student engagement was assessed with the Student Engagement Instrument – Elementary Version (SEI-E) questionnaire.

Analysis – Multilevel modelling was used to assess outcomes.

Findings: Intervention pupils demonstrated significantly less sedentary behaviour and more light, moderate and vigorous physical activity and significantly better on-task behaviour during lessons (T1 & T2) than control pupils. No difference in outcomes was found at T4.

Discussion: Virtual Traveller was successful at increasing classroom physical activity and on-task behaviour. Using the Behaviour Change Wheel and Behaviour Change Techniques allows development of replicable health interventions in applied settings such as schools.

9:30 - 9:45

Effective behaviour change techniques to promote physical activity in inactive adults: systematic review and meta-analysis

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Background: Low physical activity levels are predictive of poor health outcomes. Building an evidence base of the best approaches to change the behaviour of inactive individuals is crucial in reducing mortality and morbidity.

Methods: Seventeen databases were searched from 1990-2014. Studies were restricted to randomised controlled trials aiming to increase physical activity and/or reduce sedentary behaviour in inactive adults without a chronic condition, with a minimum of six months post-intervention follow-up. Risk of bias, 'Template for Intervention Description and Replication' (TiDieR) guidelines, and behaviour change techniques (BCT) were coded independently by two reviewers. A meta-analysis pooled continuous data for key outcomes. Metaregression and subgroup analyses analysed how BCT presence impacted effectiveness.

Findings: Twenty five studies were included, with 16 pooled for meta-analysis. Physical activity interventions were effective in the short term and long term. Two studies measuring changes in sedentary behaviour were not effective in the short or long term. In the short term, the BCTs 'Biofeedback', 'Demonstration of the behaviour', 'Behaviour practice/rehearsal', and 'Graded tasks' were associated with increased effectiveness.

In the long term, interventions were more effective if they included 'Action planning', 'Instruction on how to perform the behaviour', 'Prompts/cues', 'Behaviour practice/rehearsal', 'Graded tasks', and 'Self-reward'.

Discussions: Good quality evidence was found for the lasting effects of physical activity interventions, but not for interventions targeting sitting time. Closer adherence to the TiDieR guidelines would be beneficial for the replication of successful interventions. The effectiveness of a number of BCTs provides intervention designers with techniques to target inactive adults.

9:45 - 10:00

Trial of a very brief pedometer intervention to promote physical activity in preventative health checks

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Background: Very brief interventions (VBIs) (<5mins) for physical activity (PA) may have substantial public health impact when delivered as part of preventative health checks. We aim to estimate the effectiveness of a very brief pedometer-plus intervention (Step-It-Up), which includes action planning, goal-setting, selfmonitoring and feedback to encourage adults to increase physical activity through a face to face discussion, pedometer use and written materials.

Method: A randomised controlled trial with 1:1 individual allocation evaluates Step-It-Up (delivered in a health check) against the health check alone among adults aged 40-74 years. Follow-up is at 3-months by accelerometers and questionnaires; outcomes are objectively-measured (Actigraph accelerometers) and selfreported PA. Process measures include recall of the consultation and self-reported use of behaviour change techniques. Analysis of covariance will be used to test for intervention effects using an intention to treat approach, supported by a per protocol analysis for the primary outcome.

Findings: 23 GP practices in the East of England (mean deprivation score of 17.05 (SD10.72)) recruited 1008 participants. The cohort is predominantly white British, male to female ratio is 2:3, mean age 58 (SD9.0) and 58% of the cohort is in work. Retention rates at 3-month follow-up are 80%.

Discussion: We have recruited a cohort which is representative of the wider population attending health checks (i.e. older adults, females and from less deprived areas). Use of various approaches including text reminders have helped to achieve good retention at three months. Follow up will be completed by the end of March 2016.

10:00 - 10:15

The effects of nutrition label format on healthier dietary choices: a forced choice eye-tracking study

S. Higgins¹, H. Semper¹¹Staffordshire University, United Kingdom

Background: Mandatory nutritional labelling is designed to encourage healthier dietary choices. However, the current label is frequently misunderstood, leading individuals to choose less healthy options. This research examined whether hybrid labels, which combine text values and traffic light colours, could improve attention paid to the nutritional information and the correct selection of healthier dietary choices compared to the current mandatory label.

Methods: A paired stimuli, forced choice, eye-tracking study investigated nutrition label formats with 48 participants. Health literacy, BMI, age and dietary choice motivations were measured and controlled for within the analyses.

Findings: There was a significant main effect of 'format' on healthier dietary choices ($p=.046$); post hoc analyses reported significantly lower correct selections of healthier dietary choices for colour-only vs. hybrid ($p=.021$) label formats. There was a significant main effect of 'format' on fixation count and fixation dwell time ($p<.001$). Post hoc analyses reported increased fixation counts and fixation dwell times for text-only vs. colour only ($p<.001$), text-only vs. hybrid ($p<.001$) and hybrid vs. colour-only ($p<.001$) label formats. There was a significant main effect of 'nutrient content' on percentage fixation dwell times ($p<.001$), post hoc analyses reported increased attention to fat and sugar information across all trials.

Discussion: The findings reported suggest that hybrid label formats are more effective than text-only label formats at increasing appropriately healthy dietary choices. This suggests that the mandatory nutrition labelling policy should be revisited to create a mandatory nutrition label that is optimal at improving and encouraging healthier dietary choices at population-level.

DHP Award Winning Abstract

10:15 - 10:30

Effects of a worksite intervention on autonomous motivation, exercise and health: a randomised controlled trial

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Background: The worksite is regarded as an important arena for health promotion initiatives due to less attrition and the presence of natural social networks. However, in order to support long-term behavioural change the programs must avoid cohesion and controlling the participants' motivation. This study aimed to test the hypotheses that a team-based exercise intervention would increase the **participants' autonomous** motivation and perceived competence for exercise, and that this would increase their level of regular exercise as well as their cardiorespiratory fitness and health.

Methods: N=xx participants were randomly allocated at team level to an intervention and a control condition. The team-based worksite intervention was designed based on the tenets of Self-Determination Theory (SDT) combined with techniques from Motivational Interviewing and self-help groups. Exercise motivation, exercise levels, cardiorespiratory fitness, blood pressure, waist, weight, and cholesterol were assessed at baseline and after 5 months.

Findings: A MANOVA, repeated measures, indicated significant predicted effects in favor of the intervention group for all measures, except for physical activity that was marginally significant, and the non-significant outcomes of waist circumference and systolic blood pressure. Effect sizes (Cohens' d) were moderate for autonomy support (d=.62), autonomous motivation (d=.40) and cardiorespiratory fitness (d=.54), but small for all other measures. SEM analysis demonstrated a good fit between the data and the SDT process model.

Discussions: Considering the moderate effects on motivation and cardiorespiratory fitness, which predicted all other health measures, offering autonomy supportive interventions at the work place has important practical implications for the health of employees.

Novel methods for studying behaviour change

9:00 - 10:30 | BALMORAL SUITE

9:00 - 9:15

The importance of separating between- and within- person effects as a basis for theory-based intervention

D. Johnston¹¹Aberdeen University, United Kingdom

Background: If theories and interventions are to improve health outcomes then they must apply to change within the individual. This cannot be examined in between person analysis. We apply within- and between person methods to demand/resource models of occupational stress in nurses.

Method: 100 nurses were assessed over 2 shifts with real-time measurement of demand, control and reward (predictors) and negative affect (NA) and positive affect (PA) (outcomes) every 90 minutes. Multilevel modelling was used to test the between- and within-person effects, and examine differences in within-person effects over individuals (random effects).

Findings: NA: Demand was associated with increased NA within but not between people (between beta 1.0 (SE 0.8), within 2.7 (0.2)). Control and reward were associated with decreased NA both between and within (control between -4.5 (1.8), within -2.4 (0.5); reward between -2.6 (1.1); within -1.5 (0.4)). PA: Demand was associated with decreased PA within (-0.7 (0.3)), but not between people (-0.3 (1.6)); however a substantial minority of participants displayed within-person increases in PA with increasing demand. Control related positively both within (2.8(0.5)); and between (6.4(3.0)) as did reward ((2.6(0.4), 9.8(1.6)). There were substantial random effects in both NA and PA analyses.

Discussion: Between and within person analyses provided important and different information. Between person analyses failed to show the relationship between demand and PA and obscured the high within person variability of all the relationships. Within person analyses could not show the importance of absolute levels of control and reward.

9:15 - 9:30

Recall measures overlook information about daily life experience: a focus on fatigue in multiple sclerosis

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Background: Understanding and alleviating symptoms is an important area of research in health psychology. Traditionally, researchers use a recall questionnaire covering a prescribed time-period to obtain a single rating for each participant, assuming symptom-constancy over time and ignoring within-individual fluctuations. We tested the relative extent of within-individual moment-to-moment and day-to-day variability in fatigue, typical daily patterns of fatigue over time, and explored the utility of within-person patient reported outcomes (PROs) as indicators of the dynamic symptom experience.

Methods: Over 4 days, 38 people with relapsing-remitting multiple sclerosis (RRMS) and 38 healthy controls provided six real-time assessments of fatigue severity (ratings from 0–10) per day. Analysis was by multilevel modelling.

Results: Typical daily fatigue patterns in RRMS increased by 0.49 units/hr ($p < .001$) with a simultaneous decrease of 0.03 units/hr² ($p = .012$): a quadratic trajectory generally peaking in mid-afternoon. Healthy individuals started lower and increased steadily by 0.27 units/hr until bedtime ($p = .015$). Random time effects ($ps < .001$) revealed substantial differences in fatigue patterns from individual-to-individual and day-to-day. Notably, several participants with similar person-means had vastly different within-person PROs, including mean successive squared differences and estimated **probabilities of acute change (measuring the probability of a change of ≥ 5 units from one assessment to the next)**.

Conclusion: Understanding how symptoms are dynamically experienced by each individual may present opportunities to further develop tailored interventions. Assessing the relative importance of within-person aspects of symptom experience to quality of life may inform novel means of evaluating treatment efficacy.

9:30 - 9:45

Which combinations of behaviour change techniques are effective? Assessing interaction effects in meta-analysis

E. Dusseldorp¹, X. Li², J. Meulman²¹Leiden University, Institute of Psychology, Netherlands²Leiden University, Mathematical Institute, Netherlands

Meta-analysis is an important tool to synthesize results from multiple studies in a systematic way. Interaction effects play a central role in assessing conditions under which the relationship between study features and study effect sizes differs in strength and/or direction. For example, the question “**which specific combinations of behavior change techniques (BCTs) used by health promotion interventions are effective**”, **can be investigated** by estimating interaction effects between BCTs in a meta-analysis. However, when several study features are available, regression in meta-analysis lacks sufficient power to detect interactions between them.

To overcome this problem, a new approach named “meta-CART” (Dusseldorp et al., 2014) was proposed that introduced classification and regression trees (CART) in the field of meta-analysis. The first version of meta-CART had some shortcomings: the study effect sizes were dichotomized and were not weighted by their accuracies.

In the present study, new meta-CART extensions are proposed, without dichotomization of effect sizes and with the use of weights. The performances of all versions of meta-CART were evaluated via an extensive simulation study. The results revealed that: a) the Type I error was low for both meta-classification trees and metaregression trees; b) meta-regression trees without weights showed the highest detection rates, and c) the required number of studies depended on the number of study characteristics, the magnitude of interaction, and the residual heterogeneity. Based on the results, user guidelines for meta-CART were formulated, such as, the minimum number of studies should be 40 and the number of features may exceed 20.

9:45 - 10:00

Behaviour change techniques in control groups: development of a treatment-as-usual checklist for smoking cessation trials

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Background: Systematic reviews of behaviour change intervention trials should accurately assess and control for variability in the support provided to control groups. Since the content of control group support in trials is underreported, it is imperative to develop instruments to retrieve information about treatment activities in control groups from study authors. Therefore, the present study describes a rigorous, systematic approach towards developing a treatment-as-usual (TAU) checklist for smoking cessation trials.

Methods: TAU smoking cessation treatment activities were identified from major international smoking cessation treatment manuals, existing behaviour change technique (BCT) taxonomies, focus groups with smoking cessation clients, professionals, and policy makers, and research team expertise. Treatment activities were eligible for inclusion when judged to be adequate applications of BCTs. Smoking cessation experts checked the phrasing of items. Activities were classified into meaningful categories by three independent researchers.

Findings: Sixty TAU items were identified based on smoking cessation treatment manuals (32 activities), taxonomies (16 activities), focus groups and research team expertise (12 activities), relating to 40 BCTs. Activities were reliably classified (95% agreement) into 7 categories (information/motivation; action/coping planning, abstinence; medication management; treatment engagement; group support; referral) targeting 4 behaviours (quitting, abstinence, medication adherence, and programme engagement).

Discussion: Findings indicate that TAU for smoking cessation includes a wide variety of treatment activities that represent BCTs, target 4 key behaviours, and can be reliably organised in 7 categories. The TAU activity checklist may be a useful instrument to assess control group support in systematic reviews of smoking cessation interventions.

10:00 - 10:15

Application of a theoretical framework to assess intervention acceptability: a semi-structured interview study

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¹City University London, United Kingdom

Background: The importance of considering acceptability of healthcare interventions has been recognised. However there is little guidance on how to assess acceptability. Previous research has treated acceptability as a simple construct, assessed uni-dimensionally. Such an approach restricts the potential to identify variation, and to discriminate between interventions with high versus low levels of acceptability. The purpose of this study was to compare the use of a multi-construct theoretical framework with a more general approach, to investigate acceptability.

Methods: Eleven healthcare professionals (HCPs) completed semi-structured interviews about the acceptability of two interventions. The first was an audit-and-feedback intervention (i.e. summary of clinical performance provided to HCPs) relating to blood transfusion practice. The second was an online toolkit to support hospital staff to respond to the feedback (e.g. by prompting action planning). Questions within the topic guide framed acceptability as 1) a global construct (i.e. one question about acceptability in general); 2) a multicomponent construct (seven questions about acceptability), based on a recently-developed theoretical framework of acceptability (TFA). Transcripts were analysed using framework analysis.

Findings: When answering the global question, participants (a) spontaneously referred to several constructs in the TFA, and (b) reported that both interventions were acceptable. Based on responses to the set of questions based on the TFA, participants reported more varied assessments of acceptability.

Discussion: Investigating acceptability as a multi-component construct resulted in greater level of discrimination between levels of acceptability. The TFA could be applied to explore acceptability of healthcare interventions more widely.

10:15 - 10:30

To what extent do interventions target barriers to change? A novel systematic review method

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²University of St Andrews, United Kingdom

Background: Systematic reviews often show variable intervention effects. In behaviour change interventions variation might be explained by differences in intervention components (e.g. behaviour change techniques [BCTs], modes of delivery), or barriers targeted. Most behaviour change reviews synthesise evidence of effectiveness, whereas some use theoretical frameworks to synthesise evidence about reported barriers/enablers to change. However, these two methodological approaches have not been integrated in a systematic review context. This study combines the two approaches to review the literature on attendance for diabetic retinopathy screening to address whether existing interventions target identified barriers to change.

Method: Three stages are proposed. Stage 1: Systematically identify reports of randomised controlled trials aiming to increase diabetic retinopathy screening attendance; apply an established BCT taxonomy to code intervention descriptions into BCTs targetting screening attendance; and explore heterogeneity in effect size using various meta-analytic methods to identify BCTs associated with effectiveness. Stage 2: Systematically identify published/grey literature reporting barriers/enablers to attendance for diabetic retinopathy screening; code barriers/enablers according to the Theoretical Domains Framework (TDF). Stage 3: Map BCTs (from stage 1) with theoretical domains (from stage 2) using established techniques (i.e. BCT/TDF mapping matrices), to identify the extent to which the interventions target the identified barriers/enablers.

Discussion: This methodological approach can be used to evaluate whether 'active components' of existing interventions actually target factors proposed to mediate change. This approach could help further explain variation in intervention effects. Findings will inform recommendations for future research in terms of evidence based intervention components that are likely to maximise effectiveness.

Illness and treatment perceptions

9:00 - 10:30 | FORBES SUITE

9:00 - 9:15

The influence of illness perceptions and self-efficacy on emotional outcomes after joint replacement

E. Magklara¹, V. Morrison¹¹Bangor University, United Kingdom

Background: Whilst substantial evidence of the influence of illness perceptions and self-efficacy on illness outcomes exists, few studies have addressed the dynamic of change in such beliefs nor addressed these questions amongst surgical populations. The current prospective study examines such questions in terms of the short and longer-term emotional outcomes of osteoarthritis hip and knee replacement patients. We also examine whether adherence to exercise rehabilitation mediates the relationships between beliefs and emotional outcomes.

Methods: This prospective longitudinal study included three assessments (before surgery, and six weeks and nine months after surgery). 40 hip and knee replacement patients (M= 68.90yrs, SD= 7.60) were recruited in a general hospital and completed a questionnaire-booklet including the Revised Illness Perceptions Questionnaire, the General Self-Efficacy Scale, the Self-Efficacy for Rehabilitation Outcome Scale, the Falls- Efficacy Scale, the Hospital Anxiety and Depression Scale, the Short Form of Psychological Well-Being Index, the Medication Adherence Report Scale and the Morisky Medication Adherence Scale (adapted for exercise adherence).

Findings: A series of multiple hierarchical regression analyses were performed, using residual change scores as independent variables. Mediation was tested using bootstrapping. Early increases (T1-T2) in general self-efficacy and perceived illness consequences predicted 6-week anxiety and depression outcomes; while late changes (T2-T3) in general self-efficacy and emotional representations predicted 9-month depression and emotional well-being. Exercise adherence did not mediate these relationships.

Conclusion: Change in illness cognitions variably explains emotional outcomes. Such findings hold implications regarding both the content and the implementation timing of future interventions.

9:15 - 9:30

Why lay people use diagnostic self-tests instead of consulting a health professional

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¹University of Greifswald, Germany

Background: A broad range of self-tests (testing for e.g. cancer, allergies) is freely available on the Internet. In Germany, there are no studies which have investigated the personal motives of using self-tests on one's own initiative to diagnose a (risk of a) disease which was the aim of this study.

Methods: An online survey was conducted to investigate (a) the main reasons for using a self-test and (b) the preference of using a self-test over a medical diagnosis. Participants were invited to the survey in batches, which were representative for the gender and age distribution in Germany, until data of 505 self-testers and 512 non-self-testers was gathered. Open questions were analysed based on a qualitative content analysis.

Results: Six general main categories of motives for using diagnostic self-tests were identified and varied according to the disease. For instance, selftests to diagnose kidney diseases were most frequently conducted to obtain more knowledge about one's current health status. In contrast, tests to detect an inflammation of the bladder or urinary tract were most frequently conducted because of medical complaints. The most frequently stated reasons for preferring a selftest over the conventional medical diagnosis were practical advantages of the test application: e.g. faster test results, problems to get a doctor's appointment etc.

Discussion: Motivational reasons for using a self-test were mainly related to the test application, self-management or out of curiosity. Dissatisfaction with preliminary or potential medical diagnosis as stated rarely. Self-testers follow-up behaviour and their emotional perception need to be investigated.

9:30 - 9:45

Impact of illness perception in the quality of life of Brazilians living with HIV/AIDS

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¹University of Lorraine, France

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³Universite de Lorraine, France

Background: The objective of this study is to verify predictors of the quality of life (QOL) of Brazilian people living with HIV/AIDS (PLWHA). The self-regulatory model guides this study, thus the influence of Illness Perception on QOL is mediated by coping strategies, but also social support and self-efficacy.

Methods: Cross sectional design, quantitative study. 128 PLWHA responded to an online questionnaire, composed of the following instruments: Brief Illness Perception Questionnaire (BIPQ), Brief Cope (evaluating 14 coping strategies), Social Support Questionnaire 6 (SSQ6), General Self-Efficacy Scale (GSES), WHOQOL-HIV Bref. Correlational and Partial Least Square (PLS) methods of analysis were used.

Findings: The results highlight the negative direct influence of the illness perception in QOL ($s=-.78$; $p<.01$). However, some variables can mitigate this effect. The increased use of acceptance ($s=.20$; $p<.05$), distraction ($s=.18$; $p<.01$) and instrumental support ($s=.23$; $p<.05$) coping strategies and less use of behavioral disengagement ($s=-.18$; $p<.05$) and positive reinterpretation ($s=-.24$; $p<.01$) are predictors of QOL, diminishing the effect of the illness perception ($s=-.55$; $p<.01$). This mediation was confirmed by significant indirect effect ($s=-.22$; $p<.01$).

Discussion: Those were the only variables that predicted QOL in a more comprehensive model. It is possible that the effects that usually social support and self-efficacy have are due to other variables with which they correlate, such as distraction and positive reinterpretation in the case of self-efficacy and instrumental support in relation to the availability and satisfaction with social support. More studies in this area should be done to confirm these data.

9:45 - 10:00

Concerns about medicines predict medication adherence in rheumatoid arthritis after 3 and after 12 months

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Background: According to the “necessity-concerns framework”, beliefs about medicines influence the degree of medication adherence. This has been empirically corroborated in various populations. However, evidence from longitudinal studies is scarce. This study investigated whether beliefs about medicines predict adherence in people with rheumatoid arthritis (RA) three and twelve months later.

Methods: 361 patients with physician-diagnosed RA (30.5% male, mean age 60.2 years (SD=13.4)) completed the “Beliefs about Medicines-Questionnaire” (BMQ), the “Medication Adherence Report-Scale” (MARS) and sociodemographic items at three points in time: baseline, 3-months follow-up (T1), 12-months follow-up (T2). The BMQ-subscales “necessity” and “concerns” at baseline were used as explanatory variables, dichotomized MARS scores (full vs. suboptimal adherence) at follow-ups as dependent variables. Multivariate logistic regression analyses adjusted to covariates were computed.

Findings: 80.9% of initial 361 patients provided information at T1, 67.9% at T2. Patients lost to follow-up did not differ from those remaining in the study. At both follow-ups, about two thirds of patients were non-adherent (T1: 68.0%, T2: 66.3%). Concerns at baseline predicted medication adherence each at 3-months (OR=1.50, 95%-CI: 1.02-2.22, p=.041) and at 12-months follow-up (OR=1.79, 95%-CI: 1.18-2.72, p=.006), with stronger concerns increasing the chance of being non-adherent. However, beliefs about necessity of medicines were not significantly associated with adherence at neither follow-up.

Discussion: Employing a longitudinal study design, we demonstrated that even if RA patients hold strong beliefs about the necessity of their medicines, concerns may hinder them to fully adhere to their medication. These concerns should therefore be specifically addressed during doctor-patient consultations.

10:00 - 10:15

The psychosocial context of bodily sensations - embodied perception in the setting of alternative medicine

S. Zörgő¹, A. Zana¹

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Background: In the intercultural milieu of medical pluralism, a nexus of worldviews espousing distinct explanatory models of illness, our research aims at exploring factors leading to complementary and alternative medicine (CAM) use. As illness-interpretations of patients socialized in a biomedical setting are altered vis-a-vis CAM concepts, so is the psychosocial context in which patients interpret their bodily sensations. Assigning meaning to somatic sensations connotes a recurring reference point in the therapeutic process and thus signifies a vital focal point of our study.

Methods: The results are based on medical anthropological fieldwork that commenced in September 2014 at a clinic of Traditional Chinese Medicine in Budapest, Hungary. The ongoing fieldwork involves 163 patients (males: 64; mean age=53) and entails participating in everyday work, observing admittance of patients, conducting unstructured and in-depth interviews with patients/staff. The interviews are coded with Interpretative Phenomenological Analysis; all information is aggregated employing Atlas.ti software.

Findings: Each item in the panoply of recorded somatic sensations is interpretable by the patients and practitioners as either negative (falling ill, relapse) or positive (healing, therapeutic efficacy); there is no apparent intra- or interpersonal consensus regarding their appraisal. Pain, tingling, heat, etc. experienced during treatment or as symptoms of illness/recovery are embodied experiences subject to ambivalent appraisal. Their perception and meaning is shaped by the psychosocial context and explanatory models of those in the behavioural environment.

Discussion: A heuristic for assigning meaning to bodily sensations contributes to an understanding of therapy choice, subjective evaluation of therapeutic efficacy, and illness perception, interpretation.

10:15 - 10:30

The role of illness beliefs in disrupted sleep in people with psoriasis

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Background: Psoriasis is a common immune-mediated skin condition associated with significant psychological and medical comorbidity. Research by our group has shown that sleep problems are common in psoriasis and associated with itch, low mood and pre-sleep cognitive arousal. Illness beliefs relate to how an individual perceives health threats, and are important predictors of psychological outcomes in psoriasis. Given that sleep problems are associated with cognitive factors, and that illness beliefs play a role in determining health outcomes, we sought to investigate the association between illness and treatment beliefs (about psoriasis) and sleep.

Methods: 186 respondents (75.3% female, mean age = 39.2) with psoriasis from 14 countries completed an online survey assessing sleep (Pittsburgh Sleep Quality Index), psoriasis (Simplified Psoriasis Index) and illness beliefs (Brief Illness Perceptions Questionnaire). Group comparisons compared good and poor sleepers on illness beliefs. Correlations and regression analyses explored the role of illness beliefs in sleep.

Results: The mean PSQI was 9.24 (SD=4.32), with 76.3% classified as poor sleepers (PSQI>5). Whilst consequences, identity, concern and emotional representations independently predicted sleep quality, consequences was the **strongest predictor** ($\beta=.455;p<.001$). **When controlling for all significantly correlated beliefs, consequences emerged as the only significant predictor** ($\beta=.284;p=.006$), explaining 23.4% of variance.

Discussion: Illness and treatment beliefs about psoriasis are associated with poor sleep, and beliefs about the consequences of psoriasis had the biggest influence on sleep in this sample. Targeting **people's beliefs about** their psoriasis should be explored as a potential intervention for improving sleep and other outcomes in this population.

Improving health through theory-based behaviour change interventions

11:00 - 12:30 | FLEMING AUDITORIUM

11:00 - 11:45

Behaviour change in primary care: very brief interventions for physical activity

S. Pears¹, S. Sutton¹, W. Hardeman^{1,2}¹University of Cambridge, United Kingdom²University of East Anglia, United Kingdom

There is a need for scalable interventions that can reach a large proportion of the adult population and hence improve public health. This presentation will describe a suite of studies included in a research programme about the development and evaluation of very brief interventions (VBIs) to increase physical activity in the context of preventive health checks in primary care. Systematic reviews suggest that physical activity interventions may be integrated into routine care if very brief, and have identified promising approaches (e.g. self-monitoring; action planning) to promoting physical activity that can be delivered face-to-face and in a single session. National Health Service (NHS) Health Checks are a government-sponsored primary care initiative that aims to lower the risk of developing chronic disease by offering free consultations to patients aged between 40 and 74 without current disease or a high risk profile. Coincidentally, health checks offer an ideal opportunity to deliver brief physical activity advice of approximately five minutes to a large proportion of the population.

The VBI programme aims to develop and evaluate very brief interventions to increase physical activity that could be delivered by a health care practitioner during a preventive health check. Development work, which included a feasibility study, was carried out which identified three feasible and acceptable VBIs: a Motivational VBI, a Pedometer VBI, and a Combined (Motivational and Pedometer) VBI. The potential efficacy of these three VBIs was evaluated in a pilot trial (n=394), and the Pedometer VBI was found to be the most-promising VBI. The effectiveness of the Pedometer VBI was subsequently evaluated in a large-scale RCT (n=1000). The challenges associated with delivering and evaluating very brief behaviour change interventions in a primary care setting, the implications for clinical practice and policy, and a future research agenda for VBIs will be discussed.

State of the Art

11:45 - 12:00

Behaviour change interventions for low-income groups: meta-analysis of behaviour change techniques, delivery and context

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Introduction: Health inequalities could be reduced by effective interventions to change diet, physical activity and smoking for low-income groups. This meta-analysis explored the behaviour change techniques (BCTs) and aspects of intervention context and delivery associated with increased healthy eating, physical activity and smoking cessation for low-income adults.

Methods: This was a secondary analysis of a systematic review of interventions targeting change in diet, physical activity or smoking cessation (searching from 1995-2014). There were 35 RCTs containing 45 interventions with 17,000 healthy low-income adults. The association with behaviour change of 46 BCTs identified using taxonomy v1 and 13 delivery/context variables as specified by the TiDieR checklist was examined.

Findings: In dietary interventions, one BCT (self-monitoring) and two delivery/context features (personal contact, targeting multiple behaviours) were associated with increased effectiveness; three other BCTs (feedback on behaviour, prompts and cues, information about emotional consequences) had reduced effectiveness. In physical activity interventions, three BCTs (behavioural practice/rehearsal, instructions on how to be physically active and information about antecedents) and two delivery/context variables (home or community delivery; focus on physical activity only) were associated with effectiveness. No BCTs or delivery/context features were associated with smoking cessation.

Conclusions: Several BCTs and delivery/context variables were associated with greater effectiveness of diet and physical activity interventions in low-income groups. Some BCTs and delivery/context variables were associated with reduced effectiveness; many could not be evaluated. These findings add to the evidence base for interventions to improve health outcomes in low income groups.

12:00 - 12:15

Using theory and evidence to increase physical activity: let's move it school-based multi-level intervention

N. Hankonen¹, M. Heino², V. Araujo-Soares³, P. Absetz¹, F.F. Sniehotta³, A. Haukkala²

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Background: No school-based physical activity (PA) interventions among youth have demonstrated long-term effectiveness, possibly due to inadequate development. This study aimed to use formative research, health behaviour theory, participatory development, and reviews of evidence to develop an intervention for vocational school youth targeting physical activity and sedentary behaviour.

Methods: The research process used triangulation of several methods and sources of evidence: Systematic review identifying potentially effective Behaviour Change Techniques (BCTs) from prior interventions, needs assessment, co-design and pre-testing of intervention components, a cluster-randomised, outcome-assessor blinded feasibility study (n=43, trial registration: ISRCTN34534846), measuring acceptability as the primary and accelerometry-based PA as secondary outcomes.

Findings: Review and pre-testing led to an intervention based on self-determination theory, control theory, planning and habit theories. It consists of six group sessions integrated into school curriculum targeting PA motivation and self-regulatory skills, and teacher-led sitting reduction in classrooms. Principles of group motivational interview were found to increase acceptability. Feasibility study showed high acceptability ratings of sessions and program (M=6.29 out of 7, SD=0.561) among both students and teachers. We identified suboptimal uptake of certain key BCTs (e.g. coping planning used by 32 % of intervention participants). The optimized **Let's Move It** intervention added environmental and individual-level components to support key mediational processes.

Discussion: Feasibility study helped to identify improvement needs, and led to the integration of habit-theory to more effectively aid teachers to incorporate sitting reduction strategies. The effectiveness of the finalized version is currently being evaluated in a randomized trial (ISRCTN10979479).

12:15 - 12:30

Effects of a weight loss maintenance intervention on eating behaviours and theoretical mediators: NULevel RCT

F. Sniehatta¹, E. Evans¹, K. Sainsbury¹, V. Araujo-Soares¹, o.b.o. the NULevel study team¹

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Background: After successful weight loss, most individuals regain weight. The NULevel trial evaluates the effectiveness of a scalable, technology-assisted, behavioural intervention for weight loss maintenance in obese adults after initial weight loss.

Methods: This 12-month single-centre, two-armed parallel group, randomised controlled superiority trial recruited **288 previously obese adults after recent weight loss of $\geq 5\%$** , with a 1:1 allocation to intervention or control arm. Primary outcome was weight change from baseline to 12 months. Here, changes in secondary outcomes, behavioural and psychological measures from baseline to 6 months were analysed using ANCOVAs with allocation as between-subject factor controlled for baseline measures following intention-to treat principles.

Results: 144 participants each were allocated to control and intervention arm, 117 (81%) completed 6 months assessment in each arm. There were no significant differences between arms in social support, ego depletion, dietary restraint (Three Factor Eating Questionnaire; TFEQ), self-efficacy for weight loss maintenance or habits, self-efficacy and action planning for physical activity. Participants in the intervention arm reported lower levels of uncontrolled eating ($p=.019$) and emotional eating ($p=.022$) from the TFEQ, stronger habits for healthy eating ($p = .019$) and for self-weighing ($p<.001$), and higher levels of satisfaction with outcomes of weight loss ($p = .008$), coping planning for physical activity ($p=.044$), and action planning ($p=.001$) and coping planning ($p=.002$) for healthy eating compared to controls.

Discussion: Results support some but not all effects of process measures hypothesised in the logic model. Results will be discussed in relation to the main outcomes of the trial.

Goals and self-management

11:00 - 12:30 | CROMBIE A SUITE

11:00 - 11:15

Negative affect associated with goal progress does not lead to health behaviour change

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Background: When do people decide to do something about problematic health behaviours such as poor diet? Theoretical models suggest that people should take action when they feel bad about their progress – i.e., when they experience negative goal-related affect. However, the impact of goal-related affect on goal striving has rarely been investigated.

Methods: Study 1 (N = 744) adopted a cross-sectional design and examined the extent to which measures of goal-related affect were correlated with intentions to take action. Study 2 (N = 409) investigated the impact of experimentally manipulating goal-related affect on subsequent intentions and behaviour.

Findings: Study 1 found that, while self-regulatory outcomes had the expected affective consequences (e.g., healthy eating, regular exercise, and lower alcohol intake were correlated with positive goal-related affect; p s < .05), it was feeling good rather than bad about goal progress that was associated with stronger intentions to eat healthily and exercise (p s < .05). Goal-related affect was not associated with intentions to reduce alcohol intake ($p = .796$). Similarly, in Study 2, participants induced to feel good (relative to bad) about their eating behaviour had stronger intentions to eat healthily ($p = .054$) and intentions were correlated with behaviour one week later ($p < .001$).

Discussion: Two studies provide evidence that, in contrast to theoretical frameworks, people intend to take action when they feel good, rather than bad, about their goal progress. Such findings have theoretical and practical implications for interventions designed to promote changes in health behaviour.

11:15 - 11:30

Goal disturbance and perceived control pre-post renal transplantation relate to distress changes: a longitudinal study

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Background: Renal transplantation (RTx) is considered the treatment of choice for End Stage Renal Disease (ESRD) given its association with improved overall quality of life and psychological functioning compared to dialysis. However, less is known about which factors underlie these psychological improvements across RTx. Goal theory suggests that experienced disturbances in important goals are related to lower psychological functioning. This study aimed to (1) identify the most important and disturbed goals for patients before RTx, (2) to examine changes in goal disturbance and goal importance pre-post RTx, and (3) to examine whether changes in goal disturbance are associated with changes in psychological distress, and if this relationship is mediated by changes in perceived control.

Methods: In this longitudinal study, 185 patients completed questionnaires before and after RTx, including a GOALS questionnaire, General Health Questionnaire to measure psychological distress, and Mastery scale to measure perceived control. Paired samples t-tests were used to analyze pre-post RTx changes. Unique predictive effects of pre-post RTx changes in goal disturbance and perceived control on distress changes were analyzed with hierarchical regression analyses.

Findings: ESRD affected both general and disease specific life goals. Goal disturbance generally decreased significantly pre-post RTx, whereas goal importance did not change significantly. No mediation effect of perceived control was found. Instead, both changes in goal disturbance and perceived control independently showed a significant main effect on changes in distress.

Discussion: The development of intervention strategies targeting goal disturbance or perceived control in ESRD patients might enhance psychological functioning in this population.

11:30 - 11:45

Autonomy support and autonomous functioning in relation to drinking and drinking motivation among university students

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Background: This study used Self-determination theory to explore the relationship between parental autonomy support and autonomous functioning in relation to alcohol use and motivation to alcohol use among university students in Slovakia.

Methods: A cross-sectional correlational design was used. University students participated in the study (n = 719; mean age = 21.25, SD = 1.99; 59% women) and completed questionnaires on alcohol use (AUDIT), drinking motives (DMQ-R), perceived autonomy support from parents regarding autonomous thinking, autonomous decision-making and physical separation (POPs) and autonomous functioning comprising congruence, interest-taking and susceptibility to control (IAF). Linear regression analyses were used and Sobel test was applied to test for possible mediation.

Findings: The analyses revealed that after controlling for gender and age only specific types of autonomy support and autonomous functioning were related to alcohol use and drinking motives. In particular, congruence was associated with alcohol use negatively ($\beta=-0.17$; $p<0.001$) while physical separation positively ($\beta=0.14$; $p<0.001$). Similar pattern was observed in relation to drinking motives ($p<0.001$). Further investigation showed that drinking motives were the mediators of the relationship between autonomy variables and alcohol use ($p<0.05$).

Discussion: The results suggest that autonomy in terms of parental autonomy support and autonomy as functioning may be relevant with regard to drinking behaviour and this influence is mediated by drinking motives, however, this seems to be limited only to specific aspects of autonomy support and autonomous functioning. Further research is needed to address the interplay between autonomy support and autonomous functioning in the explored context.

11:45 - 12:00

Perceptions of blood glucose self-monitoring for non-insulin treated type 2 diabetes: a qualitative interview study

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Background: Self-monitoring of blood glucose (SMBG) is thought to empower patients to manage diabetes, however research suggests it may not be beneficial or cost-effective for those with non-insulin treated type 2 diabetes (NITT2D). Empirical studies have used self-regulation theories to conceptualise SMBG but theoretical approaches are largely absent in qualitative investigations. This study used the Common-Sense Model to explore patient and healthcare professional (HCP) perspectives on SMBG for NITT2D.

Method: Nineteen participants (14 patients with NITT2D; 5 HCPs) took part in semi-structured qualitative interviews following a topic guide informed by the Common-Sense Model. Interviews were audio-recorded, transcribed, and analysed using inductive thematic analysis.

Results: “The challenge of glucose control” was identified as a central theme to four interrelated sub-themes. Patients described how “interpreting and responding to bodily signals and monitoring results” triggered thoughts and emotions that influenced their behaviour. “The role of monitoring in patients’ lives” was multilayered, though certain patients felt self-monitoring was inessential. Accounts suggested a balancing act in “the roles and responsibilities of patients and HCPs”, with both facing competing tasks and goals. Health professionals stressed “appropriate testing”, suggesting that monitoring results must inform decision-making for patients to derive benefits.

Conclusion: Patients and HCPs generally perceived self-monitoring as useful, though this varied depending on patients’ treatment regimens. Health professionals expressed concerns about appropriate testing, emphasising that self-monitoring must be linked with education to change behaviour. Findings support the importance of emotional and cognitive processes in self-monitoring and suggest the utility of the Common-Sense Model to examine SMBG.

12:00 - 12:15

Procrastination and sleep insufficiency: the role of self-regulation skills and motivational orientation

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Background: Getting insufficient sleep causes many negative health consequences. Although a variety of factors can cause insufficient sleep, **in most cases, it's due to bad sleeping habits**. According to Kroese and colleagues insufficient sleep can be examined from a self-regulation perspective. These authors propose **concept of bedtime procrastination**. **Bedtime procrastination is defined as “failing to go to bed at the intended time, while no external circumstances prevent a person from doing so”**.

Methods: Two studies (N=151; N=98) were designed to answer two main questions: First - do individual differences in self-regulation skills and bedtime procrastination were predictors of self-reported sleep outcomes. Second – do individual differences in self-regulation skills, bedtime procrastination and autonomous versus controlled forms of motivation have different effects on behavioral intention for change bad sleeping habits and behavioral measures taken five weeks later?

Results: People who reported more bedtime procrastination scored lower on self-regulation skills and reported more symptoms of sleep insufficiency. Self-regulation skills, autonomous and controlled motivation were positively associated with intention to change bad sleeping habits. Results provide also evidence that controlled motivation has negative effect on behavioral change measures taken five weeks later. The effect of self-regulation skills and , autonomous motivation on behavioral change measures was insignificant.

Conclusions: It has been demonstrated that bedtime procrastination and self-regulation skills may contribute to sleep insufficiency. Given the relations between self-regulation skills, motivational orientation and behavioural intention, the ways in which bad sleeping habits could be changed warrants further investigation.

12:15 - 12:30

A typology of bedtime procrastinators

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Background: Bedtime procrastination is a highly prevalent antecedent of sleep deprivation (Kroese et al., 2014). In the present research, we aimed to develop a typology of bedtime procrastinators.

Method: We conducted in-depth interviews (60-90 minutes) with 14 self-labelled bedtime procrastinators and asked them why they often go to bed late and what kind of activities they engage in while delaying their bedtime.

Results: Based on thematic analysis of the data, we first distinguished between “genuine” procrastinators (those who needlessly delay their bedtime, despite expecting to be worse off as a result), and strategic delayers (those who self-label as a procrastinator but, in fact, delay their bedtime in order to achieve intended objectives, such as increased sleep pressure as part of self-medicating for insomnia). Within the group of genuine procrastinators, we further distinguished between mindless procrastination and deliberate procrastination. Mindless bedtime procrastinators mostly went to bed late because they were engaged in immersive activities (e.g., playing video games, watching “just one more” episode of their favorite show on Netflix) and reported that time “got away from them” or they “lost track of the time”. Deliberate bedtime procrastinators, on the other hand, reported that they were mostly aware of how late it was, but that there were simply too many things they still wanted/needed to do before going to bed.

Discussion: We are currently developing questionnaires to distinguish between these types of procrastinators, as doing so may help researchers tailor interventions to make them more effective.

Pain and distress

11:00 - 12:30 | CROMBIE B SUITE

11:00 - 11:15

Chronic low back pain among athletes: how is it related to physical and mental stress?

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Background: Low back pain (LBP) ranges among the most impairing musculoskeletal diseases with several factors contributing to the development and chronification of the burden. Predominantly, psychological stress has emerged as a crucial influence in the general population, but has barely been scrutinized as an influence for athletes with LBP. Hence, the present study aimed at the comparison of different facets of stress with regard to pain and disability indicators of LBP chronification.

Methods: A longitudinal study with an overall sample of 139 athletes was conducted. At T0, stress parameters were assessed via the Recovery-Stress Questionnaire (RESTQ-Basic) and the Screening Scale of the Trier Inventory for the Assessment of Chronic Stress (TICS-SSCS). Both at T0 and T1 (six-month later), different chronification indicators were measured, targeting the parameters of pain intensity and disability (Chronic Pain Grade). As a consequence of the assessment of the LBP parameters, a chronification and no-chronification group of athletes was formed.

Results: ANCOVAs were calculated to examine group differences with regard to stress levels. On a descriptive level, the chronification groups showed higher stress values for all included chronification indicators. Physical Complaints and Overall Stress-TICS resulted to be the variables for which the group differences became significant ($p < .05$).

Conclusions: The outcomes contribute to the current state of research by adding specific knowledge about stress-related dissimilarities between athletes with and without LBP chronification over a period of six months. Both future research and practice regarding injury prevention and monitoring of health-related processes can benefit from the findings.

11:15 - 11:30

ACT now! Acceptance & commitment therapy processes are associated with chronic low-back pain (CLBP) disability

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Background: Acceptance and Commitment Therapy (ACT) is a promising theory-based approach to CLPB which emphasises acceptance and committed action towards improved function. We assess the relative contribution of ACT key process measures with depressive symptoms in explaining self-reported disability.

Methods: 198 adult patients (59% female, 47.4yrs, SD=14.5) experiencing CLBP >12 weeks duration and **scoring ≥ 3 points on the Roland-Morris-Disability-Questionnaire (RMDQ)** completed RMDQ, acceptance (CPAQ-8), committed action (CAQ-8) and depressive symptoms (PHQ-9) measures. Multiple linear regression assessed the variance in self-reported disability and relationship with ACT process variables.

Findings: In correlational analysis, higher acceptance ($r=-.62$, $p<.01$) and higher committed action ($r=-.26$, $p<.01$) were associated with lower RMDQ scores. Compared with an initial multiple linear regression model (age, sex and depressive symptoms) which explained 29% of the variance in RMDQ scores ($F(3,194) = 27.7$, $p<.01$), a second model, additionally including acceptance and committed action, explained 48% of the variance in RMDQ scores (R^2 change 19%; $(LR \chi^2(2) = 64.43$, $p>\chi^2<.01$). Higher acceptance scores were associated with lower RMDQ scores ($\beta=-.56$, $p<.01$). However, higher committed action scores were associated with higher RMDQ scores ($\beta=.16$, $p<.01$).

Discussion: These findings suggest promoting acceptance of CLBP might improve patients' function. Independently, committed action has a small positive effect with self-reported disability although this effect was lost with acceptance and depressive symptoms in the regression model. We are testing the effectiveness of an ACT-informed intervention in promoting function in CLBP patients and evaluating possible mediators in the PACT trial <http://www.controlled-trials.com/ISRCTN95392287>.

11:30 - 11:45

The role of pain catastrophizing in eliciting pain, distress, and suicidality among chronic pain patients

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Background: Successful management of chronic pain entails daily use of coping strategies. The goal of these two studies was to examine the role of pain catastrophizing and acceptance in predicting pain, disability, distress, and suicidality.

Methods: Study 1 428 chronic pain patients treated at two outpatient pain specialty pain clinics completed a battery of self-report measures examining pain catastrophizing, depression, anxiety, pain, and pain related disability in four assessment waves (mean interval =7 months). In order to test the longitudinal effects, we used structural equation modeling (SEM) and averaged participants' times 2-4 to create a new two wave model.

Study 2 166 patients completed measures including coping, pain acceptance, pain, depression, hope, interpersonal predictors of suicidality, and suicide ideation. Stepwise Logistic Regression was used to predict suicide ideations and multiple regression analyses for other outcomes.

Results: Study 1 Time 1 Pain catastrophizing only predicted pain in Time 2 ($\beta = .36$, $CR = 3.66$, $p < .001$).

Study 2 Depression, sense of burdensomeness, and pain catastrophizing predicted suicide ideations (O.R.= 1.10, 1.31 and 1.88 accordingly. Pain catastrophizing and distraction predicted sensory pain ($\beta = .22$, $t = 2.38$, $p = .02$ and $\beta = .21$, $t = 2.42$, $p = .02$ accordingly). Pain catastrophizing and life engagement predicted depression ($\beta = .43$, $t = 5.93$, $p < .000$, and $\beta = -.29$, $t = -3.58$, $p < .001$ accordingly).

Conclusions: Pain catastrophizing might constitute a substantial risk factor for multiple psychiatric symptoms in chronic pain. Acceptance may serve as a resilience factor for depression in pain.

11:45 - 12:00

Effects of older adults' preferences for social support of functional autonomy/dependence on chronic pain-related disability

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Introduction: Chronic pain is very prevalent and potentially highly disabling in later life. Studies showed significant correlations between formal social support (SS) of functional autonomy/dependence (provided by staff at day-care centers/nursing homes) and older adults' pain-related disability. However, the causal relationship between SS for functional autonomy and pain-related disability was yet to be tested. Moreover, the size of this effect could depend on the extent to which older adults preferred SS for autonomy vs. dependence.

Therefore, this study aimed to investigate: (1) the direct effect of SS for autonomy/dependence on pain-related disability; and (2) the extent to which this effect was moderated by preferences for autonomy/dependence.

Method: 170 older adults (M=78 years) with chronic musculoskeletal pain, attending day-care centers, participated in a 3-months prospective study with measurements at three moments in time. Participants filled out the revised Formal Social Support for Autonomy and Dependence in Pain Inventory, the Preferences for Formal Social Support in Pain Scale and the Brief Pain Inventory.

Results: Findings have shown that perceived promotion of dependence at T1 predicted pain-related disability at T2 ($B=0.30$, $p<.001$), but this relationship was stronger among older adults with low preferences for autonomy support.

Discussion: These results highlight the importance of conceptualizing these two functions of pain-related formal social support and will be discussed in light of recent literature stressing the role on social support responsivity on individuals' health and wellbeing.

12:00 - 12:15

Cancer pain management: complexities, trade-offs, and implications for pain management interventions

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Background: Pain is prevalent in cancer, especially as the disease progresses. Cancer pain management (CPM) relies on patient, caregiver, and health care professional (HCP) behaviours, particularly relating to the prescribing and use of opioid analgesics. Behavioural interventions to date have achieved modest effects on pain outcomes.

The aim of this study was to explore patient, caregiver, and HCP experiences of CPM and the challenges faced. A second aim was to explore potential areas that digital technology might be used to meet some of these challenges.

Methods: Semi-structured interviews were conducted with adults with cancer pain, their caregivers, and HCPs. Two professional focus groups were conducted. Interviews and focus groups were recorded, transcribed verbatim, and analysed using Framework and thematic analysis.

Findings: Interviews were conducted with 14 patients, 6 caregivers, and 19 HCPs. Two focus groups were conducted with 12 multidisciplinary HCPs. Patients were aged between 56 and 76, mean 66 years, all with advanced cancer. Patients described managing competing goals. Patients made trade-offs to balance analgesic side effects (particularly relating to cognitive function and constipation), physical activity, pain levels, and independence. **Cancer was described as a “full time job”** and patients were already using digital technologies to support knowledge, communication, and personal organisation.

Discussion: Analgesic use in cancer pain is highly individual and patients make complex decisions to achieve personal pain management goals. By characterising this decision making process, suggestions are made to inform the development of future behavioural interventions. A digital intervention would be feasible in this population.

12:15 - 12:30

Exploring factors related to psychological distress in inflammatory bowel disease: a qualitative study

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Background: Inflammatory Bowel Disease (IBD) is lifelong autoimmune condition causing inflammation of the digestive system resulting in sickness, diarrhea, weight loss, abdominal pain and fatigue among others. Depression and anxiety are typically high at 21% and 41% respectively. However, most IBD services do not have access to psychological support or dedicated resources for distress. This study aimed to identify areas of distress in IBD to inform a guided self-management intervention.

Methods: Semi-structured interviews were carried out with 29 people with IBD (pwIBD) and twelve healthcare professionals. Interviews were audio-recorded and transcribed verbatim. Data were analysed using thematic analysis with elements of grounded theory.

Findings: A model of factors identified by pwIBD contributing to distress was developed. Themes included; symptoms which can be embarrassing and uncontrollable during flares; unpredictability and progression of IBD, creating uncertainty for the future; social factors including lack of understanding and the negative impact on social relationships; navigating the healthcare system; medical procedures which can be unpleasant and invasive. Most themes were also recognised as being potential buffers to distress such as having good social support and healthcare staff. Healthcare professionals acknowledged their role in holistic care but cited a lack of knowledge and resources to adequately promote psychological support.

Discussion: PwIBD identified areas acting as potential promoters and buffers to distress in IBD which were mostly supported by healthcare professionals. The model developed has been used to inform the content of a self-management intervention targeting psychological distress.

Social support and health

11:00 - 12:30 | BALMORAL SUITE

11:00 - 11:15

Testing the stress-buffering hypothesis of social support in couples coping with early-stage dementia

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Objectives: To test the stress-buffering hypothesis of social support in couples coping with early-stage dementia for the whole sample (Hypothesis 1), in partners with dementia and in caregivers (Hypothesis 2), and from one partner to the other (Hypothesis 3).

Method: A total of 108 couples (N=216 individuals) comprised of one individual with early-stage dementia and one caregiving partner were assessed at baseline and one month apart. Interaction effects of perceived distress and perceived social support on health-related quality of life were investigated by applying linear mixed models and actor-partner interdependence models.

Results: The negative association of perceived distress and health-related quality of life was buffered by perceived social support ($B = .14, p < .001$), supporting the first hypothesis. While the stress-buffering effect was equally present in partners with dementia ($B = .17, p < .01$) and in the caregivers ($B = .13, p < .05$; Hypothesis 2), it functioned as an actor-only effect within individuals, ($B = .14, p < .001$) but did not occur between individuals, i.e. from one partner to his or her counterpart (Hypothesis 3).

Conclusion: The stress-buffering effect has been replicated in individuals with dementia as well as in their caregivers with strong within-subject effects rather than across partners. Interventions to improve quality of life through social support should not only focus on caregivers, but should incorporate both the partner with dementia and their caregiving counterpart.

11:15 - 11:30

Social support and affect: daily associations in patients after haematopoietic stem cell transplantation

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Background: Few studies concern social support processes accompanying everyday life of patients who have experienced hematopoietic stem cell transplantation (HSCT). The present study addresses this gap by **examining effect of patient's daily received and provided support on their daily positive (PA) and negative affect (NA).**

Methods: Eighty-nine patients after first autologous or allogeneic HSCT (age M = 49.1, SD = 13.49; 49.4% men) reported received and provided social support as well as affect for up to 28 consecutive evenings (starting from the first day after discharge from transplantation unit). Multilevel modeling was used to investigate fixed and random within- and between-day effects for PA and NA separately, with both provided and received support as predictors and time as a covariate.

Findings: Multilevel analyses indicated that daily support provision was significantly associated with **both PA ($\beta = 0.22$, $t_{37.98} = 6.14$, $p < .001$) and NA ($\beta = -0.14$, $t_{49.32} = -3.85$, $p < .001$)**, whereas support receiving was unrelated to daily affect. That is, patients experienced higher daily PA and lower daily NA in the support provision days. Between-subject association was noted only between provided support and PA, yet only at the **tendency level ($\beta = 0.39$, $t_{83.72} = 1.80$, $p = .075$)**.

Discussion: Findings suggest that support provision may have positive associations with emotional component of well-being in patients after HSCT, which is in congruence with the esteem-enhancement theory and the previous studies.

11:30 - 11:45

Promoting functional autonomy versus dependence in older adults with chronic pain: social support buffering effect

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Background: When chronic pain (CP) disrupts older adults' life, social support (SS) may be key in promoting functional ability and healthy ageing. Research on pain-related SS has mostly investigated its direct effects on pain-related outcomes, also showing that it has different implications, depending on whether it promotes functional autonomy or dependence. Nevertheless, research lacks in addressing the buffering effect of pain-related SS for functional autonomy/dependence. Therefore, this study aimed at investigating the buffering effect of formal SS (e.g., day-care centers) for functional autonomy/dependence on the relationship between pain intensity and pain-related disability, among older adults with CP, and examining the mechanisms that may account for such effect, namely, the role of pain-related self-efficacy and pain-related fear.

Methods: 170 older adults (M_{age}=78) with musculoskeletal CP, attending day-care centers, participated in a 3-month prospective study (3 measurements). Participants completed the Formal Social Support for Autonomy and Dependence in Pain Inventory, the Brief Pain Inventory, the Pain Self-Efficacy Questionnaire and the Tampa Scale of Kinesiophobia.

Findings: Structural Equation Modeling confirmed that perceived promotion of autonomy(T1) moderated the relationship between pain intensity(T1) and pain-related disability(T2); this moderation was fully mediated by pain-related self-efficacy.

Discussion: SS for functional autonomy suppressed the impact of pain intensity on pain-related disability. These findings highlight the importance of providing SS for functional autonomy, which should translate into formal caregivers' practices and awareness regarding older adults suffering from CP. Pain-related SS for functional autonomy might be a way to reduce the impact of CP on older adults' healthy ageing.

11:45 - 12:00

Operation transformation: facebook's role in shifting participants from behavioural intention to behavioural commitment

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'Operation Transformation' is an Irish programme that challenges five overweight people to transform their health in eight weeks, with a psychologist, nutritionist, general practitioner and fitness advisor providing assistance. It is a novel concept in Ireland, perhaps most so due to the community that has emerged both offline and online. The 'Operation Transformation' Facebook page has over 175,000 fans who frequently engage with one another, offering support and motivation. This community-based aspect is unrivalled in its effectiveness at generating positive behaviour change.

Only anecdotal evidence suggested that the social support provided by Facebook had an impact on **followers'** behavioural change. This research investigated if the Facebook page facilitated follower movement from behavioural intention to behavioural commitment, using online self-selection questionnaires to collect data. Validated behavioural statements were drawn from the behavioural Processes of Change and included in the questionnaire along with demographic, health and Facebook behaviour measures. 1700 responses were collected and analysed through descriptive statistics, ANOVAs, Cronbach's Alpha and Two-Step cluster analysis.

The cluster analysis revealed four distinct clusters, two of which ('True Transformers' and 'Flighty Facebookers') displayed commitment to the Facebook page and higher behavioural change. Of the five behavioural Processes of Change, Self-liberation ($M = 7.76$, $S.D. = 2.7$) and Helping Relationships ($M = 9.99$, $SD = 3.53$) scored highest, and were most supported by the clusters committed to Facebook. This indicates that the Facebook page ultimately did provide the social support to have an impact on behaviour change, which should leverage its use in health interventions.

12:00 - 12:15

Higher social norms are linked with lower activity enjoyment, particularly for persons with low self-efficacy

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Background: In recent years, the intersection of social influence and self-regulation has received increasing attention in health psychology. The influence of social norms on behaviour has remained unclear, although extensively studied. With this study, we are testing: a) whether perceived social norms are linked with activity enjoyment, an understudied determinant of physical activity, and b) that self-efficacy moderates any link between social norms and activity enjoyment.

Methods: In the current longitudinal study, 74 young adults low in motivation to increase physical activity rated their self-efficacy and perceptions of social norms to become more active. After engaging in physical activity, participants rated activity enjoyment, 24 hours later.

Findings: Linear regression analysis revealed that participants who perceived higher social norms reported **lower enjoyment after they had been physically active** ($\beta = -.33$, $SE = 0.08$, $p < .001$). This relationship was moderated by self-efficacy ($\beta = .36$, $SE = 0.14$, $p > .01$): **Higher perceived social norms undermined activity enjoyment more in participants with low self-efficacy than those with high self-efficacy.**

Discussion: Our findings are in line with the hypothesis that social pressure can be detrimental for individuals with motivation deficits, particularly those low in self-efficacy. They encourage a closer examination of the interplay of social influence and self-regulation. Future experimental studies should test if increasing self-efficacy before or along with perceived social norms will yield better effects for behaviour change.

12:15 - 12:30

I and We- ruminative self-focus and we-ness in couples and wellbeing

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Background: A sense of We-ness in couples has been associated with better health outcomes. In contrast, ruminative self-focus is a dysfunctional emotion regulation representing a risk factor not only for mental but also physical health. The current study is investigating how rumination is associated with wellbeing in couples and whether this association is mediated by a decrease in we-ness.

Methods: In this online study N=122 couples filled in questionnaires on individual and dyadic wellbeing and rumination tendencies. Furthermore, they wrote a text on their deepest thoughts and feelings regarding their romantic relationship which was analyzed with the Linguistic Inquiry Word Count (LIWC) in order to derive that **ratio of „We“ and „I“ use in these language samples**. Data were analyzed with regression based Actor Partner Interdependence Models.

Findings: As expected, rumination is associated with lower levels of wellbeing and more „I“- and less „We“-talk in women writing about their relationship. These associations with language use was not significant in male partners. **More „We“ talk in women in turn, was associated with better dyadic wellbeing in both partners, which was partly mediating the association between rumination and dyadic wellbeing.**

Discussion: Social exchange processes play an important role in the context of health and wellbeing. This study shows that dysfunctional self-focus might be in conflict with a beneficial we-focus in couples- particularly in the female sample. Further research is needed for a better understanding of the interplay of individual regulation strategies and social exchange processes.

Children's and young people's health

11:00 - 12:30 | GORDON A SUITE

11:00 - 11:15

An exploration into parental awareness of sugar consumption in children's diets

E. Robson¹, P. Corcoran¹¹City University London, United Kingdom

Background: Childhood obesity is linked to a number of physical and psychological health implications, many are typically only associated with adulthood and can impose long-lasting effects. **Excess sugar within children's diets** significantly contributes towards increasing rates of obesity and tooth decay. Recent guidelines have stated that sugar consumption should only account for 5% of total dietary intake.

Aim: To explore the level of parental awareness regarding sugar consumption in children's diets.

Methodology: Qualitative study using thematic analysis. Semi-structured telephone interviews took place with a sample of 11 participants (mothers with at least one child aged between 2-12 years).

Findings: Whilst all participants did demonstrate some level of awareness for the dangers of sugar, frequently **changing nutritional guidelines** caused feelings of confusion. Adopting a 'buffering' role in order to protect the child from external factors was repeatedly evident among participants. Parents spoke about the need to find a balance between foods that they perceived as healthy and those that were not, in order to justify occasional poor eating habits.

Discussion and conclusion: Various factors contribute towards the inclusion of excess sugar in children's diets and the mother adopts a buffering role in order to monitor their child's daily intake. Improved education for parents is warranted, in addition to wider scale efforts such as government legislation changes. Future research should incorporate fathers and grandparents, in order to keep up-to-date with societal changes. A more in-depth look into parents' perceptions of 'healthy' foods would also provide a greater understanding of the key issue.

11:15 - 11:30

Social support as a factor protecting adolescents against subjective health complaints related to school stress

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Background: The aim of the study was to investigate determinants of subjective health complaints in schoolaged children, taking into account the interaction effects between social support, school stress and academic achievements.

Methods: Anonymous survey was conducted in Poland in 2013/2014 on the sample of 4,545 students, as a part of the HBSC (Health Behaviour in School-aged Children) study. On the basis of the prevalence of eight symptoms in the past 6 months, a standardized index of health complaints (SCL – Subjective Complaints Checklist) was calculated (0-100). To predict its variability three hierarchical linear models (five blocks) were estimated, separately for three levels of school achievements. Support from family, classmates and teachers as well as family communication were considered as protective factors, which can reduce the negative impact of stress. All analyses were adjusted for age, gender and family affluence.

Findings: The standardized SCL index was equal to 23.2 in boys and 32.5 in girls. The high level of school stress was reported by 28.5% boys and 35.6% girls, respectively. Regarding these two measures, similar patterns of change were observed, increase with age and with deterioration of academic achievement. Final multivariate models explained 22-25% variability of SCL, slightly more among worst students. Accumulation of low family support and high level of school stress caused the highest increase in the SCL index in very good students.

Discussion: School performance is an important determinant of subjective health complaints in adolescence, also modifying the impact of other risk and protective factors.

11:30 - 11:45

Screen-based behaviour and school difficulties among adolescents: the role of sleep problems and dietary habits

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Background: Electronic media have become fully integrated parts of the lives of children and adolescents and a very important factor in their socialization and health. Therefore we examined the associations between screen-based behaviour and school difficulties, and factors which might mediate these associations.

Methods: Data from the cross-sectional Health Behaviour of School-aged Children study collected in 2014 among Slovak adolescents (aged 11 to 15 years old, N=9,250, 50.3% boys) were used. We examined the inter-relations between screen-based behaviour (time spent working with computer, time spent playing computer games), sleeping problems (sleeping quality, sleeping duration), dietary habits (consumption of soft and energy drinks) and school difficulties (disliking school, low academic achievement, being pressured by the schoolwork or truancy), using path analysis.

Findings: Results showed that spending time on a computer is associated with school difficulties through sleep problems and unhealthy dietary habits. Time spent with computer work by adolescents was also associated with a higher prevalence of consumption of soft and energy drinks, a higher prevalence of sleep problems and a shorter duration of sleep. Next, more frequent unhealthy dietary habits and sleeping difficulties were associated with a less positive attitude towards school, worse academic achievement, and a higher experience pressure by the schoolwork and truancy.

Discussion: Screen-based behaviour together with high soft and energy intake are associated with poorer quality and quantity of sleep, which at its turn influences school difficulties in adolescents. Public health strategies and interventions should take into account these factors.

11:45 - 12:00

The impact of self-crafting vegetable snacks on children's vegetable liking and consumption

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¹Wageningen University, Netherlands

Background: Based on the documented effect that people like products better if self-crafted (so-called IKEA effect), we hypothesized that (1) children increase vegetable liking and consumption if they create a vegetable snack themselves; and that (2) increased consumption and liking is mediated by perceptions of effort and pride.

Method: A between-subjects experiment was conducted with children aged four to six at an after school day care. Children in the experimental condition (N=40) engaged in a creative task crafting a peacock with snack carrots, tomatoes and cucumbers following an example peacock. Children in the control condition (N=42) did the same exercise, but with non-food objects. After the crafting task, children ate snack vegetables ad libitum and indicated liking for the vegetable peacock created by themselves (experimental condition) or created by the researchers (control condition). All children indicated perceptions of effort and pride in creating the peacock.

Findings: Girls, but not boys, liked the vegetables marginally significantly better if they created the snack themselves ($p = .06$). However, no main effect of the vegetable snack creation on consumption was observed. In the experimental condition, perceived pride was (marginally) significantly associated with higher vegetable liking ($p = .054$) and consumption ($p = .04$), whereas perceived effort did not significantly affect vegetable liking and consumption.

Discussion: Results suggest that self-creating vegetable snacks does not increase vegetable consumption, but does increase vegetable liking among girls. Particularly, feeling proud of **one's food** creation, rather than effort dedicated to the creation seems responsible for the effect.

12:00 - 12:15

Young men with intellectual disabilities, the HPV vaccine, and constructions of sexual health risk

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Background: The Human Papilloma Virus (HPV) Vaccine was introduced internationally in order to provide a vaccine against common strands of the HPV virus which is implicated in cervical and other cancers. Substantial literature explores attitudes and meanings of young people towards HPV vaccination. Young people with an intellectual disability, however, have been absent and are neglected within sexual health literature generally, despite being sexually active. Recent vaccine debates in the UK centre on decisions about expanding the HPV vaccine to include boys in the **schedule and thus it is important to include young men's** perspectives. The aim of this study was to explore how young men with intellectual disabilities construct meanings around HPV and the HPV vaccine.

Methods: Three qualitative focus group discussions utilising activity-oriented questions were conducted to explore meanings around the HPV virus and HPV vaccine amongst young men with intellectual disabilities aged 16-22 (n=18). Analysis was informed by critical discursive psychology.

Findings: Discourses identified tensions around vulnerability and sexuality; paternalism and inequity of information provision; and an appeal to social justice in the face of exclusion from public health discourse. In the absence of the HPV vaccine or accessible information, young men with an intellectual disability appeared at risk of contracting or transmitting HPV to non-vaccinated partners.

Discussion: Opportunities are required to discuss behavioural risks and consequences of HPV across educational, social and medical contexts for marginalised groups. Accessible health information including digital health ought to be designed in partnership with people with intellectual disabilities.

12:15 - 12:30

Is school-environment and degree of urbanization supportive for being more physically active and less sedentary?

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Background: Young people spend half of their days in school, but evidence concerning the influence of school environment and degree of urbanization on physical activity (PA) and screen-based (SB) activities is still inconsistent. Our aim was to assess whether the accessibility of sport facilities at school, active breaks and the degree of urbanization were associated with PA and SB activities among Slovak adolescents and whether these associations were modified by degree of urbanization.

Methods: We obtained data from 5th to 9th grade students in 2014 via the Health Behaviour in School-aged Children cross-sectional study in Slovakia (n=9,743, mean age=13.5, 50.3% boys). Using multilevel logistic regression we explored the associations of accessibility of sport facilities at school, active breaks at school and the degree of urbanization with PA and SB activities, adjusted for age and gender.

Findings: We found significant associations between PA and the accessibility of an area for skating/tennis court (odds ratio, OR=1.20; 95%-confidence interval, CI 1.01-1.42), and between PA and active breaks (OR=0.83, 95%-CI 0.69-0.99). SB activities were more likely in small towns (OR=1.63, 95%CI 1.29–2.06), towns (OR=1.30, 95%CI 1.08–1.57), and cities (OR=1.40, 95%CI 1.04–1.87) than in villages.

Discussion: School-environment and degree of urbanization are associated with adolescent's PA and SB behaviour. This holds for access to an area for skating/tennis court and active breaks regarding PA and living in villages regarding less use of screens. Public health strategies and interventions should account for these school and environmental factors.

Culture, health and illness

11:00 - 12:30 | FORBES SUITE

11:00 - 11:15

Exploring men's breast cancer experiences through an ethnographic lens: a multi-method phenomenological study

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Background: Breast cancer in men is rare, under-researched and underfunded within both clinical and third sector healthcare systems. Despite higher annual mortality than testicular cancer in the UK, breast cancer is frequently overlooked as a threat to men's health, often misperceived as a women-only illness. High-profile activism and awareness-raising around breast cancer in women has led to pervasive feminisation of the disease with ramifications for male patient-survivors.

Method: 31 British men with a history of breast cancer participated in a multi-method qualitative study combining verbal and visual data collection. Participants were asked to illustrate their breast cancer experience using a series of self-authored/self-selected photographs, and to discuss these images as part of extended semi-structured interviews. All data collected were analysed using Interpretative Phenomenological Analysis.

Findings: Three themes are discussed, illustrated using extracts and photographs taken from the men's accounts: 'Reclaiming Masculinity', looks at how the men assert their masculinities and relate various aspects of their accounts of breast cancer to hegemonic male practices. Theme two, 'The Self-Marginalising Man', considers how the men themselves contribute to the marginalisation of breast cancer in men. Finally, 'A Better Man', reveals how the men position their breast cancer experience as life-enhancing and themselves as improved individuals.

Discussion: We discuss and expand on the positioning of breast cancer in men as a marginalised malignancy, and demonstrate how being on the periphery of optimal psychosocial support poses challenges for men affected. We conclude by offering some suggestions for more inclusive breast cancer advocacy, and care practices.

11:15 - 11:30

Constructions of masculinity and health behaviour among Chinese and Western men in Hong Kong

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Objectives: The present qualitative study aimed to achieve an understanding of the relationship between constructions of masculinity and health behaviour among Chinese and Western men in Hong Kong in order to better understand the factors influencing health-seeking behaviour among men in Hong Kong.

Design: Thirty six men aged 21-69 years were recruited to the study; eighteen Hong Kong Chinese men and eighteen Caucasian men living in Hong Kong for five years or more. An inductive qualitative and phenomenological approach was adopted to data collection and analysis.

Method: Men took part in semi-structured focus group discussions. All interviews were transcribed and analysed using thematic analysis.

Results: Findings focus on differences in constructions of masculinity among Chinese and Western men in Hong Kong and how this influenced health behaviour and attitudes towards healthcare practices.

Conclusions: The present study adds to the literature on the potential implications of the endorsement of traditional masculinity ideology. The study highlights differences in cultural constructions of masculinity among Hong Kong and Caucasian men and the impact this has on the health-seeking and health-protective behaviour of Chinese and Western men in Hong Kong. More focus on these areas in service provision may aid positive outcomes in the health-seeking behaviour process.

11:30 - 11:45

Exploring the mediating role of self-objectification between sexual harassment, disordered eating, and psychological distress

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²Australia Catholic University, Australia

Background: Sexual harassment perpetrated by strangers in public and semi-public contexts is increasingly recognised as a public health issue. Despite the high prevalence of stranger harassment, past research has focused primarily on sexual harassment in workplace settings (i.e. nonstranger harassment), finding negative outcomes such as high self-objectification, disordered eating and psychological distress. The current study aimed to examine whether there are similar health risk outcomes associated with stranger harassment. It was hypothesised that self-objectification would mediate the relationship between both types of sexual harassment and psychological outcomes. **Method:** Participants were 611 women who completed an online survey assessing stranger and nonstranger harassment, self-objectification, disordered eating and psychological distress.

Results: Preliminary results using structural equation modelling indicated that self-objectification partially mediated the relationship between nonstranger harassment, disordered eating and psychological distress. In contrast neither mediated relationship was significant for stranger harassment. Both types of sexual harassment were significant predictors of disordered eating and psychological distress.

Discussion: The hypothesis was only partially supported, suggesting that outcomes related to nonstranger harassment do not necessarily generalise to the stranger harassment context. Longitudinal and qualitative studies are now needed to further understand the nature of the relationships.

11:45 - 12:00

Lesbian, gay, bisexual and trans* individuals living with multiple sclerosis: a visual ethnophenomenological exploration

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Background: The aim of this study is to understand the experiences of lesbian, gay, bisexual and trans*(LGBT) individuals living with multiple sclerosis (MS). There is little research on how members of sexual and genderrelated minorities navigate the challenges of chronic illness. There has not been any research conducted within LGBT populations in an MS context, even though the impacts of MS are severe and specific in relation to aspects of identity, community participation and socio-cultural status.

Method: The study uses a multi-qualitative methodological approach informed by an integrative theoretical framework influenced by critical health psychology, phenomenology and visual ethnography. Interviews are used with photographs authored by the participants. The data are analysed by means of interpretative phenomenological analysis (IPA). Sixteen LGBT individuals within and beyond Europe have taken part in the study.

Findings: This presentation focuses on two themes which are illustrated through a series of extracts and images: In 'Narratives of biographical metamorphosis' we discuss the transformative nature of MS with regard to issues pertaining to identity and well-being. In 'Navigating landscapes of heterosexism and ableism' we explore the everyday challenges of being a disabled non-heterosexual individual and specifically in relation to interpersonal relationships and socio-economic status.

Discussion: Ideas of LGBT-affirmative psychosocial support for people with chronic illnesses are explored. We offer recommendations of how the wellbeing of disabled individuals might be enhanced (information on accessibility informed by disabled persons themselves; awareness campaigns on the invisibility of chronic illness and disability). Finally, visually-informed dissemination opportunities are discussed.

12:00 - 12:15

Challenges and recommendations in increasing homeless persons' access to palliative care: an international systematic review

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²Pathway, United Kingdom

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Background: The UK Department of Health strives to provide palliative care at the time of need for everyone, regardless of “wherever the person may be”, “irrespective of social economic deprivation”. This goal has not been reached for homeless people who face numerous multifaceted challenges, including accessing health care. Given the complexities of this population, qualitative research exploring perspectives of homeless people and care providers is key to understanding the difficulties in provision of palliative care to this vulnerable group. This review of qualitative literature identifies challenges to and recommendations for the provision of palliative care for homeless people.

Methods: A comprehensive literature search identified primary qualitative research papers exploring the perspectives regarding palliative care of homeless people and/or those working with them. 1715 articles were identified. Two reviewers completed all key review processes. Using thematic synthesis, core themes relating to the provision of palliative care from the perspectives of homeless people and care providers were identified.

Findings: Twelve articles were eligible for review. Challenges and recommendations for the provision of palliative care for homeless people encompassed three core themes: 1) the unique circumstances of homeless people, 2) the structure of health care systems and 3) limitations of temporary accommodation systems. The importance of the development of trusting relationships and flexible, joined-up services were highlighted.

Discussion: Increasing awareness, compassion and flexibility in the provision of high quality palliative care for homeless people may help to promote dignity and choice for this under-served population as they reach the end of their lives.

12:15 - 12:30

Analysing life satisfaction of immigrants benefitting from the welcome and integration contract in Luxembourg

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Immigrants' successful integration partly depends on their life satisfaction (LS). To help non-EUs (but also EUs) succeed, Luxembourg elaborated a 24-month Welcome and Integration Contract (WIC) offering three services: language classes, civic courses, orientation day. Two years after its implementation, are the beneficiaries satisfied with life and with WIC's impacts on feeling integrated and social participation? Which factors predict non-EUs' and EUs' LS?

A self-administered questionnaire translated into seven languages was sent to all 2470 WIC signatories. It assessed LS (1-item [1;10]), impacts of WIC on feeling integrated (11-item) and social participation (6-item), socio-demographic characteristics (sex, education, years of residence), number of used services [0;3]. Variables associated with LS were entered into a general linear model differentiating non-EUs and EUs. 233 non-EUs and 219 EUs participated. Aged 39.4(±)9 years, majority were women, in a couple, with university level, and settled for 5.7(±)4.5 years. They used 2.3(±)1 WIC services. Life satisfaction was 7.8(±)2.4 (non-EU) vs. 7.6(±)2.1 (EU;ns).

The most satisfied with life non-EUs were women settled for the fewest years ($B=-0.08^*$); finding their place at the professional level ($B=0.49^{***}$), participating to political life ($B=0.17^{**}$), and being the least able to obtain information in Luxembourgish ($B=-0.25^{***}$).

The most satisfied with life EUs were those satisfied with the WIC process of mutual commitment ($B=0.38^{***}$), finding their place at the professional level ($B=0.33^{***}$), participating to political life ($B=0.17^*$), and using the most WIC services ($B=0.34^*$; $R^2_{\text{adjusted}} 0.504$).

Interventions aimed at improving well-being of immigrants would benefit from paying attention to cultural specificities of successful integration.

Challenging stress: individual differences and resilience

11:00 - 12:30 | ROOM 10

11:00 - 11:15

The role of interdependencies between different settings for perceived psychological distance, health and well-being

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Background: Psychological distance to everyday demands is considered as important in attention restoration theory for initiating restoration of depleted cognitive resources. Although measures exist to assess if people experience psychological distance, only little is known about the why of this perception. The current study addresses this research gap by focusing those psychological processes that may constrain or foster experiencing psychological distance during leisure time by joining assumptions from attention restoration theory and behavior setting theory.

Methods: Cross-sectional data of N = 726 individuals (mean age 45.1 years, SD = 11.9 years; 66% female) has been elicited using a web-based survey, which contained measures for perceived psychological interdependencies between stressful and leisure time settings, perceived psychological distance, self-reported health and wellbeing (e.g., GHQ-12, Panas, Core-Affect, mental fatigue), and socio-demographics. The relationship between these measures was analyzed with a structural equation model.

Findings: Results indicated that self-reported health and well-being were significantly related to how much psychological distance people experienced. Both the perceived psychological distance and self-reported health and wellbeing were directly and significantly impaired the more interdependencies people perceived between stressful and leisure time settings. Indirect effects from setting interdependencies via the perceived psychological distance on health and well-being were also significant and negative.

Discussion/Conclusions: Combining attention restoration theory with behavior setting theory provides a sophisticated understanding of why people experience psychological distance. This novel approach complements health promotion by depicting a theory-based pathway that allows to target psychological distance and, consequently, health and well-being through interventions.

11:15 - 11:30

Development of resilience in young children: a mixed methods dyadic analysis of stress and coping

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²University of Bath, United Kingdom

Background: The study aimed to investigate children's experiences of stress in order to better understand the psychosocial factors which impact the development of resilience.

Methods: Interviews were conducted with 38 children aged 7-11 (16 girls, 22 boys) and their parents about their experiences of stress. Questionnaire data regarding stressful life events, daily hassles, and coping was collected. Interviews were analysed using thematic analysis. Questionnaires and interviews were used to code participants into four groupings based on their experience of stress and characteristics of resilience.

Findings: Thematic analysis generated four themes: navigating the social minefield, pressure to thrive in the modern world, fear of the unknown and learning life's lessons. Differences were found between the four stress resilience groupings suggesting that previous experience of stress, greater use of social support, and use of multiple coping strategies (rather than drawing on a single coping strategy) were beneficial for the development of resilience in young children.

Discussion: Allocating responses into four stress-resilience groupings allowed the researchers to identify salient psychosocial factors which characterise resilience. Participant's narratives suggested that social relationships make up a considerable proportion of the early life stress and adversity experienced by young children. They encountered pressure to do well from multiple sources which could impact positively or negatively on their self-esteem depending on available coping strategies. Coping was reported to be more successful when dealing with familiar rather than novel or unknown stressors. The importance of learning from stressful events and how to cope was highlighted by children and their parents.

11:30 - 11:45

Are all stressors the same: coping with natural disasters and PTSD

P. Repetto¹, E. Guic¹¹P. Universidad Catolica de Chile/CIGIDEN, Chile

Researchers have consistently described the influence of being exposed to natural disasters on mental health, among these post-traumatic stress disorder. These studies, however, have not discussed the role that may have different type of natural events and the interaction with social vulnerability factors on these outcomes. In the present study, we compared the rates of PTSD in two samples that were exposed to different natural events. One to an earthquake and tsunami in april 2014, and the other one to floods in march 2015. Both samples were evaluated within 2-3 after the event.

We found higher rates of PTSD among those who had been exposed to the floods as compared to the earthquake. Factors associated with social vulnerability appeared to be relevant to account for these outcomes. The discussion focuses on the differences between events and consequences that reveal the role of secondary stressors associated with the disasters that also appear to play a significant role in these outcomes.

11:45 - 12:00

Resource loss moderates the association between child abuse and current PTSD symptoms among women

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Child abuse, adult rape, and resource loss were hypothesized to be associated with current post-traumatic stress disorder (PTSD) symptoms among women interviewed in primary care settings (N = 767). Women who reported a history of child abuse also reported greater recent resource loss, higher current PTSD symptoms, and significantly more adult rape than women without any history of child abuse. Hierarchical logistic regression analyses show that child abuse and adult rape are predictive of current PTSD symptoms. Women who were abused as children are one to two times more likely to experience PTSD symptoms, compared to those who were not abused as children, with child sexual abuse showing the strongest effect and women reporting adult rape being almost twice as likely to report current PTSD symptoms than those not reporting it.

The overall model explained 59.7% of the variance in the presence vs. absence of PTSD symptoms. Resource loss moderated the association between child abuse and current PTSD symptoms, with lower resources increasing the severity of traumatic stress symptoms. Our findings point to early assessment and intervention among abused and neglected women and their families as important ways to prevent resource loss, revictimization, and associated mental-health sequels. The results also stress the need to help women acquire and maintain resources specially if they have been abused, suffer from PTSD symptoms, and have poorer resources.

12:00 - 12:15

Academic burnout and stigma of help seeking in Lithuanian psychology and social works students

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Background: Psychology and social work are considered as professions with high risk of professional burnout. Although students are just gaining skills necessary for the successful professional performance, high academic demands and professional training rules might cause significant pressure and lead to burnout already during study years. Thus, this study aimed to evaluate levels of academic burnout in a sample of Lithuanian psychology and social work students and to investigate the relationship between academic burnout and psychological help seeking.

Methods: 197 psychology and social work students (38 (19%) males, 159 (81%) females) from first to sixth year of studies filled Maslach Burnout Inventory Students Survey and Self-Stigma of Seeking Help Scale and answered question about experience of seeking for mental health services due to personal psychological problems.

Findings: Levels of emotional exhaustion and cynicism significantly increase and sense of academic efficacy decrease from first to sixth year of studies. Observed levels of burnout in Lithuanian psychology and social work students seem to be higher than reported in other studies. Experience of seeking for mental health services was significantly related to higher levels of emotional exhaustion when year of study and gender were controlled. Stigma of help seeking was significantly related to higher levels of cynicism and lower academic efficacy independently from gender and year of study.

Discussion: Psychology and social work students experience high levels of academic burnout and despite of professional education still have negative attitudes towards seeking for psychological help. Raising awareness of student burnout problem is needed.

12:15 - 12:30

Subjective and objective health of patients with leukaemia after bone marrow transplantation – psychological predictors

H. Wrona-Polanska

JEN Pedagogical University of Cracow, Poland

Background: The theoretical base of researches is Helena Wrona-Polanska's Functional Model of Health (FMH Wrona-Polańska 2003), in which health is a function of creative coping with stress. In this model, psychological predictors of health were: level of stress, coping with stress and personal resources. A study on the psychological predictors of subjective and objective health of patients after BMT is presented. 141 patients after BMT - 80 males and 61 females – at the Hematology Clinic of Jagiellonian University of Collegium Medicum, were studied clinically.

Methods: Examined methods were the questionnaires: Spielberger's STAI, Endler's , Parker's CISS and CHIP, Antonovsky's SOC-29, Rosenberg's self-esteem scales. Subjective health was examined on the 10- point rating scale of sense of health and sense of calm. Objective health was examined by physician on the 10- point rating scale.

Findings: There is a clear difference between subjective and objective level of health. Subjective health depends on objective health, coping strategies with stress and personal resources. Objective health depends on patient's collaboration with therapeutic team, instrumental coping strategies with stress and temporal factor since transplantation.

Discussion: The basis of health promotion of persons after BMT is development effective coping with stress and increasing personal resources and patients activity.

eHealth and mHealth interventions

14:00 - 15:30 | BALMORAL SUITE

14:00 - 14:15

Development of a theory based online intervention for post-treatment cancer survivors

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Background: This talk will outline the rationale, decision-making processes, methods and findings which led to the development of an online intervention to be tested in a feasibility trial. The theory-based, online intervention aimed to facilitate self-management and enhance coping with fatigue following cancer treatment.

Methods: A review of existing literature was conducted and findings suggested that cognitive-behavioural therapy may be an effective intervention. Qualitative research indicated that using the Self-regulation Model to describe fatigue after cancer may provide an integrated theoretical model for developing interventions for fatigue based on cognitive-behavioural principles. The findings of the preparatory deductive and inductive research were collated to create a draft content manual and plan for the structure of the website. An iterative review process then took place with the design team examining the different sessions. Inductive qualitative research was conducted to assess usability of the website.

Findings: The intervention was considered acceptable to users, the researchers created a protocol for a feasibility study.

Discussion: Despite being a complex and multifaceted intervention, transparency was sought by detailing the components of the intervention, the proposed mechanisms of change. Efforts were made to reduce the 'black box' criticism of interventions by offering a clear description of the intended intervention, and how it is expected to work, prior to its evaluation. This is the first intervention of its kind based on SRM theory, with the primary aim of targeting the representations of fatigue and enhancing self-management of CrF specifically.

14:15 - 14:30

Effects of online tailored education on informed HPV-vaccination decision making among mothers of invited girls

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Background: The HPV-vaccination uptake in the Netherlands among 12-year old girls is low (61%). Mothers indicated their need for more interactive, tailored education. This study evaluates the effects of online tailored education on informed decision making (IDM) among mothers of invited girls.

Methods: In 2015, we conducted a randomized controlled trial with two arms using a pre-posttest design. The control arm received the usual education (i.e., brochure and reference to web-based generic education), the intervention arm was also allocated to online tailored education guided by two virtual assistants. Outcomes were IDM outcome, process and determinants (i.e., knowledge, attitudes and intention). Mothers (N = 38,483) were recruited via internet panels and the national immunization register. The online tests were completed by 8,599 (i.e., pretest) and 4,443 (i.e., posttest) mothers. Multiple regression analyses were used to examine effects.

Findings: Two thirds (68%) of the mothers in the intervention arm visited the online tailored education, 26% of them twice. The online tailored education and virtual assistants were evaluated with a mean grade of 7.6 (SD = 1.3) and 7.4 (SD = 1.5), respectively. Compared to those in the control arm, mothers in the intervention arm significantly increased their IDM (Outcome: OR=1.71; Process: Cohen's d=0.07), increased their knowledge (Cohen's d=0.03), had more positive attitudes (Cohen's d=0.01) and a more positive intention towards the HPV-vaccination of their daughter (Cohen's d=0.01; all p<0.001).

Discussion: This study shows that online tailored education can be used to improve IDM regarding the HPV vaccination.

14:30 - 14:45

Investigating the efficacy of a smartphone application: breast awareness and breast cancer worry

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Background: To investigate if a smartphone application (App) designed to promote breast awareness (BA) can increase BA. To investigate if increasing BA will increase breast cancer worry. To identify the behaviour change techniques (BCTs) present in a freely available app.

Methods: A mixed methods, single blind design was conducted. Participants were healthy women aged 19-60 (n=112). Breast awareness was measured using the Breast Cancer Awareness Measure. Breast cancer worry, risk perceptions and app usability were measured using self-report scales.

Findings: Mixed analysis of variance revealed that the app failed to increase BA over time ($F(1.86, 142.84) = .07, p = .92, \eta^2p = .001$). Neither use of the app or receipt of a BA leaflet increased breast cancer worry ($F(2,154) = 2.53, p = .08, \eta^2p = .03$). A regression analysis revealed that risk perceptions was the only significant predictor of breast cancer worry, explaining 37 percent of the variance. A content analysis revealed 3 BCTs present in the app: prompts/cues, goal setting and modelling.

Discussion: The app, although developed by a reputable source claims to increase BA but fails to do so. This adds to the growing literature highlighting the need for the inclusion of health psychology theory and evidence in the development of healthcare apps. The results of this study support the view that the inclusion of BCT's does not guarantee behaviour change; theory must be incorporated in intervention development. Finally this study provided support to the literature advocating for increasing BA, demonstrating that it does not create or predict breast cancer worry.

14:45 - 15:00

Patient acceptability and reliability of an electronic adherence intervention in asthma

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Background: Electronic adherence monitoring devices are increasingly being used in interventions to improve patient health behaviours, in particular medication adherence. Little is known about the patient-acceptability of these devices or how reliably the devices perform in children. This study aimed to investigate the acceptability and reliability of an electronic adherence monitoring device in a childhood asthma population.

Methods: A total of 220 children, aged 6 to 15 years, presenting with asthma to the emergency department and prescribed inhaled corticosteroids for control of asthma, were included. Participants were randomized to receive an adherence monitoring device with twice-daily reminders for missed doses enabled (active group) or disabled (control group) as an adherence intervention. Quantitative and qualitative measures of device acceptability, utility and ergonomics were completed after six months. Device reliability tests were conducted before device issue and after device return.

Findings: Most (>90%) rated the device easy to use. Qualitative reports were high for device acceptability and across five other themes, including effect on medication use and on asthma control. The majority of devices passed pre-issue (84%) and return (87%) reliability testing. The most common error was failure to record one or more inhaler doses taken.

Discussion: This is the first study to investigate the acceptability and reliability of an electronic adherence monitoring device in children. Results indicate favourable acceptability that supports the potential use of these devices as adherence interventions. Device reliability was satisfactory, though failure rates of 13-16% highlight the importance of reliability testing before and after device use.

15:00 - 15:15

Use of the behaviour change wheel to develop an application supporting adherence to nicotine replacement therapy

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Background: Effectiveness of nicotine replacement therapy (NRT) purchased over the counter (OTC) is low, which has been attributed to poor adherence. Digitally-delivered interventions, including smartphone apps, could assist smokers with NRT use. However, little is known about how to develop and design such interventions. This study aimed to systematically apply behaviour change theory to develop a prototype app supporting smokers during quit attempts with OTC NRT (NRT2Quit).

Methods: Intervention development involved two phases. Phase 1 focused on identification and development of intervention content and components. The process followed the guidelines outlined in the Behaviour Change Wheel (Michie et al, 2014), and included behavioural analysis using COM-B model and Theoretical Domains Framework that facilitated selection of behaviour change techniques (BCTs). The intervention was further informed by PRIME Theory of Motivation and Necessity-Concerns Framework, empirical evidence, as well as guidance from the National Centre for Smoking Cessation and Training. Phase 2 involved implementation of the designed intervention into an iPhone app, which was informed by user testing and expertise in iOS design.

Findings: NRT2Quit app offers a theory- and evidence-informed eight week quit programme that incorporates 25 BCTs across 14 theoretical domains, addressing intentional and non-intentional non-adherence to OTC NRT.

Discussion: Behaviour Change Wheel can facilitate the development of smartphone interventions for cessation medication adherence by supporting integration of information from a range of sources. The process of intervention implementation on iPhones has helped identify several challenges for delivering support for medication use through apps, which will be discussed, alongside potential solutions.

15:15 - 15:30

Integrative theoretical model of e-interventions for Riga Stradins University (Latvia) students

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Introduction: E-Interventions, or electronically based interventions, have become increasingly popular in recent years. Many students already use the internet to find information about health. Several studies have shown that interventions using electronic media can improve health behaviors in young people. Following the successful experience of foreign universities, the goal is to create a pilot model of intervention structures that are based on the Transtheoretical Model (TM).

Methods: The analysis of the literature was conducted to identify articles concerning TM of behavior change in designing e - interventions in the following databases: EBSCO, PubMed, Science Direct and SAGE Publications. The search terms were eHealth, web-based, online, internet, intervention, transtheoretical model and student. The search was limited to articles published in English between 2008 and 2016.

Results: The developed e - intervention model involves statements that evaluate dynamics of behavior change and it is based on the TM. Based on the developed e - intervention model there is reason to do an empirical research.

Discussion: E-intervention model strengths have been identified: it is based on the TM which has proven its effectiveness in the e-environment; students healthy lifestyle is gradually promoted and it is easily accessible to all students. Limitations of the model are: originally it is designed to work with addicted individuals; eintervention is an innovative way of psychological support in Latvian cultural context, so it is not possible to predict the responsiveness and efficiency of the model.

6th methods in health psychology symposium:

Measurement in health psychology: combining theory, qualitative, and quantitative methods to do it right

14:00 - 15:30 | GORDON B SUITE

14:00 - 14:15

Pragmatic nihilism: how a theory of nothing can help health psychology to progress

G.Y. Peters¹, R. Crutzen²¹Open University of the Netherlands, Netherlands²Maastricht University, Netherlands

Health psychology aims to explain and change a wide variety of behaviors, and to this end has developed a plethora of theories. Several attempts have been undertaken to build integrative theories, and some even strive for a Theory of Everything. We argue against these efforts, arguing that instead, adopting a pragmatically nihilistic stance is more fruitful.

Pragmatic Nihilism holds that psychological variables, those defined in our health psychology theories, do not exist as such in our minds. This is not seen as discouraging, because theories contain definitions and guidelines for the operationalisation of those variables, and if these operationalisations have predictive value, the theory is useful regardless of whether the postulated variables exist as such.

Pragmatic Nihilism further holds that each operationalisation represents a cross-section of a variety of dimensions, such as behavior and duration, but most importantly, psychological aggregation level. Pragmatic nihilism holds that any operationalisation entails a number of implicit or explicit choices regarding these dimensions.

Pragmatic Nihilism, specifically the assumptions that psychological variables as such do not exist in our minds, that therefore, operationalisations are crucial, and that these operationalisations entail choices regarding a variety of dimensions, has a number of implications. One is that it provides a foundation for integrating theories, more flexible than what integrative theories can provide, and more practical than what a theory of everything can provide. Another is that it emphasizes the importance of our operationalisations, underlining the importance of investing in the careful development of our measurement instruments.

14:15 - 14:30

Valid or not valid that's the question: the limited validity of measurement instruments 'proven valid'

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Researchers often make use of existing measurement instruments that have proven valid through the statistical testing of psychometric characteristics. However, this is insufficient to establishing content and construct validity. Validity is the extent to which a measurement instrument measures what it claims to measure. This means that the construct concerned should be measured completely, whilst all its elements should be processed by the respondents as intended. New analysis techniques, e.g. IRT, already showed that often constructs measured are only partially represented. Moreover, whether the elements of measurement instruments are interpreted as intended is rarely ever verified: We hardly know how respondents interpret and understand our questions.

Cognitive interviewing provides a way to better establish content validity. This is an iterative procedure in which 2-3 small rounds of interviews are conducted with as few as 6-10 members of the target population using 'Think Aloud' and 'Probing'. Through this it becomes clear how items are being understood and interpreted.

We present results of cognitive interviews, demonstrating that popular, validated questionnaires, consist of questions that are not well understood by the target population. Moreover, the language used often does not fit the way the respondents would express themselves. Items like: "Are you able to engage into social activities?", really puzzles people.

Thus, we might not know whether we measured what we aimed to measure. Therefore we conclude to outlining a procedure to employ cognitive interviewing and to better involve the target population, in order to establish real (content and construct) validity.

14:30 - 14:45

Scale quality: alpha is an inadequate estimate and factor-analytic evidence is needed firstly

R. Crutzen¹, G.Y. Peters²¹Maastricht University, Netherlands²Open University of the Netherlands, Netherlands

Background: Cronbach's alpha is a commonly reported estimate to assess scale quality in health psychology and related disciplines. However, despite being frequently reported as such, alpha is unrelated to a scale's internal structure.

Methods: We have screened all articles published in Psychology & Health last year. A total of 288 scales were reported in 88 articles. For 233 of these scales (80.9%), an estimate of scale quality was reported, which was alpha for 210 scales (90.1%). Of the 288 scales we surveyed, authors assessed dimensionality for 10 scales (2.4%).

Findings: We argue that alpha is an inadequate estimate for both validity and reliability – two key elements of scale quality. Omega is a readily available alternative that can be used for both interval and ordinal data. More importantly, we argue that factor-analytic evidence should be presented before assessing the internal structure of a scale.

Discussion: Pointers for readers and reviewers of manuscripts on making judgements about scale quality are provided and illustrated by examples from the field of health psychology.

14:45 - 15:00

The revealing structure of concepts: R-based 6-step analysis for health psychology research

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Background: Questionnaire-based research is prevalent in health psychology, and commonly employs several related questions (scales) to assess individual concepts. Therefore, the quality of evidence depends substantially on scale quality. Yet, scale validation is often insufficient, or it is performed in separate studies. Recent developments within the R environment make psychometric analyses easier to perform together with statistical analyses for substantive research questions. I present a 6-step procedure that gives an overview of scale quality using various R functions and psychometric theory.

Methods: The 6-step analysis examines item distributions (descriptive statistics), item properties (item response theory; IRT), scale structure (factor analysis), scale reliability (classical test theory), and clustering of respondents (cluster analyses), and applies decision rules for item selection. I illustrate the procedure on a 24- item behavioural measure of health status, the Sickness Impact Profile, administered within a survey on living with chronic pain in the United Kingdom.

Findings: Items reflected the impact of chronic pain on the 222 respondents differently (4.5% to 87.2% endorsement rates). IRT analyses identified an 18-item unidimensional ordinal scale with good reliability and distribution ($H=0.47$; $\alpha=.88[.84-.91]$; $\omega=.89[.86-.91]$; mean(SD)=10.23(4.61); range 3-18) that showed monotonicity and invariant item ordering. Interval scaling assumptions were not met. Factor analyses partially converged with IRT findings. No distinct respondent clusters emerged.

Discussion: Examining scale structure enables an in-depth understanding of the phenomena studied. I discuss the implications of the example findings, and the possibilities of adapting the 6-step analysis for various research needs and thus improving the use of health psychology concepts.

15:00 - 15:15

Introducing Concerto, an open-source platform designed to realise the potential of modern measurement theories

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Item response theory (IRT) models and algorithms for computer adaptive testing were originally developed in the 1960s. However, their widespread use was restricted by available computer processing power, lack of suitable software for conducting IRT analyses and, until recently; the absence of any tool for administering questionnaires within an IRT framework. In 2011, the open-source Concerto platform was released to allow psychologists to develop and administer questionnaires and create flexible computer adaptive tests which include automatic scoring and tailored feedback.

Computer adaptive testing (CAT) allows measurement to be better targeted, more efficient (shorter) and more accurate (reliable) than standard paper-based measurement. The open-source accessibility of Concerto means that CATs are readily available for any researcher in an accessible and easy-to-use system, which still maintains the capacity to apply advanced measurement theories.

The talk will introduce three recent implementations of Concerto in health-care settings. Concerto hosts a computer adaptive version of the World Health Organisation Quality of Life -100 scale, which is significantly shorter than the paper-based version and provides tailored graphical and text feedback. In the USA, researchers have created the Movement Ability Measure, an adaptive test which assesses the disparity **between people's current and ideal functional capacity, with clear feedback**. In higher-stakes assessment, Concerto is being used by the University of Exeter as the platform for a PROM-based clinical intervention that combines standard and adaptive assessment with feedback linked clinical practice guidelines.

Health outcomes and Illness perceptions

14:00 - 15:30 | ROOM 10

14:00 - 14:15

Developing a theoretical framework of health outcomes: how are health outcomes related?

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Background: Diverse health outcomes are investigated in predictive and intervention studies. However, the relationships between health outcomes are rarely investigated. Here we report two studies that investigated one model of the relationships between the three health outcomes: bodily impairments (I), activity limitations (A) and participation restrictions (P). The model proposes that I predicts A predicts P (I-A-P model).

Methods: Both studies were cross-sectional and participants were patients awaiting total joint replacement surgery. Study 1: 403 patients completed a questionnaire, which measured I, A and P, 12 weeks prior to surgery. Structural equation modelling explored the pathways in the I-A-P model. Study 2: 202 patients identified three personally important outcomes from surgery, in rank order. Two judges independently classified the outcomes as I, A or P or a combination thereof. The pattern of the rank ordering of I, A and P outcomes was examined for the presence of the I-A-P model.

Findings: The I-A-P model fitted the data in both studies. In study 1 the structural model indicated significant pathways between I and A ($\beta= 0.76$ $p<0.0001$) and between A and P ($\beta= 0.75$ $p<0.0001$). In study 2, the sequence of valued outcomes was consistent with the model in 61% of cases (compared with 30% expected by chance).

Discussion: Patients' personal models of health outcomes and their actual reported health outcomes were consistent with the proposed I-A-P framework. Other models may be found for other populations.

14:15 - 14:30

Illness perception clusters are useful determinants of diabetes distress in adults with type 2 diabetes

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²Belfast City Hospital, United Kingdom

Background: Illness perceptions are important determinants of emotional adjustment among adults with Type 2 diabetes. This study aimed to explore whether clustering individuals with Type 2 diabetes according to shared illness perception schemas is a useful way of identifying those most susceptible to diabetes distress. A secondary aim was to explore any added value of relationship quality and coping behaviours in building cluster profiles.

Methods: This study used a postal questionnaire design. Adults with type 2 Diabetes were recruited through the databases of General Practices in Northern Ireland. The questionnaire asked about demographics and incorporated 5 scales; Beck's Depression Inventory, Diabetes Distress Scale, Revised Illness Perception Questionnaire, Dyadic Adjustment Scale and the Brief COPE. Dependent variables were diabetes distress and HbA1c, and depression was used as a control variable. Complete responses were received from 162 individuals with Type 2 diabetes. Hierarchical Cluster, K-Means, and Multiple Regression Analysis were performed.

Findings: Three distinct illness perception clusters were identified in the analysis. Demographics, illness perception clusters, relationship quality and coping behaviour explained 45.7% of the variance in diabetes distress, with illness perception clusters contributing the most variance (18.6%). The emotional burden subscale produced the strongest model, with illness perception clusters contributing 32.5% to the total (51.9%) variance in emotional burden.

Discussion: Clustering individuals with Type 2 diabetes according to shared illness perception schemas appears to be a useful way of identifying who is most at risk of diabetes distress, and who could benefit the most from an intervention supporting emotional adjustment.

14:30 - 14:45

Adjustment to a progressive disease over time: a 2-year longitudinal qualitative study

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²King's College London, United Kingdom

³University of Southampton, United Kingdom

⁴City University London, Afghanistan

Background: We aim to develop a tentative model that captures the adjustment process over time for people with a progressive disease.

Methods: Using theoretical sampling, we identified and interviewed 34 people with progressive Multiple Sclerosis (MS). We interviewed participants at three time points (baseline, one-year follow-up, and two years follow-up). Participants were between 41 and 77 years of age (mean: 55 years). Thirteen participants were diagnosed with primary progressive MS and 21 with secondary progressive MS. We analysed the data using grounded theory.

Findings: Firstly, people talked about how their struggles increased and whereas initially bracketing the illness off and carrying on, as usual, was a helpful strategy it became problematic as the condition progressed. Secondly, participants employed different adjustment modes to cope with their increased disabilities. Some scaled back their activities to live a more comfortable life (passive adjustment), others identified new activities that they could still perform (active adjustment), whereas a third group disengaged from the adjustment process completely (resignation). Factors like the relationship with their partner, concealing or revealing the condition, fear of having accidents and having previously a manual/ routine occupation influenced people's adjustment mode. People moved among the three modes of adjustment and in particular between 'passive' and 'active' adjustment mode and partners facilitated flexibility between the two modes.

Discussion: This model captures the ever-changing and flexible way people adjust to a changing condition and the role of the partner and other contextual factors that facilitate this flexible approach.

14:45 - 15:00

Longitudinal relations between changes in self-efficacy and positive adaptation in patients with polyarthritis

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Background: A lack of self-efficacy, the confidence in one's competencies to cope with arthritis, has been found to be related to negative aspects of psychological functioning such as depression and anxiety. There is an increasing attention for positive adaptation to chronic diseases, inspired by positive psychology. The longitudinal relationships between changes in self-efficacy and positive adaptation in patients with polyarthritis have not been investigated. Objective of this study is to analyse the relationships of changes over one in year in pain, functional limitations and self-efficacy with indicators of positive adaptation to polyarthritis.

Methods: 331 patients participated in a longitudinal questionnaire study. Positive adaptation was measured with PIL (purpose in life), PANAS (positive affect) and IPA (social participation). Self-efficacy to cope with arthritis was measured with ASES. Pain was assessed with a NRS and functional limitations with HAQ-DI.

Data were analysed with hierarchical multiple regression analyses.

Results: Changes in pain, functional limitations and self-efficacy significantly explained changes in positive adaptation ($R^2 = 0.05-0.25$). In all analyses change in self-efficacy was the strongest predictor of changes in positive adaptation. Individual beta coefficients of changes in pain and functional limitations were not significant for changes in purpose in life and positive affect. Self-efficacy significantly mediated the relationships of changes in pain and functional limitations with changes in social participation.

Conclusion: This study showed that change over one year in self-efficacy is a relevant predictor of change in positive adaptation.

15:00 - 15:15

Emotional suppression and distress mediate the relationship between beliefs about emotions and outcomes in fibromyalgia

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Background: Beliefs about the unacceptability of experiencing and expressing emotions have been found to be related to worse outcomes in medically unexplained symptoms. A model exploring potential mechanisms of this relationship was tested in people with fibromyalgia.

Methods: 176 participants took part in an online questionnaire. Data were analysed using mediation analysis. The mediation model tested emotional suppression and affective distress as serial mediators of the relationship between beliefs about emotions and global impact. In parallel paths, two forms of support-seeking were tested (personal/emotional and symptom-related support-seeking) as mediators.

Results: Emotional suppression and affective distress significantly serially mediated the relationship between beliefs about emotions and global impact. Alternate model testing supported the direction of this indirect effect. Neither support-seeking variable significantly mediated this relationship. There was no direct relationship between beliefs about emotions and global impact indicating inconsistent mediation. Post-hoc cluster analysis revealed three distinct subgroups in the sample, two of which showed a positive relationship between beliefs about emotions and global impact, and one group which showed a negative relationship, whereby more beliefs about emotions are related to better outcomes. For this particular subgroup, global impact and affective distress scores were significantly higher than the other two subgroups.

Discussion: Results indicate a potential mechanism through which beliefs about emotions and global impact might relate. The differential relationships between beliefs about emotions and global impact suggest studying subgroups of fibromyalgia might be beneficial as the same beliefs might be helpful to some and detrimental to others.

15:15 - 15:30

Predictors of on-going fatigue after acute infection: a systematic review

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Background: Fatigue is a prevalent and debilitating symptom, preceded by an acute infectious episode in some patients. This systematic review aimed to identify factors which predict lasting fatigue after an acute infection, to inform the development of a working model of post-viral fatigue.

Methods: Electronic databases (Medline, PsycINFO and EMBASE) were searched from inception to July 2015, for studies which investigated biopsychosocial predictors of on-going fatigue after an acute infection. Inclusion criteria were: prospective design; biological, psychological or social predictors; valid and reliably measured post-infectious fatigue. Studies were excluded if participants had a pre-existing medical condition (including chronic fatigue at baseline), infection was conceptualised as 'vaccination' or they were intervention trials.

Findings: Seventy-eight full texts were screened, of which seventeen met inclusion criteria. Over half included glandular fever populations. Other infections included dengue, 'general'/'viral' and Q-fever. A wide range of predictive factors were investigated, grouped under sub-themes: Biological; Social; Behavioural; Cognitive; Emotional Well-being. Conceptualisation of fatigue varied– some studies used criteria definitions, others used questionnaires. Despite this heterogeneity, certain variables were associated with the development of chronic fatigue in multiple studies and/or across time-points, including bed rest, total symptoms reported, distress and attribution style. Subsequently, a working model was developed.

Discussion: Core aspects of the model are related to patients' illness response (e.g. behaviours engaged in, attributions and perceptions held, and emotional well-being) which are likely to be relevant in understanding the progression from acute to chronic fatigue. Thus, the model lends itself to informing a chronic fatigue prevention intervention.

eHealth and mHealth 2

15:30 - 17:00

15:30 - 17:00

The mental health first aid eLearning course for medical students: a pilot evaluation study

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Background: Stressors and demands involved with studying medicine have the potential to greatly impact **medical students' mental health, which could increase their risk for mental health problems** and affect their future practice. Depression and anxiety are common problems experienced by medical students, but they are often reluctant to seek help and are more likely to rely on their peers for support. Mental Health First Aid (MHFA) is an intervention designed to improve people's mental health literacy, abilities and self-confidence to support themselves and others experiencing a mental health problem or crisis. This study aimed to pilot the MHFA eLearning course with medical students.

Methods: Fifty-two medical students were randomised to receive the MHFA eLearning intervention (N=24) or no-access control (N=28). Both groups completed baseline and follow-up surveys measuring MHFA intentions, confidence to help a friend, and personal stigma. Feedback about the **study's methodology and the MHFA eLearning intervention** was collected at follow-up. Quantitative data were analysed through ANOVA and nonparametric analyses. Content analysis was used to explore qualitative data.

Findings: Compared to control, those who received MHFA eLearning intervention reported greater improvements in MHFA intentions ($p < .001$), confidence to help a friend ($p < .001$) and personal stigma ($p = .007$). **Students' feedback suggested they found the MHFA eLearning course interesting, and informative for their studies and their personal life.**

Discussion: The pilot study suggests the MHFA eLearning course is a potentially useful intervention for UK medical students and can help improve their knowledge, skills and self-confidence to support someone experiencing a mental health problem.

15:30 - 17:00

Cancer-patients' and relatives' needs for online information: quality evaluation and Influence on patient-doctors' relationships

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Cancer as a major source of distress for patients and their relatives is associated with a strong need for information. The Internet has become the primary source of health-related information. However, there are increasing concerns about the quality of health-related information on Internet and about the ability of patients to interpret the information provided online. Little is known about the influence of the information retrieved online on the patient-physician's relationship. Our aim is to evaluate the specific needs for and satisfaction with online information in cancer patients (CPG), patients' relatives (PRG) and health professionals (HPG).

Computerized questionnaire assessing the need for cancer-related information, the satisfaction with the information and the quality of patient-physician communication were completed by 56 cancer adult patients (82% female), 48 cancer patients' relatives (73% female) and 36 healthcare professionals (73% female) in a cross-sectional design. Groups are independent.

The core motivation for searching information in CPG and PRG was to be actively engaged in the treatment. However, both groups reported poor satisfaction and stress during Internet exploration. HPG reported lacking confidence in the quality and accuracy of online information and a lack of evaluation tools. CPG showed good satisfaction and trust with physicians, but reported that physicians rarely propose external resources for searching relevant information. In turn, HPG reported a need to protect CPG from disappointment and stress.

The results highlight the importance of developing ready-to-use and trustful tools for Internet exploration about cancer for patients, their relatives, but also for healthcare professionals.

15:30 - 17:00

Engagement with digital behaviour change interventions: a structured review using techniques from critical interpretive synthesis

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Background: Engagement with digital behaviour change interventions (DBCIs) is essential for them to be effective. Evaluating engagement is therefore a priority; however, a shared definition of engagement is lacking.

This review aims to 1) develop an integrative definition of engagement with DBCIs that is grounded in the literature, and 2) specify the direct and indirect influences on engagement and its relationship with intervention effectiveness in a conceptual framework.

Methods: Four electronic databases (MEDLINE, PsycINFO, ISI Web of Knowledge, ScienceDirect) were searched. Backward and forward reference chaining was employed to identify additional articles of interest. We identified 115 articles that met the inclusion criteria: studies employing experimental or non-experimental designs with adult participants explicitly or implicitly making reference to engagement with DBCIs. Data were synthesised using techniques from Critical Interpretive Synthesis.

Findings: An integrative definition of engagement with DBCIs is proposed, emphasising its experiential and behavioural aspects. In addition, a conceptual framework is proposed in which the role of engagement within a broader context of DBCIs is considered: engagement is directly influenced by intervention features and the user context, which includes characteristics of the population (e.g. individual characteristics) and the setting of DBCI use. User context also exerts an indirect influence on engagement; the effect of intervention features on engagement is moderated by the user context.

Discussion: The proposed definition of engagement and conceptual framework can be used to generate testable hypotheses for future research. The use of a shared definition of engagement will increase efficiency of knowledge accumulation.

15:30 - 17:00

Seeking for health-related information on the internet: expert-based toothbrushing recommendations on German websites

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Background: Toothbrushing is a health behaviour, most people do regularly but ineffective. As there are various toothbrushing techniques and recommendations, people might search the internet for expert-based advice.

A previous study comparing different toothbrushing recommendations in different countries revealed that there is a wide diversity in advice by dental associations, companies, dental textbooks and experts. These recommendations also differed for adults and children.

As German websites were not included in the initial study, our objective was to assess toothbrushing recommendations by university dental clinics, dental and medical associations and societies, and governmental health institutions.

Methods: We navigated through the whole sitemap and relevant links of 127 websites of different organisations to find any toothbrushing recommendations regarding toothbrushing technique, frequency, duration, specification of time, indication, and age group. If the websites had a search function, this was used additionally with the key words toothbrushing and oral hygiene. All types of free accessible information (e.g. documents, videos) on the websites were analysed. Contradictory recommendations in one document were also assessed.

Findings: There was a large diversity on different recommendations and even within some organisations one could find some contradictory advice.

Discussion: The unacceptable high diversity of toothbrushing recommendations might confuse people seeking for advice. However, a reason for this unreasonably high amount of different recommendations might be that there is not much evidence yet about which toothbrushing method receives the best results regarding oral cleanliness and how often one should brush ones teeth. Those studies are fundamental for developing consistent guidelines.

15:30 - 17:00

Investigation of the health benefits of an internet personalized program in obese pregnant women

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This aim of this research is to test whether an internet personalized lifestyle intervention (ePPOP), which combines nutritional, behavioral and physical activity counseling among obese pregnant women would reduce the risk of instrumental delivery, modify their health behaviors and improve the health status of these women and their babies.

Method: Based on a multicenter randomized controlled trial, 860 obese (BMI > 30kg/m² and < 40kg/m²) pregnant patients from 11 French hospitals will be randomly assigned to either a standard care or an ePPOP.

Expected results: ePPOP intervention should lead to lower rate of obstetrical interventions during labour and delivery than a standard care, better clinical outcomes (e.g. lower gestational weight gain during pregnancy or birth weight of the baby) in the ePPOP group, as well as better eating behaviors (Three Factors Eating Questionnaire), food habits (Food Frequency Questionnaire) and higher physical activity (Pregnancy Physical Activity Questionnaire). Finally, we expect that Internet connection time to ePPOP and frequency of these connections moderate these outcomes.

Current stage of work: Legal authorizations are received. The content of the Internet platform is finished. The next stage is to monitor the implementation of the content into an attractive Internet platform. The poster will also describe the content of the intervention, particularly the psychological counseling part (i.e., behavior change techniques, emotional skills, well-being development, and motivational barriers treatment) and present how 3 professionals (i.e., a psychologist, a dietician and a sport educator) have worked hand in hand to develop the content of the Internet platform.

15:30 - 17:00

Novel technology and analysis techniques for monitoring COPD treatment adherence using the Inhaler Compliance Aid

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Background: Assessing adherence to treatment regimens is a perennial problem in the management of chronic illnesses. Non-adherence can include over- or under-dosing, incorrect timing of doses or failure to correctly operate a medical device. The problem is particularly prevalent in the case of inhaled medications, where improper inhaler technique routinely leads to under-dosing. The recently-developed INCA (Inhaler Compliance Aid) device records precise timing of inhaler use and, uniquely, can identify with >90% sensitivity errors in inhalation technique. The INCA output therefore consists of both time-series (dose timing) and failure-event data, and thus demands novel analysis techniques combining time-series and survival/frailty models.

Methods: The current project encompasses three strands:

An observational study of established, theory-informed psychosocial predictors of adherence in COPD patients (e.g. depression, beliefs about medicine and illness, etc.). Observational data will be acquired from COPD patients using salmeterol/fluticasone dry powder inhalers fitted with the INCA device.

Development of novel statistical measures and techniques for the analysis of adherence data, combining timeseries and frailty analyses.

Establishment of an international consortium to apply for H2020 (Health) funding.

Expected Results: Determination of patterns and predictors of adherence, derivation of novel statistical techniques to exploit the rich structure of INCA data, and development of accompanying specialist tools such as Stata and R software modules.

Discussion: The INCA device presents excellent opportunities to develop adherence research and novel analysis to fully exploit complex data. The current work programme also provides an opportunity for international collaboration within the H2020 (Health) framework.

Funding: Irish Research Council

The many faces of stress

15:30 - 17:00

15:30 - 17:00

High levels of stress go along with more skin symptoms: a study in German students

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Background: Stress and skin symptoms are related in skin patients and healthy controls. In a recent study, US students with high stress levels reported oily/ waxy/ flaky patches on the scalp, scaly skin, itchy rashes on their hands and itch in general more often than lowly stressed students. The current study is the first to investigate this relationship in German students.

Methods: In this web-based questionnaire study, the stress level and skin symptoms during the last four weeks were assessed in 794 students by means of the Perceived Stress Questionnaire (PSQ) and a modified version of the Self-Reported Skin Questionnaire. Students were divided into lowly and highly stressed students (LSS vs. HSS) by determination of the 25th and 75th percentile of the PSQ index. Odds ratios were determined to compare LSS and HSS regarding the occurrence of skin problems.

Findings: 207 students were regarded as LSS, 201 as HSS. They did neither differ in gender distribution nor age ($p > 0.05$). HSS reported to suffer from itch, oily/waxy/flaky patches on the scalp, scaly skin, itchy rash on hands, other rash on face, dry/sore rash, pimples and warts more often than LSS (all $p < 0.05$).

Discussion: This study replicated the findings of a recent US study: Stress and skin problems are related in students. Next, it would be interesting to compare the US and German samples regarding their stress levels, the intensity of the skin symptoms and the size of the relationship between stress levels and skin symptoms.

15:30 - 17:00

Financial strain, dyadic coping and couples' well-being: a dyadic mediation study in Greek couples

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Background: Financial strain typically has a severe impact on couple's functioning and the well-being of its members. In this study, we examined the indirect relation of financial strain to partners' relationship satisfaction and psychological distress, using dyadic coping as a mediator, in a sample of Greek couples.

Methods: One hundred and eighteen couples participated in a cross-sectional study. Perceived material loss in the past and perceived threat of loss in the future were used as financial strain indices. The Actor-Partner Interdependence Mediation Model (APIMeM) was employed to test for the mediation hypotheses.

Findings: The complete mediation (i.e., only indirect) effects models showed an unsatisfactory fit to the data and were rejected. The partial mediation APIMeM, revealed several statistically significant direct and indirect (actor and partner) effects of the financial strain indices. The results provided more support to the hypothesized mediated impact of financial strain on partners' relationship satisfaction than on psychological distress.

Discussion: The findings underline the importance of dyadic coping for couple's adaptation to financial strain. They also point to the need to examine responses to stress at an interpersonal/dyadic level.

15:30 - 17:00

The relationship between different changes in personality under acute stress

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The aim of this study is to identify changes in the psychological homeostasis of young people in response to eustress euphoria caused by gaining an unexpected advantage. Volunteers participated in a four-stage pilot study which used a wide-range of inter-disciplinary methods such as social, psychological, physiological and psychophysiological examination.

The results of the aforementioned pilot study revealed changes in the sociopsychological and physiological homeostasis under acute eustress euphoria. Participants' quality of life, levels of anxiety and arithmetic skills were shown to significantly differ from normal, and participants' short-term memory was also shown to have improved.

Participants' colour preferences were, in the context of this pilot study, construed as demonstrating their willingness to co-operate. Exposure to eustress euphoria was demonstrated to have wide ranging effects e.g. participants' were shown to be more active and well-adjusted than usual.

15:30 - 17:00

Predictors of emotional distress in pregnant women: the mediating role of relationship intimacy

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²School of Psychology, Applied Psychology Department, University of Minho, Portugal

Emotional distress is common in mid and late trimester antenatal clinic attendees. Furthermore, assessment and treatment of emotional distress during pregnancy show that worries and relationship with the partner are important factors determining psychological health. This study aimed to investigate the impact of worries during pregnancy, relationship intimacy, and marital satisfaction on anxiety, depression and stress symptoms in pregnant women, after controlling for the effects of demographic and obstetric variables, as well as to analyse the mediating effect of relationship intimacy between marital satisfaction and emotional distress.

Two hundred women were recruited from childbirth preparation consultation in primary health care settings in the north of Portugal. They provided self-report data during their second and third trimester of pregnancy about worries during pregnancy (Cambridge Worry Scale), relationship intimacy (Personal Assessment of Intimacy in Relationships Scale), marital satisfaction (Marital Satisfaction Scale), and emotional distress (Depression, Anxiety, and Stress Scales).

Emotional distress was positively associated with worries during pregnancy, while relationship intimacy and marital satisfaction were inversely related with emotional distress. Being unemployed or with a sick leave, being younger, having a history of miscarriage, having more worries during pregnancy and low relationship intimacy were the most important predictors of emotional distress in pregnant women.

The models showed the combined influences of demographic/obstetric, individual, and relationship factors on symptoms of anxiety, depression and stress. Relationship intimacy mediated the relation between marital satisfaction and anxiety/depression. The findings support a recommendation that antenatal services consider integrating screening for emotional distress in routine antenatal care.

15:30 - 17:00

Coping with stage fright and health of students from music schools

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³The Pontifical University of John Paul II in Cracow, Poland

Background: A study on the relationship between level of stage fright, coping styles, personal resources and health of students from music schools is presented. The theoretical base of the researches is Functional Model of Health (FMH, Wrona-Polańska 2003), in which health is a function of creative coping with stress and personal resources

Examined persons: 210 students of music schools, - 36% men and 64% women.

Methods Questionnaires: examining stress, coping strategies, personal resources and grading scales of health.

Findings: Health and effective coping with stage fright depends on: coping styles and level of personal resources: sense of coherence, positive self-esteem, social support and good instrumental preparation for the performance. The level of stage fright is different by men and women.

Conclusions: The level of stage fright is a function of creative coping and personal resources. To promote health should: increase positive self-esteem and social support.

15:30 - 17:00

The effect of qualitative job insecurity on work engagement: testing moderating role of organization-based self-esteem

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Background: According to appraisal theory, when individuals face with a situational stressor such as job insecurity they may perceive it as a challenge or hindrance. Whether they perceive it as challenge or hindrance depends on their personal resources. Sufficient personal resources allow them to appropriately deal/cope with the stressor. The purpose of this study is to test the moderator role of organization-based self-Esteem (OBSE) as a potential personal resource between qualitative job insecurity and work engagement.

Method: Quantitative data were collected from 55 employees from Italian healthcare sector via simple random sampling method and utilizing three instruments including qualitative job insecurity, work engagement, OBSE. We applied Pearson correlation to investigate the impact of qualitative job insecurity on work engagement. Process program (Hayes & Press, 2008) was used to test the moderator role of OBSE in the relationship between job insecurity and work engagement.

What went wrong: Pearson correlation analysis found a negative link between qualitative job insecurity and work engagement and a positive link between OBSE and work engagement. Moreover, the result of the interaction effect of job insecurity and OBSE revealed that OBSE can significantly reduce the link between qualitative job insecurity and work engagement. It highlights the buffering effect of OBSE in this relationship. It is recommended to future studies consider the role of demographic information in this interaction.

Conclusion: This study enriches the job insecurity literature by introducing OBSE as a personal resource which would be able to buffer the negative impacts of job insecurity on outcomes.

15:30 - 17:00

Loss of resources, health habits, self-esteem and psychological health of victims of intimate partner violence

F. Melo¹, E. C. V. Costa¹, F. Ponte¹¹Portuguese Catholic University, Portugal

This study aimed to analyze in what way different types of abuse, loss of resources, health habits and self-esteem influences psychological morbidity in women victims of intimate partner violence (IPV) (N= 144). The present investigation consisted in a self-report retrospective study and all participants answered a battery of instruments including a socio-demographic questionnaire, the Self-Esteem Scale (SES), the Conservation of Resources-Evaluation Questionnaire (COR-E), the Brief Symptoms Inventory (BSI), Conflict Tactics Scales Revised 2 (CTS-2) and the Health Habits Questionnaire. The data indicated that women, victims of IPV, with low self-esteem presented more psychological morbidity (depression and anxiety), loss of resources, physical abuse with and without sequel when compared with those with higher self-esteem.

Loss of resources showed positive and significant correlation with depression and anxiety symptoms, and self-esteem showed negative and significant correlation with the outcome variables. The results from hierarchical regression showed that sexual abuse and low self-esteem contributed significantly to depression symptoms over and above the effects of the different types of abuse, loss of resources and health habits, after controlling for socio-demographic factors.

Low self-esteem and the absence of health habits contributed significantly to anxiety symptoms. This study shows the impact of IPV on mental health and highlights the need to design effective interventions to promote self-esteem and health habits in those who were abused.

Self-regulation in health behaviours

15:30 - 17:00

15:30 - 17:00

Rumination and health behaviours: a self-regulation resource perspective

F.M. Sirois¹, M. Bean²¹University of Sheffield, United Kingdom²Sheffield Hallam University, United Kingdom

Background: Rumination, a style of thinking involving repetitive and intrusive thoughts, is associated with poor well-being and high levels of negative affect. The Self-Regulation Resource model (SRRM) posits that negative affect disrupts the self-regulation of health behaviours. We meta-analytically tested whether rumination dimensions (brooding and reflection) were associated with less frequent practice of health-promoting behaviours, and if higher stress explained the associations.

Methods: Four cross-sectional survey studies were conducted, three with student samples (N = 190, N = 336, N = 208) and one with a community sample (N = 621). All samples completed the Ruminative Response Style scale and a measure of health behaviour frequency; two samples completed the Perceived Stress scale. Random effects meta-analyses were conducted on the correlations of each rumination dimension with health behaviours. Indirect effects through stress were tested with a bootstrapping analysis.

Findings: Overall, brooding was significantly associated with less frequent practice of health behaviours across the four samples, avg. $r = -.244$ [-.35, -.14], whereas reflection was not, avg. $r = -.082$ [-.19, .03]. Bootstrapping analyses revealed that the indirect effects on health behaviours through stress were significant for brooding in both samples tested (b 's = -.12, -.16).

Discussion: Consistent with the SRRM, these findings suggest that ruminative brooding, but not reflection, is associated with less practice of health-promoting behaviours, and that high levels of stress may explain this link. Interventions to reduce the repetitive negative thinking that characterizes brooding may help improve health behaviours in individuals with this response style.

15:30 - 17:00

Desire escalation - an interactive model of desire emergence

A. Ghoniem¹, W. Hofmann¹¹University of Cologne, Germany

Self-control research has predominantly focused on the restraint part of self-control and has only recently started investigating the core motivational forces that need to be controlled. Specifically, the question of how desire emerges has not been systematically tackled yet. We strived to carve out the underlying mechanisms that interplay together in triggering desire towards various stimuli. Across two studies we specifically investigated the interplay between stimulus properties, learning history and need states (measured by hunger) in triggering desire for fast foods (Study 1, N = 138) or candies (Study 2, N = 102).

We hypothesized that desire is strongest for hungry participants who had mainly positive experiences with the given stimulus and who were confronted with fast foods (Study 1) or with sweets (Study 2). We manipulated stimulus properties by randomly asking participants to rate either tempting stimuli (experimental condition) or flowers (control condition). Then they completed a mood measure to assess and control for any mood effects and finally a measure to assess experienced desire to the given stimulus (FCQ-S, Cepeda-Benito et al., 2000). In line with our dynamical model of desire, we found a three-way interaction effect in such, that desire was strongest when all three factors came into play. Follow-up analyses showed that absence of either factor resulted in lower desire strength.

Hence desire is a function of internal and external factors that closely interact with each other. Implications for self-control research and how to change individuals' learning history to reduce cravings are discussed.

15:30 - 17:00

Does ruminative responding to a health behaviour goal failure reduce health behaviour intentions?

M. Bean¹, F.M. Sirois²¹Sheffield Hallam University, United Kingdom²the University of Sheffield, United Kingdom

Background: The Self-Regulation Resource model (SRRM) highlights the importance of positive affect and future-orientation for self-regulating health behaviours, and the depleting effects of negative affect on these resources. Response styles characterized by negative affect, such as rumination (brooding and reflection, to a lesser degree), are expected to interfere with health behaviours because of decreases in positive affect and future-orientation. This study will test this hypothesis using an upward counterfactual thinking (UCFT) paradigm to experimentally induce ruminative and reflective responses to a failed health behaviour goal (HBG).

Methods: 174 people with a HBG will complete an experimental online survey with random assignment to one of three conditions with retrospective recall of a recent HBG failure. The rumination condition will have instructions to generate UCFT about an uncontrollable aspect of the failure, the reflection condition will have instructions to generate UCFT about a controllable aspect of the failure, and the control condition will involve re-reading the failure.

Participants will complete measures of future self-continuity, HBG intentions, state rumination, and pre- and post-rumination-induction. Pre- and post-induction rumination will be measured as a manipulation-check. ANCOVAs will test the effects of condition on dependent variables, partialling-out baseline scores; moderated mediation analysis will test the explanatory pathways.

Expected results: Brooding, compared to reflection and no UCFT, is expected to reduce future-orientation and positive affect, increase negative affect, and in turn, reduce HBG intentions.

Current stage of work: Application for ethical approval is in preparation.

Discussion: Findings could highlight the importance of addressing ruminative responding to HBG failures.

15:30 - 17:00

A neglected spot in self-control - the influence of attitudes towards impulses on self-control

A. Ghoniem¹, W. Hofmann¹¹University of Cologne, Germany

Previous self-control research has neglected how individuals view temptations. We present a novel approach by taking a closer look at how individuals value impulses. To this end, we validated a measure to assess **individuals' attitudes towards impulses**. We hypothesized that more favorable attitudes are associated with less negative self-conscious emotions after self-control failure. In Study 1 (N = 143) we carved out the influence of overeating on feelings of shame and guilt and how **individuals' attitudes moderate** this link.

Attitudes towards impulses were assessed in the cafeteria before participants had lunch and their self-conscious emotions were assessed after having lunch. As expected, we found a significant interaction ($p = .002$) showing that overeating is only associated with feelings of shame/guilt for participants having low attitudes towards impulses. For participants having more favorable attitudes this association was absent. In a second online study (N = 172), we show that more favorable views of impulses is positively associated with body satisfaction ($p = .003$). Most importantly, we find as expected, a significant interaction between BMI and attitude towards impulses ($p = .022$) showing that BMI is negatively associated with body satisfaction only for participants scoring low on our measure but not for participants having more favorable attitudes towards impulses.

Future studies will investigate the motivational and volitional consequences of attitudes towards impulses. Understanding how individuals value impulses helps to disentangle the underlying mechanisms of self-control and impulsive behavior. Interventions need to address and modify **individuals' attitudes towards impulses** to boost self-control success.

15:30 - 17:00

Exploring the experiences of managing and monitoring diet and weight: an IPA analysis

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Background: Obesity is a significant health challenge and rates are rising. This has largely been attributed to an increasingly sedentary lifestyle. Little is known about athletically inclined, versus non athletic individuals' perceptions, beliefs and experiences of eating and exercise behaviours. Understanding more about these groups is important given the current obesogenic climate.

Methods: A qualitative, double hermeneutic, idiographic approach was adopted to explore participants' experiences of managing their weight, eating and exercise habits. Data was collected using semi-structured interviews, and data analysed using Interpretative Phenomenological Analysis. Ten participants were purposively sampled and interviewed to explore the experiences of managing body weight. Four participants considered themselves athletic, two participants had lapsed athletic interests, and four participants were not athletic.

Findings: Three themes were identified including: 'perceived barriers', 'strategic efforts' and 'perceptions of control'. These themes represent the accounts of the balancing act described by participants of managing their eating habits and diet. The findings suggest that non-athletic individuals tend to be driven by weight loss and management whereas athletic individuals tend to be driven by healthy eating. The difference in these motivations shapes how they perceive barriers, and efforts to eat healthily, and the strategies adopted to support their dietary decisions. Therefore encouraging the focus on health rather than weight may be more effective for encouraging healthier lifestyles.

15:30 - 17:00

Matching and accepting assistive technology in MS: the perspective of patients, carers and OTs

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Background: People with Multiple Sclerosis (PwMS) acquire assistive technologies (AT) to maintain their health and improve independence and quality of life. However, little is known about the experience and impact of AT nor of the biopsychosocial factors that influence its use. Drawing from the self-regulation of illness theory, this qualitative study explored the experiences and perceptions of PwMS, carers and occupational therapists towards AT.

Methods: Four focus groups (two PwMS (N=14), one carer (N=5) and one OT (N=4)) were conducted using a semi-structured framework. Focus groups were audio-recorded, data transcribed verbatim and analysed thematically (Braun & Clarke, 2006; 2013). Data from each sample was analysed separately before common and disparate themes were identified.

Findings: Themes included: Critical MS Events (developing symptoms/disability; delayed diagnosis and coping; establishing public reaction; MS progression to AT); Matching AT for Continued Use (acceptance of MS and AT; realistic expectations; OT responsiveness; timing is crucial; device factors; carers and others); Impact of AT (promoting or losing independence; stigma and embarrassment; reducing carer role).

Discussion: Critical MS events were identified as leading to recognition of a need for AT. In all groups, acceptance of MS and AT emerged as key enablers of successful AT matching as well as other personal, service, device and external influences. Positive and negative outcomes were identified for PwMS and carers.

Our findings suggest that good communication between therapists, carers and PwMS is required to improve AT services by ensuring devices match user needs and thus maximise health gains.

Cognition and emotion in chronic illness

15:30 - 17:00

15:30 - 17:00

Predictors of anxiety and depression after a mild stroke: a pilot one-year follow-up study

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Background: The aim of the study was to investigate 3-months' (M3) and 6-months' (M6) predictors of anxiety and depression levels at 12-months' (M12) post-stroke in patients with early functional recovery.

Methods: Fifteen stroke survivors were assessed at M3, M6 and M12 with self-report questionnaires assessing anxiety and depression (HADS) and coping strategies (RWCQ). Non-parametrical statistical tests were performed to compare M3 and M6 outcomes of M12 anxious and non-anxious patients on the one hand, and depressed and non-depressed patients on the other hand.

Findings: Concerning anxiety, results bring out that M12 anxious individuals had significantly more M3 and M6 anxiety symptoms than non-anxious patients. More accurately, significant differences were found concerning M3 and M6 anxiety type psychic symptoms (psychic anxiety) whereas there was no difference regarding anxiety type somatic symptoms (psychomotor agitation). Besides, M12 anxious patients tend to have more M6 passive coping strategies ($p=.07$) to face daily stressors related to stroke.

Concerning depression, results show that M12 depressed patients had significantly more M3 depression symptoms and less psychomotor agitation than non-depressed participants.

Discussion: These results should lead to the improvement of anxiety and depression diagnosis and treatment after a stroke in patients experiencing early recovery. Thus, particular attention should be paid to specific symptoms in the earlier stages of stroke so as to detect at-risk patients. Moreover, therapies should focus on specific coping strategies in order to prevent later anxiety and depression.

15:30 - 17:00

Examination of binge eating disorder criteria in an obese patient population in Paris area

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BED was classified as an eating disorder in 2013 with the publication of the DSM-5. Prevalence of BED is up to 4% in the general population and higher than 70% in overweight and obese individuals. In obese individuals, binge eating has been reported as compensatory behaviour to cope with psychological distress. The aim of this study is to examine the details of BED criteria of obese patients in a Parisian hospital. 29 obese patients (69% women; mean BMI=38.7kg/m²) were interviewed to test each criterion of BED. Bivariate Wilcoxon test has been used to compare binge-eaters to non-binge-eater for continuous variables, and Chi² test for categorical data.

A total of 34.5% were diagnosed with BED. No difference in age and BMI has been found between patients with and without BED. Overall, 68.9% experienced binge-eating episodes. Moreover, among participants without BED, 52.9% experienced binge-eating episodes but did not meet the following criteria for BED: distress related to eating behaviours (30%), frequency of binge episodes (35%), and absence of restricting or purging behaviours (75%).

Results show that subclinical BED is frequent in obese patients experiencing binge-eating episodes. A large proportion of obese patients experience binge episodes associated to restricting or purging behaviours, meaning that they could meet the criteria for bulimia nervosa. The observed prevalence of BED in patients seeking help in nutrition poles in France is lower from BED prevalence in overweight and obese individuals in the US. The present results should be understood in line with a small and non-representative sample.

15:30 - 17:00

Food intolerance – evidence for functional somatic syndrome?

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Background: Food intolerance has been associated with distressing symptoms, most of which have been shared with the symptoms of Irritable Bowel Syndrome. This raises the possibility that food intolerance may represent another manifestation of the same physiological or psychosomatic processes, associated with functional somatic syndromes.

The present study took a novel approach to food intolerance by investigating the possibility that symptoms, attributed to food intolerance are likely to be generated by a cognitive-emotional sensitisation, common in medically unexplained somatic complaints. It explored whether patients with IBS and patients with food intolerance share not only symptomatology, but also psychological features - somatosensory amplification tendency, anxiety, depression, illness perception, attributions and behaviour, all of which contribute to the process of sensitisation.

Methods: Data was obtained by recruitment of participants with food intolerance and/or IBS from GP practices and food intolerance clinics. Measures of anxiety, depression, somatisation, personality, health-related attributions and behaviours were completed.

Findings: IBS patients, as well as those with both IBS and food intolerance, reported symptoms, significantly higher in number and severity than the group of patients with food intolerance alone. They scored higher on somatosensory amplification tendency and on measures of illness perception, showing that IBS was perceived as more threatening condition than food intolerance.

Discussion: These findings demonstrate differences between food intolerant patients and IBS patients, including those, who attribute adverse symptoms to food. Differences were revealed in the severity of symptoms, somatisation, illness perception and behaviour. Implications of food intolerances and comparisons with functional disorders are discussed.

15:30 - 17:00

The role of emotions in the perpetuation of symptoms and disability in chronic fatigue syndrome

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Objective: To systematically review literature that examines the role of emotion in the perpetuation of symptoms and disability in adults with Chronic Fatigue Syndrome (CFS).

Aims:

- i) To develop a narrative based synthesis of literature that examines the relationship between emotion and symptoms/functioning in adult CFS patients.
- ii) To identify any effect of emotion processing in improving symptoms and function in adult CFS patients.

Methods:

Sample characteristics of studies:

- **examination of relationship of emotion and CFS symptoms and function**
- **validated measures of fatigue, functioning and emotion expression/inhibition**
- **use of CDC or Oxford case definition of CFS**

These characteristics are required in order to explore and compare outcomes between studies and to ensure quality and evidence based conclusions.

Data will be extracted and quality assessed as follows: Criteria used to diagnose CFS, study design, sample characteristics; intervention description; main outcomes with validated measures; effect sizes; quality assessment rating.

Expected Results:

- i) Emotion related factors will be identified and their impact on symptoms and functioning in CFS patients will be assessed and synthesized.
- ii) Studies will show that emotion processing has an effect in improving fatigue and functioning in CFS patients.

Current stage of work: Systematic Review Protocol completed.

Discussion: It is expected that a key recommendation for health psychology will be that intervention design for patients with CFS should include a component to target emotion processing. This should be elaborated by the identification of the most salient factors to facilitate the processing of emotion in CFS patients.

15:30 - 17:00

Somatic symptom distress and holistic thinking style are the major dimensions behind IEI-EMF

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Background: Idiopathic Environmental Intolerance attributed to electromagnetic fields (IEI-EMF) is a self-reported condition involving non-specific symptoms in the proximity of electromagnetic fields and devices. Although its psychological as opposed to biological background is supported by empirical findings, our current knowledge on the predisposing psychological factors is scarce.

Methods: Participants (N=674; 75.4% females; age: 35.5±13.04 yrs) completed an online survey assessing socio-demographic variables, modern health worries, risk behaviors (smoking, alcohol consumption, sedentary lifestyle, etc.), and indicators of IEI-EMF (self-diagnosis, frequency of symptoms and their impact on daily life), subjective symptom related variables (negative affect, somatosensory amplification, symptom report), holistic thinking style (spirituality, holistic health beliefs, relatedness to nature), and psychological and physical health (well-being, positive affect, subjective sleep quality, perceived stress, self-rated health status, etc.).

Findings: 13.8 % of the respondents reported IEI-EMF. Principal component analysis with varimax rotation revealed two dimensions (“Perceived stress” and “IEI-EMF”) explaining 29 % of the total variance. Holistic thinking and symptom related variables, modern health worries, and female gender were positively connected to the IEI-EMF factor, while age, education, risk behaviors, and components of the Perceived stress factor were independent of it.

Discussion: Holistic thinking style and somatic symptom distress proved to be the most important psychological factors behind IEI-EMF. In contrary to earlier assumptions, IEI-EMF does not seem to be a stress-related condition.

15:30 - 17:00

Prevalence and severity of cognitive impairment in HIV- positive adults, with and without antiretroviral therapy

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Background: There are no data available for HIV-related cognitive impairment for Bulgaria. We report the prevalence of cognitive impairment in a sample of HIV-positive adults with and without antiretroviral therapy.

Methods: 101 HIV-infected patients, (18 - 68 years old), 83% male, 17% female, monitored from 2011 to 2014 at the Clinic of Infectious Diseases of the University Hospital in Plovdiv, 88 patients - on antiretroviral therapy, 13 - without treatment were screened for cognitive impairments. The International HIV dementia scale -IHDS; MMSE; Trail Making Test A & B, Digit-Symbol and 10-words tests were used together with clinical interview, standardized neurological examination and detailed laboratory tests.

Findings: The literate patients were 78%. The patients with normal neuropsychological test results, without complaints of cognitive problems and with normal neurological examination were 29 (32%). 16 (18%) showed mild neuropsychological impairment, with preserved activities of daily living and neurological function; 29 (32%) had an abnormal performance in at least 3 cognitive tests, influencing the activities of daily living and no changes in the neurological function. 16 (18%) showed serious cognitive impairment and changes in neurological examination (deterioration in the fine motor skills and gait problems). 25% had a mild cognitive impairment, 33% - mild dementia and 1%- moderate dementia (MMSE). 58% had concentration and memory complains. All illiterate patients and 48% of the literate group showed abnormal results from IHDS.

Conclusion: Our results show that the assessment of cognitive functioning in HIV-positive patients should be part of their monitoring and treatment at an early stage.

15:30 - 17:00

Observer perspective in autobiographical memory predicts symptom severity in CFS/ME

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Background: Taking an observer (as opposed to field) perspective in autobiographical memory has been implicated in social anxiety, PTSD and depression. Within CFS/ME, symptom severity varies greatly. It is hypothesized that taking an observer perspective will be linked to more severe symptoms in CFS/ME.

Methods: CFS/ME patients (N = 87) recalled four types of autobiographical memories (namely, relating to physical activity, fatigue, physical pain and happiness). Degree of observer perspective was judged on a seven-point scale. They also received HADS and other measures. Regression analysis was carried out on CFS/ME symptom severity. HADS depression and anxiety were entered at step 1, perceived risk of illnesses unrelated to CFS/ME at step 2, and degree of observer memory at Step 3.

Findings: Regression analysis revealed that symptom severity was significantly predicted by greater observer perspective in Activity Memory, Fatigue Memory, and Happy Memory. This was the case even when HADS depression and anxiety, and perceived risk of unrelated illnesses, were controlled for. In contrast, Pain Memory was predicted by depression alone.

Discussion: Symptom severity in CFS/ME was predicted by the way in which autobiographical memories were recalled for activity, fatigue, and happy (but not pain) events, in addition to prediction by level of depression and perceived risk of illness unrelated to CFS/ME. It is proposed that a therapeutic intervention which trains CFS/ME patients to recall past activity, fatigue and happy occasions in their life from a field perspective may lead to a decrease in symptom severity.

Coping with chronic illness

15:30 - 17:00

15:30 - 17:00

Emotional feeling, coping strategies and apathy in amyotrophic lateral sclerosis

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Background: Amyotrophic lateral sclerosis (ALS) is a neurodegenerative motor neuron disease causing a progressive muscle paralysis, usually leading to death from respiratory failure in 3-5 years. The main objective of this research was to explore positive and negative emotions, coping strategies, apathy, anxiety and depressive symptomatology in patients suffering from ALS.

Methods: 169 ALS patients with an average age of 63 ± 11.6 years, hospitalized at the day care hospital in the ALS Center at the Salpêtrière and Dupuytren Hospital, have been included. The self-administered questionnaires HADS, EPN-31, CHIP, Marin's apathy scale were assessed by all patients. For the statistical analyses, correlation of Spearman and Kolmogorov-Smirnov test were made.

Findings: Half of the patients had depressive symptoms and 60% had anxiety symptoms. The patients experienced on average more negative than positive emotions. They preferentially used the emotional regulation followed by the seeking of well-being. The emotional regulation and the palliative coping were positively correlated with negative emotions, apathy, anxiety and depression, and appeared to be nonadaptive strategies to cope with this disease. The distraction and the cognitive avoidance coping were negatively correlated with anxiety, depression, apathy, and positively with positive emotions. These strategies seem to be protective factors against anxiety and depressive symptoms.

Discussion: These results highlight the importance of identifying the presence of depressive and anxiety symptoms as well as apathy given the links between these dimensions and the use of any coping strategies appearing as non-adaptive.

15:30 - 17:00

Coping in children and adolescents with a food allergy – a systematic review

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Background: Research has shown that children and adolescents with food allergy are the group most at risk of fatal reactions from accidental ingestion of an allergen. Exploring how they cope with their food allergy could explain why this group is most at risk. A systematic review was conducted of published papers looking at how children and adolescents cope with their food allergy.

Method: Electronic searches were conducted using the following databases: MEDLINE, PsycINFO, SCOPUS, Science Direct, Web of Science. Papers including data from participants aged 8-16 years old with a food allergy or hypersensitivity were retrieved and analysed. Thematic analysis was then used to synthesise the findings.

Findings: Twelve studies were selected from 4,672 papers after a review of abstracts and full texts. All papers underwent data extraction, quality appraisal and thematic analysis. Six key themes were identified: 1) Coping with risk 2) using auto-injectors 3) education, knowledge and understanding 4) social support 5) taking responsibility and 6) coping with emotions.

Discussion: The six themes highlighted that coping with food allergy is a multifaceted process dependant on many factors such as the individual's perception of risk, the situation or environment they are in, the influence and attitude of others, and the individual's age and gender. Participants in the review were mainly teenagers; therefore it is difficult to infer how younger children cope with food allergy. This needs further investigation and ways in which children and adolescents can be helped to coping adaptively with food allergy need to be developed.

15:30 - 17:00

Emotional distress counteracts the positive effects of health literacy on diabetes self-management

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BACKGROUND The best predictors of diabetes health outcomes are daily self-management activities. Because these are sources of concern and constraints, it is often difficult for new diagnosed type 2 diabetes patients to adopt them. As failure to take care of oneself is the first cause of diabetes worsening and complications, understanding predictors and moderators of self-care behaviors is of utmost importance. It has been previously shown that diabetes literacy and self-efficacy were strong predictors of self-care behaviors. However, moderators of their effect have not been studied. This study investigated whether sub-clinical or clinical distress moderates the relation between health literacy, self-efficacy and diabetes self-care behaviors.

We hypothesized that emotional distress could prevent people for making use of their resources.

METHODS 128 type 2 diabetes patients were recruited. They completed an 86-item questionnaire assessing health literacy, self-efficacy, emotional distress and self-care behaviors. Regression and moderation analyses were performed to test the moderating impact of emotional distress on the relation between health literacy, self-efficacy and diabetes self-care behaviors.

FINDINGS As expected, higher levels of health literacy and self-efficacy increased self-care behaviors. However, this was not true for patients experiencing distress. Results therefore suggest that emotional distress, whether related to diabetes or not, prevents people from putting their knowledge into practice.

DISCUSSION Results suggest that professionals involved in diabetes care should pay more attention to patients' affects and their influence on self-care. Our findings support that psychological assistance should be integrated in the health care system for people suffering from type 2 diabetes.

15:30 - 17:00

Is type of depressive symptoms related to need for psychological treatment and efficacy of treatment?

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Background: As part of a RCT on the efficacy of psychological treatment in diabetic patients, Beck Depression Inventory (BDI-II) was used for screening on depressive symptoms. BDI can be divided into domains cognitive/affective versus somatic. We investigate whether among diabetics with **depressive symptoms (BDI ≥ 14)**, those with high levels on the cognitive/affective domain are more likely to express a need for care and be interested in participating in the RCT, compared to individuals low on this domain. No effect on the somatic domain is expected. Additionally, we hypothesized the greatest improvement in the cognitive/affective domain, whereas no improvement in the somatic domain is expected.

Methods: 619 depressed diabetics are divided into groups based on their needs (e.g. unmet need, no need). We use ANCOVAs for detecting differences between these groups in levels of cognitive/affective and somatic symptoms. Regarding recovery, ANCOVAs will be used to investigate whether the greatest improvement (measured by Reliable Change Index) is found for the high cognitive/affective domain individuals.

Expected results: Preliminary results suggest that individuals with high levels on the cognitive/affective domain, are more likely to express a need for care. No effect was found for the somatic domain.

Current stage of work: Only preliminary analyses regarding need for care have been executed so far.

Discussion: Insight in need for care and recovery may contribute to more effective screening methods.

15:30 - 17:00

The costs and benefits of various coping forms with cancer: self-efficacy and trauma symptoms

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For patients confronting a life-threatening illness such as advanced cancer religious coping as a coping form oriented on meaning can be an important factor influencing their self-efficacy and trauma symptom (e.g. depression, anxiety, self-image shift etc.) decrease. In this study, the relationship of religious and general coping forms and adjustment to cancer was studied in a coping model that included self-efficacy for coping.

The participants in this study were 120 cancer patients (in I-IV stage). They completed measures of religious coping (RCOPE), general coping (COPE), trauma symptoms (TSI), and self-efficacy for coping (Self-Efficacy for Managing Chronic Disease, Lorig et al., 2001).

Data analysis revealed that use of negative religious coping was better predictor for trauma symptoms (mainly, self-image shift (0.52, $p < .01$) and depression (0.50, $p < .01$)) than positive coping strategies, that were not significantly correlated with trauma and self-efficacy. Self-efficacy was negatively correlated with negative religious coping strategies and had significant relationship with depression and anxiety (-0.45, $p < .01$) in adjustment to cancer. Relationship between negative coping and depression was partially mediated by low self-efficacy (Sobel test 1.86, $p < .06$). Significant correlations between some forms of positive religious coping and problem-oriented coping strategies were found that indicated that religious coping was correlated with active strategies but not with passive forms of coping.

The findings support previous researches (Philip, Merluzzi, Zhang et al., 2013) that targeting self-efficacy in the treatment of cancer related depression is a predictor of therapy outcome for cancer patients.

15:30 - 17:00

Activity perception in chronic fatigue syndrome and asthma: development of a new measure

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Background: The study aimed to assess a number of dimensions of activity: occupation, exercise, active living habits, leisure, walking, and sedentary behaviours in one measure of daily activity or regular lifestyle.

Methods: An activity scale was developed in order to investigate the patterns and types of activity and inactivity in CFS, asthma, and healthy control groups. The types of activities measured included leisure and sport, activity at home, outside, and on the Internet, social activity, work and education, mental effort. The scale also aimed to measure the construct of inactivity, as represented by sedentary behaviours, such as staying in bed during the day.

Findings: For the CFS group increased symptoms, fear of movement, and depressed mood were associated with an increase in sedentary behaviours. More online activity in the CFS group was related to more frequent symptoms, stronger beliefs in the seriousness of illness, and higher negative affect. Involvement in community activities or education was associated with stronger beliefs in the seriousness of illness, anxiety and behavioural disengagement, but also with greater physical functioning.

Discussion: The results showed a pattern of significant correlations between the scores on the activity scale and other measures of functioning and activity in the CFS and asthma groups. The lack of significant relations between the new activity scale and other measures of activity and functioning within the healthy control group indicated the measure may be more suitable for assessing activity patterns in groups with chronic illness than in healthy people.

15:30 - 17:00

Prediction of students' social distance towards mentally ill using affective and cognitive components of stigma

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It is known that mental health specialists are not free from stigmatizing beliefs about mental illness and these beliefs may impact specialists' behaviour fostering social distance towards people with mental illness.

However we still lack information which aspects of stigma – cognitive or affective – are more important for prediction of social distance, especially during the study years. This study was aimed to find out, which aspect of mental illness stigma – beliefs or emotional reactions – are more important predictors of social distance.

207 psychology and social work students from first to six year of study (mean age 22.3) participated in a cross-sectional survey. Students answered self-report questionnaire consisting of 12 questions addressing causal attributions of mental illness, 13 questions covering experience of fear, anger and sympathy towards people with mental illness and 9 questions addressing social distancing in personal and social relationships.

Questionnaires were built for this particular study.

The results have shown that senior students report less fear of people with mental illness. Cognitive beliefs about mental illness, anger, sympathy, and social distance do not change significantly through the study years. Regression analysis revealed that emotions felt towards people with mental illness, especially fear, are more important predictors of social distance than cognitive beliefs taking into account profession and year of study.

The results imply that affective component of stigma of mental illness should be purposefully addressed while preparing future mental health specialists in order to change their stigmatizing behaviour towards people with mental illness.

Interventions to enhance help-seeking and well-being

15:30 - 17:00

15:30 - 17:00

Development of an online intervention to increase help-seeking in Parkinson's disease

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Background: Patients with Parkinson's disease (PD) frequently experience non-motor symptoms (NMS) (e.g. sleep, bladder, or bowel problems, sexual dysfunction) which significantly impact upon quality of life. Up to 65% of patients do not report these symptoms to healthcare professionals. Barriers to help-seeking were explored in previous research using the Theoretical Domains Framework (TDF). The present study aims to develop and test the feasibility of an individualised online intervention using Lifeguide to empower patients to report these symptoms to neurologists.

Methods: A pre-post intervention design will be used. 30 PD patients with undisclosed NMS will be recruited. Participants will complete online questionnaires measuring NMS (NMSQuest), help-seeking (GHSQ and AHSQ), PD severity (PADL) and intervention acceptability. Descriptive data will be presented including the proportion of patients self-reporting help-seeking post-intervention.

Expected results: The results will provide an estimate of the proportion of patients help-seeking postintervention, testing the validity of self-reported help-seeking by comparing patient self-report with clinical notes, ascertaining completion rates of the intervention and online questionnaires, and determining the proportion of patients who fail to attend their neurology clinic appointment.

Current stage of work: Ethical approval has been granted. The intervention is currently under development. Appropriate Behaviour Change Techniques are being selected to target the theoretical domains that act as barriers to help-seeking.

Discussion: This research represents a new application of the TDF in the development of help-seeking interventions. The individualised nature of the intervention targeting barriers specific to each patient may provide new insights into the development of effective help-seeking interventions.

15:30 - 17:00

Psychosocial interventions for quality of life and wellbeing in adults with neuromuscular disorders: systematic review

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Background: The objective of this paper was to systematically review and critically appraise all known empirical studies of psychosocial interventions designed to improve quality of life and well-being in adults with neuromuscular disorders.

Method: A systematic review of the published and unpublished literature was conducted. Studies meeting inclusion criteria were appraised using a validated quality assessment tool and results presented in a narrative synthesis.

Findings: Out of 3,136 studies identified, ten studies met criteria for inclusion within the review. Included studies comprised a range of interventions including: cognitive behavioural therapy, dignity therapy, hypnosis, expressive writing, gratitude lists, group psychoeducation and psychologically informed rehabilitation. Across varied interventions and neuromuscular disorders, seven studies reported a short-term beneficial effect of intervention on quality of life and well-being. Whilst such findings are encouraging, widespread issues with the methodological quality of these studies significantly compromised the results.

Discussion: There is no strong evidence that psychosocial interventions improve quality of life and well-being in adults with neuromuscular disorders, due to a paucity of high quality research in this field. Multi-site, randomised controlled trials with active controls, standardised outcome measurement and longer term followups are urgently required.

15:30 - 17:00

Mindfulness Based Stress Reduction in Infertility (MBSR-I)– information on the implementation of a new method

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Background: Couples struggling to get pregnant are also very often burdened with the stressful process of establishing the diagnosis and undergoing the treatment. More and more scientific studies indicate that there is a correlation between the level of the stress endured and the development of fertility disorders. For instance, it was proved that a higher concentration of the stress hormone, adrenaline, caused by the anxiety and depression experienced by women and men undergoing assisted reproduction procedures, has a significant impact on the treatment results. Considerably lower levels of stress hormones were found in women from whom egg cells were obtained, and in women who achieved the desired treatment results, i.e. became pregnant.

Methods: A mindfulness based stress reduction program has been established for persons struggling with infertility.

Findings: A traditional MBSR program serves the purpose of developing an ability to perceive and internalize emotions, thoughts and feelings as observable objects which allows the users to alleviate symptoms and consequences of the experienced stress. This program was supplemented with a training aimed at raising the participants' awareness of individual psychological costs of the infertility-induced stress, with meditation techniques involving visualization , and with yoga asanas boosting fertility.

Conclusions: The present program MBSR-I helps the participants to alleviate symptoms and consequences of the stress caused by infertility, thus making it possible for them to improve and maintain their well-being. The self-observation ability develops intuition and self-acceptance which are both qualities having a positive impact on relations with the partner and other people.

15:30 - 17:00

Patients care pathway in a radiotherapy service through a new architectural project: the waiting rooms

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Introduction: This study aims to examine the perception of the quality of the environment of patients attending a radiotherapy service (CHU, University of Liege). The final objective was to make recommendations as to the type of waiting room, to be part of a healing environment.

Methodology: This study includes 65 patients (35 women and 30 men) who responded to three questionnaires: the sociodemographic profile, the State-Trait Anxiety Inventory and the Hospital Environment Perceived Quality indicators (PHEQIs).

This mix-method study also includes a focus group which objective was to compare three waiting rooms designed by students of the Faculty of Architecture of the University of Liege. Focus groups including healthcare professionals, patients and their families as well as architects. The focus group analysis tool is the analysis S.W.O.T. (Strengths-Weaknesses-Opportunities-Threats). This analysis allows to diagnose the best waiting room and then to produce recommendations.

Results and Conclusions: The patient is a man or woman, average age 61, married (e), retired (e), with breast cancer or prostate cancer. Only six patients had clinically significant anxiety disorder. Mean scores in PHEQIs show a satisfactory assessment of the environmental quality; no value is below neutrality for both the physical and socio-functional environment.

Six recommendations were proposed for the waiting room: create areas of social interaction and privacy zones; promote the flexibility of the environment; availability of information; propose positive distractions; adapting the environment depending on the audience; encourage the installation of natural elements.

Emotions and cognitions in later life

15:30 - 17:00

15:30 - 17:00

The effects of manipulation with positive, negative, neutral stereotypes about aging on expectations regarding aging

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Background: The study explored if the brief priming manipulation with three types of stereotypes about aging (neutral, positive and negative) may influence expectations regarding aging (referring to physical health, mental health, and cognitive function).

Methods: 471 participants (376 women and 94 men; 250 patients in rehabilitation and 221 healthy individuals), aged 18-86 took part in this longitudinal study. The measure of expectations regarding aging was conducted before the manipulation and at a follow up, taking place 2-4 weeks later. Participants were randomly assigned to the three study groups and filled out a quiz concerning stereotypes associated with older age (Weiss & Lang, 2012), including positive (n = 118), negative (n = 181), and neutral (n = 172) manipulation material. Expectations Regarding Aging (ERA-12) was used to measure beliefs referring to aging.

Findings: Positive stereotypes associated with older age affected mental expectations regarding aging: participants who participated in positive priming less frequently declared older age is related to spending less time with friends and family, being lonely, high levels of worry or depression. Participants who were exposed to the negative stereotypes manipulation did not change their expectations regarding aging. Other expectations regarding age remained unaffected by the manipulation.

Discussion: People who concentrate on positive side of aging may harbor more optimistic beliefs and expectations about mental consequences of aging.

15:30 - 17:00

Relationships between beliefs on menopause and menopausal symptoms. The prospective study with Polish women

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Background: Within bio-psycho-social model of reproductive health hormonal changes are insufficient to explain severity and variety of menopausal symptoms. Other factors include individual beliefs on menopause.

Negative attitudes affect symptoms' intensity but opposite is equally possible. The analysis of the direction of relationship between beliefs and symptoms was the primary objective of the prospective study with menopausal women.

Methods: Participant were 86 women. Polish versions of Menopause Symptoms List by J. Perz and Menopause Representation Questionnaire by M. Hunter & I. O'Dea were administered twice at seven months interval (time 1, time 2). To examine changes of symptoms and beliefs t-test for dependent samples was used. Two series of regression analyses were performed with either time 2 symptoms or time 2 menopause related beliefs as dependent variables.

Findings: Symptoms frequency and intensity increased with time ($p < 0.01$). Women became more convinced of negative consequences of menopause ($p < 0.02$), long duration of menopausal transition ($p < 0.001$) and of their control over menopausal changes ($p < 0.001$). The consistent predictors of symptoms were time 1 beliefs of negative consequences of menopause and of short duration of menopausal transition. The first increased, while the later decreased the reported frequency and intensity of symptoms (R^2 range 0.07-0.17). Time 1 symptoms predicted time 2 beliefs. Less vasomotor symptoms were related to positive beliefs, while more psychological symptoms to negative beliefs on menopause (R^2 range 0.06-0.18).

Discussion: Symptoms and beliefs are interrelated, however the pattern of relationships is more consistent when beliefs are analyzed as predictors of menopausal symptoms.

15:30 - 17:00

Association between subjective cognitive decline and Young's early maladaptive schemas

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Background: Subjective cognitive decline (SCD) refers to self-experienced cognitive difficulties while performances remaining within normal limits on standardized neuropsychological tests. Although it has been proposed to be a risk for a future cognitive decline, the known associations of SCD primarily include psychological factors such as depression and neuroticism. Young proposed that early maladaptive schemas (EMS), i.e., “**broad pervasive themes regarding oneself and one's relationship with others (...) elaborated throughout one's lifetime**”, play a central role in emotional and personality disorders. Based on Young's framework, we sought to specifically evaluate the association between SCD and EMS.

Methods: 144 participants (age:68.37±6.8, 76% female, MMSE:28.69±1.0) were enrolled in a psychoeducational program on SCD. They had been recruited either from a memory clinic or from a health insurance advertisement. Before beginning the intervention, they were administered a neuropsychological assessment followed by computerized self-report questionnaires on SCD (McNair), depression and anxiety (HADS), and EMS (YSQ-SF).

Findings: SCD was not correlated to neuropsychological performance, but to depression ($r=0.328$, $p<.01$), anxiety ($r=0.357$, $p<.01$), and several EMS including: Dependence/incompetence ($r=0.440$, $p<.01$), Failure ($r=0.381$; $p<.01$) and, Vulnerability to harm ($r=0.350$, $p<.01$).

Discussion: Our study reveals a relationship between SCD and self-related schemas, especially those belonging to the “**Impaired autonomy and performance**” domain involving expectations about oneself and the world that interfere with the ability to function independently. Thus, SCD could reflect a broader belief of “**not being capable of**”. Our findings suggest that it may be worthwhile to evaluate EMS in subjects with SCD.

Social support and health

15:30 - 17:00

15:30 - 17:00

Social support and medication adherence in older adults

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Social support is a major determinant of health in all stages of the life cycle but particularly important in older age. Research has been demonstrating an association between social support and adherence to medication. The aim of this study was to explore the association between social support and adherence to medication in elders.

Participants were 520 individuals, community-dwellers aged between 65 and 99 ($M = 76$; $SD = 7.1$). Three instruments were used: a Demographic and Clinical Questionnaire, and the Portuguese versions of the Reported Adherence to Medication Scale (RAM) and the Social Support Scale. The results indicate that participants report a good social support, which is particularly high in the dimension of emotional and family support. The lower level of social support is related to the financial support. High levels of medication adherence were also reported, although not so high in the oldest participants.

Through a multiple linear regression analysis, age and the three dimensions of social support were found to explain 11.6% of variance in medication adherence scores. The variable with the greatest predictive value was the subscale Lack of control ($\beta = 0.18$, $p = 0.001$).

This study reinforces the role of social support as a determinant of medication adherence, therefore, health care professionals should consider interventions aimed to promote social support that enhance autonomy and a sense of control in older adults.

15:30 - 17:00

Social support and depression in sarcoma patients, in different phases of disease

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Sarcomas are rare malignant tumors with important implications in terms of functionality and self-image. Previous research identified social support as a variable associated with psychological adaptation of cancer patients.

The aim was to examine the levels of depression and its association with social support in different phases of disease (during the first consultation (Ph1), four months (Ph2) and nine months after (Ph3). Twenty four patients with sarcoma (41.7% women, 38.3% men), aged 18 to 66 were recruited from two oncological care units. Participants completed a Socio-demographic and Clinical Questionnaire, the Social Support Scale and the Hospital Anxiety and Depression Scale.

Patients reported a high level of social support (total score) in the 3 phases of disease. In the subscale related to practical support significant differences were found between the 3 phases ($F = 6.10$; $p=0.04$). Some patients reported mild to moderate levels of depression. Significant negative associations were found between social support and depression in Ph2, more specifically in relation to the subscale informative support ($R_s=-0.60$; $p<0.05$) and the subscale emotional support ($R_s=0.46$; $p<0.05$).

In the different phases of the disease patients with sarcoma may show clinical levels of depression and interventions aimed to promote psychosocial adaptation should enhance social support, especially in its informative and emotional dimensions.

15:30 - 17:00

The relationship of partner support and expressed emotion to cortisol reactivity in a community sample

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Partner support has been shown to reduce acute cortisol reactivity, but the extent of stress reduction may depend on relationship characteristics (Kirschbaum et al., 1995; Ditzen et al., 2008). Expressed Emotion (EE) may moderate the effects of partner support on biological stress reactivity due to its association with negative clinical and health outcomes (Hooley, 2007, Band et al., 2014). The purpose of the current study is three-fold: to test a new partner support modification for the Trier Social Stress Test (TSST; Kirschbaum et al., 1993), to determine whether high EE exists in a college population using a modified form of the Camberwell Family Interview (CFI; Vaughn & Leff, 1976), and to assess whether high EE predicts elevated cortisol secretion across the TSST.

This study is a pilot for a grant proposal to use the current methodology with individuals with Chronic Fatigue Syndrome and Major Depressive Disorder. Cortisol secretion across the TSST (Areas Under the Curve (AUC) ground/increase and slopes) was compared between the first 5 participants (study 2) and a group of 5 age, race, and gender-matched participants who completed the standard TSST (study 1).

Results indicate that the partner support TSST elicited a sharp, substantial rise in cortisol secretion similar to that seen for the standard TSST (study 1: $M_{rise} = 0.14$, $M_{recovery} = -0.15$, $MAUC_g = 557.32$, $MAUC_i = 131.17$; study 2: $M_{rise} = 0.18$, $M_{recovery} = -0.17$, $MAUC_g = 660.04$, $MAUC_i = 255.30$). EE and cortisol results for 15 more dyads will be reported after May, 2016.

15:30 - 17:00

A psychosocial intervention to support ALS informal caregivers: study protocol for a randomised controlled trial

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Background: ALS informal caregivers show a worsening of burden and psychological well-being during the disease course of the patient. Perceived burden may be caused by a high demand on the caregiver and low feelings of control over fulfilling caregiver tasks, according to the Karasek demand-control model. Offering psychosocial support to increase feelings of control of the caregiver might increase the wellbeing of both caregiver and patient. This study aims to investigate the effectiveness of a psychosocial intervention to support ALS informal caregivers.

Methods: Caregiver-patients dyads (n=96) will be randomized to receive, additional to usual care, the psychosocial support program or online education in the control condition. The intervention is based on Acceptance and Commitment Therapy and will be offered online and face-to-face. Dyads will fill out questionnaires on five occasions (baseline, 3, 6, 9, and 12 months). The primary outcome measure is caregivers' emotional functioning. Secondary outcome measures are caregiver burden and patients' and caregivers' quality of life. Included covariates are caregiver self-efficacy, patients' physical functioning and patients' behavior changes. A linear mixed model for repeated measures will be used for each outcome measure.

Expected results: We expect the support program will improve the wellbeing of caregivers and patients.

Current stage: The randomized controlled trial starts in 2016.

Discussion: At present, limited interventions are aiming at supporting ALS informal caregivers. If effective, the intervention will support caregivers in coping with the caregiving situation and may be offered as a standard service for ALS caregivers. Results will be available in 2018.

15:30 - 17:00

Relationship between types of social support, coping strategies, and depression in individuals after heart transplantation

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Background: Many heart transplant (HT) recipients are confronted with various medical complications and psychosocial issues arising from limitations related to the disease. They often feel that they are “being controlled by the disease” and experience feelings of depression and anxiety.

The purpose of this study was to examine the relationship between types of social support, coping strategies, and depression in HT recipients.

Methods: A cross-sectional survey design was used to recruit 123 participants at mean age of 54.79 and mean 10.22 years after heart transplantation from a single center. The following instruments were used: BSSS, BDISF, Brief COPE. Statistical analyses included: correlations, linear regression and structural equations modelling.

Results: Actually received social support and perceived available social support, both emotional and instrumental, had a significant direct relation to depression. Coping strategies mediated the relationship between the actually received social support, the perceived available emotional social support and depression. The research findings suggest, that individuals with low perceived available and the actually received social support (both emotional and instrumental), as well as avoidance and denial coping strategies are especially prone to experiencing depression. In the study, a significant mediating effect on depression was found between active coping, planning, positive reframing, self-blame, and the actually received support. The findings imply, that assessments of social support and coping strategies are an integral part of the care of HT recipients.

Moreover, coping and social support issues need to be addressed in any intervention aimed at reducing the depression in heart transplant recipients

15:30 - 17:00

Social support and anxiety in nursing students in clinical teaching

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Background: The aim of an exploratory study carried out with nursing students in clinical teaching was to identify stress factors and stressful situations and define the study plan in order to create an intervention model designed to promote the personal development.

Methods: Eleven nursing students in clinical teaching have participated voluntarily in a stress management group. They have completed the Vaux Social Support Appraisals Scale and the Zung Self-Rating Anxiety Scale, among other scales. **The recording of the students' speeches was carried out during the activities proposed in the group sessions.**

Expected results: Nine students have achieved a score above the breaking point (37) and five of them have showed anxiety levels above 40. Four of these five students have felt more social support from people in general and from their professors, and one of them also achieved a score in both types of support. Six of the students have reported feelings of lower social support from their friends. These students were divided between the distant and observing interpersonal communication styles, with a passive behaviour in conflict management.

Current stage of work: We are currently evaluating the social skills and self-awareness, among other variables, grounded in a representative sample of nursing students in clinical teaching.

Discussion: The working environment of healthcare professionals makes them more vulnerable to anxiety. When it comes to students, due to their lack of experience, they are more likely to possibility of run out of resources and, consequently, develop anxiety disorders and other mental disorders.

15:30 - 17:00

Experiences of palliative care patients accessing psychosocial support through telehealth

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Background: The primary objective of this piece of research was to explore participants' experience of using telehealth to access psychosocial support. 'Modernization' is a key health policy objective in the UK; new information and communications technologies have been seen as one of the key mechanisms by which these changes can be engineered (May, Finch, Mair, & Mort (2005). This study aimed to respond to the research question: How do patients make sense of their experience of accessing psychosocial support through telehealth?

Methods: A longitudinal multiple case study design was used to explore patient experiences of accessing support through telehealth. Three palliative care participants were provided with videoconferencing equipment to access support from their own homes. Semi structured interviews were conducted at monthly intervals over a period of three months. Interpretative Phenomenological Analysis was used to analyse the data.

Results: Three superordinate themes were identified across the three case studies: Facilitation of a relatedness supportive environment, autonomy and empowerment, and intrinsic and extrinsic self-awareness. On a longitudinal level, need satisfaction of the patients remained relatively stable across the monthly interval time points.

Discussion: The research findings provide a good insight into the feasibility of the use of telehealth to access psychological support. The findings also provide a theoretical insight through self-determination theory (Deci and Ryan, 1985), of how the provision of psychosocial support through telehealth can be a useful way of satisfying psychological needs of palliative care patients.

Parental health behaviour

15:30 - 17:00

15:30 - 17:00

The use of parental support-related self-regulatory strategies, family environment, and children's nutrition

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Background: The aim of this study was to evaluate the relationship between the perception of family environment, the use of self-regulatory strategy by children and adolescents, and their nutrition and body weight. We verified research models based on the assumption that the family environment variables (including parental norms and atmosphere during common meals) was related to the use of parental support-related selfregulatory strategies, which in turn predict children's and adolescents' nutrition behavior.

Methods: The questionnaires were completed by 1,709 children and adolescents aged 9 -16 (M =12.56; SD = 1.88).

Findings: The results indicate that the modeling of healthy eating behaviors, parental norms referring to healthy and unhealthy foods and family atmosphere during common meals was associated with more frequent use of parental support-related self-regulatory strategies by children which, in turn, was related to healthier nutrition.

Discussion: The findings show the importance of using of parental support-related self-regulatory strategies as the factor mediating between perception of family environment and children's nutrition.

15:30 - 17:00

Psychosocial predictors of IVF success: a one year follow-up study

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Background: There is growing evidence that psychosocial factors play an important role in the success of in vitro fertilisation (IVF).

Objectives: The current study explored the impact of coping style, social support, self-compassion, parenthood motivation, and relationship attachment as predictors of IVF success.

Methods: A one year follow-up survey of 305 women undergoing IVF. Of these 156 reported successful births while 149 had failed to become pregnant. 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.

Results: 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.

15:30 - 17:00

Pilot mindfulness based intervention for children born with oesophageal atresia

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Background: A mindfulness pilot home intervention was conducted during 6 weeks among 8- to 12-year-old children born with esophageal atresia. Our first aim was to evaluate the feasibility of the intervention. Our second purpose was to assess whether mindfulness practice could effectively promote clinically positive **outcomes**. **The study also aimed to evaluate children's cognitive emotion regulation strategies as potential mechanisms linked to mindfulness and their evolution during the course of the mindfulness program.**

Methods: Participants were randomly assigned to a waiting list control (WLC) group (n=8) and an experimental group (n=12). Self-assessment measures included Mindfulness Measures, State-Trait Anxiety and Depression Inventory, and the Cognitive Emotion Regulation Questionnaire. Hetero-assessment measures encompassed the modified STAI-C.

Findings: The results underlined the **program's feasibility and acceptability**. **Clinical effects of the mindfulness program** were observed. Self-assessment data for children who had practiced mindfulness compared to the WLC group showed increased mindfulness and decreased depression. Reduced anxiety was found in all groups. Positive affect tended to improve from pre-test to post-test for children who had practiced mindfulness compared to the WLC group. Hetero-assessments results showed significant improvement in positive effects and decreases in anxiety and negative affect in the intervention group compared to the WLC group. Cognitive emotion regulation strategies were also affected by the mindfulness program. Rumination scores significantly decreased from pre-test to post-test in the intervention group.

Discussion: This preliminary study suggests that regular mindfulness practice represents a promising approach to reduce the burden of this neonatal malformation.

15:30 - 17:00

Psychological adjustment of a couple after the disclosure of a diagnosis of foetal anomaly

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Background: The disclosure of diagnosis of foetal anomaly may have a long term impact on parents' psychological adjustment and well-being. This study aimed to analyse the psychological profile of a couple after receiving the diagnosis of a foetal anomaly.

Methods: This study was longitudinal, from pregnancy to one year after childbirth. Both partners completed questionnaires evaluating parental attachment, parenting alliance, marital adjustment, depression and anxiety symptomatology, and physical and psychological quality of life. Four semi-structured interviews were performed, after diagnostic disclosure and after childbirth. Quantitative data was analysed with SPSS 20.0 and qualitative data was analysed using discourse analysis.

Results: Both members of the couple considered diagnostic disclosure as the most difficult moment of the perinatal period. During pregnancy, both parents showed higher levels of anxiety and lower quality of life. Having received important information and meeting health professionals during pregnancy helped them to adjust during postpartum. For this couple, marital dynamics functioned as a protective factor: both partners showed high marital adjustment and the levels were comparable during more stressful moments. Maternal attachment increased from pregnancy to childbirth and after a surgical intervention to the baby (6 months after childbirth). Father's profile suggests that he was more attached to the baby after childbirth.

Discussion: Psychological and medical interventions after the prenatal diagnostic of a foetal anomaly must **take in consideration the fact that parents' psychological adjustment to the diagnostic is made in a progressive way and that it is influenced by both personal and medical dimensions.**

15:30 - 17:00

Effects of the introductory coaching workshop for parents

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Background: Japan is currently facing a decline in the birthrate and family size. In addition, parents are increasingly unsure of their parenting skills due to a lack of community support for childcare. Preceding studies suggest that coaching is an effective method to facilitate parenting skills. The purpose of this study was to examine the effects of the introductory coaching workshop for parents.

Methods: Thirty-four mothers with preschool children participated in the workshop. The coaching checklist for parents was used for assessment. Two coaching workshops for parents were conducted on 26th January and 1st February 2016 at the Obirin Kindergarten in Machida, Tokyo. Each workshop lasted for 90 minutes and consisted of guidance on parent coaching, modeling and paired exercises on listening, questioning and acknowledging.

Results: Self-efficacy in each of five parent coaching skill categories (listening, support for children's problemsolving, scolding, communicating approval, and watching children) was significantly higher than preceding levels for those skills. The open-ended questions regarding participants' impressions of the workshop indicated participants were interested in the workshop, gained awareness of their daily attitude toward their children, and became highly motivated to learn listening, questioning and acknowledging skills.

Discussion: The study demonstrated the effects of a brief introductory coaching workshop on facilitating the self-efficacy of parents' coaching skills. Given that the participants were motivated parents at baseline, following workshops need to be designed to help them maintain their motivation.

15:30 - 17:00

Depression and perceived autonomy support during pregnancy as a predictor of poor mother-infant bonding

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Background: Pregnancy and puerperium are times of particular vulnerability. Negative effects of perinatal depression on the mother-child interaction are well reported. However the influence of the **women's** perceptions of their health care caregivers during pregnancy on post-partum bonding has not been clearly identified. This prospectively study investigated the influence of perinatal depression symptoms and a lack of perceived autonomy support from caregivers as hospital staff during pregnancy on post-partum mother-infant bonding.

Methods: Samples of 160 French women were recruited during the last trimester of pregnancy (78 at 2 months post-partum follow-up). The mean of age of women is $M= 30.99$ years ($SD= 4.21$). Participants had completed measures of perinatal depression using the Edinburgh Prenatal Depression Scale (EPDS), satisfaction of hospital staff with the short form of the Health Care Communication Questionnaire (HCCQ) and the mother-infant bonding with the Post-partum Bonding Questionnaire (PBO).

Findings: Prenatal depression and lack of perceived autonomy support significantly correlated with PBO. In the final regression model, HCCQ ($\beta= -.26$; $p=.03$) and EPDS ($\beta= .25$; $p=.03$) in pregnancy period remained significant predictors of a poor post-partum bonding.

Discussion: These results suggest that untreated depression and lack of perceived autonomy support from caregivers during pregnancy are associated with unfavourable outcomes for mother-infant bonding. Early identification of depression symptoms and the importance of support from healthcare professionals play an **important role, especially because the quality of care from women's perspective** appears to influence bonding after birth.

15:30 - 17:00

Prenatal diagnostic of a foetal anomaly: coping strategies and postnatal adjustment to parenthood

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Background: The diagnostic of a foetal anomaly represents an extremely demanding situation for expectant parents and it requires an increased effort to adapt to parenthood. This study aimed to understand how different coping strategies used by expectant parents after receiving the prenatal diagnostic of a foetal anomaly impacted the postnatal construction of the parental role.

Methods: This study is quantitative and longitudinal, from pregnancy to two months after childbirth. The sample was composed of eight couples. All participants completed the French version of questionnaires evaluating coping strategies, parental attachment, parenting alliance, marital adjustment and depression/anxiety symptomatology. Statistical analysis was performed with SPSS 20.0.

Results: Mothers and fathers used different coping strategies to adjust to diagnosis disclosure with mothers using more emotion focused strategies and fathers using more problem focused strategies. The use of active coping by expectant mothers influenced postnatal attachment to the baby both for mothers ($r=.69^*$) and fathers ($r=.91^{**}$) and fathers' parenting alliance ($r=.82^*$). The use of humour by mothers was associated to a better marital adjustment after childbirth both for mothers and fathers ($r=.80^*$ and $r=.74^*$, respectively). The use of acceptance by fathers was associated to lower levels of maternal postnatal depression ($r=-.71^*$).

Discussion: The utilisation specific coping strategies by one of the parents had an important impact on psychological adjustment of the other parent. Hence coping strategies may be considered either as a protective or as a risk factor for postnatal adjustment of parents who received the diagnostic of a foetal anomaly during pregnancy.

15:30 - 17:00

An internal picture of health and the system of a control over the healthpromoting behaviour

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The objectives of this study were twofold: 1) to assess the children's internal picture of health (IPH) and 2) to study the connection between a child's ability or inability to form an IPH with their capacity to recognize consistent patterns in the structure of a stream of sensory signals. 82 primary school children were participants. The study was conducted in two stages. During the first stage, IPH of the children was evaluated by means of a questionnaire. It includes, on the one hand, a person's image of themselves as healthy and, on the other hand, a knowledge of the methods needed to achieve the right behavior to maintain their health and – this is extremely important – to actually perform it. To describe a child's ability to discern some kind of order in a stream of sensory signals, the models of simple and complex sensory-motor reactions were used.

The children who had a well-developed IPH from the very start of the process involving simple and complex sensory-motor reactions had fewer lapses than those in the other two groups, and they performed at a consistently high level throughout the entire task. The process of developing an IPH is accompanied by an increase in control during performance of a serial reaction task. An IPH is an internal mental model that not only predetermines a child's notion of themselves as a healthy person; it also has a psychological basis in the form of a system that strengthens their control over their own actions.

Quality of life and well-being in clinical populations

15:30 - 17:00

15:30 - 17:00

Quality of life and help-seeking for possible cancer symptoms: a systematic review

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Background: Help-seeking for bodily changes is an important step in the process of cancer diagnosis, as outlined by the Model of Pathways to Treatment (Scott et al., 2013). The length of time between symptom detection and first presentation to a health professional can vary greatly. One factor which may influence this interval is quality of life levels (QoL). In this review, we aim to summarise the literature looking at associations between QoL and help-seeking for possible cancer symptoms.

Methods: From a systematic search of 8 electronic databases, an initial pool of 8491 articles was generated. After removing duplicates, 4151 unique papers remained, and titles and abstracts were scrutinized for eligibility. The full-texts of 299 papers were assessed, and 33 papers were identified for inclusion.

Expected results: The main inclusion criteria were that the sample comes from a symptomatic but undiagnosed population, symptoms correspond to the Cancer Research UK list of signs/symptoms, help-seeking and QoL are measured, and the relationship between QoL and help-seeking is analysed. The review will summarise the associations between QoL and help-seeking for possible cancer symptoms, and whether the association varies with symptom type, population, or setting.

Current stage of work: The final papers are being assessed against inclusion and quality criteria, and data are being extracted from included papers.

Discussion: The review will further theoretical knowledge of the factors associated with help-seeking, and present evidence regarding the role of QoL. This review will have implications for practice, through interventions aimed at reducing delay in cancer diagnosis.

15:30 - 17:00

The impact of atopic dermatitis on quality of life in adults: a systematic review

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Background: Atopic dermatitis (AD) is a chronic inflammatory skin condition which has a significant impact on health-related quality of life (HRQoL). Less is known about the impact of AD on adults despite the fact that they represent a more severe and persistent subset of cases. In order to understand current knowledge, a systematic review was conducted focussing on the impact of AD on HRQoL in adults.

Methods: Electronic searches were conducted using: MEDLINE, PubMed, Scopus, and Web of Science.. Full papers published in English involving adults aged 18years and over measuring quality of life were identified and subjected to full review.

Findings: Out of the 4602 records retrieved from databases, 23 articles were eligible for inclusion. Eighteen studies reported HRQoL in relation to disease severity and all found significant correlations between disease severity and HRQoL; patients with severe AD reported poorer HRQoL than those with moderate or mild AD. Seven studies looked at differences between AD groups and healthy controls; all 7 found significantly lower HRQoL in AD patients than controls. AD also had a greater impact on HRQoL compared to Psoriasis and Vitiligo.

Discussion: The findings of this review highlight the significant impact that AD has on HRQoL in adult patients and the need for HRQoL measures to be implemented in clinical assessments for AD. This will help identify potential deficits in patient care, enhance disease management and consequently improve HRQoL. A metaanalysis of HRQoL is now being conducted to assess the significance of these findings across studies.

15:30 - 17:00

The influence of an active lifestyle on the quality of life of stroke patients

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Background: An important aim of stroke rehabilitation is not merely functional recovery, but also quality of life (QOL) improvement. An active lifestyle increases QOL. Therefore, rehabilitation professionals must provide support to **enhance patients' active lifestyles**. This study was conducted to clarify the influence of an active lifestyle on the QOL of stroke patients.

Methods: Semi-structured individual interviews were conducted, which included questions on the prognosis since the onset of stroke, present lifestyle, and important activities and reasons for engaging in them. Participants included 25 stroke patients (20 men; mean age = 70.6±9.2). Analysis was performed using the Modified Grounded Theory Approach. The study was approved by the **university's** medical ethics committee.

Findings: **Recommendations from family or friends, one's own experiences, information from medical staff, and being accompanied by a fellow stroke patient** were found to promote the adoption of activities. Additionally, evaluations of others, feelings of beneficial effects, specific plans, and the presence of supporters were found to promote the continuation of activities. An active lifestyle raises QOL through two processes: by continuation of activities leading to the achievement of purposes, and by continuation of activities leading to adjustment to the disability; the latter being an important factor with reference to coping with disability.

Discussion: The presence of a stroke fellow, evaluations of others, and feelings of beneficial effects, are related to self-efficacy. These findings suggest that, encouraging the development of a specific plan, self-efficacy, and social **support are effective in supporting patients' active lifestyles**.

15:30 - 17:00

The effect of fruit and vegetable consumption on psychological wellbeing in young adults

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¹University of Otago, New Zealand

Background: Consumption of fruits and vegetables (FV) is not only linked with lower incidence of mental illness, but also indicators of positive well-being such as life satisfaction, optimism, and happiness – suggesting a broad impact of nutrition on psychological health. The aim of the current project was to test whether this relationship is causal.

Methods: Young adults (n=171) were randomly assigned into a diet-as-usual control condition, an Ecological Momentary Intervention condition (receiving text message reminders to increase their FV consumption), or a Fruit and Vegetable condition (receiving two additional daily servings of FV to eat). This RCT tested, (a) the effectiveness of two intervention strategies in increasing daily FV consumption compared to control, and (b) whether increases in FV consumption were associated with improvements in positive well-being including, flourishing, vitality, and eudaimonic behaviours (curiosity, creativity, and motivation). These were assessed nightly for two weeks using a smartphone-accessed survey. Blood samples testing two biomarkers – vitamin C and carotenoids – were taken pre- and post-intervention and psychological expectancies were assessed as potential mediators.

Findings: Only those given extra FV to consume reported increased daily flourishing, vitality, and eudaimonic behaviours relative to the other groups. These benefits were not mediated by biomarkers or psychological expectancies.

Discussion: This is the first study to show that being provided with extra servings of FV can result in short-term improvements to higher-order states of wellbeing associated with engagement, fulfilment, and curiosity in life. This highlights dietary change as a promising adjunct in promoting psychological well-being.

15:30 - 17:00

Development of quality of life (QoL) scales for patients affected by Niemann-Pick disease type C

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Background: Niemann Pick Disease Type C (NPC) is a rare inherited degenerative disorder, which characterises itself predominately in neurological deterioration and there is currently no cure. The age of onset and the progression of the disease varies. Individuals who present symptoms during childhood hold a more aggressive form of the disease and may not survive to adolescence. The aim of this study is to explore the impact of NPC on patients and develop and validate age-appropriate QoL scales.

Methods: Ten carers were interviewed; 1 interview included a patient. Participants were recruited through the NPC charity and took part in a semi-structured interview based on key areas of QoL: six face-to-face and four over the telephone. The age of patients ranged from 3 to 56 years. Interviews were analysed using content analysis.

Findings: Preliminary findings suggest NPC has physical, psychological, cognitive, social and environmental effects. All participants experienced physical decline, which affected mobility. This caused patients to become frustrated due to the impact this had on their life, especially in teenage and adult patients. The majority of participants who were school age had gone, or were in the process of going from mainstream to specialist school due to cognitive decline.

Current stage of work: Continuing interviews and transcript analysis. Further examination will enable the extraction of relevant items for a prototype scale, firstly for children aged 0-11 years.

Discussion: Results from the interviews will provide a holistic picture of life with NPC and provide a means of measuring QoL.

15:30 - 17:00

Impact of disease perception: coping strategy, quality of life of people living with HIV

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Background: The aim of this study was to understand how people living with HIV perceive their disease and how this perception impacts their coping strategy and quality of life.

Methods: Sixty-five people living with HIV answered three questionnaires: BIPQ (Brief-Illness Perception Questionnaire), Brief Cope, WHOQOL-Bref. Their responses were compared with those obtained from fiftyone persons didn't have HIV.

Results: The most important outcomes showed that people living with HIV had lower quality of life than those people without HIV. We found that a significant correlation exists between the total score of disease perception and coping strategy like substance use and disengagement. We found that the disease perception affects negatively all fields of quality of life of these people.

Conclusions: These outcomes prove how important it is to create the actions that change disease perception and adjust the coping strategy in order to better manage HIV.

Biopsychosocial influences on health behaviour change

15:30 - 17:00

15:30 - 17:00

Vegetarians lead the way: the influence of relationships on food choice

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Background: Diets high in meat (particularly red meat) are a growing concern in industrialized societies due to being linked to several diseases. Prior research shows that the presence of other people influences the types of food people eat and the amount of food they consume. This research **examines whether people's choice** of what to eat is influenced by what the person ahead of them is ordering, and if this effect is mediated by the relationship of the people ordering.

Method: 100 participants are being recruited to answer a questionnaire after buying lunch at a cafe. We are assessing whether they ordered the vegetarian or meat-based meal, their relationship to the person ahead of them, and **whether they are aware of being influenced by that person's order**.

Expected results: We hypothesize that (1) participants will be more likely to order the vegetarian lunch option if the person ordering ahead of them orders the vegetarian option, (2) this effect will be strongest for people with a close relationship with the person ahead of them, and (3) this effect can occur outside of conscious awareness.

Current stage of work: The study is in the data collection stage.

Discussion: Most research examining social influences on eating is conducted in artificial lab situations. By conducting this research in the field, with people choosing their own food and eating companions, we hope to increase the generalizability of our findings. Results of this study could **provide insight into people's eating** choices and potentially guide healthy eating interventions.

15:30 - 17:00

The impact of perceived social norms on hand-washing behaviour in a UK student sample

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Background: Hand-washing is the single most successful and influential way of preventing the spread of infectious illnesses. Therefore, investigating the factors which influence hand-washing practices is an important first step in the development of interventions to increase this behaviour. Social Norms Theory (SNT) may represent a useful framework for investigating hand-washing behaviour in students. SNT examines the beliefs individuals hold about how frequently their peers engage in particular behaviours, and the effect these beliefs have on their own behaviour. The current study aims to determine the influence of perceived social norms on self-reported hand-washing behaviour in a student sample.

Methods: In a cross-sectional study, 152 participants (40 males, 112 females, mean age 26.3 years) completed self-report measures of frequency of hand-washing behaviour and perceived social norms via an online questionnaire. Multiple regression analysis was used to examine if perceived social norms predicted self-reported hand-washing behaviour.

Findings: A Wilcoxon signed-rank test showed that participants believed their own hand-washing was more frequent than that of their peers ($Z = -7.760$, $p < .001$). In addition, multiple regression analysis showed that **gender** ($\beta = 1.80$, $p = .019$) and **social norms** ($\beta = 4.10$, $p < .001$) **predicted self-reported hand-washing frequency**, explaining a total of 23.4% of the variance ($R^2 = .234$, $p < .001$).

Discussion: These results demonstrate that SNT may represent a useful approach to understanding handwashing behaviour in students. Interventions based on SNT may be effective in improving hand-washing behaviour in this sample.

15:30 - 17:00

The relation of personality, smoking, and physical activity in the general population

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Background: There is evidence that personality is related to health behaviours, but little is known about the relation between pathological personality traits (PPT), cigarette smoking, and physical activity. The current study examined the differences in PPT between groups of cigarette smoking and physical activity in the general population of Latvian adults.

Methods: A total of 305 adults aged 18 years or over ($M = 39.05$, $SD = 15.52$ years) filled in demographic questionnaire, indicated information about their physical activity level and exposure to cigarette smoking, as well as completed the Latvian Clinical Personality Inventory (LCPI v.2.1.) used for the assessment of the PPT. Using the one-way analysis of variance (ANOVA), the authors examined the differences in PPT between groups of non-smokers, past smokers, occasional smokers and regular smokers and three groups of physical activity level: sedentary life, medium level, and high level of physical activity.

Findings: ANOVA revealed that there were statistically significant differences between groups of physical activity in such PPT as Self-harm, Depressivity, Will to power, Grandiosity, Attention seeking, Recklessness, Perfectionism, Eccentricity and Unusual perceptions ($p < .05$). There were also statistically significant differences between groups of exposure to cigarette smoking in the PPT: Will to power, Grandiosity, Attention seeking, Recklessness, Irresponsibility and Eccentricity ($p < .05$).

Discussion: The authors concluded that some pathological personality traits are related to physical activity and cigarette smoking in the general population. The implications of the results and areas of future research will be discussed in the context of health clinical psychology.

15:30 - 17:00

Comparing motivational characteristics across activity contexts: a selfdetermination theory perspective

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Background: A variety of activity contexts exist, although few studies have compared the motivational characteristics of individuals from different activity contexts. Further, there is a lack of consistent and adequate reporting of activity descriptions within the literature. The purpose of this cross-sectional study was to determine how activity context associates with the satisfaction of psychological needs, goal contents, and motivational regulations.

Method: Participants from yoga (n=116), crossfit (n=156), running (n=138), walking (n=92), and spin (n=133) completed the Psychological Need Satisfaction in Exercise Scale, Exercise Motivation Inventory-2, and the Behavioural Regulation in Exercise Questionnaire-3. Multivariate statistics with post-hoc tests determined between activity group differences.

Findings: Greater relatedness satisfaction was found for participants in activities with greater interaction. Needs for competence and autonomy were differentially satisfied across activity contexts. Participants from yoga endorsed greater revitalization goals than the other activity contexts, whereas participants in aerobic activities endorsed greater body image goals than the other activity contexts. Endorsement of motivational regulations was similar across activity contexts, although participants in the walking group, who tended to be older, had less self-determined motives compared to the other activity contexts.

Discussion: The findings suggest that it may be beneficial to match people with activities that will satisfy particular needs or goals that are important to them. However, as people age and physical capabilities limit activity choices, autonomous forms of motivation may be less likely achieved. Additionally, the findings inform future research of the importance of clearly defining the activity context from which samples are drawn.

15:30 - 17:00

Snacking in context: we're not all the same

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Background: Snacking on high-calorie foods contributes to weight gain and obesity. There are many environmental cues to eating, including the physical or social environment, and current activity or behaviour. Identifying contexts associated with unhealthy consumption in real-time could provide important information for optimising interventions. The present study aimed to monitor high-calorie snacking in real-time, and to determine the social, environmental, and contextual correlates of this behaviour.

Methods: Over 7 days, 65 adults (50F, mean age = 38.9 years) recorded intake of energy-dense high-calorie snacks, physical location (home, work, outdoors, car, shop/pub/restaurant/cafe, other), social context (alone, friends, family, colleagues, other) and current activity (work, domestic chores, childcare, socialising, travelling, TV/computer, sports/exercise, eating/drinking, nothing, other) hourly on wrist-mounted electronic diaries. The proportion of time in each context spent snacking was calculated across the whole group, and for each individual.

Results: After adjusting for time spent in each context, snacking frequencies outside meal-times for the whole group were generally highest whilst at home (snacking during 15.3% of total time spent at home), with friends (16.7%), and whilst socialising (19.9%). However, these proportions varied substantially across individuals: home (range = 0% – 41.2%); friends (0% – 50%); socialising (0% – 55.6%). Many individuals snacked only in one specific context.

Conclusions: Contextual correlates of snacking are markedly different across individuals with many individuals snacking in single, identifiable contexts. Tailoring interventions to individualised patterns of behaviour may improve their efficacy in reducing unhealthy snacking.

15:30 - 17:00

Clinical and psychological correlates of hearing aid use

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Background: Up to 40% of new hearing aid users in the UK do not use their hearing aids regularly. Non-use or suboptimal use of hearing aids waste NHS resources and impacts people with hearing impairment. The present study sought to identify factors that drive sustained and successful hearing aid use that will provide valuable information for future interventions to promote hearing aid use.

Methods: Prospective survey design. Adults with hearing impairment (N=67) who were eligible for a hearing aid were recruited from NHS audiology clinics. Participants completed a questionnaire designed to tap Health Action Process Approach (HAPA) constructs at the time of hearing assessment. Average daily hours of hearing aid use were measured by automatic data-logging and captured 8-10 weeks post-assessment. The **Spearman's rank and zero-order correlations** was conducted to estimate the effect size between HAPA constructs, self-reported and an objective measure of hearing loss and hearing aid use.

Findings: 67 participants have been recruited to date, 33 of whom have yielded data-logging information. Initial analysis found self-reported hearing loss was related to hearing aid use, with a medium effect ($r=0.33$). Objective measures of hearing loss was related to hearing aid use, with a small to medium effect ($r=0.24$).

Discussions: Initial analysis has demonstrated self-reported and objective measures of hearing loss were related to objective hearing aid use. A clearer picture will require recruitment of a larger sample of patients and additional analyses, but the present research constitutes a step towards developing a theory-based intervention to improve hearing aid use.

15:30 - 17:00

An integrated theoretical model of young peoples' condom use in sub-Saharan Africa

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²Curtin University, Health Psychology & Behavioural Medicine Research Group, School of Psychology and Speech Pathology, Australia

Background. We aimed to develop an integrated theoretical model of the determinants of condom use in young people from sub-Saharan African (SSA) nations. Model development was informed by research predicting condom use in SSA nations adopting individual-level social-cognitive and socio-ecological theories, and **guided by McMillan and Conner's (2007) framework of social-cognitive predictors of health.**

Methods. We conducted a scoping review of research on social-cognitive and socio-ecological predictors of condom use in young people in SSA. The integrated model was developed based on the constructs from the review and using McMillan and Conner's framework as guide to classify the constructs and isolate the processes by which the constructs impact condom use.

Findings. Included studies (N=45) utilised constructs from seven individual-level social-cognitive theories and included multiple socio-ecological variables as predictors of condom use. The integrated model included dispositions to act as a proximal determinant of condom use which mediated the effect of four categories of social cognitive constructs on condom use: attitudes, control perceptions, norms, and self-representations.

Socio-ecological factors were classified into four categories: relational, individual differences, societal/structural, and community and peer influences. Each had direct and indirect effects on condom use in the model, reflecting the non-conscious and conscious pathways to action, respectively.

Discussion. We expect our integrated model to provide an evidence- and theory-based guide to future research examining the antecedents of condom use in young people in SSA. We also anticipate it will assist in developing targets for interventions that will be effective promoting condom use in this population.

Understanding and improving quality of life

15:30 - 17:00

15:30 - 17:00

Associations between sedentary behaviours and quality of life: a systematic review

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Background: The aim of the systematic review was to provide a synthesis of trials analyzing the associations between sedentary behaviors and health related quality of life.

Method: The electronic databases such as: PsycINFO, PsychArticle, Academic Search Complete, Health

Source: Nursing/Academic Edition, and MEDLINE were search for studies investigating the relationship between sedentary behaviors and quality of life indicators.

Findings: Among 25 studies included into systematic review: 21 were cross-sectional, 3 were longitudinal and one had the experimental design. The majority of studies (n=19) were conducted among adults, with 9 targeting cancer survivors and 4 enrolling patients with other diseases; the remaining 6 focused on healthy adults. Two studies were conducted among children with obesity and 4 among healthy adolescents . Only 4 studies used objective measurement of sedentary behavior. The majority of studies (84%) showed lower quality of life among people with higher levels of sedentary behaviors. Only 12% of trials reported no significant relation between sedentary behaviors and quality of life, with one study (4%) yielding inconclusive results.

Discussions: Any conclusions about the causal link associations higher levels of sedentary behaviors and lower quality of life scores are preliminary, as majority of the studies had cross-sectional design. Further longitudinal studies to examine the mechanism underlying this relationship are needed.

15:30 - 17:00

Development of a stress management behaviour model based on HAPA for Japanese high school students

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The purpose of this study was to develop a stress management behaviour model based on Health Action Process Approach (HAPA) that can be used to predict stress management behaviour of Japanese high school students.

The subjects are 314 Japanese high school students who were asked to answer a questionnaire, which was composed of socio-demographic and stress management behaviour question items based on HAPA. Exploratory factor analyses, reliability analyses and confirmatory factor analyses were conducted in order to develop Self-efficacy Scale, Outcome Expectancy Scale, Risk Perception Scale, Intention Scale, Planning Scale and Stress Management Behaviour Scale. Covariance structure analyses were performed to confirm the acceptability of the stress management behaviour model based on HAPA.

The results of the analyses showed that each of the six scales had one or two factor structure with acceptable structural validities and reliabilities and that the stress management behaviour model yielded acceptable fit indices. It is also found that the path coefficients from Risk Perception and Outcome Expectancy were positively associated with Stress Management Behaviour via Intention and Planning and that Self-efficacy was directly associated with Planning and Stress Management Behaviour.

The results above indicate that the stress management behaviour model can be useful in predicting the stress management behaviour of Japanese high school students, also implying that stress management intervention programs with a focus on awareness of stress related risks, understanding of the benefits of stress management and enhancement of confidence in coping with stress can be effective in promoting their stress management behaviour.

15:30 - 17:00

The factors influencing moderate intensity and strengthening activity intentions across the menopausal transition

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Background: Undertaking minimum levels of moderate intensity and strengthening activity has numerous health benefits particularly across the menopausal transition. However, the proportion of women meeting recommended levels declines across the life course with postmenopausal women least likely to be active. The aim of this study was to identify the factors influencing the decision to undertake moderate intensity and strengthening activities across the menopausal transition, using the Theory of Planned Behaviour (TPB) framework.

Methods: The sample comprised of 186 females (Mage = 47, SD = 9, age range: 30-64 years). A questionnaire assessed self-reported physical activity levels and TPB variables (affective/instrumental attitudes, injunctive/descriptive norms, self-efficacy/perceived behavioural control (PBC) and intention) for both modes of physical activity. Data was analysed using correlational analyses, Analysis of Variance and regression analyses.

Findings: The results showed that self-efficacy ($\beta = .578, p < .001$) was the strongest predictor of intentions to perform moderate intensity activity followed by affective attitudes ($\beta = .168, p < .007$) and descriptive norms ($\beta = .126, p < .027$). Menopausal status had a statistically significant effect on mean weights for affective attitude. However post hoc test indicated that this trend was just outside an acceptable significance level ($p = .062$). With regards to strengthening activity, self-efficacy was the strongest predictor of intentions ($\beta = .382, p < .001$) followed by affective attitudes ($\beta = .279, p < .001$).

Discussion: Future interventions to promote moderate intensity and strengthening activity within the target population should consider including active ingredients to increase self-efficacy, affective attitudes and descriptive norms.

15:30 - 17:00

Self-perceived cyberbullying of Spanish adolescents: underlying mechanisms

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Background: Being aware of the adolescents perceptions' on cyberbullying is one of the main factors that determine the real prevalence of this phenomenon and allows the adequacy of intervention programs. The objectives pursued in this study were: (a) to determine the perceptions adolescents have about cyberbullying; and (b) to analyse the influence of experiences of cybervictimization on the perception of cyberbullying and its various forms.

Methods: The sample consisted of 1753 adolescents (49.1% female; SD=.5) of 12-16 years in age (M=13.9; SD = 1.2). The instrument used to acquire the data was a questionnaire. Factor analysis was performed to reduce the number of variables to study and to determine whether the adolescents' definitions of cyberbullying varied according to their role in the different cyberbullying situations they themselves experience.

Findings: Of the 5 identifying criteria of cyberbullying, Spanish adolescents have recourse to just three: **intent to hurt** ($\alpha=.72$), **imbalance of power** ($\alpha=.74$), and **advertising** ($\alpha=.67$). Although the victims and aggressors allude to the same set of identifying criteria, the aggressors emphasize the imbalance of power criterion (.721) as against the intent to hurt. For the victims, the intentionality being the primary factor (.739), followed by advertising, while the imbalance of power is relegated to a background role (.572).

Discussion: The results also show that the design of prevention and intervention programs must stress the modification of the distorted perceptions that lead to the 'normalization' of anti-social behaviours as merely mechanisms of social interaction.

Promoting health, well-being, and health behaviour

15:30 - 17:00

15:30 - 17:00

Behavioural incentive interventions for health behaviour change in 5-18 year olds: systematic review and meta-analysis

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Background: Recent research has demonstrated the effectiveness of incentive schemes for health behaviour change in adults. However, little is known about the effectiveness of such schemes in children and adolescents.

Methods: Eight bibliographic databases were searched independently by two reviewers. Eligibility criteria included controlled trials using behavioural incentives (rewards provided contingent on successful performance of the target behaviour) as an intervention component for health behaviour change. Intervention effects (SMDs) were calculated and pooled by specific health behaviour, and overall, using a random effects model.

Findings: Twenty-three studies were included (n=7506 identified). There were promising findings that behavioural incentives may 1) encourage smoking abstinence, or reduce the number of cigarettes smoked (6/9 studies); 2) change eating behaviour (5/5 studies); 3) increase physical activity (7/9 studies). Overall, a small positive effect was calculated for health behaviour change immediate post-intervention (ES=0.22, 95% CI 0.08, **0.35**), and at **≥6 months follow-up** (ES=0.18, 95% CI -0.01, 0.38). Certain incentives (including financial and non-financial) had a greater effect (ES=0.55, 95% CI 0.12, 0.98) than studies with uncertain incentives such as lotteries and competitions (ES=0.17, 95% CI 0.05, 0.30), Non-financial incentives had a greater effect (ES=0.47, 95% CI 0.01, 0.93) than interventions with a financial incentive, lottery, or competition component (ES=0.19, 95% CI 0.01, 0.93).

Discussion: Findings suggest that incentive schemes used alone or as part of a multi-component intervention may encourage uptake and initiation of health behaviour change. However, further research is required to determine how interventions can then be adapted to facilitate maintained behaviour change.

15:30 - 17:00

Who benefits from a single-arm online intervention to improve physical activity? A longitudinal pilot study

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Treatment effects may vary in terms of participants' psychological prerequisites such as their levels of self-efficacy, planning, or action control. In the context of a three-country research collaboration, findings from a pilot study on physical activity are reported.

A single-arm online intervention was conducted to improve participants' physical activity and nutrition in Italy, Spain, and Greece (N=473; 63% women), including a follow-up assessment of n=87. Age ranged from 18 to 65 years (M=42.4, SD=10.4). Activity was assessed by the General Practice Physical Activity Questionnaire (GPPAQ) at two points in time. The question was which motivational characteristics (in terms of self-efficacy, coping planning, or action control) were associated with possible changes in activity levels.

Preliminary quantitative analyses yielded a significant overall increase in the GPPAQ indicator for men and women. Moreover, there were interactions between time and all three motivational characteristics on changes in GPPAQ ($p < .01$). Those with lower levels of self-efficacy, planning, or action control were found to have steeper slopes than those with higher levels. This was also replicated when collapsing all psychosocial variables (8 items) into two latent classes indicating low or high motivation.

Follow-up assessment is still ongoing. The intervention produced overall improvements in physical activity but self-efficacy, planning, and action control operated as moderators, indicating that those with lower motivational and self-regulatory prerequisites were able to gain more from the online **treatment**. **Individual differences in participants' readiness for change** need to be taken into account to gauge who would benefit most from a given treatment.

15:30 - 17:00

Acceptance and commitment-based approaches for promoting physical activity: a systematic review and narrative synthesis

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A systematic review of empirical studies that evaluated the efficacy of Acceptance and Commitment Therapy (ACT) to increase physical activity was conducted. The principle target outcome was engagement in physical activity or exercise. The main aim was to use systematic literature reviewing methods to provide a description of the current state of the evidence for ACT as a tool for this type of health promotion. Comprehensive searches of peer-reviewed literature to January 2016 were carried out using broad search criteria to maximise sensitivity. The identified literature was assessed again using specific criteria, independently applied by two reviewers. Subsequently, nine studies meeting the inclusion criteria were systematically evaluated for quality using the Effective Public Health Practice Project (EPHPP) quality assessment tool. Preliminary synthesis revealed population and methodological heterogeneity, which prevented the use of meta-analytical techniques.

A systematic narrative synthesis was therefore developed. Six of the nine studies reported statistically significant increased physical activity in participants exposed to ACT-based interventions. Two out of three studies randomising participants to either a health promoting programme or the same programme plus ACT, reported statistically significant between group differences. Two studies using waitlist controls reported moderate effect sizes for ACT. Studies reporting increases in physical activity at long term follow-up, showed evidence of access to intervention material over an extended period. The review concluded ACT-based interventions can impact positively on levels of physical activity. Recommendations for future research based on dose response and use of comparisons when used as controls were made.

15:30 - 17:00

Community intervention to recruit target audiences and enhance their physical activity in Japan

K. Takenaka¹, K. Konuma²¹Waseda University, Japan²Waseda university, Japan

Background: Around 20 million Japanese are recently suffering from or are likely to suffer from the metabolic syndrome. Although it is essential to exercise regularly to prevent the condition, the number of habitual exercisers has not been shown to increase. A more effective approach is needed to ensure positive behaviour change in community. The purpose of this program was: 1) to use various recruitment strategies to collect the target audience, and 2) to enhance physical activity as a habitual activity through the use of effective behaviour change education sent by mail.

Methods and Results: Community intervention involved approaching urban citizens and developing an intervention program to increase their number of steps through the use of a pedometer. As results through **some strategies increasing the target population's exposure to and contact points with the recruitment information**, 170 persons participated in the program. Information and handouts were traded for self-monitoring postcards after we had confirmed receipt of the postcards. Handouts consisted of 4 newsletters with a series of articles of behavior change education and motivational information. Although no difference was found in the mean number of steps, the mean numbers of high-intensity activity steps and durations revealed a significant difference between periods and the mean value of LDL cholesterol was significantly improved after the program.

Conclusions: Taking a commercial approach might be a suitable means of promoting participation and the use of various forms of media would be a powerful way to distribute information on behavior change techniques for community intervention.

15:30 - 17:00

Health behaviours in offshore workers: exploration of behavioural determinants using the Theoretical Domains Framework (TDF)

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¹Robert Gordon University, United Kingdom

²The Robert Gordon University, United Kingdom

Background: Despite being a fitness-screened workforce, reports have highlighted a rising prevalence of obesity and chronic conditions in offshore workers [OWs]. Taking ownership of health, by engaging in healthy behaviours, is critical for those working in remote and hostile environments. Using the TDF, this qualitative study sought to **explore OWs' health behaviours from the perspectives of OWs and remote healthcare practitioners [RHCPs]** to inform the development of behavioural intervention(s).

Methods: Sixteen OWs attending a training course, at a local facility, were recruited. Thirteen RHCPs who held membership with an independent academic organisation and had experience of working in the offshore industry were recruited to the study, via email, by the organisation's **secretary**. The TDF was used to develop a semi-structured interview schedule. Telephone interviews were conducted, recorded electronically and transcribed by the researcher. Transcripts were coded independently, by the researcher and a health psychologist, to identify theoretical domains and agreed on by consensus.

Results: Health-related behaviours perceived as requiring change included: alcohol consumption, diet and physical activity. TDF domains identified as behavioural determinants comprised: knowledge; beliefs about consequences; intentions; goals; memory, attention and decision processes; environmental context and resources; social influences; emotion, and behavioural regulation.

Conclusion: Three health behaviours were identified as requiring behaviour change. A number of behavioural determinants, influencing enactment of these key health behaviours, were identified. Given the diverse needs of the offshore population, implementation of an intervention targeting multiple behaviours, and addressing key behavioural determinants, is warranted.

15:30 - 17:00

TrainyourMind: enhancing executive functions among elementary school children to promote physical and mental well-being

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Background: Executive Functions (EF's) are higher order mental control functions that enable an individual to take reasoned action rather than relying on automatic pilot or impulses, especially when the latter is ill-advised in light of long-term physical and psychological well-being. Given the vital importance of these EF's and the fact that they are trainable, we endeavored to design a school-based intervention aiming to enhance EF's among nine to eleven year olds.

Methods/Design: The effects of our intervention Train your Mind (TyM) shall be rigorously investigated through an RCT with 800 children and an EF computer task battery, as well as questionnaires. Based on most recent literature, we opted for a holistic approach comprising five major components. The intervention in the RCT consists of 25 weeks and is mainly delivered by teachers, and partly online. The five components are: (1) focused exercise, (2) collective cognitive training, (3) socio-emotional development, (4) eHealth, and (5) individual cognitive training. Teachers' feedback helps shaping and ameliorating sub-components of TyM. This process is dynamic in nature, which makes the intervention itself constantly evolving. The goal is to deliver an effective, independent, cost-efficient, maintainable intervention-package. We will present the five components as they are currently implemented in the schools.

Discussion: TyM is a first of its kind intervention that ambitiously combines several main approaches and subdisciplines within psychology, in order to enhance EF's among elementary school children. Attempting to achieve broad transfer, strengthened EF's will lead to increased physical and mental well-being and better school performance.

15:30 - 17:00

Effectively influencing students' possible selves: a pilot study

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Background: Possible selves (PS) are representations of the self, and involve images of what people hope, expect, or fear to become in the future. The transition from high school to university is unique because many first year students become disconnected from the adolescent social circles that anchor their identities, and have to make decisions about their lives independently. We will ask first-year students to generate PS, and will investigate to what extent their PS influence academic achievements, lifestyle, and wellbeing. Specifically, we want to determine: a. whether a narrative approach, graphic approach, or mixed approach is most successful at producing vivid, accessible and realistic PS; b. whether the three methods have different effects on the outcomes; and c. whether possible effects are moderated by PS-characteristics.

Methods: 90 first year students will be asked to generate PS. Vividness, ease of recall, and reality of the PS will be assessed directly after PS-elicitation. Grades, lifestyle and wellbeing will be assessed before PS-elicitation and two months after.

Expected results: We expect that the mixed approach will render the best results.

Current stage of work: We are currently designing the study.

Discussion: This study will aid development of future PS interventions as a way to improve students' academic performance, health behaviors, and well-being. Such interventions might also help identity-building for students at a critical time in their lives. Lastly, PS interventions might allow students to plan their lives more effectively by basing life choices on where they see themselves in the future.

Theory-based approaches to facilitate behaviour change

15:30 - 17:00

15:30 - 17:00

Classroom-based healthy eating workshops: are targeted motivational and volitional techniques effective at facilitating behaviour change?

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Background: The research objective is to examine the effectiveness of two targeted, classroom-based workshops containing motivational and volitional behaviour change techniques at encouraging dietary behaviour change in primary school children.

Methods: A randomised controlled trial will be employed with three conditions: one workshop will utilise motivational techniques (information giving) and a second will combine motivational and volitional techniques (information giving and implementation intention planning). The third condition is a control comparison group. At least 52 participants, aged between seven and 11 years, will be recruited per condition. Two measures will assess intervention effectiveness: dietary behaviour (through the 'Day in the Life Questionnaire', a child-specific food diary) and psychological impact (e.g. attitudes and intentions) through a Theory of Planned Behaviour-based questionnaire. Measures will be administered at baseline, one month post-intervention and again three months later.

Expected Results: It is anticipated that exposure to workshop conditions will have a positive effect on psychological and behavioural outcomes in comparison to the control condition and including the additional volitional component to the workshop will have a greater impact on outcomes.

Current Stage of Work: The research has ethical approval. Baseline data collection is expected to commence during March 2016, with the workshops planned to be delivered during April 2016.

Discussion: If successful, the results can contribute to the development of effective classroom-based methods to establish positive dietary behaviour habits during childhood. The development of such habits can have a positive impact on future eating behaviour, thus helping to address the increasing threat of obesity.

15:30 - 17:00

Psychosocial intervention to promote fruit and vegetable intake among at-risk women: moderation by intention stability

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Background: Intention stability can influence implementation intentions' (II) efficacy to increase physical activity. The objective was to verify if this applies to an II intervention promoting fruit and vegetable intake among women at risk for gestational diabetes mellitus.

Methods: The intervention was a randomised controlled trial with 3- and 6-month follow-ups. Women were randomised to an II (n=24) or a question-behaviour effect (QBE, n=26) condition. Fruit and vegetable intake was measured using a validated questionnaire. Intention stability was operationalised as the absolute difference in mean scores of intention between 3 months and baseline and between 6 months and baseline. Participants whose intention differed (>0) between assessments were considered unstable intenders. Mixed model linear regression was used to perform the moderation analysis with participants specified as the random variable.

Findings: At baseline, the II and QBE groups were equivalent in terms of intention and vegetable intake ($p > 0.05$). At 3 and 6 months, the II group significantly increased its vegetable intake compared to baseline ($p = 0.0102$ and $p = 0.0223$, respectively). Intention instability was higher in the II compared to the QBE group at 3 months ($0.79 \cdot 0.87$ and $0.33 \cdot 0.37$, $p = 0.0313$), but not at 6 months ($0.51 \cdot 0.52$ and $0.36 \cdot 0.34$, $p = 0.2451$). There was a significant time \times intention stability interaction ($\beta = 0.77$, $p = 0.0354$), indicating that stable and unstable intenders differed in their vegetable intake across time. At 3 months, unstable intenders ($3.22 \cdot 1.29$ servings/day) had a higher vegetable intake compared to stable intenders ($2.66 \cdot 1.15$ servings/day).

Discussion: It seems unstable intenders would most benefit from a psychosocial intervention to improve vegetable intake.

15:30 - 17:00

Testing cognitive defusion and guided imagery as food craving reduction techniques in the field

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Background: Elaborated-Intrusion theory gives rise to two craving reduction techniques (cognitive defusion and guided imagery) that target specific stages of the food craving process. Extending upon previous research that supported their use in laboratory settings, the present study aims to test these techniques against a no-task control in the field.

Methods: Participants (aim n = 75, women aged 17-25) will keep an online food diary for 2 weeks (baseline). They will record information about their cravings (e.g., foods craved, triggers, intensity) and consumption, including meals and snacks. Participants will then be randomly allocated to three conditions (cognitive defusion, guided imagery or control). During the following 2-week period (intervention), participants in active conditions will use their respective technique every time they experience a food craving, and continue recording craving-related information in their online diaries.

Expected results: The effect of these techniques on food cravings and subsequent consumption will be analysed using a 3 (condition: cognitive defusion, guided imagery, control) x 2 (time: baseline, intervention) mixed-factorial ANOVA. It is predicted that the two techniques will reduce cravings and consumption relative to the no-task control.

Current stage of work: The first wave of data collection is scheduled to begin in March.

Discussion: To our knowledge, the present study is the first to compare cognitive defusion and guided imagery as craving reduction techniques in a field context, providing a more ecologically valid research setting.

Findings will offer insight into real-world applicability of these techniques to reduce the experience of food craving, and craving-related consumption.

15:30 - 17:00

'Addressing spirituality with healthy eating education works:' participants' experiences of a Christian weight management programme

R. Patel¹, D.D. Lycett¹, D.A. Coufopoulos², P.A. Turner¹

¹Coventry University, United Kingdom

²Edge Hill University, United Kingdom

Background: Obesity treatment is a high priority globally. Quantitative evidence suggests holistic approaches, which include a spiritual element are promising. Qualitative evidence which seeks to develop an understanding of why a spiritual element is important to participants in these programmes is very limited. Christian church-based interventions have been successful in the USA, but have never before been explored in the UK.

Objective: To explore participants' experience and acceptability of a Christian, church-based, healthy intuitive eating programme in the UK.

Methods:

An exploratory multi-method qualitative approach was used to collect data. Fifteen participants took part in semi-structured interviews after completing the programme. Qualitative data was analysed using thematic analysis and NVivo 10 software was used.

Findings: Deductive coding and thematic analysis demonstrated 3 key themes. (1) When freedom and food collide, (2) 'God's love as a catalyst for self-love, (3) 'Spirituality and education about healthy eating works'

Discussion: Participating in a Christian weight management programme was a unique but welcomed experience for the participants. Applying their faith to their existing struggles with food was not something they had previously considered, however participants' discourses suggested that this is a component they related well to, and suggested that this turned out to provide a new motivator for behaviour change.

15:30 - 17:00

Taste and see: a church-based, intuitive eating programme: preliminary results of a mixed methods study

R. Patel¹, D.D. Lycett¹, D.A. Coufopoulos², P.A. Turner¹

¹Coventry University, United Kingdom

²Edge Hill University, United Kingdom

Background: Obesity treatment is a high priority globally. Evidence suggests holistic approaches, which include a religious element, are promising. Much of this research is from the US but recent evidence suggests a similar need in the UK among those affiliated with the Christian and Catholic faiths.

Objective: To conduct a mixed-methods pre-post feasibility study of a 12week faith-based, healthy, intuitive eating programme, within a UK church.

Methods: 18 adults with BMI>25kg/m². Ethical approval by Coventry University Ethics Committee. Physical, psychological & spiritual outcomes were measured at baseline, 12weeks & are being measured at 6 months. Results analysed using intention to treat; baseline observation carried forward to input missing data. Qualitative data collected with semi-structured interviews.

Findings: 12 weeks: 17/18 participants completed. Small significant improvements in weight ((mean difference [95% confidence interval (CI)] -1.57kg [-2.85, -0.28]), QoL-VAS(11.72 [3.89, 19.55], mental well-being(6.72 [4.08, 9.36]), depression(-3.06 [-4.89, -1.22]) & anxiety(-4.11 [-6.06, -2.16]). The Three Factors Eating Questionnaire scores on restrained (19.14[9.99, 28.28]) & emotional eating (11.42 [1.01, 21.82]) were worse. Spiritual well-being (4.78 [-1.08, 10.63]) & religious love (0.39[-0.64, 1.41]) improved non-significantly. **Emerging themes of spirituality and overall experience:** 'I can take food issues to God' & 'God's love is a catalyst for self-love'.

Discussion: Early results are mainly positive however there is uncertainty due to the small sample. The preliminary findings of this study will be used to inform a large scale trial to evaluate the impact of such intervention.

15:30 - 17:00

The development of lasting impact: a theory-based concussion education programme

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Background: The aim of this paper is to describe the development of a theory- and evidence-based concussion education programme for coaches using the Capability, Opportunity, Motivations and Behaviours Model (COM-B model); Theoretical Domains Framework (TDF); and Behaviour Change Wheel (BCW) Framework.

Methods: Three sources of data were used to inform intervention development which included: (i) review of existing literature, (ii) a needs assessment survey, and (iii) pilot testing. The findings from all three sources of data were used to identify barriers to concussion identification and reporting, as well as preferred intervention content and mode of delivery. Subsequently, we identified Behaviour Change Techniques (BCTs) that were applicable to the intervention and then linked them to the intervention functions of the BCW. Finally, the BCTs were mapped to the TDF domains and corresponding Com-B model.

Findings: Content was developed and mapped to 24 BCTs and 7 functions of the BCW that may result in **behaviour change**. The most frequently utilised BCTs included 'provide information on consequences of behaviour to the target', 'environmental restructuring', and 'prompt identification as role model.' Intervention content was also representative of all components of the COM-B model, and to 12 of the 14 TDF domains.

Discussion: This paper demonstrates how the COM-B model, TDF, and BCW theoretical framework can be used simultaneously in the development of an injury prevention programme. Future work will evaluate the effectiveness of this intervention using a cluster randomised trial.

15:30 - 17:00

An evaluation of lasting impact: a concussion education programme for youth athletes

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Background: The aim of this study is to assess the immediate and short-term impact of a concussion education programme on athletes' intention to report concussion; and to explore the process of implementation and its' impact on the programme's outcomes.

Methods: This study will employ a cluster randomised control trial, with data collection at baseline (T0), immediately post-intervention (T1), and three-months after programme implementation (T2). The sample will include county-level Gaelic Games clubs (10 intervention clubs and 10 control clubs) in Connacht, Ireland and teams that compete at the U14 and U16 level. Using a range of structured questionnaires and qualitative measures, data will be captured on a number of the Theoretical Domain Framework (TDF) domains and programme fidelity.

Expected results: Preliminary results from the evaluation and issues with programme implementation will be presented. Results will explore differences in concussion reporting behaviours among the control and intervention groups at T0, T1, and T2.

Current stage of work: The intervention has been developed and piloted tested. Currently, clubs are being recruited to participate in this study. Subsequently, baseline data will be collected. Following baseline data collection, the intervention will be implemented and evaluated.

Discussion: Findings from this evaluation will be used to assess the utility of the Behaviour Change Wheel in programme development and will support the knowledge and practice of changing athletes' concussion reporting behaviours. Results from the process evaluation will assist in helping understand the context within which the programme was implemented and how these characteristics may affect programme fidelity.

Risk behaviours and health promotion

15:30 - 17:00

15:30 - 17:00

The school in the prevention of alcohol and drug abuse: a preliminary study

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Background. The school as a socializing agent has strong promotional tools of self-esteem and empowerment of the resilience of students. However, the school context may favor the harmful use of drugs by students when unknown and does not strengthen the protective factors to prevent involvement with alcohol and other drugs.

The study aimed to identify the conceptions of teachers about the risk factors and the school's own protection for the prevention of alcohol and other drugs among students of elementary and high school.

Methods. An exploratory research with qualitative design was carried out. The random sample was composed of 20 schools located in the federal capital of Brazil, that presented prevention projects within the 5th edition of the Teacher Training Course for Prevention of Alcohol and Drug Abuse developed by Program of Studies and Attention to Chemical Dependency of the University of Brasilia. Twenty prevention projects were analyzed in selected schools.

Results. The results show that educators have identified risk factors and protection categorized in the following units of analysis: physical and material aspects of school; school organization; school practice; school relations and internal and external social networks. The identified strong aspects were positive school relationships, school practice and school organization. The weaknesses were: the relationship with parents, with partner institutions of the school and the school environment that presents a situation of vulnerability to drug use due to the presence of trafficking.

Discussion. The results enable effectively implement of prevention projects in schools.

15:30 - 17:00

Substance use prevention in special education: effectiveness of the Dutch 'healthy school and drugs' intervention

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Introduction. This study assessed the effectiveness of an adaptation of the Dutch evidence-based substance use prevention intervention 'Healthy School & Drugs' (HSD), implemented nation-wide in regular secondary education, but now targeted to secondary Special Education. The multimodal program includes a series of 4 lessons supported with written materials and audiovisual tools, teacher training and support, and parental involvement. We also examined whether program effects were moderated by subtypes of SE schools.

Methods. In a quasi-experimental study design the HSD program was compared to usual curriculum. A total of 363 students ($M = 13.9$, $SD = 0.82$) from 13 Dutch secondary SE schools participated, recruited from several subtypes of schools: intellectual and physical disabilities, learning disabilities and developmental disorders, and behavioral and emotional disorders. Students were administered paper-and-pencil questionnaires at baseline and at 5 months post-treatment follow-up. Outcome measures included cognitive predictors (social influence, refusal self-efficacy, intention to smoke/drink), and behavioral outcomes (self-reported tobacco use and alcohol use).

Results. No main effects of the HSD program were found at follow-up on any of the outcome measures. Interaction and within-group analyses revealed small but significant adverse effects in SEB schools on alcohol intention and alcohol use.

Conclusion. The HSD program redesigned for use in Special Education was shown to be ineffective, and possibly even counter-effective among the subsample of students with emotional and behavioral disorders. This suggests that applying a universal prevention approach to this target group should be reconsidered.

15:30 - 17:00

Audit of smoking cessation service at Hammersmith and Fulham's Improving Access to Psychological Therapies (IAPT)

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Background: To audit the effectiveness of smoking cessation support being offered by Psychological Wellbeing Practitioners within an IAPT service and, to explore staff and client's attitudes towards this mode of delivery.

Methods: Collection and analysis of data on the IAPTus clinical database over a 6 month period, assessing number of clients identified as smokers (N71); number referred for smoking cessation support (N26) and the outcomes of such referrals. Client survey completed with clients who accessed therapy but declined smoking cessation support (N9), and anonymous staff surveys administered via surveymonkey (N9).

Findings: 13 clients attended at least one smoking cessation support session (3 successful quitters; 5 dropped out of treatment; 2 clients moved out of borough; 2 referred on for support for cannabis use; 1 still accessing support). 2 out of the 3 successful quitters had completed a course of CBT prior to accessing smoking cessation support. Staff survey revealed ambivalence toward smoking cessation support being embedded within an IAPT service and, low confidence in explaining the service to clients. Client survey indicated a positive attitude toward smoking cessation being offered in an IAPT setting, however clients were not ready to quit smoking at the time support was offered.

Discussion: Smoking Cessation support may be particularly beneficial at the end of therapy, when clients feel more prepared to address their smoking. Staff training and regular promotion of smoking cessation may help address staff ambivalence regarding this service being offered within IAPT. Follow up audit recommended to assess effectiveness of these implementations.

15:30 - 17:00

Health interventions for black and minority ethnic men who have sex with men: an evaluation

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Background: Black and minority ethnic (BME) men who have sex with men (MSM) constitute a group at high risk of HIV/STI acquisition. Commissioned by Public Health England (PHE), this is the first evaluation to examine the efficacy of behavioural change health interventions targeting BME MSM in the UK. The evaluated interventions were delivered by three organisations – NAZ, The Quest, and GMI Partnership. The aim of these interventions was to promote psychological wellbeing and positive sexual health behaviours.

Method: A mixed methods approach was employed to assess the efficacy of the interventions. The quantitative evaluation tool consisting of 9 measures of key variables was administered to 71 individuals before and after their participation in the interventions. T-test analyses tested for changes between pre- and post-measures. The qualitative component consisted of 5 qualitative focus groups with participants. Qualitative thematic analysis explored the overarching patterns in participants' reported wellbeing and sexual health behaviours.

Findings: There were improvements to psychological wellbeing ($p < 0.05$), identity authenticity ($p < 0.05$) and attitudes towards alcohol use ($p < 0.05$). These variables have been linked to sexual risk-taking behaviours. There was little evidence that the interventions produced measurable changes to current or intended engagement in sexual behaviours, although two of the interventions did lead to decreased engagement in chemsex.

Discussion: Quantitative and qualitative data suggest improvements in psychological wellbeing and related constructs. We recommend further follow-up research to determine potential long-term effects. Future interventions should focus on a culturally sensitive approach and on helping participants to develop skills for adopting healthier behaviours.

15:30 - 17:00

Exploring the knowledge, attitudes and behaviours of university students regarding STI screening

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Background: The study aims to understand the relationship between knowledge, awareness, behaviours regarding Sexually Transmitted Infection (STI) testing among University students in North-East Scotland and test the effectiveness of an action planning intervention.

Research Questions

1. Which psychological and social factors predict University students' past testing and intentions to attend STI Screening?
2. For students who intend to attend STI Screening in the next month, does completing an action plan increase likelihood of reporting having attended one month later?

Methods: Cross-sectional survey with an independent measures experimental element. Participants will be students at Aberdeen and Robert Gordon Universities. Sample Size, 768. Outcome measures include past STI Screening behaviour, intention to attend STI Screening and self-reported attendance at STI screening in a follow-up survey one month later. Relationships between different variables and STI screening behaviours will be investigated using Chi-squared test and multiple regression.. A three-way log linear analysis will be used to analyse the effect of action planning on STI testing.

Expected results: Greater understanding of psychosocial predictors of past testing and intention to attend STI screening, including STI knowledge, psychological constructs e.g. attitude, subjective norms, self-efficacy, and demographics e.g. gender. Students who complete an action plan will be more likely to report attending STI screening one month later.

Current stage of work: Ethical approval obtained, data collection to commence from 15/03/16.

Discussion: Results from this study will provide valuable insights in the development of effective communication of sexual health information to young people and potentially effective planning interventions.

15:30 - 17:00

Thoughts and feelings about the reality of dating violence in Spanish adolescents

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Background: The relation between adolescent dating violence and lifestyle is important to consider because of the serious consequences for adolescents, primarily relating with health and psychological problems. The aim of this study was to determine the level of self-perceived abuse and the feelings of fear and entrapment that exist among adolescents in a dating relationship.

Methods: The sample consisted of 1325 adolescents (53.1% female; SD=.5) of 12-16 years in age (M=13.7; SD = 1.1). Two questionnaires were applied: CUVINO (Dating Violence Questionnaire) and adolescents lifestyles. The 42 items are clustered into eight factors that represent eight forms of abuse in dating relationships: In our study, alpha values ranged between .61 – in the Instrumental Violence factor – and .80 – in the Humiliation factor.

Findings: Results showed that 83% of participants did not feel abused by their boyfriend or girlfriend; yet, 13.2% reported having been afraid and 29.7% reported having felt trapped in the relationship at some point. Although physical violence was not commonly endorsed, there were instances when adolescents reported slapping their partners; these episodes were usually out of frustration related to suspicions of cheating. Also, the results show that adolescents who use drugs and alcohol are more violent behavior toward their partners (.632).

Discussion: In relationships where there is ongoing violence and substance use, more targeted programs may be necessary. Given the association of these experiences, it will be important to change the current practice of health programming to raise awareness among teens of how risks are interrelated.

15:30 - 17:00

REPLACE2: Community-based intervention development and pilot evaluation addressing FGM in Europe

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Background: An estimated 500 000 women in Europe have been subject to Female Genital Mutilation (FGM). Every year, 180 000 more women and girls are at risk. Health consequences can be severe, even fatal. Interventions to address FGM focus on awareness-raising, lack a theoretical basis, and are seldom evaluated. This research aimed to update, trial and evaluate the REPLACE cyclic framework for addressing FGM drawing on systematic behaviour change intervention development frameworks at individual and community levels.

Methods: The updated REPLACE cyclic framework was applied to community-based intervention development in five European FGM affected communities. Mixed methods were applied in evaluation including pre-post questionnaires and focus groups. Data were collected from 96 intervention participants (total project reach exceeded 500). t-tests were applied to questionnaire data and thematic analysis to qualitative data.

Findings: Targets for change and therefore findings varied by intervention and community, with evidence of a **positive change in some target beliefs (e.g. significant increase in the belief 'FGM is not required by Islam' by Dutch Somalis [t(df=21)=-2.852, p=.01]).** Focus group data reflected strengthened beliefs, and showed evidence that community members were better able to talk in-depth and with confidence about ending FGM in their communities.

Discussion: This is the first attempt to provide and evaluate a systematic approach to developing and evaluating participatory, community-focussed interventions drawing on theory and evidence from behaviour change addressing FGM. Findings are promising for making progress to end this harmful traditional practice. **REPLACE adopters' feedback will support development and improvement of the framework.**

15:30 - 17:00

Predictors of bowel scope (flexible sigmoidoscopy) screening knowledge: findings from a retrospective survey

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Background: Nearly 6 in 10 people do not accept their invitation to participate in the new Bowel Scope (Flexible Sigmoidoscopy) Screening programme (BSSP). In this study we investigate predictors of screening knowledge in previous BSS invitees.

Method: Individuals invited to attend BSS between March 2013 and February 2015 were identified through GP records (n = 3227) and sent a questionnaire assessing screening knowledge (9 item scale), engagement with information and attendance. Multivariate regression was used to identify predictors of knowledge.

Findings: 1477 (45.8%) completed questionnaires were returned. Of the 1366 (92.5%) suitable for analysis, the majority were female (52.6%), married or cohabiting (78.8%), White (91.7%), fell within the least deprived SES group (77.0%) and had read the delivered information about BSS (87.3%) and attended their appointment (80.8%). Knowledge scores were generally low (m = 5.08; range = 0-9), but lower among non-attenders (4.45) than attenders (5.23; p = <0.001), and higher in those who had read the information (m = 5.12) than those who did not (m = 4.47; p = <0.001). Mean knowledge scores were socially graded (ranging from 5.21 in high SES to 4.37 in low SES groups; p<0.001). Regression analysis confirmed that attendance, reading the provided BSS information and SES all independently predicted knowledge scores.

Discussion: We found BSS knowledge to be low among people recently invited, particularly among those who decided not to attend. The social gradient in knowledge suggests information materials need to be more accessible in order to avoid potential SES inequalities in participation.

Patient-centred healthcare

15:30 - 17:00

15:30 - 17:00

Sexuality in patients with autism: how do educational and paramedical staff deal with it?

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Background: Confronted by inappropriate intimate behaviours, mental health caregivers tend to approach sexuality only when it becomes embarrassing. The aim of this study was to explore how educational and paramedical staff manage the sexual behaviours of patients with Autism Spectrum Disorder (ASD) and their associated roles, difficulties and requests, in order to provide recommendations to improve interventions in this area.

Methods: 60 mental health caregivers (85% women) working with children and adolescents (63%) or adults (37%) diagnosed with ASD in 10 institutions in the Paris area were asked to answer a 1-time multiple-choice questions survey. They reported their levels of self-efficacy and skills to manage sexual behaviours, as well as their perception of institutional orientation and the importance given to this matter. We conducted descriptive analyses to describe the situation professional caregivers face **with regard to their patients' sexuality.**

Findings: **96.6% of participants reported they already had to deal with patients' sexual behaviours (72% on a weekly basis; 63% failed to manage it). 80% reported that supporting patients' sexuality was not an objective for the institution. 44% felt comfortable supporting patients' sexuality, despite 83% never received specific training. Furthermore, 84% thought they lacked knowledge in the management of patients' sexuality.**

Discussion: Our results show that institutions still neglect ASD patients' sexuality, although mental health caregivers frequently encounter this issue. Explicit institutional objectives and specific trainings could improve **support in patients' sexuality.**

15:30 - 17:00

Readability of web-based patient education materials from the Polish Ministry of Health

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Research on readability of patient education materials has shown that the majority of health-care texts do not meet the requirements for plain language (Stossel et al., 2012). Creating texts which are not suitable for readers leads to social exclusion of people with low levels of education. It also has a detrimental influence on **patients'** health and health behaviours (Vastag, 2004).

The primary goal of this research is to assess the readability of patient materials published online by the Polish Ministry of Health. The research consists of two interrelated parts. In the first part, 200 patient education texts, each of 300 words, will be analysed with the use of a linguistic tool ('Jasnopis') which allows to indicate text difficulty and other linguistic features. So far, about 100 texts have been examined and described in detail.

In the second stage of the research, 30 educational texts will be chosen and distributed among 500 readers, especially with low and middle levels of education, in order to assess their reading comprehension.

Furthermore, simplified texts will be included in the study – it is expected that text modifications will significantly improve reading comprehension. Finally, the participants will be asked about their opinions on the potential impact of readability of web-based education materials on the image of public health care services as well as **the patients' willingness to broaden their health knowledge**.

The results of the research might raise the awareness of Polish policy-makers about the need to simplify education materials dedicated to patients.

15:30 - 17:00

Links between perceptions of the health-care professionals and their patient education practices: a systematic review

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Background: Two decades after its definition by the World Health Organisation, Patient Education implementation remains a challenge. It is worth trying to understand why it remains the case. Perceptions might offer this opportunity, as links between perceptions and practices are actually well-known on the theoretical level. This literature review aims to investigate links between perceptions and Patient Education practices among health-care professionals.

Methods: A systematic review was conducted using PubMed, PsycINFO and Scopus. Search terms were “**perceptions**”, patient education, professional practices and health-care professionals.

Findings: Three research equations were considered in order to overcome the lack of a common term for “**perceptions**”. **21 studies were included: 20 cross-sectional designs and a quasi-experimental one.** Overall findings supported the existence of links between practices and perceptions, either correlational or causal.

Causality was generally considered in one single direction: perceptions affecting practices. Four types of perceptions were identified as linked with practices. Practices were self-reported, concerned individual education and were mostly assessed by prevalence measurements. When analysing **practices’ quality**, studies highlighted their changing nature and the central role of perceptions of oneself and of the patient. However, variables were generally poorly described.

Discussion: This review allows suggesting quality criteria for further research: cover Patient Education’s entire spectrum, operationalize variables, explore singular **practices**, **measure practices’ quality**, elaborate designs enabling conclusions on causation and take into account a bidirectional perspective. Discussions should be encouraged among professionals on the nature of quality in Patient Education practices, especially on how the “**patient-centred**” dimension is achieved.

15:30 - 17:00

Supporting staff and patients to move towards collaborative care; integration of behavioural health consultants

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Background: Empathetic and collaborative interactions are core skills in delivering behavioural interventions. Objectives were to develop and evaluate the role of the Behavioural Health Consultant (BHC) within an integrated primary care team, which aimed to support the team towards working collaboratively with patients, in addition to the BHC working directly with patients, with a view to improve population health.

Methods: Based on the “Nuka” practice of integrated primary care in South Central Foundation in Alaska and Health Psychology expertise, the BHC role was developed as part of a pilot in a primary care. A pre-post evaluation of patients seen by the BHC was undertaken examining lifestyle, depression (PHQ-9) and wellbeing (Warwick Edinburgh Mental Wellbeing Scale). The impact of the BHC on interactions between staff and patients was measured using community-level data on lifestyle (e.g. BMI)

What went wrong: Post-intervention data were only available for 2 of the 22 patients seen by the BHC over 3 months. Measures of change in patients the team were seeing was not possible since the pilot finished early.

Possible solutions: Post-intervention questionnaires could be delivered using several options (e.g. post, email, phone app), and an incentive used to support completion.

Conclusions: Situating the BHC as part of the integrated primary care team reduced barriers to access for behavioural interventions, and involved team development in collaborative care. The impact of that intervention on individual or community/population health was not able to be explored, therefore further research and evaluation is required to fully test this model.

15:30 - 17:00

What matters most to the therapeutic relationship in neurorehabilitation?

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Background: There is growing recognition of the role that therapeutic relationships have on outcome in neurorehabilitation. However, conceptual understanding of the therapeutic relationship within this context is limited. This results in a reliance on theories generated in psychotherapy which may lack fit in this setting. The aim of this research was to explore what matters most in the therapeutic relationship from the perspective of patients accessing neurorehabilitation services.

Methods: Qualitative Descriptive methodology using semi-structured interviews. Participants were n=15 people currently receiving rehabilitation following a neurological event. Purposeful sampling was used to capture a diversity of perspectives. Data were analysed using conventional content analysis.

Findings: The overriding concept relevant to the therapeutic relationship in neurorehabilitation was Do the right thing for me. This was underpinned by four interrelated themes: 1) Show me you know how; 2) Be my professional; 3) Connect with me as a person; 4) Value me and my contribution. Together, they created space for the patient to achieve more than they thought possible, referred to as the “X-factor”.

Discussion: This research has advanced our understanding of what matters most to the therapeutic relationship in a neurorehabilitation setting. The themes provide a conceptual basis which could underpin the development of a measure, as well as inform strategies for practice. Health psychologists working in rehabilitation settings may have a role in supporting practitioners to develop a relational approach to practice, enabling them to tap into the true potential of the therapeutic relationship as a covariate of outcome.

15:30 - 17:00

The communication of benign biopsy results in the NHS breast screening programme

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Background: The national service specification for breast screening states that results should be given in-person¹. Although this guidance is mostly followed for malignant results, some centres deliver benign biopsy results by telephone. Some patients may prefer receiving their results by telephone, as it may reduce wait time and potentially minimise distress. However, telephone results may not be as extensive as in-person encounters, which could leave patients with a lower understanding of their results.

The aim of this project is to explore patient understanding, anxiety and preferences in relation to different communication methods in the delivery of benign biopsy results.

Methods: The main study will be a survey of women, recruited during their initial assessment clinic at twelve English breast screening centres. Women with a B2 diagnosis will be followed up with a repeat postal questionnaire. Multiple regressions, adjusted for confounders, will be used to measure whether the method of communication used (telephone/in-person) affects the women's levels of understanding and anxiety. Important confounders for consideration are individual level variables such as age, and centre level variables such as urban/rural setting.

Results will be used to inform policy guidelines for the NHS Breast Screening programme.

Current stage of work: Literature review and discussing method design with policy makers.

Implications for health psychology: This project uses knowledge about Health Psychology and communication in healthcare to bridge the gap between theory and implementation. It is important for health psychologists to be involved in research that influences policy.

15:30 - 17:00

How psychological science can inform the quality of health communication in midwifery practice

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Background: Midwives play a key role in the provision of Down syndrome information to help women make informed decisions to accept or reject antenatal screening. Despite this, deficits have been found in women's understanding. We have developed a framework, entitled Measuring Understanding of Screening Information and Communication (MUSIC), which investigates the cognitive ability (abstract vs. concrete, Need for Cognition) of women, and midwives' verbal communication of antenatal screening, to assess how these influence women's understanding of screening information.

Methods: A mixed methods design encompassed two components; audio-recorded consultations and quantitative survey of the clients. Data were collected May 2015-April 2016. First antenatal appointments were audio-recorded and transcribed. Questionnaires were distributed to women following their appointment. Data were analysed against MUSIC using multiple regression and Pearson's correlation.

Findings: To date, 14 midwives and 73 women have been recruited. Preliminary analysis reveals a positive correlation between women's cognitive ability, Need for Cognition and their understanding of Down syndrome screening information ($p < 0.01$). Further analysis will reveal components of midwife communication which influence women's understanding of Down syndrome screening.

Discussion: Cognitive ability is related to women's understanding of Down syndrome screening. The findings could be used to inform midwifery practice by providing insight into: whether, to what extent and how women's cognitive ability influences their understanding of Down syndrome screening information; the importance of delivering information tailored to cognitive ability, and by highlighting areas of communication that are most effective in communicating screening information. Implications for other areas of health communication will be explored.

Training healthcare professionals

15:30 - 17:00

15:30 - 17:00

Seeing new opportunities to help smokers quit: optometrist delivered behavioural support interventions

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Background: Smoking represents a risk factor for various eye conditions. Smoking cessation interventions have demonstrated effectiveness when delivered by numerous healthcare professionals. Optometrists are well placed in the community to advise a wide population of otherwise healthy smokers to quit, yet remain relatively neglected in smoking cessation research and policy. In this study, two web-based, national surveys investigated smoking cessation training and current practice in UK optometrists.

Methods: Survey 1: All UK undergraduate optometry schools (n=9) completed a survey of curricular coverage and assessment related to smoking cessation support. Survey 2: Registered, practising optometrists (n=390) completed a survey covering current smoking cessation practice, training, and barriers to advising patients on quitting.

Results: Survey 1: All optometry schools reported dedicating limited time (<3 hours) to teaching smoking cessation, focusing primarily on teaching harmful effects of smoking (89%). Only one (11%) school provided practical skills training for delivering smoking cessation interventions, and formally assessed students on smoking cessation competences. Survey 2: A third (34%) of optometrists reported routinely asking patients about tobacco use. A minority reported advising smokers to quit (20%), and assessing patient motivation to quit (10%). Even fewer (3%) offer smokers assistance to quit (i.e. via referral to dedicated services) or advise on smoking cessation medications (2%). Key barriers to advising on cessation included insufficient knowledge/training (81%) and time (65%).

Conclusions: Substantial gaps exist in UK optometrists' current smoking cessation training and practice. Evidence-based training resources are needed to support the introduction of smoking cessation interventions into routine optometry practice.

15:30 - 17:00

Teaching communication in medicine, what psychologists are doing and how we can be better

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Background: Psychologists often teach communication skills to medical students and residents, however, little is known about the process by which skills are taught. This study explored how communication skills are taught in Family Medicine residency programs.

Methods: Faculty members in U.S. Family Medicine residencies were contacted via email and professional organization list serves to complete an online survey addressing their communication curriculum. 32% of Family Medicine residency training sites responded.

Findings: The most commonly utilized teaching technique in communication education was lectures (90% of respondents used lecture) followed by direct observation of resident-patient communication (78%), small group work (72%), and video review of resident-patient encounters (71%). Most respondents indicated that they used a combination of 6 teaching methods (24.4%), and 3% of respondents indicated that they used one teaching method for communication education.

The majority of U.S. Family Medicine programs utilized the Patient Centered Communication model to teach communication skills (34%). Nearly a quarter of respondents indicated that they did not use any model to guide their communication education curriculum (24%). Other communication models used included Common Ground (7%), Kalamazoo (5%), and Motivational Interviewing (5%).

Discussion: Results suggest that education providers are incorporating active learning techniques such as direct observation of resident-patient encounters into their communication education curriculum. However, wellresearched communication models (e.g., Kalamazoo) are not commonly utilized in residency communication education, and many programs do not use any model at all. Results are compared to best practices and recommendations for health psychologists in medical education are provided.

15:30 - 17:00

Effective use of feedback for professional behaviour change and quality improvement in healthcare

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Background: This programme of research draws upon a number of case study feedback interventions to investigate and explore the psychological processes through which feedback contributes to professional behaviour change and quality improvement in healthcare.

Methods: Case studies were selected based on operational need and opportunity. Semi-structured interviews were conducted with end users in order to take account of effectiveness for different stakeholders, acceptability to end users and unintended consequences. Analyses began inductively drawing upon the principles of grounded theory and proceeded to deductive reasoning where social psychological models, theories of behaviour change and the over-arching research questions were used to structure and interpret the analyses.

Findings: Qualitative analysis of a large amount of interview data revealed a number of characteristics and psychological processes that can support the use of feedback for professional behaviour change in healthcare. A model for understanding these mechanisms will be presented. The integrated feedback and behaviour model provides an integrative understanding of how the desired output of professional behaviour change is influenced by intermediary outcomes (individual/group level learning and broader culture change) which themselves are the result of a number of psychological processes prompted by specific design features of feedback interventions.

Discussion: This programme of research demonstrates that providing feedback is a complex, social, quality improvement intervention that cannot be fully explained by a simple, deterministic model. An improved understanding of these learning processes, along with recognition of complexity and context, will increase the contribution of feedback to professional behaviour change and quality improvement in healthcare.

15:30 - 17:00

Role congruence in pharmacists' provision of weight loss advice to overweight patients with cardiovascular disease

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Background: Research suggests that pharmacists have low self-efficacy to facilitate patient lifestyle behaviour change. Our qualitative work identified that pharmacists felt less equipped to give patients with cardiovascular disease (CVD) weight loss advice than advice about medication adherence. The present study aimed to identify the theoretical predictors of UK pharmacists' intentions to give weight loss advice to overweight patients with CVD.

Methods: A cross-sectional design was used. Questionnaires based on qualitative findings and a framework of health professional behaviour (an augmented version of the Theory of Planned Behaviour) were sent to a stratified sample of 1,200 community pharmacies in England.

Findings: Questionnaires were returned by 231 participants. Pharmacists had lower intentions to give weight loss advice than medication adherence advice ($p < 0.001$), and reported having given less weight loss advice than medication adherence advice in the past ($p < 0.001$). Hierarchical regression models predicted 38.2% of the variance in intention to give weight loss advice. The strongest predictor was role congruence (pharmacists' perception of whether the behaviour was an important part of their role). Pharmacists perceived the provision of weight loss advice to overweight patients with CVD as less role congruent than giving medication adherence advice ($p < 0.001$). Self-efficacy was not a predictor of intention to give weight loss or medication adherence advice once role congruency was included.

Discussion: Role congruence was the strongest predictor of intention to give weight loss advice. The relationship between role congruence, self-efficacy and pharmacists' provision of advice to patients merits further investigation in order to understand actual behaviour.

15:30 - 17:00

Efficacy of a coaching psychology-based intervention for public health nurses

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Background: Public health nurses (PHNs) play a pivotal role in community health and welfare where high quality professional services are required. In order to promote healthy behaviour of service users, PHNs need to **recognise users' individual differences and uncover their needs**. Further, PHNs must exhibit communication skills to coordinate collaboration with all parties involved. Recently, application of coaching psychology to human resource development has attracted attention. This study evaluated the efficacy of a coaching psychology-based intervention to enhance PHNs' coaching attitudes and skills.

Methods: Sixteen PHNs in a regional city in Japan participated in three two-hour exercise-oriented coaching sessions. The intervention consisted of exercises for listening, questioning to elicit **coachee's potential, goalsetting**, and giving recognition. Current level of practice and self-efficacy in coaching attitudes and skills, and social and emotional control skills were measured at baseline and post-intervention.

Findings: Ten participants completed the pre- and post-intervention survey. Results demonstrated that the scores of all five subscales of self-efficacy in coaching attitudes and skills significantly increased at postintervention ($p < .05$). However, overall and the **'personal strength use'** subscale scores of social and emotional control skills only showed a tendency towards statistical significance ($p < .10$).

Discussion: This brief intervention may have efficacy in enhancing coaching attitudes and skills whereas it appears to be insufficient to improve communication skills. Further research should examine the intervention content and continuous evaluation of intervention effectiveness. Particular consideration needs to be given to designing a brief intervention that helps PHNs pressed for time effectively acquire coaching skills.

15:30 - 17:00

Preparing undergraduate pharmacists for practice: supporting patient adherence to medication

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Background: Up to 50% of medication for long-term conditions are not taken as prescribed and there is increasing emphasis on the role of the pharmacist in supporting adherence. The aim of this study was to design and evaluate a novel teaching programme to illustrate the challenges of taking daily medication.

Methods: A mixed methods design to capture first-year students' adherence to a one week 'mock medicine' activity (using Tic-Tacs™ sweets) with five different dosing regimens. School research ethics approval was obtained for thematic analysis of student feedback and calculation of percentage adherence. Mann-Whitney U and Kruskal Wallis tests were used to assess differences in adherence with regards to gender and dosing using SPSS v20c.

Findings: Of the 115 students who took part, 76 (66%) returned a 'diary proforma' where 75% reported 80% or more adherence. There were no statistical differences in adherence for gender or dosing (from 1 to 4 times daily). Reasons for non-adherence were mainly related to unintentional (i.e. time of day, dosing schedule, day of week, convenience, routine, swallowing, taste, availability of medicine and tiredness). Resources such as setting phone alarms were utilised to overcome some of these barriers. Intentional reasons for non-adherence were low perceived importance and lack of symptoms. The value gained from this activity in empathising with patients was a strong emerging theme.

Discussion: This teaching activity was successful in preparing students for their future roles in supporting patients in medicine-taking by providing them with the opportunity to 'step in to the patient's shoes'.

15:30 - 17:00

Questions as intervention: differences between solution-focused and problem-focused questions

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Communication is one of the **most important resources** in health professional and patients' relationships. In conversations between them, questions can be considered as interventions. Solution-Focused questions promote conversations on resources, goals, and small steps to reaching them; their aim is to move clients in the direction of building their own solutions. This study is part of a larger study and its aim is to evaluate the differences between two groups, Problem-Focused questions vs Solution-Focused questions in affect, selfefficacy and goal attainment.

Method: 107 nursing students of a Spanish university described a real-life problem that they wanted to solve and were then randomly assigned to either a solution-focused or a problemfocused questions condition. Students completed a set of measures that assessed positive and negative affect, self-efficacy, goal attainment and action steps to move toward their goal.

Results: Solution-focused questions produced a significantly increase in self-efficacy $F(1, 105) = 12.85$ $p = .001$ ($\eta^2 = .11$), and action steps ($T(105) = -3.343$ $p = .001$), and a significantly decrease in negative affect $F(1, 105) = 4.095$ $p = .046$ ($\eta^2 = .038$) than problem-focused questions.

Conclusion: These results show that Solution-Focused questions could be effective in the conversations with the patients to facilitate their illness adaptation.

Methods and measurement tools

15:30 - 17:00

15:30 - 17:00

Measuring fatigue in haemodialysis patients: psychometric properties of the Chalder Fatigue Questionnaire (CFQ)

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Background: Fatigue is common in haemodialysis (HD) patients, leading to poorer quality of life and patient outcomes. Given the complex and subjective nature of fatigue, and its overlap with sleep disturbances and depression, its measurement represents a challenge. Great variability exists in fatigue instruments used in this patient population, with little informed agreement on what scale would be optimal. Our aim was to evaluate the psychometric properties of the 11-item Chalder Fatigue Questionnaire (CFQ) in HD patients, including an assessment of the validity of the factor structure, internal-reliability, and discriminant validity with respect to psychological distress and comorbidity.

Methods: Data were evaluated for psychometric analysis from a published study investigating clinical and psychosocial correlates of fatigue among 174 HD patients. Confirmatory factor analysis was used to determine the factor structure using Weighted Least-Squares with Mean and Variance adjustment (WLSMV) estimation.

Findings: Mental and physical fatigue factors correlated highly ($r=.70$, $p<.01$) suggesting it is difficult to differentiate such symptoms. A bi-factor model, consisting of one general fatigue factor and two smaller factors (mental and physical fatigue), had good fit ($CFI>.95$; $TLI>.95$). The CFQ had high internal consistency and showed a moderate correlation with distress and a small association with comorbidity.

Discussion: The CFQ can be summed to a total fatigue severity score, representing a composite of physical and mental fatigue, and has good psychometric properties. Taking into consideration its good psychometric properties and brief length, the CFQ should be used in future studies interested in measuring fatigue in HD patients.

15:30 - 17:00

Utilising the induced change blindness paradigm to investigate implicit food processing in restrained eaters

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Background: Implicit processing might help us to understand health behaviours such as impulsivity, selfregulation and the behaviour intention gap. The Induced Change Blindness (ICB) paradigm is used to investigate the cognitive processes that underpin a range of human behaviours. Research in health behaviours showed a significant advantage for the processing of alcohol-related objects in problem drinkers when compared to social and non-drinkers. This project utilised ICB to investigate the implicit processing of high restraint vs low restraint eaters when presented with images of high and low fat foods.

Design: Twenty-two participants took part in a two (high and low restraint) by 10 (type of target object changed: 3 one change and 7 two change conditions) mixed design experiment with the number of cycles till change detection as the DV. A two by 10 mixed ANOVA with post hoc comparison was carried out. Findings: A two by 10 ANOVA yielded a significant main effect of restraint group ($F(1, 20) = 65.77, p < 0.001, \eta^2 = 0.767$) and a significant main effect for target object changed ($F(9, 180) = 30.10, p < 0.001, \eta^2 = 0.601$), those effects were qualified by a significant interaction between the factors ($F(9, 180) = 14.23, p < 0.001, \eta^2 = 0.416$).

Discussion: The data shows that high restraint eaters are significantly faster at spotting, simple and complex changes to high fat foods, when compared to low restraint eaters. These data add to that literature but offer a new method of assessing the implicit processing involved food choices.

15:30 - 17:00

Investigating different measures of interoception

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Background: Interoceptive sensitivity (IS) is altered in several health conditions and has been found to relate to a more intense experience of emotions. However, the assessment of IS is problematic, as the results of the different measures suggest significant differences between the methods. We aimed to compare common objective methods with subjective assessments, and examine their relation to emotional regulation and anxiety.

Methods: 33 undergraduate university students underwent two types of heartbeat detection tasks: (1) tracking and (2) discrimination. They completed the Multidimensional Assessment of Interoceptive Awareness (MAIA), the Body Awareness Questionnaire (BAQ), and the Somatosensory Amplification Scale (SSAS). Trait anxiety (STAI) and emotion regulation (DERS) were also measured.

Findings: No significant correlation between the results of the two detection tasks was found. The results of the discrimination method did not correlate with the total score of any of the body awareness related assessments (MAIA, BAQ and SSAS). Interoception, as assessed by the tracking method, correlated with BAQ ($r=.36$, $p=0.04$), and two subscales of MAIA (Not-Worrying: $r=.36$, $p=.05$, and Trusting: $r=.41$, $p=.02$). Scores of emotion regulation and trait anxiety did not correlate with any measures of interoception.

Discussion: The results suggest that discrimination and tracking methods of heartbeat detection measure different abilities. IS, when assessed with the tracking method, seems to be related to a trusting of one's bodily sensations, which is not accompanied by emotional distress and anxiety.

15:30 - 17:00

Perception of body mass in Malaysia: an initial pilot of a Body Image Scale (BIS)

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²Ministry of Health Malaysia, Malaysia

Background: More than 60% of Malaysia's population is overweight or obese. The Body Image Scale (BIS) has not before been used as a research tool in Malaysia. The aim of this study is to compare an objective measurement of BMI with a self-reported one, using the BIS (gender specific body images that link to BMI categories) and validate the use of the BIS as proxy for BMI.

Method: Mixed method with purposeful sampling of adults with history of engaging in weight management (WM) (N=46). Self-reported BMI using BIS was compared to objective BMI. Level of match between actual BMI and BIS perceived position was feedback to participants and reactions were obtained to ascertain reasons for perceptual differences.

Findings: 26 were currently engaged in WM. Of those: 15 were able to match correctly perceived BMI via BIS with actual BMI. ; 10 perceived their BMI lower than actual (underestimated), and; one overestimated BMI. Of those not currently on WM (n=20): 3 were able to match BMI correctly with BIS (these were pondering on engaging in WM), and; 17 underestimated. Reactions revealed that participants stated that they did not look as fat as in the images in the BIS.

Conclusion: Being currently actively engaged in WM seems to lead to better match. Important to collect more data on the use of the BIS in Malaysia, this time in a general population, this is crucial to conclude on the use of BIS as a tool to assess BMI in surveys.

15:30 - 17:00

Combining photographs with interviews in the context of phenomenological research around chronic illness: an evaluation

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Background: Health psychologists' adoption of contemporary qualitative research methodologies in recent times has enabled the rise of multiple integrative approaches applicable to the study of long-term conditions. Synthesis of visual and verbal qualitative methods simultaneously presents both potential opportunities and challenges, for the researcher and the researched. Drawing on our experiences of two research studies, both of which explore lived experiences of chronic illnesses in marginalised populations from a critical health psychology perspective, we consider some of the advantages and potential pitfalls of fusing qualitative methodologies.

Methods: Both studies combine the collection and analysis of verbal and visual data; phenomenologically oriented semistructured interviews together with photographs authored by participants themselves. One study focuses on 16 LGBT persons living with multiple sclerosis, while the second investigates 31 British men's lived experiences of breast cancer. The visual component is informed by Photovoice methodology. All data are analysed using Interpretative Phenomenological Analysis.

Findings: Combining the verbal and visual data forms has presented several challenges in both research studies, including epistemological, practical and ethical issues, concerns around 'methodolatry', participant comfort and engagement, and best practice for analysing the data. Despite such challenges, our experiences show methodological synergy is both possible and advantageous; allowing for richer understandings by enabling participants to 'give voice' beyond talk.

Discussion: We discuss some of the benefits and shortcomings of combining verbal and visual data when investigating chronic illnesses. We conclude with recommendations for how qualitative health psychologists might further refine integrative approaches which combine verbal and visual data.

15:30 - 17:00

Critical discursive psychology as methodology for exploring ambivalence around the HPV vaccine amongst marginalised groups

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³Northeastern, United States

Background: Public vaccinations rely on individual acceptance and uptake. The Human Papilloma Virus (HPV) vaccine was introduced internationally to protect against common strands of the HPV virus which can lead to cervical cancer, and other male cancers. Preadolescent females are primarily targeted by vaccine campaigns, although some countries have included males. Ethnicity, intellectual disability and gender remain unexplored in the HPV literature. Qualitative, critical discursive methodologies are underutilised in public health psychology and can provide rich socio-cultural understandings around vaccine ambivalence. This paper presents methodological insights around the contributions of a qualitative, critical discursive methodology for understandings around the HPV vaccine by marginalised groups.

Method: Critical discursive psychology informed the design and analysis for a larger study which focused on **young people's (aged 16-26)** constructions of the HPV vaccine in Scotland. Young people from either a Black Minority Ethnic (BME) background or with an intellectual disability took part in qualitative focus group discussions (n=59). Methodological challenges included recruitment, access and ethical issues.

Findings: Use of critical discursive psychology yielded insights into how marginalisation of vulnerable groups occurs and is co-constructed in discourse. Findings centred on a number of apparent discursive tensions around the potential risk to self versus other and estrangement from the vaccine.

Discussion: Public health psychology can contribute to vaccination interventions through the contribution of qualitative, critical discursive methodologies, despite methodological challenges. This approach yielded rich, complex data about HPV vaccine ambivalence. We discuss the implications in view of current public health debates.

Clinical studies in implementation research

15:30 - 17:00

15:30 - 17:00

Physiotherapists' fidelity to delivery of a theory-driven group based selfmanagement programme: behaviour change techniques

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Background: Investigating fidelity to behaviour change techniques (BCTs) beyond traditional absence/presence may help determine effective intervention components. Physiotherapists were trained to deliver the theory-based Self-management of Osteoarthritis and Low back pain through Activity and Skills (SOLAS) intervention, which incorporates 31 BCTs. This study aims to assess **physiotherapists' fidelity to the SOLAS intervention BCTs** and the feasibility of delivery across classes and individual physiotherapist.

Physiotherapist's fidelity is hypothesized to be high (>80%), with variability in individual BCT delivery.

Methods: Within the SOLAS cluster randomized controlled feasibility trial (Hurley et al., 2016) eight physiotherapists were audio-recorded delivering intervention classes (n=48). Transcripts of classes (50%; n=24) are being double coded according to the intervention manual, using Behaviour Change Technique Taxonomy v1.

Inter-rater reliability will be established using percentage agreement of identified BCTs. Fidelity will be assessed by examining the proportion of BCTs specified in the manual that were delivered in intervention classes, by physiotherapist and BCT type. Feasibility will be established by exploring the frequency of BCT use and the extent to which BCTs were fully or partially delivered.

Expected results: Previous BCT research suggests fidelity will be high. Exploring frequency of BCT use and partial delivery is expected to identify BCTs which are difficult to deliver and therefore, may require further emphasis in future practitioner training and research.

Current stage: Data coding is ongoing

Discussion: This study will improve implementation literature by reporting fidelity in greater depth than previous research by evaluating the extent to which BCTs are fully or partially delivered in a group self-management intervention.

15:30 - 17:00

Preventing pressure ulcers in nursing homes using a care bundle

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Background: Pressure ulcers are localised injuries to the skin, underlying tissue, and bone; and can cause pain, impacting health-related quality of life. Care bundles incorporate 3-5 nursing practices, and are used to improve adherence to evidence-based guidelines. This project aims to design, implement, and assess a pressure ulcer prevention care bundle in nursing homes.

Methods: A mixed methods design involving a systematic review, semi-structured interviews, a priority-setting workshop, and a feasibility study. Nursing home and community-based nurses involved in the care of people at risk of developing pressure ulcers will be purposively recruited to face-to-face interviews exploring the barriers and facilitators of evidence-based practice. Using the Theoretical Domains Framework, a deductive thematic analysis will ensue. Qualitative data will be triangulated with systematic review findings, NICE guidelines, and proceedings from a priority-setting workshop. This will culminate in a feasibility study in three nursing homes.

Expected results: Identifying the theoretical domains associated with best practice, and appropriate behaviour change strategies, behaviour change among care staff will be facilitated. Fewer pressure ulcers are expected to develop as they will be identified earlier, and monitored and documented more effectively.

Current stage of work: The project has been designed, and ethics approvals granted. Face-to-face interviews are complete; and the systematic review data are being extracted.

Discussion: Care bundles, and the implementation processes, appear to have limited reference to theory. Thus, it is important to demonstrate how health psychology theory can be used across disciplines to facilitate the uptake of evidence-based nursing practices.

15:30 - 17:00

Investigating the fidelity of a community-based physical activity intervention

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Background: Despite advances in the field, evaluation of fidelity of physical activity interventions is still rarely undertaken. The aims of this study is to a) assess observed adherence to planned behaviour change techniques (BCTs) as specified in the intervention protocol by practitioners delivering the Live Active physical activity intervention, b) compare observed and planned adherence, c) compare observed and self-reported adherence and d) assess variation of delivered BCTs across practitioners.

Methods: Video recordings of at least 12 baseline consultations between practitioner and patient will be produced, content analysed and coded using a fidelity checklist developed a priori from the intervention protocol. Two raters will double code all video recordings. Observed adherence will be compared to planned and self-reported practitioner adherence. Self-reported adherence will be assessed by asking practitioners to fill in the fidelity checklist after the consultation.

Expected results: Differences between planned and observed adherence to BCTs and between observed and self-reported adherence are expected, in line with previous studies. Given that only the baseline consultation is being evaluated, BCTs to facilitate initial behaviour change (e.g., goal setting) are expected to be present more frequently than other techniques.

Current stage of work: Fidelity checklist is currently being developed by the main author and practitioners are being recruited to take part in the study.

Discussion: Evaluating fidelity of interventions as delivered in practice is crucial for understanding factors contributing to, or hindering, intervention efficacy. Such analyses can help refine interventions so that they better fit the delivery context.

15:30 - 17:00

Barriers to and facilitators for referral to blended internet-based depression treatment in primary care

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Theory: Major Depression with an estimated lifetime prevalence of 13% is frequently managed in primary care. Guidelines recommend medication and/or psychotherapy. However, general practitioners only report high rates of self-confidence for medication and patients often remain untreated or are confronted with long waiting lists for psychotherapy. Internet-based interventions have shown to be effective in treating depression and can potentially overcome the limitations of traditional treatment services. However treatment referral rates of patients to internet-based treatments from GPs are often low and implementation in primary care seems to be hampered with difficulties. The aim of this study is to identify general practitioner's perceived barriers to and facilitators for referring patients to blended internet-based psychotherapy for depression.

Method: Semi-structured interviews will be conducted with general practitioners involved in a RCT trial on blended care (10 internet-based + 5 f2f psychological sessions) in Germany (E-Compared). Interview questions will be based on a theoretical framework (Normalisation Process Theory) as well as clinical expertise and will address experiences of general practitioners with referring patients to a short-time internetbased depression treatment. Existing standard routines for diagnosing, treating and referring patients will be explored and obstacles as well as facilitators for referral rates identified. Interviews will be recorded, transcribed verbatim and analysed using content analysis.

Results: Description of generated themes and categories is planned.

Current stage of work: Development of the interview guide for the interviews in April 2016.

Conclusions: Derivation of strategies to overcome barriers to referrals enables the implementation of blended treatment in primary care.

15:30 - 17:00

Real time suspected suicide early alert system: a case study approach

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²Durham County Council, United Kingdom

³Durham Constabulary, United Kingdom

Background: The aim of this study was to conduct an evaluation of a police led real time suspected suicide surveillance system, including the offer of bereavement support, compared with an existing coroner led system.

Methodology: The time taken for a death to be logged as a suspected suicide using both strategies between October 2014 and September 2015 were compared. Uptake of bereavement support during the pilot strategy was compared to the previous three years. Descriptive statistics were used to illustrate differences. A focus group and two interviews were held with key stakeholders to explore barriers and facilitators to the police led real time suspected suicide surveillance strategy; all of which were transcribed verbatim and analysed using applied thematic analysis.

Findings: Suspected suicides were logged via the police system three days quicker than via the coroner system, ensuring immediate access to support, however 22% of deaths were missed via the police system. Support services noted a 95% increase in clients during the pilot strategy. The focus group results indicated that emphasis needs to be placed on how to correctly log deaths as suspected suicides; whilst support service interviews indicated that there was a marked increase in referrals into their services.

Discussion: A police led real time suspected suicide surveillance has the potential to inform partnership activity almost immediately. However, in the future there needs to be complete buy in from police to ensure that no deaths are incorrectly logged. Support services must be prepared for an increased demand on their services.

Friday, 26 August

17:00 - 18:00 | GORDON SUITE

From personal health data to population health improvement: new data, new insights and new challenges

Professor Kevin Patrick, Family Medicine and Public Health, UC San Diego School of Medicine, USA

Influences on health, illness and wellbeing are many including genetics, the microbiome, healthcare, health behaviors, the environment and larger social and economic factors. Research on these issues has traditionally been accomplished with a “divide and conquer” mentality with specialists focused on increasingly narrow domains with the implicit assumption that a coherent whole will emerge that will pull everything together. This has yet to happen but is increasingly needed by policy makers who make decisions about investing limited resources to maximize population health outcomes. This presentation will speak to some of the new forms of personal health data and analytical strategies that could address this situation. It will also cover the many challenges that may stand in the way.

9:00 - 10:30 | CROMBIE B SUITE

Symposium: Goal management in chronic illness – from assessment to intervention

Y. Ciere¹, N. Stefanic², S. Van Damme³, R. Arends⁴, J. Fleer⁵

¹University Medical Center Groningen, Netherlands

²University of Sydney, Australia

³Ghent University, Belgium

⁴University of Twente, Netherlands

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Aims: The aims of this symposium are to:

1. Present the latest empirical insights on the topic of goal management in the context of chronic illness.
2. Advance research on goal management by bringing together findings from studies in patients with different chronic conditions and using different research methodology.
3. Familiarize the audience with commonly used methods for assessing goal management and their strengths and limitations.
4. Generate new ideas about how to improve research on goal management, in particular the assessment of goal management.

Rationale: Goals are at the heart of many health psychological theories and interventions. Over the past decade, there has been increasing awareness of the relevance of goal management in the adaptation to chronic illness. Yet, assessing goal management remains a challenging endeavour. This conference offers a distinct opportunity to share ideas on how to further goal research by improving the assessment of goal management.

Summary: Goal management has been identified as a central mechanism in the adaptation to chronic health conditions. In this symposium, we bring together the latest empirical insights into goal management in four different chronic conditions and discuss directions for future research. First, four speakers from three different countries present findings of quantitative and qualitative studies in which they examined: (1) how breast cancer patients cope with personal goal disturbance across the six months post-surgery (2) how personal goals are managed in the context of chronic headache, (3) if flexible goal adjustment protects quality of life in patients with multiple sclerosis (4) how a goal management intervention affects well-being in arthritis patients. Second, we discuss challenges in the assessment of goal management and share ideas on how current assessment methods could be improved.

9:00 - 9:15

Coping with personal goal disturbance in the context of breast cancer: key findings and implications

N. Stefanic¹¹University of Sydney, Australia

Background: The diagnosis and treatment of breast cancer presents unique challenges and demands that can disrupt or completely block the pursuit of important personal goals. Previous research has documented the use of goal-related coping strategies among cancer patients. This prospective qualitative study sought to gain further insight into the nature of adaptive and maladaptive coping with personal goal disturbance across the six months following surgery for breast cancer.

Methods: Semi-structured interviews were conducted with 32 female non-metastatic breast cancer patients at two, four and six months post-surgery. A novel situational assessment method captured goal-specific sources of interference and coping responses over time. Thematic and cross-case analytic techniques were utilised to characterise adaptive and maladaptive response patterns.

Findings: Participants exhibited four types of responses to personal goal interference – assimilative coping, accommodative coping, informed waiting, and passive responses. There was evidence of both adaptive (i.e. minimised interference and continued goal pursuit following coping response) and maladaptive (i.e. ongoing interference and blocked goal pursuit following coping response) response patterns over time. Facilitators and barriers to adaptive goal-related coping were also identified.

Discussion: The nature and efficacy of coping with personal goal disturbance varied across important personal goals and over time among this sample of breast cancer patients. The novel situational assessment and analysis method afforded insight into adaptive and maladaptive coping responses to concrete instances of goal disturbance. Benefits and challenges of utilising this measurement approach in future investigations of goal-related coping in cancer and other illness contexts will be discussed.

9:15 - 9:30

How do patients with chronic headache manage their personal goals? – a qualitative study

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¹University Medical Center Groningen, Netherlands

²University of Twente, Netherlands

Background: A chronic headache disorder poses many limitations to the pursuit and attainment of personal goals. Self-regulation theories suggest that effective goal-management may help patients to keep pursuing goals and maintain well-being despite these limitations. The aim of this qualitative study was to gain insight into the use of goal management strategies in the context of chronic headache.

Methods: In depth interviews were conducted with 20 patients with chronic headache. Data were coded and analysed following the Hutter-Hennink Qualitative Research Cycle. Deductive codes were derived from the Dual Process Model (DPM), Motivational Theory of life-span Development (MTD) and the model of Selection, Optimization and Compensation (SOC). Thematic analysis was used to inductively identify themes that are not covered by theory.

Findings: CH patients report a chronic lack of resources (e.g., time, energy). To be able to pursue multiple goals, they report using a combination of assimilative (e.g., prioritizing goals, using medication) and accommodative (e.g., giving up goals) strategies. A good balance between the two seems to be imperative to maintaining health and well-being in the context of CH. Patients indicate to obtain this balance through a continuous and dynamic process of monitoring goals and resources, accepting limitations, and making conscious decisions about which goals to pursue.

Discussion: The current study gives insight into the complexity of goal management in the context of CH and highlights the relevance of meta-regulatory processes. The complex everyday dynamics of goal management are currently not adequately captured by existing assessment methods.

9:30 - 9:45

How to cope with multiple sclerosis: goal adjustment or persistence?

S. Van Damme¹, J. Debruyne²¹Ghent University, Belgium²Ghent University Hospital, Belgium

Background: According to the Dual Process Model of coping, flexible goal adjustment (FGA) may be a protective factor in chronic illness whereas tenacious goal pursuit (TGP) is considered maladaptive. The present study aimed to investigate the role of these factors in quality of life (QOL) in patients with Multiple Sclerosis (MS). We hypothesized that FGA and acceptance would be associated with better QOL, and that both constructs would significantly reduce the association between disease severity and QOL.

Methods: A sample of 120 patients with MS was recruited. They completed validated questionnaires assessing QOL (physical functioning, psychological functioning, psychological distress), acceptance, FGA, and TGP. All hypotheses were tested by linear regression analyses.

Findings: Acceptance significantly accounted for variance in all three indexes of quality of life (all $\beta > 0.20$, $p < .05$), beyond the effects of demographic and illness characteristics. The role of goal regulation style was less clear. FGA significantly accounted for psychological wellbeing only ($\beta = 0.21$, $p < .05$). Surprisingly, TGP predicted better psychological functioning ($\beta = 0.19$, $p < .05$) and less psychological distress ($\beta = -0.19$, $p < .05$).

No support was found for the hypothesis that acceptance and FGA would moderate the relation between illness severity and quality of life.

Discussion: The findings suggest the potential importance of acceptance in understanding MS patients' quality of life, although its hypothesized protective function could not be confirmed. Further conceptual work on goal regulation style and acceptance is needed, as well as prospective work investigating their causal status.

9:45 - 10:00

Goal management intervention for polyarthritis patients with mild depressive symptoms: results from a quasi-experimental study

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Background: People have to manage a chronic disease most of the time outside of the health-care system; therefore interventions that provide skills to live with the disease in daily life are essential. Purpose of this study was to establish whether an intervention based on goal management is effective in decreasing depressive symptoms and increasing adaptation in patients with polyarthritis.

Methods: Eighty-five persons with polyarthritis and mild depressive symptoms participated in the group-based '**Right on Target**' with measurements at baseline and 6 months follow-up. Participants practice the flexible use of goal management competencies (goal maintenance, goal adjustment, goal disengagement and goal reengagement). A quasi-experimental design was applied in which the reference group consisted of 151 participants of an observational study. Primary outcome was depression; secondary outcomes anxiety, purpose in life, positive affect and satisfaction with participation. Mediating variables were goal management strategies and arthritis self-efficacy. Linear mixed model procedure was applied to evaluate changes in outcomes.

Findings: No improvement was found for depressive symptoms. Positive affect improved in the intervention group mediated by an increase in goal adjustment. No changes were found for the other secondary outcomes, while goal maintenance decreased and self-efficacy for other symptoms increased in the intervention group.

Discussion: This study indicates the value of improving the management of personal threatened goals of people with polyarthritis and showed that especially facilitating goal adjustment and downgrading goal tenacity are potentially helpful. The present study provides a small but promising direction towards greater wellbeing for patients with polyarthritis.

9:00 - 10:30 | GORDON A SUITE

Symposium: Risk communication and behaviour - in context of genetic and personalised information

A. Haukkala¹, D. French², M. Gamp³, A.M. Plass⁴, T. Marteau⁵, D. Hevey⁶

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Aims:

- to present state-of-art evidence on whether and when risk information has effect on behaviour.
- to demonstrate how risk perception is related to behaviour in different settings.
- to discuss how different genomic risk information could be used in the most appropriate way in health promotion and health services.

Rationale: Among policy makers and lay people, there is a strong belief that communicating health risks to people will have positive impact on their health behaviour. However, research evidence has indicated to the contrary, and that in certain situations, informing about even high actual risks does not lead to behaviour change. The presentations of this symposium will provide an overview on the current evidence on risk information and behaviour change, and present suggestions how risk communication could be improved to make an impact in health promotion and health care settings.

Summary: The first presentation examines how risk perception of contagious disease is related to social behaviour using social network analyses. Next talk investigates, using meta-analysis, whether DNA-based risk information affects behaviour change. This is extended in next presentation to all personalized risk information, using systematic reviews. The fourth presentation compares two approaches to communicate autosomal heritable disease risk among Lynch syndrome families and how these can improve screening behaviour. In the last presentation, attitudes and risk perceptions for preconception carrier screening is examined in population-based survey.

9:00 - 9:15

Contagious risk and social precautionary withdrawal behaviour

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Background: Humans are social animals rendering social relations utterly important. However, in cases of contagious diseases (e.g., flu), social contact also poses a risk to our health. Thus, this study aimed to investigate precautionary illness-prevention strategies from a social network perspective.

Methods: Every second week during the first semester, 100 Psychology freshmen indicated their flu risk perception, whether they had been sick during the last week, and their active friendships within their freshmen network.

Results: Social network analysis yielded that participants with high risk perception nominated fewer friends ($B = -0.10$; $OR = 0.90$; 95% CI [0.83 - 0.98]) and were more likely to be sick ($B = 0.26$; $OR = 1.30$; 95% CI [1.08 - 1.56]) at the following time point.

Conclusions: In accordance with the concept of the 'behavioural immune system' participants with high flu risk perception displayed a social precautionary withdrawal behaviour. However, the relative accuracy in their risk perception indicates that reduced social activity might be an illusory control strategy for illness prevention.

9:15 - 9:30

Impact of communicating genetic risk estimates on risk-reducing health behaviour: systematic review with meta-analysis

T. Marteau¹, G. Hollands¹¹Behaviour and Health Research Unit, University of Cambridge, United Kingdom

Background: DNA-based disease risk information is becoming widely available. Expectations are high that communicating this information motivates behaviour change to reduce risk. The objective of this review was to update an earlier Cochrane review assessing the impact of communicating genetic risk estimates on risk-reducing health behaviours.

Methods: Systematic review with meta-analysis, using Cochrane methods. We assessed risk of bias for each included study and quality of evidence for each behavioural outcome. We searched five electronic databases including MEDLINE, Embase, and PsycINFO, and conducted backward and forward citation searches. We included randomised controlled trials involving adults in which one group received personalised DNA-based disease risk estimates for diseases for which the risk could be reduced by behaviour change.

Findings: We examined 10,515 abstracts and included 18 studies, 11 more than our previous review. Meta-analysis revealed no statistically significant effects of communicating DNA-based risk estimates on smoking cessation (OR 0.92, 95% CI 0.63,1.35, n=2663, p = 0.67), physical activity (SMD -0.03, 95% CI -0.13,0.08, n = 1704, p=0.62) or diet (SMD 0.12, 95% CI -0.00,0.24, n = 1784, p = 0.05). There were also no effects on any other behaviours), on motivation to change behaviour, and no adverse effects, including depression and anxiety.

Discussion: Expectations that communicating DNA-based risk estimates changes behaviour are not supported by existing evidence. These results do not support use of genetic testing or the search for risk-conferring gene variants for common complex diseases on the basis that they motivate risk-reducing behaviour.

9:30 - 9:45

Can communicating personalized disease risk promote healthy behaviour change? A systematic review of systematic reviews

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Background: The assessment and communication of disease risk that is personalised to the individual is currently happening on a large scale. Despite this, it is not clear how best to communicate this personalised risk information to bring about behaviour change, despite several systematic reviews of RCTs in this area. The aim of the present research is to systematically identify, evaluate and synthesise the findings of these systematic reviews.

Methods: This systematic review of systematic reviews followed published guidance. A search of four databases from 2008-2016 yielded 3402 citations. Following a two-stage screening procedure with good reliability, nine systematic reviews were identified.

Findings: The number of participants included in nine reviews varied from 784 to 6673, but several studies appeared in multiple systematic reviews. Methods of personalising risk feedback included biomedical test results, genetic testing, noninvasive imaging, and estimation from risk algorithms. Most reviews considered several behaviours but four focussed solely on smoking cessation. The reviews were generally high quality: six reviews had AMSTAR scores of at least nine (of 11 criteria). The key finding was the general lack of impact on behaviour of personalised risk communication across reviews. Effects were most promising for visual feedback of images, albeit with inconsistent effects.

Discussion: Presenting personalised risk information on its own does not produce much change in behaviour. Future research in this area should determine which additional intervention components are likely to facilitate effects of risk communication on behaviour. Alternatively personalised risk information may not usefully add to these additional intervention components.

9:45 - 10:00

Informing cancer risk via index patients or direct healthcare contacts - challenges for risk communication

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Background: Risk information of heritable but actionable cancers like Lynch syndrome (LS) is usually communicated through family-mediated approach (FMA) via index-patient. Register information in 2015 indicates that 54% of carriers' children have not taken genetic test for LS. Half of non-tested are adults and may be developing a life-threatening disease which could be prevented with regular surveillance. We will compare two approaches to communicate risk information.

Methods: In study 1 (FMA), we approached all carriers with children (n= 248) asking how they have shared the risk information with offspring. In study 2, we contacted directly (DCA) with the help of LS research register all known high-risk LS family members who had not taken the test earlier in 2003 (n=286, of which 51% consenting).

Findings: In FMA study, only six out of 248 parents indicated that they did not have a plan to inform their adult children. Of the 440 children informed, only 5 had reported to their parents that they will not take the test. In DCA study, 97% reported that they knew someone with cancer in the family and 74% were aware of the heightened cancer risk in their family. Common reason for not taking the test were mainly related to procrastination.

Conclusions: Discrepancy between two studies reveal that risk information alone does not lead to genetic testing even in high-risk situation. According to direct contact approach, there is need to identify additional strategies for risk communication that lower the gap between intention and behaviour.

10:00 - 10:15

Preconception carrier screening in the Netherlands: high societal support, low perceived risk

A.M. Plass¹, E. Meeuwen²¹NIVEL, Netherlands²Netherlands

Background: In the Netherlands no national program for preconception carrier screening exists. Since the beginning of this millennium many studies showed that various societal groups were keen to welcome such a program into Dutch society. Healthcare professionals too were found to be positive. Despite this, a preconception screening program has not been implemented. In order to complement the lack of necessary evidence we investigated the opinion of the general Dutch population about offering preconception screening to the entire Dutch population as standard care.

Methods: a short structured questionnaire was send to 1600 members of the NIVEL Dutch Healthcare Consumer Panel, representing the general Dutch population, asking after attitude towards preconception screening, willingness to participate, costs, and risk perception.

Results: 803 people filled out the questionnaire (52% males, 33% reproductive age group). They were positive towards implementing preconception screening into Dutch society, describing this as good, useful and progress. They felt it might prevent future parents from serious grief, and would not increase anxiety nor the feeling that the birth of a child with a genetic disorder is unacceptable. However, only 18% believed themselves to be a carrier of any genetic disorder.

Discussion: Even though the general Dutch population was found to be highly positive regarding the introduction of a preconception screening program as standard care, only very few expressed the intention to participate in such a program, since most participants did not perceive themselves at risk for being a carrier of any genetic disorder.

9:00 - 10:30 | GORDON B SUITE

Symposium: Systematic reviews of behaviour change interventions: using BCT taxonomies for evidence synthesis

M. Fredrix¹, M.Y. Tang², M. Marques³, E. Olander⁴, F. Lorencatto⁴, J. Mc Sharry⁵

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Rationale: Increasing numbers of published behaviour change interventions has created a growing body of evidence to support behaviour change. To inform future interventions and support the translation of research into practice, evidence synthesis through systematic reviews is crucial. Until recently, systematic reviews of behaviour change interventions were limited by the lack of shared language to describe content, specifically the techniques that lead to behaviour change. However, over the last few years, a number of standardised taxonomies of behaviour change techniques (BCTs) have been published. This year's EHPS conference, 'Behaviour-change: Making an impact on health and health services' is a well-timed opportunity to discuss examples of evidence synthesis using BCT taxonomies and to reflect on challenges and future developments in this area.

Aims:

- To showcase systematic reviews of behaviour change interventions across behaviours and populations
- To describe the use of BCT taxonomies in synthesising evidence
- To outline possible limitations and challenges of using BCT taxonomies
- To consider future developments in the synthesis of behaviour change interventions.

Summary : The symposium will consist of five oral presentations reporting systematic reviews that have used BCT taxonomies to describe the content of behaviour change interventions. Milou Fredrix will present on the effectiveness of goal setting interventions to improve health outcomes in diabetes. **Mei Yee Tang's presentation will focus on self-efficacy in the initiation of physical activity in clinical Samples.** Marta Marques will discuss behavioural digital interventions for weight loss and maintenance. Ellinor Olander will describe the effectiveness of physical activity interventions in pregnancy. Finally, Fabiana Lorencatto will discuss using a BCT taxonomy to code sedentary behaviour reduction interventions.

The discussion will provide an opportunity to reflect on the advantages and challenges of using BCT taxonomies for evidence synthesis and to consider future developments in the synthesis of behaviour change interventions.

9:00 - 9:15

Goal-setting as a behaviour change technique in diabetes selfmanagement: a systematic review of intervention studies

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Background: Diabetes self-management requires patients to engage in a range of complex behaviours. Self-management is often sub-optimal, leading to illness complications or mortality. Intervention programmes have been developed to improve diabetes self-management. Goal-setting is a widely used component of behaviour change interventions in diabetes. However, the effects of goal-setting on diabetes outcomes remain inconclusive. This study aims to identify which goal-setting behaviour change techniques (BCTs) are effective in improving outcomes in diabetes patients.

Methods: Five databases were searched in 2015 to identify intervention studies, targeting diabetic control, which incorporated goal setting as a core component. Identified papers were double-screened for inclusion. Intervention content of included studies was coded for goal setting techniques using the BCT Taxonomy v1. An analysis was conducted to see which goal-setting BCTs are most frequently used and effective in improving behavioural, clinical, and health outcomes.

Findings: Database searches identified 16040 citations. Title/ abstract screening with an inter-rater reliability of $k = 0.75$ led to 49 studies being screened at full text for inclusion. There was significant heterogeneity in intervention approaches in the identified studies. Improvements in diabetes-related self-efficacy, dietary intake, physical activity, and A1c were observed in some but not all studies. Effectiveness on patient outcomes was analysed per BCT and varied across techniques.

Discussion: The BCT Taxonomy v1 identifies nine goal-setting and planning BCTs. Using this taxonomy in this review allowed the identification of effective goal-setting BCTs. More systematic research is needed to determine the conditions and specific behaviours for which goal-setting BCTs are most effective.

9:15 - 9:30

Self-efficacy in the initiation of physical activity in clinical samples: a systematic review with meta-analysis

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Background: Effective behaviour change techniques (BCTs) for changing self-efficacy and physical activity in healthy, obese, and older adults have been identified, but not in samples defined by clinical condition (e.g. people with cancer). This review aimed to identify which BCTs within interventions are the most effective for initiating self-efficacy and physical activity changes in clinical samples compared with non-clinical samples.

Methods: A systematic review of 162 randomised trials (non-clinical=101; clinical=61) identified 185 comparisons (non-clinical=120; clinical=65) which reported changes in self-efficacy. Intervention content was coded using the BCT Taxonomy v1 (BCTTv1). Meta-analyses and moderator analyses examined whether the presence and absence of individual BCTs in interventions were associated with effect size changes for self-efficacy and physical activity.

Findings: For self-efficacy, larger intervention effects were found for clinical ($d=.359$; $CI:.26-.46$) than for nonclinical ($d=.191$; $CI:.13-.26$) groups. Information about emotional consequences was significantly associated with positive changes in self-efficacy for clinical samples only. Similarly, larger intervention effects were found for clinical ($d=.296$; $CI=.21-.39$) than for non-clinical ($d=.185$; $CI:.12-.25$) groups for physical activity. Although goal setting (behaviour) was associated with positive changes in physical activity for both groups, in general, different BCTs were associated with positive changes in physical activity for non-clinical and clinical groups (e.g. goal setting (outcome) was only associated with positive changes in clinical samples).

Discussion: The BCTTv1 allowed for the comparison of technique effectiveness across populations. Different BCTs are needed for changing self-efficacy and physical activity in clinical and non-clinical groups. Greater consideration of the intended intervention population is needed in health psychology theories.

9:30 - 9:45

Digital weight management lifestyle interventions in adults: systematic review of behaviour change theories and techniques

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Background: This review examined intervention components of published digital-based lifestyle interventions for weight management with regards to i) theory use; 2) use of behaviour change techniques (BCTs); and iii) modes of delivery (MoD).

Methods: Studies were identified through electronic database searches. Studies were eligible if they (1) were digital-based lifestyle interventions aimed at managing weight, (2) targeted overweight/obese adults or participants who have recently lost weight, and (3) assessed any of the following outcomes - weight/BMI, physical activity, or dietary behaviour, measured at post-treatment and/or follow-up. Characteristics of studies - use of theory (Theory Coding Scheme), BCTs (adapted BCT taxonomy) and MoDs (Webb's coding scheme) - were synthesized and linked to effects.

Findings: Forty-nine articles describing 38 unique digital lifestyle interventions were included. Only about half of the trials were theory-based (mainly Social Cognitive Theory), either based on single or multiple theories. The use of theory was not associated with intervention effects. A considerable number of interventions employed common self-regulation techniques (e.g., self-monitoring, planning), and its use was associated with significant positive effects. Most trials used more than one MoD for delivering techniques, the most frequent being automated tailored feedback.

Discussion: While this review provides valuable information on key intervention components of digital interventions for weight management, it also highlights some important challenges in synthesizing interventions using current taxonomies, which will be addressed in this presentation.

The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 643309

9:45 - 10:00

Using the CALO-RE taxonomy to identify behaviour change techniques associated with physical activity in pregnancy

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Background: Despite numerous benefits associated with physical activity (PA) during pregnancy, most pregnant women decrease their PA behaviour. It is thus important to identify what intervention components, known as behaviour change techniques (BCTs), may be associated with PA. The aim of this review is to identify which BCTs are associated with PA behaviour during pregnancy.

Methods: A search of six databases identified 24 controlled trials reporting PA behaviour. Included interventions had to measure PA at least twice in pregnancy and have a control group. All intervention descriptions were coded with the 40 item CALO-RE taxonomy of BCTs. Meta-analysis and moderator analyses were conducted to examine the association across studies between the presence or absence of specific BCTs within interventions and changes in PA behaviour.

Findings: The overall effect size for intervention effects was $d = 0.41$. Sixteen BCTs were identified in the included interventions, of which ten were associated with a decreased level of PA. Two BCTs ('prompt selfmonitoring of behavioural outcome' and 'provide instruction on how to perform the behaviour') were associated with a higher level of PA compared to when these BCTs were not included in the intervention.

Discussion: These findings suggest that interventions should include practical elements such as instructing women how to be active and encourage self-monitoring of the outcomes of their PA (for example weight). These results also suggest that caution may be needed in applying BCTs that are associated with PA behaviour in non-pregnant adults as they may be less suitable for pregnant women.

10:00 - 10:15

Applying the BCT taxonomy to code sedentary behaviour reduction interventions: challenges and reflections

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Background: Several recent reviews have sought to describe interventions and potentially explain effectiveness by specifying component behaviour change techniques (BCTs) using recently established BCT taxonomies. We applied this method to deconstruct the content of interventions to reduce adult sedentary behaviour (low energy-expending waking behaviour while seated).

Methods: Interventions were identified through systematic database searches, were and the presence or absence of discrete techniques within these specified using BCT Taxonomy v1. Interventions were categorised as 'very promising', 'quite promising', or 'non-promising' according to observed outcomes. BCTs were compared across promising/non-promising interventions.

Results: Of thirty-eight interventions, fifteen (39%) were very promising, eight quite promising (21%), and fifteen non-promising (39%). Most promising interventions included the BCTs 'self-monitoring,' 'problem solving,' and 'restructuring the social or physical environment'. Links between effectiveness and intervention components were qualified by poorly reported intervention descriptions, unclear differentiation between intervention and control groups, low-quality evaluation methods, and our coding of whether, rather than how, BCTs were used.

Discussion: Applying the BCT taxonomy enables systematic identification of intervention components that may inform future intervention design. Yet, the utility and robustness of such findings is dependent on methodological and reporting quality. Additionally, coding for the mere presence or absence of BCTs may overlook variation attributable to dosage, and interactions between components. While intervention reports should more clearly specify content, reviewers may also benefit from adopting more granular approaches to identifying content, including optimal dose and combination of intervention components that are likely to be effective.

11:00 - 12:30 | GORDON B SUITE

Symposium: Social support and beyond: social co-regulation and health-related outcomes in couples and close others

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Aims: This symposium will explore diverse health-related social co-regulation processes a) by concentrating on contexts where they occur, i.e., couples and close others; b) by addressing - yet also going beyond social support and taking up less-well understood co-regulation processes such as transmission, social control, and dyadic planning; c) by investigating distal and proximal health-related criteria including health behaviour, physiological outcomes, or mortality; and d) by investigating subjectively as well as objectively assessed outcome indicators.

Rationale: To better understand the well-established link between social embeddedness and survival, it is important to recognise the diversity of potential connecting pathways. We hold that social co-regulation of health should be studied where it occurs, i.e., within the social context; that different means of how persons interact to regulate each other's health **should be addressed**; and that different types of proximal health-related outcomes should be taken into account, while making an effort to capture them in meaningful and possibly unbiased ways.

Summary: Gawrilow and colleagues present insights into relations between daily received social support from friends and family and physical activity in young adults. Stadler and colleagues investigate how caregiver support processes are linked with survival in blood and lymphoid cancer patients after transplant. Ditzen and colleagues focus on positive and negative co-regulation mechanisms of couples' intertwined physiological stress parameters in daily life. Scholz and Berli address social control and Knoll and colleagues investigate dyadic planning as spousal co-regulation strategies to enhance daily physical activity. Finally, Revenson will discuss findings and suggest future directions for the investigation of links between social co-regulation and health.

11:00 - 11:15

Social support and life satisfaction in first semester students

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First semester students experience the beginning of university studies as a challenging transition with manifold adaptation processes calling for social support. To examine these processes an intensive longitudinal study design was applied. Perceived as well as needed social support, satisfaction with family, friends, and life satisfaction in sixty-three first semester psychology students of a German university was assessed using morning and evening online diaries over ten consecutive days.

First results of multilevel analyses point to a negative relationship between needed emotional support and satisfaction with family as well as with life satisfaction in general on a within and between person level. In the same vein, a positive association between received emotional support and satisfaction with family as well as with life satisfaction occurred on a within and between person level. On a within person level we found a negative relationship between needed emotional support and satisfaction with friends and a positive relationship between received emotional support and satisfaction with friends on a between person level.

Thus, on days first semester students needed more emotional support they were less satisfied and on days first semester students received more emotional support they were more satisfied. In conjunction with moderator analyses these results will be discussed with respect to the importance of social support for (mental) health during challenging educational transition periods. First ideas for interventions tailored to reduce dropouts in first semester students will be generated.

11:15 - 11:30

Social support and survival: mixed methods study of blood and lymphoid cancer patients after transplant

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Background: Social support is linked with well-being, health, and survival, and one underlying pathway could be support for critical patient self-care. A recent review (Beattie, Lebel, & Tay, 2013) of caregiver support and survival in allogeneic hemotopoietic cell transplant (allo HCT) found few existing studies. Given the need to adhere to a complex self-care regimen when patients transfer from the hospital home, the availability of a caregiver is important to study after transplant. This study aims to understand the link between social support from a dedicated caregiver to survival in blood and lymphoid cancer patients after transplant.

Methods: We present data from a retrospective study of patient charts for allo HCT recipients between 2009 and 2013 (N = 253; age M = 49.5 years; 40% female; 36% ethnic minority; 86% had a family caregiver) and from a prospective multi-method study (N = 33).

Findings: Caregiver presence was tied to higher probability for survival post-allogeneic transplant in the retrospective study (56% vs. 37%). The multi-method study identified concrete caregiver support strategies facilitating survival during this harsh treatment (e.g., practical support for taking numerous medications on a timed schedule, following dietary guidelines, ensuring adequate hydration, monitoring for signs of infection, and attending frequent hospital visits; emotional support: encouragement and calming presence, meaning in life). Few patients were able to perform self-care alone.

Discussion: Improved adherence to complex self-care is one explanatory pathway for the support-survival link.

11:30 - 11:45

Co-regulation of fatigue and biopsychological stress measures in couples' everyday lives

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²University of Zurich, Switzerland

³University Hospital, University of Heidelberg, Germany

Background: Knowledge about how fatigue develops, worsens, and what influences daily fatigue is still limited. As stress can influence fatigue, and being in a relationship either increases or decreases stress depending on the couple interaction, we investigated co-regulation of stress, fatigue, and biological markers in couples' everyday lives.

Methods: Forty couples (age: 28-35 years) reported fatigue and stress levels 4 times a day for 5 consecutive days (1600 measures). Interactions with the partner, salivary cortisol (measure of HPA axis activity) and alpha-amylase (measure of ANS activity) were analyzed at the same time points. Data was analyzed using multilevel models of distinguishable dyads to account for the nested design.

Results: Stress (women: $p \leq 0.001$, men: $p \leq 0.001$) and fatigue (women: $p = .003$, men: $p = .020$) were co-regulated within couples, and more so when partners had interacted with each other. Cortisol was co-regulated in both men and women (women: $p \leq 0.001$, men: $p \leq 0.001$), whereas regulation of alpha-amylase levels depending on the partner's levels was only present in women ($p = 0.002$). Valence of interaction was negatively associated with fatigue (women: $p \leq 0.001$, men: $p = 0.011$).

Conclusions: Fatigue and stress levels during the day seem to be co-regulated within couples with particularly strong associations when the partners interact with each other. These data suggest that in interventions to address stress and fatigue with clinical groups, a dyadic perspective might be implemented in order to improve individual well-being.

11:45 - 12:00

The role of positive and negative social control for physical activity, reactance and affect

U. Scholz¹, C. Berli²¹University of Zurich, Switzerland²Columbia University, United States

Background: Positive and negative social control have been found to be differentially related to health behavior, reactance and affect: Positive social control displays rather beneficial associations whereas negative social control is rather detrimentally related to these outcomes. The vast majority of studies has examined associations between control, behavior and behavioral and affective outcomes in the context of risk behavior.

This study set out to investigate these associations in the context of physical activity as a health-enhancing behavior.

Methods: Overall, 120 overweight and obese participants reported on their received positive and negative social control from the intimate partner, affect after being controlled, reactance and concealing inactivity from partner daily across 28 days. Moderate-to-vigorous physical activity (MVPA) was assessed objectively using accelerometers. Data were analyzed using multilevel modeling.

Findings: Positive control was related to more MVPA (within-person), and feeling better after being controlled (within- and between-person). Negative control was related to less MVPA (within-person), to feeling worse after being controlled (within- and between-person), to more reactance (within- and between-person), and to more concealing inactivity (within- and between-person).

Discussion: Positive and negative social control display beneficial and detrimental associations with behavior, behavioral and affective outcomes in the context of a health-enhancing behavior, i.e., physical activity. These effects are comparable to the context of risk behaviors.

12:00 - 12:15

Days in (light) motion: a dyadic planning intervention with couples to increase daily physical activity

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Background: Even with good intentions, being sufficiently physically active in daily life is often hard. Action planning was shown to help translate intentions into action by linking situational cues with planned behaviour.

Extending individual planning to the level of the dyad, dyadic planning refers to a target person creating plans together with a partner for when, where, and how the target person will implement behaviour change. In this randomised controlled trial, we investigated if a dyadic planning intervention would increase daily physical activity in target persons and partners.

Methods: Following a motivational treatment, 346 couples (target persons randomised) were randomly assigned to one of 3 intervention conditions: a) a dyadic planning intervention, b) an individual planning intervention where target persons planned and partners worked on a distractor task, and c) a dyadic noplanning control condition. Light, moderate, and vigorous activity were objectively measured in 3 one-week assessments up to 7 weeks post-intervention. Multi-level models were fit.

Findings: Compared to target persons of the individual planning- ($p < .10$) and control conditions, only light activity increased in the dyadic planning condition. Overall decreases in moderate activity were less pronounced in the individual- ($p < .10$) than in the dyadic planning condition. Partners of the dyadic planning condition showed steeper initial increases in vigorous activity when compared to partners of the control- ($p < .10$) and individual planning conditions.

Discussion: Brief intervention exposure, an active control group, and generally high a-priori levels of activity may have caused small effects that often did not meet conventional levels of significance.

14:00 - 15:30 | FLEMING AUDITORIUM

Symposium: Digital behaviour change interventions: design and evaluation

I. Tombor¹, K. Knittle², F. Naughton³, C. Garnett¹, J. Nurmi², D. Crane¹

¹University College London, United Kingdom

²University of Helsinki, Finland

³University of Cambridge, United Kingdom

Aims: This symposium aims to: 1. demonstrate how theories and empirical evidence can inform the selection of intervention components for digital behaviour change interventions; 2. highlight different methods for evaluation; 3. discuss the impact and importance of usability testing and user engagement; and 4. provide estimates for the likely effectiveness and cost-effectiveness of a digital intervention delivered alongside usual care.

Rationale: Principles of the development and evaluation of complex interventions can be applied to digital behaviour change interventions that can provide wide reach, supplement existing health services and/or provide support for people who do not engage with other means of support.

Summary: The symposium will begin with five presentations focusing on different aspects and stages of intervention development. Digital interventions aimed at helping people change their behaviours will be discussed in relation to four behavioural domains, including alcohol consumption, smoking, physical activity and dietary behaviours. The first presentation (C. Garnett) will consider the selection of intervention components most likely to be effective in a smartphone app to reduce excessive drinking. The second presentation (I. Tombor) will discuss a full factorial screening experiment to evaluate aspects of a smartphone app to help pregnant women stop smoking. The third presentation (F. Naughton) will present findings from a multicentre, randomised controlled trial estimating the effectiveness and cost-effectiveness of a text message-based self-help intervention for smoking cessation in pregnancy. The fourth presentation (J. Nurmi) will discuss the feasibility and acceptability of a smartphone app designed to increase physical activity and promote healthy eating. The final presentation (D. Crane) will consider the usability evaluation of a smartphone app to help people reduce their alcohol consumption.

The symposium will end with a general discussion around the design, delivery and evaluation of digital interventions and the role they can play in promoting behaviour change (K. Knittle).

14:00 - 14:15

Development of a smartphone app ('Drink Less') to reduce excessive drinking: selection of intervention content

C. Garnetti¹, D. Crane¹, J. Brown¹, R. West¹, S. Michie¹

¹University College London, United Kingdom

Background: Hazardous and/or harmful drinking is highly prevalent among adults in the UK but few drinkers use support to reduce their alcohol consumption. Smartphone apps offer potential support not dependent on face-to-face contact; however, we have little evidence of their effectiveness and little information about the extent to which they have been informed by theory and evidence from alcohol- and behaviour change research. The aim was to select intervention components most likely to be effective at reducing hazardous and/or harmful alcohol consumption in a smartphone app ('Drink Less').

Methods: To identify potential intervention components for the Drink Less app, we conducted a behavioural analysis, reviewed relevant behaviour change theories, types of alcohol interventions and digital interventions from other behavioural domains, conducted a formal consensus building exercise and analysed the most frequently used components included in existing alcohol reduction smartphone apps. The results of these different methodologies were synthesised and used as the basis for selecting the intervention components for the Drink Less app.

Findings: Five intervention components were selected for the app: 1) normative feedback, 2) feedback and self-monitoring, 3) identity change, 4) action planning and 5) cognitive bias re-training. Each component was designed in an intensive and a minimal credible version.

Discussion: Drawing on theory and empirical evidence, the Drink Less app was designed around five intervention components. Qualitative usability testing including think-aloud studies will inform the final version which will be evaluated in a full factorial randomised controlled trial to test the effects of the intervention components.

14:15 - 14:30

Evaluating intervention components in the SmokeFree Baby smartphone app to aid smoking cessation in pregnancy

I. Tombor¹¹University College London, United Kingdom

Background: Optimizing digital behaviour change interventions presents major methodological challenges. Factorial designs enable the evaluation of multiple intervention components simultaneously. This presentation will describe a factorial screening experiment aimed at identifying the optimum combination of intervention components in a smartphone app to help pregnant smokers stop smoking or cut down.

Methods: The SmokeFree Baby app was designed around five experimental modules (identity change, stress management, health information, promoting use of face-to-face support, behavioural substitution), each in a 'minimal' and 'intensive' version. A full factorial design was used. Participants were randomly allocated to one of 32 (2x2x2x2x2) experimental groups. Participants were pregnant, age 18 and over, and smoked cigarettes daily or at least once a week. Self-reported smoking status was assessed at each login. The target sample size for the study is 400 (recruitment is ongoing), which will provide sufficient power to assess the additive effects of each module.

Findings: Between October 2014 and February 2016, 286 participants were randomised. 72% (n=206) of participants selected complete cessation and 28% (n=80) cutting down as their behaviour change goal. Participants logged in 3.1 days on average (SD=22.2) after initiating behaviour change, with 39.4% (n=112) logged in at least once. The mean number of smokefree days was 1.73 (SD=17.75) with 16.2% of participants (n=46) registered at least one day.

Discussion: Mobile technologies allow for a relatively straightforward implementation of multiple experimental conditions to evaluate the effects of intervention components using factorial designs. However, engagement with a digital intervention may be a potential barrier.

14:30 - 14:45

Multicentre, randomised controlled trial of a smoking cessation text message intervention for pregnant smokers (MiQuit)

F. Naughton¹, K. Foster², J. Emery¹, S. Cooper², S. Sutton¹, J. Leonardi-Bee², M. Jones², M. Ussher³, M. Leighton², T. Coleman²

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²University of Nottingham, United Kingdom

³St Georges, University of London, United Kingdom

Background: Text message cessation programmes have potential to change smoking behaviour during pregnancy but their effectiveness is unknown. This study aimed to estimate key parameters, including effectiveness and cost-effectiveness, for delivering a definitive effectiveness trial of a pregnancy specific, theory-guided, tailored text message cessation intervention.

Methods: Multicentre, single-blinded, randomised controlled trial. Pregnant smokers (<25 weeks gestation) were recruited from 16 antenatal screening clinics in England. Control participants received usual care and a smoking cessation leaflet. Intervention participants received the control components plus 12 weeks of individually-tailored, automated, interactive, cessation text messages (MiQuit). Key parameters to inform a full trial were recruitment and outcome ascertainment rates. 7 smoking outcomes were assessed; the planned primary outcome for the full trial was continuous abstinence from 4 weeks post-randomisation until 36 weeks gestation, validated biochemically. Estimated costs were modelled per quitter and per QALY.

Findings: 407 participants (203 MiQuit, 204 control) were randomised, 39% of those eligible. At follow-up, similar proportions per group provided self-report smoking status and a validation sample. More MiQuit participants achieved validated continuous abstinence relative to controls (5.4% vs. 2.0%; odds ratio [adjusted for site and gestation] 2.7, 95% CI 0.93 to 9.35). Adjusted odds ratios on other smoking outcomes ranged from 1.03 to 3.28 in favour of MiQuit. Incremental costs per quitter/QALY were £ 140.91 (95% CI -£ 192.87 to £ 617.96)/£ 3,623.09 (-£ 4,926.56 to £ 16,197.20), respectively, at the end of pregnancy.

Discussion: Findings imply that this low-cost text message intervention is likely to be effective and costeffective. A full trial is warranted.

14:45 - 15:00

PRECIOUS: Digitally integrating motivational techniques to increase engagement with volitional processes for health behaviour change

J. Nurmi^{1, 2}, K. Knittle¹, C. Helf³, T. Ginchev⁴, T. Latvala⁴, P. Lusilla Palacios⁵, C. Castellano Tejedor⁵, A. Falco^{1, 6}, N. Ravaja^{1, 6}, A. Haukkala¹

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Background: While behaviour change techniques (BCTs) derived from control theory can effectively change physical activity (PA) and dietary behaviours, the optimal methods for supporting engagement with these BCTs have yet to be established, particularly within mobile interventions. This study aimed to examine the acceptability and feasibility of a mobile app (PRECIOUS) that integrates motivational and volitional BCTs from self-determination theory, motivational interviewing and control theory, and includes tailoring and other features that attempt to optimize user engagement with the processes of changing PA and dietary behaviours.

Methods: Twelve inactive adults participated in 'think-aloud' walkthroughs and used the PRECIOUS app for six weeks, wherein the effects of different combinations of BCTs upon user engagement and behaviour were examined. User interactions with the app were tracked automatically, and exit interviews with participants examined usability aspects, autonomy support, comprehension and perceptions of how and why intervention techniques did (not) work for them.

Findings: Think-aloud walkthroughs revealed that the motivational interviewing BCTs in PRECIOUS elicited change talk from users, and consistent with self-determination theory, users appreciated the ability to pursue their own personally valued goals within PRECIOUS. While the app was found acceptable to users, some BCTs from motivational interviewing were viewed as difficult to operationalize within a smartphone application.

Discussion: This study identified several limitations of a tailored smartphone app that integrates motivational interviewing and control theory based BCTs, and identified a number of ways that such a service could be improved to optimally maintain user engagement with control theory BCTs.

15:00 - 15:15

Improving engagement with an alcohol reduction app: the impact and importance of usability testing

D. Crane¹, C. Garnett², J. Brown¹, R. West², S. Michie²

¹UCL, United Kingdom

²University College London, United Kingdom

Background: The usability of a technology is a key factor in its adoption. Smartphone applications present particular challenges because of their small screens and keyboards and the wide range of settings in which they are used. This presentation will describe a usability study of an application designed to help users reduce their alcohol consumption, 'Drink Less'.

Aims: To gain a detailed understanding of usability of the Drink Less application in terms of the extent and manner of user engagement, the features users like and dislike, the extent to which they feel that different features of the app are easy or difficult to use, and how far the app meets their needs.

Methods: Two studies were conducted: a think aloud study and a semi-structured interview study. Each involved 12 participants wanting to reduce their consumption of alcohol. Transcribed responses and interviews were analysed with thematic analysis.

Results: Participants in both usability studies expressed desire for: onscreen guidance about to how to use the app; improved consistency in its navigation; and for the app to look and feel friendlier to use. Participants in the semi-structured interview study additionally identified different issues and suggested feature additions from their use over a period of time.

Conclusions: The usability study provided valuable insights about increasing user satisfaction with the app. Conducting two studies provided useful information as to the core issues present for both first time users and repeated users. The second study identified issues that may be important to secure continued engagement.

14:00 - 15:30 | CROMBIE B SUITE

Symposium: New determinants and barriers of (un)healthy food behaviours

O. Luminet¹, V. Broers², S. Fernandes-Machado³, T. Cheung⁴, G. Zamariola¹, T. Venema⁴

¹Universite catholique de Louvain, Belgium

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⁴Utrecht University, Netherlands

Aims:

- Using different behavioural change models (Theory of Planned Behaviour, Compensatory Health Beliefs, Transtheoretical model of Change) to predict vegetable consumption
- Showing how childhood behaviors can determine adolescence (un)healthy food choices using a dual process model
- Demonstrating some counter-intuitive effects of impulsivity on healthy choices
- Emphasizing the role of attention processes in food behaviour
- Showing that doubt is the underlying working mechanism of the social influence effect when presented with a healthy vs. hedonic dilemma

Rationale: The research on food behaviors is increasing in health psychology. This is partly due to recent advances in nutrition intervention examining how food rich in fibers can modify the gut microbiome, which is central for weight and inflammation. This is also related to increased consideration for paradigms used previously in cognitive or social psychology into the health psychology domain.

The pressing issue to alter people's food choices is clear, with both an increasing obesity rates and a new generation that is raised in an obesogenic environment. There is therefore an urge to test interventions that promote behaviour changes towards healthy food choices.

Summary: The presentations include a variety of methods (experimental and naturalistic, longitudinal) and predictors of (un)healthy food behaviours. The predictors include motivational states (e.g., hunger-satiety), cognitive abilities (e.g., load, inhibitory control), prior knowledge, attitudes, affect (negative-positive mood, ambiguity), habits, norms, or persuasion. Although the dependent variables considered are always related to health/unhealthy food choices, some are more specifically focusing on sub-categories for which health claims have been suggested. Interest is also devoted to the explanatory processes such as working memory capacities, attentional biases, or social influence with the aim to promote healthier outcomes. We hope by these four presentations to show a more integrated overview for both the prediction and the promotion of (un)healthy food behaviors.

14:00 - 14:15

Determinants of (colic) vegetable consumption, discussing the theory of planned behaviour and compensatory health beliefs

V. Broers¹, O. Luminet², S. van den Broucke²

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²Université catholique de Louvain, Belgium

The study followed the behavioural epidemiology framework, focusing on assessment of the prevalence and identification of the factors that influence behaviour. A questionnaire was developed to measure the prevalence of (colic) vegetable behaviour and its determinants drawing on theoretical models of health behaviour change (e.g. Theory of Planned Behaviour, Compensatory Health Beliefs, Transtheoretical model of Change) and the outcomes of qualitative interviews with obese patients.

A correlational study in the form of an online questionnaire was administered to 491 university students to test its validity and reliability and to understand healthy food behaviour in students. Exploratory factor analyses and reliability analyses were conducted to form the scales: habits (Cronbach's $\alpha = .84$), subjective norms (Cronbach's $\alpha = .89$), long-term attitude (Cronbach's $\alpha = .66$), short-term attitude (Cronbach's $\alpha = .67$), perceived control (Cronbach's $\alpha = .74$) and compensatory health beliefs (Cronbach's $\alpha = .53$) for vegetables in general. A hierarchical regression analysis was conducted to discover the determinants of vegetable consumption.

Students report eating vegetables more often when they are with other people than when they are alone, and more often at home than when they go out for dinner. High perceived control, short-term and long-term attitudes correlate positively with the stages of change (TMC).

The results for the student sample can be used in interventions to increase the (colic) vegetable consumption of students. The questionnaire will be used to measure the (colic) vegetable consumption frequency and its determinants in a representative sample of The Walloon population (n ~ 1000).

14:15 - 14:30

Longitudinal study on eating behaviours from childhood to adolescence

S. Fernandes-Machado¹, K. Mann¹, F. Sniehatta¹, M. Pearce¹, A. Adamson¹, M. Tovee¹, V. Araujo-Soares¹

¹Newcastle University, United Kingdom

Background: Several studies demonstrated that food intake tends to track over time, however little is known about what influences this tracking. This study investigated the influence of predictors of food intake during childhood on eating behaviours and their predictors in adolescence.

Methods: 210 participants of the Gateshead Millennium Study were assessed in childhood (6-8 years) and adolescence (12-13 years). Food intake was measured at both time-points and a situational food choice assessment was added in adolescence. Participants answered questions about predictors of eating behaviours adapted to each age group.

Findings: Path analyses showed that higher BMI during childhood was associated with a higher BMI and significantly predicted less unhealthy food at home at adolescence. Liking fruits in childhood was positively associated with healthy food availability at home and temptation to eat healthy food during adolescence. Higher levels of knowledge about healthy eating in childhood significantly predicted less intention to eat unhealthy food in adolescence. Healthy eating during childhood was associated with lower BMI and positively associated with temptation to eat unhealthy food during adolescence. Children eating more unhealthy foods presented less inhibitory control skills in adolescence. Children preferring healthy food tended to eat less unhealthy food in adolescence. Lower BMI and higher levels of healthy eating in childhood were associated with healthier eating in adolescence.

Conclusions: These results highlight the importance of developing interventions promoting healthy eating early in life. Further research in this area exploring such complex associations would help to confirm and gain a consensus on results.

14:30 - 14:45

Changing the fate of impulsivity – using heuristics to promote impulsive choices to healthy choices

T. Cheung¹, F. Kroese¹, B. Fennis², D. de Ridder¹

¹Utrecht University, Netherlands

²University of Groningen, Netherlands

Background: The current research demonstrates that the impulsivity triggered by hunger, limited working memory, ego-depletion often resulting in unhealthy choices could be exploited to help individuals make healthy choices instead. To achieve this aim, we employ heuristics, which are decisional-shortcuts, to promote healthy choices. The underlying rationale is that impulsive individuals would be prone to following heuristics to expedite their decision-making, and would therefore make more healthy choices promoted by heuristics.

Moreover, the current research investigates potential moderators (i.e., social information conveyed by the heuristic; individuals' existing healthy eating behaviours) that impact the influence of heuristics.

Methods: In three experiments, participants were first induced to be in a hungry vs. satiated state (Study 1), or in a high vs. low cognitive load condition (Study 2), or in an ego-depleted vs. non-depleted condition (Study 3). Subsequently participants chose between healthy vs. unhealthy options, where healthy choices were presented with or without a heuristic. The dependent variable was the total of healthy choices made.

Findings: As predicted, participants who were hungry, had limited working memory or depleted made more unhealthy choices, but this trend was reversed when healthy choices were promoted by heuristics. Particularly, heuristics endorsing social proof **were most effective**. **Participants' extent of healthy eating** also played a moderating role.

Discussion: Impulsivity does not invariantly result in unhealthy choices but could be steered towards healthy choices with heuristics. Findings that social proof heuristics were superior suggest that conveying normative behaviour is more effective than simply increasing the salience of choices.

14:45 - 15:00

Emotional or restraint? The influence of eating behaviour trait on attention for food

G. Zamariola¹, O. Luminet¹, O. Corneille¹

¹Université Catholique de Louvain, Belgium

Background: Emotional and restraint eating are two different eating traits that affect food intake. Emotional eating (EE) is described as the tendency to overeat unhealthy food in response to negative emotions, whereas restraint eating is a trait characterized by chronic diet and high motivation to restrict the food consumption. The aim of the study was to see if the eating behaviour trait influences the attention for high-calorie (comfort) food, and if this effect varies across gender.

Methods: 100 participants (50 females) were asked to perform a visual task with pictures of healthy or unhealthy food and neutral objects. After viewing them for 1 second, they had 25 seconds to recall them. The Dutch Eating Behaviour Questionnaire was administered to assess emotional, restraint and external eating traits.

Findings: A significant two-way interaction Gender*Emotional Eating ($p = .02$) was found in the visual task: females with low EE recalled more unhealthy objects, whereas females with high EE recalled more healthy objects. Moreover, females, compared to males, showed higher restraint eating trait ($p = .01$).

Discussion: Emotional and restraint eating can be both present, with restraint eating counteracting the effect of emotional eating. Even if individuals are prone to overeat in response to negative emotions, being on diet and avoiding weight gain can act as stop/avoidance signal when facing indulgent food stimuli. Replication studies have been planned in order to better understand this effect, using more precise techniques, such as eyetracking which allows to measure more objectively the presence of attentional bias.

15:00 - 15:15

When in doubt, follow the crowd. Resolved ambiguity as underlying mechanism in social proof nudge

A. Venema¹, J. Benjamins¹, F. Kroese¹, D. de Ridder¹

¹Utrecht University, Netherlands

With increased media attention for healthy lifestyles people are often ambivalent towards the food choices they have to make. For instance, some options may be more hedonic while alternative options would be more healthy, hence making these choices is not always easy. In this study we investigate how a gentle nudge could affect the experienced ambivalence and the difficulty of the choice. A well-known nudge is the 'social proof'.

The social influence literature states that, when people are uncertain about a choice, they are more easily persuaded to do what others do. We hypothesize that ambivalence will be reduced and participants will be more easily led to the healthy option when a social proof nudge is presented in a food choice dilemma.

We used a 2 (dilemma vs. no dilemma) by 2 (social proof vs. no social proof) within-subjects design. Participants were asked to make several choices related to dinner options. Results showed that, for food choices where participants experienced a dilemma between tastiness and healthiness, a social proof nudge reduced their ambivalence. Consequently, participants were more likely to choose the healthy option when it was presented together with a social proof.

This study contributes to the knowledge on nudge interventions designed to improve healthy choices. Future directions of this line of research will be discussed.

14:00 - 15:30 | GORDON B SUITE

Symposium: Use of economic evaluations by health psychologists and the relevance of their work for policy-making

K.L. Cheung¹, H. de Vries¹, N. Berndt², S. Evers³, P. Barrio⁴, R. Drost¹, M. de Bruin⁵

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⁴Addictive Behaviors Unit, Neuroscience Institute, Clinic Hospital, Barcelona, Spain

⁵University of Aberdeen, United Kingdom

Aims: To enhance awareness, interest, knowledge, and skills for conducting economic evaluations alongside behavior change intervention studies. It is goal to draw attention to the need for, the steps to, and how to increase the usage of economic evaluations in behavior change interventions.

Rationale: While the number of available behavior change interventions is increasing, given limited budgets, healthcare policy makers need to know whether the societal benefits of these interventions are worth the investments that have to be made to offer them. Hence, health technology assessment (HTA) and economic evaluations become increasingly important since they inform decision-making on which interventions achieve best value for money.

However, the applicability and uptake continues to be limited. Results of an economic evaluation need to be useful and relevant for policy-making to prevent inefficient decisions or not using cost-effectiveness results at all.

Summary: The symposium starts with an introduction to the importance of HTA and economic evaluations. The steps to conduct a typical economic evaluation will be discussed, followed by an overview in economic consequences of addiction, both to individuals and to society, illustrating the need for economic evaluations of behavior change interventions. Two types of economic evaluations (trial-based and model-based) in health promotion and public health will be presented to show the current state of art of economic evaluation studies. Despite the increasing number of HTA information, the usage by policy makers is limited. Hence, the last oral presentation will focus on the most important facilitators and barriers to the usage of HTA by policy makers, providing insights into how to bridge the gap between research and practice. Finally, the discussion will focus on the indispensable need to integrate economic evaluations in the health promotion sector to increase interest and reimbursement of preventive interventions on the national level, and their particular challenges.

14:15 - 14:30

Social costs of illegal drugs, alcohol and tobacco in the European Union: a systematic review

P. Barrio¹¹Neuroscience Institute, Clinic Hospital, Barcelona, Spain

Background: Addiction accounts for one of the main disease groups in the European Union (EU). There is therefore an increasing need to evaluate the economic consequences of addiction, both to individuals and to society, in order to develop appropriate policies.

Methods: A systematic search of relevant databases and publications was conducted. Studies reporting on social costs of illegal drugs, alcohol and tobacco in EU countries were included. Methodology, cost components and total costs were extracted from individual studies. To compare across studies, final costs were transformed to 2014 Euros.

Findings: 42 studies were included (illegal drugs:8, alcohol:26, tobacco:8). The main methodologies employed were prevalence estimates and the human capital approach. While there was a constant inclusion of direct costs related to treatment of substance use and comorbidities, there was a high variability for the rest of cost components. Total costs showed great variability between studies. Price per capita for the year 2014 ranged from 0.38e to 78€ for illegal drugs, from 26€ to 1500€ for alcohol and from 10.55 to 391€ for tobacco. A rough estimate for the total cost of addiction to the EU zone revealed it ranges between 1,2% and 3.9% of the total gross domestic product.

Conclusions: Addiction imposes a heavy economic burden to Europe. Given the high methodological heterogeneity that exists in the field, and in order to better assess this burden and to effectively develop adequate policies, methodological guidance is needed.

14:30 - 14:45

Valuing eHealth: cost-effectiveness of a web-based computer-tailored alcohol prevention program for adolescents

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Background: A means to prevent excessive alcohol use is computer-tailoring, which is a behavioural intervention of which contents are adapted to individual characteristics of respondents. Such an intervention may lead to costs and benefits both within and outside the health care sector, also known as inter-sectoral costs and benefits (ICBs). The aim of this study is to conduct a cost-effectiveness analysis of a web-based computer-tailored alcohol reduction intervention for adolescents from both a societal (including ICBs) and health care perspective (excluding ICBs).

Methods: Data was used from the Alcohol Alert study, a computer-tailored alcohol prevention program based on the I-Change model aimed at reducing binge drinking and weekly alcohol use among Dutch school going adolescents. Parametric uncertainty was dealt with using bootstrap analysis. We conducted sensitivity analyses by calculating additional incremental cost-effectiveness ratios based on excluding outliers.

Findings: Results show a change in cost-effectiveness when changing perspective. However, from both perspectives the intervention is both more effective and costlier than CAU. The results of the sensitivity analyses support these findings. Subgroup analyses showed, from both perspectives, and for both outcome measures, that the intervention was cost-effective for older adolescents (aged 17-19) and those at a lower educational level.

Discussion: The favorability of the intervention over CAU depends on willingness to pay per reduction of one binge drinking occasion per month or one glass of alcohol per week. Future studies are encouraged to assess the relation between the perspective chosen and the outcomes of its economic analysis.

14:45 - 15:00

The cost-effectiveness of the adherence improving self-management strategy (AIMS) in HIV-care: a Markov model

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⁵Maastricht University, Netherlands

Background: Non-adherence to medication is an important cause of poor health and increased health care consumption. The Adherence Improving self-Management Strategy (AIMS) is a nurse-delivered intervention that fits in routine clinical care. Previous trials demonstrated that AIMS is effective but no study has yet estimated the long-term cost-effectiveness of AIMS. The objective of this study was to estimate the costeffectiveness of AIMS compared with treatment-as-usual (TAU) in HIV-care

Methods: A lifetime Markov model was developed using 13 health states (ranging from undetectable viral load and high CD4-cell count, to death). The natural course of illness for HIV-patients receiving TAU was calculated based on a longitudinal dataset from >7.000 patients. Health care consumption, HIV transmission risks, quality of life, and productivity costs were computed for each health state. The effect of AIMS on probability transitions was computed as relative risks, and was derived from a recent multi-centre RCT comparing AIMS with TAU. Incremental cost-effectiveness ratios for a base-case and several sensitivity scenarios were estimated.

Findings: The base case and sensitivity scenarios showed that AIMS was dominant to TAU: lower costs and more effective. The incremental quality adjusted life years varied between 0.022 and 0.049, and the **incremental costs varied from €-226 to €-1777**. These results are robust for changes in important model parameters.

Discussion: The current study demonstrates that AIMS is one of the first adherence interventions to be costeffective and even cost-saving. AIMS should from a clinical and economic perspective be considered for adoption in routine clinical care for HIV.

15:00 - 15:15

The most important barriers and facilitators to the use of HTA by policy makers

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Background: Different studies have identified multiple barriers and facilitators to the uptake of HTA information by policy makers. However, these studies do not evaluate the importance of each of these factors. Hence, we elicited— using best-worst scaling (BWS) - the most important barriers and facilitators and its relative weight to the use of HTA by policy makers.

Methods: Two BWS object case surveys (one for barriers, one for facilitators) were used among 16 policy makers and 33 HTA experts from the Netherlands. A list of 22 barriers and 19 facilitators was identified. In each choice task, participants were asked to choose the most important and the least important barrier/facilitator from a set of five from the master list. We used Hierarchical Bayes modeling to generate the mean relative importance score (RIS) for each factor and subgroup analysis was conducted to assess differences between policy makers and HTA experts.

Findings: The five most important barriers (RIS > 6.00) were 'no guidelines', 'inadequate presentation format', 'absence of policy networks', 'no access to relevant HTA research', and 'lack of longstanding relation'. The five most important facilitators were: 'Clear presentation format', 'Creation of policy networks', 'Sufficient legal support', 'More personal contact and interaction', and 'Availability of guidelines'.

Discussion: This study contributes to literature by assessing the most important barriers and facilitators of the use of HTA. This resulted in a list of factors that are malleable and important to enhance usage of HTA. Overall, policy makers and HTA-experts did not differ in perceptions.

Temporal and social processes in health behaviour change

9:00 - 10:30 | CROMBIE A SUITE

9:00 - 9:15

Using temporal self-regulation theory to predict healthy and unhealthy eating intentions and behaviour

R. Evans¹, P. Norman², T. Webb²¹The University of Sheffield, United Kingdom²University of Sheffield, United Kingdom

Background. Temporal Self-Regulation Theory (TST) proposes that behaviour is determined by intention, which is predicted by beliefs about the connectedness (likelihood), temporality and valence of behavioural outcomes. The link between intention and behaviour is hypothesized to be moderated by behavioural prepotency (BPP) and self-regulatory capacity (SRC), which also directly influence behaviour. This study aimed to test these relationships for healthy and unhealthy eating behaviour.

Methods. An online survey measured the key components of TST for fruit and vegetable intake (N = 139) or unhealthy snacking (N = 128), i.e., connectedness, temporality and valence beliefs, intention, BPP (past behaviour, habit) and SRC (self-control). Eating behaviour was assessed one week later.

Findings. TST explained 23% of variance in fruit and vegetable intentions and 22% of the variance in snacking intentions. TST explained 46% of the variance in fruit and vegetable intake at follow-up, with intention and past behaviour as significant predictors. Past behaviour moderated the relationship between intention and behaviour. TST explained 24% of the variance in snacking behaviour with habit and past behaviour as significant predictors. There were no moderation effects.

Discussion. Overall, the study provided mixed support for TST. Contrary to hypotheses, SRC did not predict healthy or unhealthy eating behaviour and moderation effects on the intention-behaviour relationship were only found for fruit and vegetable intake. Further research is needed to examine the role of SRC and BPP in the performance of health behaviours. The findings have implications for the development of theory-driven interventions designed to modify these behaviours.

9:15 - 9:30

What do adolescents think that their peers are eating at school?

S. van Rongen¹, K. Verkooijen¹, K. van Engelshoven¹, E. de Vet¹

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Background: Perceived peer norms (perceptions of the behaviors of peers) play an important role in adolescents' eating behavior. Also, some past studies suggest that perceived peer norms may be more important in determining eating behavior than actual norms (actual peers' behaviors). In this study, we sought to examine 1) to what extent perceived peer norms do reflect actual norms among an important risk group for unhealthy (eating) behavior), i.e., adolescents attending lower levels of education, and 2) how both perceived and actual norms are associated with purchase and consumption of fruit, bread products, snacks, and sugarsweetened drinks.

Methods: A cross-sectional survey among 598 (pre-)vocational students aged 12 to 22 assessed the frequency by which fruit, bread products, snacks and sugar-sweetened drinks were brought from home, purchased in-school, and in the vicinity of school. Also the daily consumption of these products was assessed. Participants were asked to answer these questions for their own behaviors as well as to estimate their peers' behaviors.

Findings: Adolescents overestimated the purchase and consumption of most healthy and unhealthy products, with largest overestimations for snacks and sodas bought in school canteens. Perceived peer norm was associated with each of the own behaviors of (pre)vocational students during school-time and generally more so than actual norms. Importantly, however, for food purchased in school canteens, the actual norm was significantly associated with the own behaviors independent from perceived norms.

Discussion: The results suggest interventions should address misperceptions of purchase and consumption of snacks and sugar-sweetened drinks of (pre)vocational students.

9:30 - 9:45

Temporal and individual differences in the perception accuracy of college peers' alcohol consumption

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Background: Research indicates that perceived alcohol consumption might be biased. This study examines temporal patterns and individual differences of this inaccuracy. To accommodate some typical problems, a social network approach is applied.

Methods: In a longitudinal social network, 100 psychology freshmen indicated every two weeks during their first semester, how many drinks per week they consumed, what they believed the average of their peers consumed, and with whom of their class they were acquainted. At baseline, also individual differences in trait self-control were assessed.

Findings: Comparing perceived and actually reported peer consumption, students overestimated the consumption of peers by 1.22 drinks ($p < .001$). Moreover, over the course of the semester, temporal differences emerged: overestimation increased when actual peer-reported consumption was low and diminished if peers reported high actual consumption. Finally, overestimation was moderated by individual differences: Individuals reporting high alcohol consumption ($b = -0.25$, $p < .001$) and low self-control ($b = 0.27$, $p = .010$) showed higher overestimation.

Conclusions: Students seem to overestimate the alcohol consumption of peers and are relatively insensitive to changes in alcohol consumption reported by their peers. Furthermore, the variation of overestimation as a function of own alcohol consumption and self-control might be seen as a sign of informational and motivational processes underlying the bias. These processes might inform future social norm interventions of alcohol consumption in college.

9:45 - 10:00

Predicting heavy episodic alcohol drinking using an extended temporal selfregulation theory

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²Curtin University, Australia

Background: Heavy episodic alcohol drinking is a health-risk behaviour that can increase the short-term risk of injury and long-term risk of non-communicable diseases. Temporal self-regulation theory and dual-process models describe similar theoretical constructs that might predict heavy episodic drinking.

Aim: To test an extended temporal self-regulation theory in the prediction of heavy episodic drinking. The hypothesised extension was that executive function would moderate the behavioural prepotency-behaviour relationship, as suggested by dual-process models.

Design: Predictive study. **Participants:** 149 Australian adults (mean age = 26 years; 66% women).

Measures: Questionnaires (self-report habit index, cues to action scale, purpose-made intention questionnaire, timeline follow-back questionnaire) and executive function tasks (Stroop, Tower of London, Operation Span). **Procedure:** Participants completed measures of theoretical constructs at baseline and reported their alcohol consumption two weeks later. **Analyses:** Hierarchical multiple linear regression.

Findings: Temporal self-regulation theory significantly predicted heavy episodic drinking ($R^2 = 58-59\%$, $p < .001$) and the hypothesised extension significantly improved the prediction ($\Delta R^2 = 1-4\%$, $p < .05$). Intention, behavioural prepotency, planning ability and inhibitory control directly predicted heavy episodic drinking ($p < .05$). Planning ability moderated the intention-behaviour relationship and inhibitory control moderated the behavioural prepotency-behaviour relationship ($p < .05$). Behavioural prepotency did not significantly moderate the intention-behaviour relationship and working memory capacity demonstrated no significant, direct or moderating relationships.

Discussion: The extended temporal self-regulation theory provides good prediction of heavy episodic drinking. Intention, behavioural prepotency, planning ability and inhibitory control may be good targets for interventions designed to decrease heavy episodic drinking.

10:00 - 10:15

The HIV revelation model: predicting the disclosure of HIV seropositivity during casual sex between men

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²Research Centre for Psychological Health, School of Psychology, Trinity College Dublin, Ireland

Background: The disclosure of HIV seropositivity during casual sex between men is uncommon, and disclosure interventions typically ineffective. To guide future interventions, this study aimed to produce an empirically supported, theoretically informed, model of disclosure. Objectives were: (1) evaluate the predictive quality of the Theory of Planned Behaviour (TPB); (2) evaluate the predictive quality of the Revelation Risk Model (RRM); (3) combine the results of these evaluations with exploratory analyses in the development of a new model.

Methods: Longitudinal survey data were collected online from 333 HIV-positive men who have sex with men (MSM). Measures assessed were attitudes, norms, efficacy, control, intentions, HIV-related stigma, sexual exclusion, relationship consequences, responsibility, health and transmission optimism, privacy concerns, sexual compulsivity, self-esteem, anxiety and depression, and social desirability. Analysis was conducted using Bayesian structural equation modelling.

Results: Models based on the TPB and the RRM were an extremely poor fit to the data ($PPP < .01$). Informed by the TPB and RRM, the HIV Revelation Model (HRM) was developed through exploratory analyses. The HRM was an excellent fit to data ($PPP = .50$), accounted for a moderate amount of the variance in disclosure ($R^2 = .44$), and was parsimonious, using just 4 factors to predict disclosure behaviour – stigma, depression, responsibility, and efficacy.

Discussion: This study advances understanding of the disclosure of HIV seropositivity at a time when new diagnoses among MSM are rising. The HRM highlights the continued stigmatisation of HIV, and future interventions should seek to reduce the distress of disclosure.

10:15 - 10:30

There is no time like the future: a systematic literature review of possible selves theory

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²University of Sheffield, United Kingdom

Background: To systematically review studies conducted based on Possible Selves (PS) theory (Markus & Nurius, 1986).

Main research questions were:

1. How are PS conceptualized?
2. How are PS operationalized?
3. To what extent are PS related to emotional, behavioral, health and well-being outcomes?
4. How are PS used in intervention studies?
5. What are the effects of PS interventions?
6. Which factors may mediate or moderate relationships between PS and outcomes/effects?

Methods: Online literature searches were conducted in Web of Science, Psycinfo and Pubmed. Selected fulltext articles were read and organized according to the RQs.

Findings: Exactly 1000 abstracts were retrieved based on the search term. PS were operationalized in many ways, depending on the larger (additional) theoretical framework applied, e.g., social identity theory or selfdiscrepancy theory. The methods assessing PS could be categorized as: 1. surveys; 2. interviews; 3. Written narratives; 4. visual/image-based PS. The relationship between PS and outcomes varied across studies, again influenced by the broader theoretical framework, and by the research design applied. Interventions using PS included writing tasks and/ or imagination, avatars (e.g. age morphing), narratives and group sessions. The effects of these interventions varied across studies, and were moderated by personality characteristics such as future time perspective or self-regulatory focus.

Discussion: PS theory has instigated a large amount of research. Interventions based on the theory hold a high potential to have an enduring effect on behavioral change.

Interventions for long term conditions across the life span

9:00 - 10:30 | BALMORAL SUITE

9:00 - 9:15

Age-specific self-management skills training: young people's experiences of type 1 diabetes education

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Background: Young adulthood is a critical time for the development of Type 1 Diabetes Mellitus (T1DM) selfmanagement skills, but it is also a time with many life transitions that can result in sub-optimal diabetes management. To address this issue, an age-specific educational intervention called WICKED (Working with Insulin, Carbohydrates, Ketones and Exercise to Manage Type 1 Diabetes) was developed and piloted. This study examines young people's (YP) experiences of the intervention.

Methods: Semi-structured interviews were conducted with 18 YP, interviewed three months after the course. Interviews focused on their experiences during and since the course. These interviews were analysed using Thematic Analysis.

Results: We identified three overarching themes; positive group identity, WICKED as a safe place and transformative perspectives. First, the YP found their condition isolating and, as a result, valued being with other people with T1DM and felt able to engage in self-management behaviours they otherwise felt would identify them as different. This led to a normalisation of self-management behaviours after the course. The YP modelled behaviour from peers who they felt had control over their diabetes. Second, while attending the course they felt safe to discuss the impact of their diabetes and make changes to their regimen. Third, the YP reported feeling more empowered in their interactions with health professionals after having attended the course.

Discussion: Diabetes education that encourages peer-support and provides information that is relevant to YP can have a positive impact on self-management and can change the way YP engage with health services.

9:15 - 9:30

An educational course for young people with type 1 diabetes: impact on self-management and well-being

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Background: Young adults (16-25) with type 1 diabetes are at high risk of sub-optimal glycaemic control, and may experience significant diabetes-related physical and psychosocial impacts. WICKED (Working with Insulin, Carbohydrate, Ketones and Exercise to manage Type 1 diabetes) is a structured educational course that was developed to meet the specific needs of this age group as part of health service provision. This study presents the preliminary evaluation of the WICKED course conducted as part of an extended pilot study.

Method: Participants completed questionnaires before the start and at the end of the WICKED course assessing: Diabetes-Related Distress (DDS), Self-efficacy, Positive/Negative Outcome Expectancies, Child Attitudes to Illness Scale (CATIS), Hypoglycaemic Fear Scale (HFS), perceived Knowledge of Type 1 Diabetes and Self-Reported Frequency of Self-management Behaviours. Paired sample t-tests were conducted to analyse the data.

Findings: 32 young people (17 women, age range: 16-25, mean age: (19) participated across six courses in two centres in the North of England. Self-efficacy ($p < .001$), Negative Outcome Expectancy ($p = .030$) Perceived Knowledge ($p < .001$) and Self-Reported Frequency of Self-Management Behaviours ($p = .008$) increased immediately after the WICKED course. There were no significant changes in other assessed outcomes over the duration of the course.

Conclusion: WICKED had an immediate positive effect on outcomes related to self-management, but did not increase diabetes distress or fear of hypoglycaemia. Further follow-up will establish if this improvement in selfmanagement outcomes is sustained and assess the long term impact on distress.

9:30 - 9:45

Quasi-experimental pilot trial: 6 months follow-up of a multidisciplinary intervention for obese adults

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We evaluated the effects of a one-year multidisciplinary group intervention for obese adults (psychological training, information about healthy diet, physical exercise program). The main research question was whether participants in an intervention including volitional aspects of behaviour change (action and coping planning) become more physically active and loose more weight than participants in a motivation-only intervention.

Obese persons were invited by public calls to participate and were assigned to the intervention and control group (IG n = 36; CG n = 33). Both groups received the same intervention, except that we addressed for the IG additional to motivational aspects also volitional aspects of behaviour change. Up to now, questionnaires (psychological, behavioural variables, weight) were completed at t1 (baseline) and t2 (6 months follow up). At t2, both groups reduced significantly their BMI (t1-t2 IG: -2.29, p<.001; CG -2.44, p<.001; group differences n.s.). Only the CG increased their level of action planning (t1-t2 p<.03), leading to group differences at t2 (p<.007). Both groups increased their level of coping planning, significant differences between groups occurred in favour of the CG (IG: t1-t2 p=.002; CG t1-t2 p=.001; group differences t2 p<.03). Both groups are physically active at t1 and can increase their level (hours/week) at t2 (IG t1: 2.09, t2: 2.96, n.s.; CG t1: 2.56, t2: 3.19, p<0,6; group differences t2 n.s.).

Up to now, findings do not confirm that the intervention with focus on action planning has better potential to evoke substantial differences in cognitions and behaviour than the motivation-only intervention.

9:45 - 10:00

Patient and professional acceptability of telehealth to monitor COPD and diabetes

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Background: Telemonitoring in Diabetes and COPD has been shown to improve glucose management, reduce hospital admissions and reduce costs associated with the home management of COPD. However, for telemonitoring to achieve its potential in encouraging self-management amongst patients, both patients and health care professionals must accept the technology as part of service provision. Previous findings demonstrate that failure to consider end user and stakeholder attitudes towards technology in healthcare can lead to less than optimal outcomes. The aim of this research was therefore to utilise an idiographic qualitative approach to consider patient and health care professionals' acceptability of telemonitoring in the service delivery of COPD and Diabetes.

Methods: Health care professionals (N=7) and patients (Diabetes N= 11 & COPD N=8) were interviewed following participation in a randomised controlled trial of telemonitoring. Interviews explored experiences of utilising the technology, barriers and facilitators to use. Data was analysed using inductive thematic analysis.

Results: Thematic results were considered for each stakeholder group separately (HCPs and Patients) and later synthesised for common themes. Key synthesised themes identified included; integration of telemonitoring with usual care, targeting suitable patient groups for telemonitoring, age and cost as perceived barriers to implementation, development of patient autonomy, patient reassurance, and alleviating a pressured NHS.

Discussion: The research lends support to patient and professional acceptability of telemonitoring in chronic disease intervention and demonstrates the potential for telemonitoring to support education and self-management of chronic disease. However, the potential barriers to successful implementation will also be discussed.

10:00 - 10:15

An online intervention to maintain physical activity levels in COPD patients after pulmonary rehabilitation

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Background: Physical activity (PA) is an important self-care behavior for patients with Chronic Obstructive Pulmonary Disease (COPD). Pulmonary rehabilitation (PR) is designed to improve exercise capacity through PA of COPD patients. However, after PR, PA levels often decrease quickly. The aim of this study was to evaluate an online self-regulation intervention to promote maintenance of PA after PR.

Methods: A randomized controlled trial with an intervention group (IG; n=20) and a no-intervention control group (CG;n=20). All receive an accelerometer for the entire study period; 2-4 week pre-PR baseline, 8-16 weeks PR, and 8 weeks at home. Only the IG receives the online intervention at home, comprising for example feedback on activity per day, tagging activities carried out per day and active coaching. Patients fill out questionnaires about determinants of health behavior at start PR, end PR and study end.

Findings: Currently, 26 patients are enrolled in the study; 15 in IG (mean age 62.7y; 7 males; baseline period PA: 399.3•}167.8 Kcal/day), and 11 in CG (mean age 61.1y; 7 males, 457.5•}180.8 Kcal/day). On average, participants wear the accelerometer 5-6 (sd=1.7) days/week. At home, IG patients (n=8) tagged on average 10.6 (sd=4.6) activities per day, of which the majority was performed indoors (8.9; sd=4.5).

Discussion: COPD patients showed a high compliance to wearing the accelerometer daily, and visiting the coaching website for identifying their activities. After completion of the trial, statistical analyses will be carried out to study the effect of the intervention on PA and psycho-social situation of patients.

10:15 - 10:30

Impact of mindfulness-based stress reduction on depression, anxiety and stress in people with Parkinson's disease

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Background: Psychological interventions to help with non-motor symptoms of Parkinson's Disease (PD), such as depression, anxiety, stress, or difficulty coping with PD can significantly affect quality of life, disability and activities of daily living. This study aimed to evaluate whether MBSR could be of benefit in this regard.

Methods: A mixed methods design was used. Of 13 participants recruited, 6 completed the full 8 week MBSR course. Data was collected at baseline, 8 weeks and 16 weeks. A follow-up questionnaire which included qualitative questions was used as well as validated questionnaires (Depression Anxiety and Stress Scale, DASS-21; Parkinson's Disease Questionnaire 39, PDQ39; Mindful Attention Awareness Scale, MAAS). Minor adaptations were made to the MBSR course to meet the specific needs of patients with Parkinson's.

Findings: The DASS-21 showed improvements at weeks 8 and 16. PDQ39 results varied across domains, showing a mix of improvements, no change, and slight worsening of symptoms. Mean scores from the MAAS decreased slightly then increased again at week 16 (higher scores indicate increased mindful awareness). All participants reported they would recommend MBSR to other people with Parkinson's. The high drop-out rate was consistent with other mindfulness studies and withdrawal reasons included scheduling conflicts and unexpected ill health.

Discussion: This study supports previous findings that mindfulness-based interventions could benefit people with Parkinson's experiencing non-motor symptoms, and the intervention is acceptable to patients. Further research using larger sample sizes with a longer follow-up period is required.

Advances in eHealth and mHealth

9:00 - 10:30 | FORBES SUITE

9:00 - 9:15

Attitudes and eye movements during vegetable choice tasks

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Background: Studies have shown that attitudes are related to food choices. While attitudes are usually assessed with questionnaires, computer-based studies revealed an association between eye movements and attitudes, suggesting eye tracking as a potential method to measure attitudes. Recent technological developments now allow to test this assumption in more naturalistic settings by using mobile eye tracking. The present study aimed to compare the relationships between dwell time, attitudes, and food choice in a conventional computer-based task and a naturalistic food buffet task.

Methods: Vegetable choice was assessed both using a paired comparison task on a computer and a naturalistic yet standardized food replica buffet from which participants (N = 83) were asked to serve themselves a meal they would typically eat for lunch. During the tasks, the participants' eye movements were recorded with a mobile eye tracker. In addition, explicit attitudes towards vegetables were measured.

Findings: Path modelling revealed that dwell time on vegetables is related to attitudes and choice in both tasks ($\beta_s \geq .21$, $p_s \leq .025$). However, when reaching induced eye movements were excluded, dwell time was significantly related to attitudes and choice in the computer task only ($\beta_s \geq .24$, $p_s \leq .031$).

Discussion: The present results suggest that findings from conventional computer-based tasks may not be fully transferable to naturalistic settings due to differences in the overall task structure as well as differing characteristics of the stimuli.

9:15 - 9:30

Designing a personal health record to achieve behavioural change

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²NHS Leeds North Clinical Commissioning Group, United Kingdom

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Background: A Personal Health Record (PHR) is an electronic record that individuals use to manage and share their health information, e.g. data from their medical records and data collected by apps. This research explores beliefs potential users have about a PHR, how they would use it and barriers to its use.

Methods: A qualitative design comprising eight different focus groups, each with 6-8 participants. Groups included adults with long-term health conditions, young people, physically active adults, data experts, and members of the voluntary sector. Each group lasted 60-90 minutes, was audio recorded and transcribed verbatim. We analysed the data using thematic analysis to address the question "What are individuals' beliefs about a Personal Health Record?"

Findings: We found four themes. Making it work for me is about how to encourage individuals to actively engage with their PHR. I control my information is about individuals deciding what to share and who to share it with. **How to reassure me is about individuals' concerns, including how secure their information is and whether healthcare professionals would act upon their information.** Potential impact shows the PHR has the potential to increase self-efficacy when managing health conditions and when undertaking health-protective behaviours, and it could enable healthcare professionals to make greater use of psychosocial information such how **lifestyle and life events affect an individual's health and their capacity for behaviour change.**

Discussion: This research provides insight into why previous PHRs failed and how a future PHR should be designed to maximise the behavioural change achieved.

9:30 - 9:45

Factors determining physical activity of emerging young adults: a mobilebased Ecological Momentary Assessment (mEMA) study

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²Wageningen UR, Netherlands

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⁴Maastricht University, Netherlands

Background: Carrying out sufficient amounts of physical activity (PA) is difficult for many emerging young adults. Therefore, the primary objective of the present mobile-based Ecological Momentary Assessment (mEMA) study was to gain a better understanding of the underlying motivational (cognitive and affective) and contextual (physical and social environmental) determinants of walking, cycling, and exercising, and to find out when these effects occur.

Methods: Over the course of seven consecutive days, 71 participants (64% female) received prompts from the mEMA-app four times a day, containing questions regarding cognitive (i.e., intention, perceived behavioural control, perceived environment), affective, and contextual factors (i.e., physical and social environment) that may have influenced their PA during the previous 3.5 hours. Multilevel analyses (i.e., time of day nested within individuals) and exploratory timelagged analyses were conducted.

Results: PA behaviors were associated with mood (e.g., walking (ORfeelinglively = 1.7, 95% CI 1.05-2.87), the physical setting (e.g., cycling (ORSchoolsetting = 1.8, 95% CI 1.02-3.18), and the social environment (e.g., exercise (OR = 1.8, 95% CI 1.06-3.19). Time-lagged analyses revealed that although intention and PBC were not directly associated with PA, they did predict subsequent PA (e.g., exercise (ORintention T+1 = 2.7, 95% CI 1.56-4.60).

Conclusions: Although contextual factors are related to concurrent PA behaviors, motivational factors (intention, PBC and affect) determine subsequent PA behaviors. Therefore, it is important to note that cognitive factors and behaviors fluctuate over time, which may explain differences in relationships between cognitions and PA behaviors as shown in previous cross-sectional studies.

9:45 - 10:00

Understanding engagement with a novel smoking cessation smartphone application: an exploratory analysis of usage data

O. Perski¹, A. Herbec¹, R. West¹¹University College London, United Kingdom

Background: Engagement with smoking cessation smartphone applications (apps) is essential for them to be effective; however, the process of identifying appropriate parameters for measuring engagement is at an early stage. This study aimed to: 1) assess how far a range of engagement parameters discriminate between the active and control versions of a novel smoking cessation app; 2) explore participant characteristics that prospectively predict engagement.

Methods: A subsample of 184 UK-based adult smokers, enrolled in the first wave of the BupaQuit trial, was randomly assigned to receive the intervention or control version of the BupaQuit app. Secondary outcomes included number of logins, time spent using the app, and content used. Negative binomial regression models were fitted to estimate relationships between app version and engagement parameters over 28 days.

Findings: App version did not predict number of logins. Intervention app users spent more time using the app (IRR = 1.46, $p < 0.001$, 95% CI = 1.43-1.48) and used more content (IRR = 1.08, $p = 0.008$, 95% CI = 1.02-1.14). Being male, having higher educational attainment, and low nicotine dependence independently predicted engagement on all parameters assessed across experimental arms (all p 's < 0.001).

Discussion: Using number of logins as the sole measure of engagement in randomised trials may not suffice to discriminate between apps. Time spent using apps and content used should additionally be considered 'gold standard' measures of engagement. The finding of baseline predictors of engagement suggests that the tailoring of content according to individual differences may improve engagement.

DHP Award Winning Abstract

10:00 - 10:15

Web-based interventions for mental health promotion in employees: a systematic review and meta-analysis

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Background. There is growing interest in web-based intervention for promoting mental health in working populations. A number of randomized controlled trials have been conducted; however the results are heterogeneous. This work aims to synthesize the results of randomized controlled trials on web-based mental health interventions for employees.

Methods. A systematic search was performed and 4151 abstracts were identified. A meta-analysis was conducted including 18 studies. **Cohen's d was calculated for stress and depression to estimate the effect of the intervention group compared with a care as usual-, a waitlist-, or a no-treatment control group.**

Results. Analysis of data is still on-going. Available results show small to moderate effect sizes for web-based **mental health interventions in employees for the reduction of stress (Cohen's d=0.34, 95% CI=-0.15-0.53, n=14) and depression (d=0.31, 95% CI =0.15-0.46, n=13).** Interventions of medium length (4-8 weeks) are **significantly more effective than long (≥ 9 weeks) and short (≤ 4 weeks) interventions** in reducing stress ($p<.001$) and improving depressive symptoms ($p<.05$). Moreover, guided interventions are superior to unguided interventions in reducing stress and depression ($p<.01$). No significant difference was present for the type of treatment.

Discussion. This meta-analysis demonstrates that internet interventions for improving mental health in employees are available and can be effective. However, the effect sizes vary from trial to trial from nonsignificant to large, indicating that each individual intervention needs to be evaluated before implementation. So far, interventions are designed along theories of work-stress only seldom and moderators of chance are almost unknown.

10:15 - 10:30

Timeout from smartphone use – Impact on adult employees' work and health-related variables

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³Offtime GmbH Berlin, Germany

Background: The smartphone is an important communication tool at the workplace. However, the use of the smartphone blurs the boundary between work and leisure time, because of one's permanent reachability. The smartphone use often continues during evenings or weekends. This results in shorter recovery phases from **work. However, recovery is important for employee's health. Thus, the aim of this study was to examine the effect of a timeout from smartphone use on work and health-related variables like stress, recovery, or workhome interference.**

Method: Participants were 95 employees with a mean age of $M= 34.1$ ($SD= 10.8$). In a randomized controlled trial the experimental group (EG) had to schedule two daily timeouts from smartphone use of at least one hour during two weeks.

Findings: No difference of smartphone use was found between the control group (CG) and the EG. However, regression analysis revealed that the initial smartphone use at baseline moderated the impact of the timeout: participants of the EG with low initial usage reduced their usage time significantly. Furthermore, participants who were afraid of missing important calls/messages during the timeout showed less timeouts and perceived them as additional stress factor. No relationship of the intervention with other variables like work-home interference or recovery were found.

Discussion: The findings suggest that the timeout from the smartphone can be an additional stress factor. Withdrawal symptoms can occur or the flexibility for doing work tasks related with a smartphone can be restricted. This applies particularly to employees with intensive smartphone use.

Health behaviour change interventions in health care:
patients and providers

11:00 - 12:30 | FLEMING AUDITORIUM

11:00 - 11:45

Planning and implementing an n of 1 behaviour change service: innovative health services research

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Background: In a clinical encounter, both clinician and patient want the patient to achieve health behaviour change, so the clinician reviews the evidence from between-subject randomized controlled trials and recommends the best intervention to the patient. However, due to the heterogeneity of response in the RCT, we know it is unlikely that the intervention will be successful for the individual patient.

Methods: The most scientifically rigorous-- and potentially efficient-- method for determining optimal behavioural intervention for a specific patient is a single patient (n-of-1) RCT, in which data are collected objectively, continuously, and in the real-world, for a sufficient time period to determine whether the intervention, compared to a placebo, another intervention, or a different type of delivery or schedule, is optimal for that particular patient (e.g. worsening sleep with increased exercise, etc). Systematic data collection can also obtain offtarget behavioral changes, for particular patients, so that a more complex picture can emerge about the overall therapeutic benefits and harms that can be attributed to the behavioral intervention.

Findings: An overview of our vision of an n-of-1 trial service will be presented, as well as the findings and lessons learned from our first patients desiring changes to their exercise, stress, or sitting behavior.

Discussion: With sufficient data from several n-of-1 trials, we will be able to engage in inductive theory-building, and examine emerging behavioral phenotypes. Hence, another aspiration of our service is to establish an automated, effective platform that behavioral scientists can use to engage in n-of-1 discovery-based, inductive science.

11:45 - 12:00

Behaviour-change techniques in pharmacy interventions: systematic review identifying opportunities for increased effectiveness and improved reporting

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Background: Behaviour change interventions are used by many healthcare professionals and increasingly by pharmacists, enabling them to change patient behaviours including medication management and health promotion e.g. smoking cessation. The aim of this study was to describe the Behaviour Change Techniques (BCTs) in **pharmacists' interventions**.

Methods: Interventions delivered in randomised controlled trials identified in a Cochrane systematic review of outpatient **pharmacists' non-dispensing** roles were independently coded by two coders for BCTs using the BCTT Taxonomy (BCTTv1).

Findings: In total, 87 RCTs were identified and interventions coded. For 18 studies no BCTs were reported. In the remaining 69 studies, 26 BCTs were identified and, the average number of BCTs was 3, with a range from 1 to 10. **The most common BCTs were 'Information about health consequences', 'Instruction on how to perform the behaviour', 'Social support (practical)', 'Social support (unspecified)' and 'Problem solving'.**

Discussion: A large number of trials reported no identifiable BCTs but many had significant effects on behaviour. This suggests that the intervention has been inadequately reported and would therefore be difficult to replicate. Whilst several BCTs were used frequently, many BCTs have not been included in pharmacy interventions, including at least 15 which are commonly used in other behaviour change trials and which might be applicable in pharmacy practice. In conclusion, there are opportunities for enhancing the effectiveness of pharmacy interventions and for improving clarity and completeness of reporting the interventions.

12:00 - 12:15

Promoting volitional self-efficacy to uptake colorectal cancer screening using implementation intentions

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Background: Colorectal screening uptake in the UK and elsewhere is modest and is persistently inversely associated with socioeconomic deprivation. Worldwide, interventions have tended to focus upon structural aspects of delivery rather than psychological processes and theory. A few previous studies in different types of screening have investigated the potential for planning interventions based upon implementation intentions to promote uptake, and have produced mixed results.

Methods: A preliminary survey (N= 500) investigated volitional self efficacy by exploring methods used by individuals who had successfully completed faecal sampling and completed colorectal screening. A pilot controlled intervention (N = 2000) employed an intervention comprising motivational information and an implementation intention in an area of high socioeconomic deprivation in Scotland. Screen eligible adults were sent a supplementary leaflet along with standard instructions and a test kit. Subsequent screening uptake was objectively determined from medical records.

Results: Participation rates amongst screen eligible adults who received the supplementary leaflet was substantially higher than amongst those who did not receive the leaflet (59.7% vs 44.8% controls, $p < 0.001$). The intervention effect on FOBt uptake was maintained after adjusting for age and gender.

Discussion: A planning intervention based upon implementation intentions was an effective tool for promoting screening uptake. Results are discussed in the context of similar interventions that have produced mixed results, with reference to the roles of prior motivation, goal commitment, education and self-versus-other generated plans.

12:15 - 12:30

What determines plan enactment? Exploring relationships between action plan specificity and enactment among rehabilitation patients

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Background: Individuals with chronic conditions can benefit from formulating action plans to exercise. However, the self-generated content of action plans is rarely evaluated. The aim of this study was to evaluate the specificity of plans and examine whether rehabilitation patients with highly specific plans were more likely to enact their plans (i.e., cue-dependent behaviour).

Methods: The study presents secondary analyses of data obtained from a larger trial. We rated the specificity of self-generated exercise plans of 238 rehabilitation patients based on a coding scheme, systematically developed to evaluate plan specificity. A 'highly specific' plan (scoring 3 on our 1-3 scale) was defined as a plan that had the potential to trigger the desired behaviour (e.g., 'If I come home from work on Tuesday at 6pm, then I will go running'). An 'unspecific' plan (=1) was vague about, or omitted, the situational cue (e.g., 'Maybe I will go running at the weekend'). Six weeks after rehabilitation, plan enactment was assessed. Regression analyses examined the relationship between specificity and enactment.

Findings: On average, participants filled in 2.35 (SD=0.74) complete plans. Eight (3.7%) participants did not fill in any plans. Overall, plans were very specific (M=2.43, SD=0.74). Individuals with more specific plans were more successful in enacting them ($s = .14$, $p = .04$).

Discussion: Plan specificity contributes to successful plan enactment. Interventions should emphasize not only the importance of planning, but also the benefits of setting highly specific plans.

Culture, health, behaviours and beliefs

11:00 - 12:30 | CROMBIE A SUITE

11:00 - 11:15

Socioeconomic status and health compromising behaviour: it's all about perception

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Socioeconomic status (SES) is associated with many health issues as well as health compromising behaviour (HCB), like smoking and unhealthy eating. Most research is based on objective indicators of SES such as income, education and occupation. However, subjective SES, a measure of **someone's perception of their social standing**, is also related to health. Moreover, perceptions of health and HCB might also influence these SES effects.

Therefore, this study examined the influence of objective and subjective SES on perceived health and HCB and the role of classifying HCB as typically high or low SES. In a cross-sectional survey, 326 Dutch respondents varying in SES completed a questionnaire consisting of measures of objective and subjective SES, perceived health, HCB and classification of those HCB in terms of SES. Data were analysed using hierarchical multiple regression-analysis.

Results showed that both objective SES ($B = .13$, $t(321) = 2.11$, $p = .04$) and subjective SES ($B = .20$, $t(321) = 3.15$, $p = .002$) had an effect on perceived health. Only subjective SES ($B = -.16$, $t(321) = -2.64$, $p = .01$) effected HCB. The moderating effect of classifying HCB as typically high or low SES was only present in the relation between objective SES and HCB ($B = -.30$, $t(318) = -5.31$, $p < .001$).

Not only SES, but especially perceptions of SES and HCB determine the extent to which someone feels healthy and engages in HCB. Health interventions should try to tackle these perceptions, either by invalidating current SES related perceptions or by emphasizing new healthy perceptions.

11:15 - 11:30

Investigating health professionals' experiences of South Asian patients' adherence to self-management with type 2 diabetes

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Background: British South Asians continue to experience a surplus Type 2 diabetes risk, and health professionals play an important role in facilitating diabetes self-management. Although numerous qualitative studies have explored health professionals views regarding diabetes care generally, there is a paucity of research exploring their views on diabetes management in South Asian patients specifically. This study aimed **to explore health professional's perceptions, knowledge and their experiences of South Asian patients' adherence to self-management with Type 2 diabetes.**

Methods: Fourteen semi-structured interviews were conducted with health professionals who support Type 2 diabetes patients in the North West of England (Bolton, Preston, and Blackburn). Transcripts were analysed using Grounded theory methodology.

Findings: The emerging model incorporated themes relating to inadequate culture-specific training, and misconceptions regarding South Asian culture in general and with respect to diabetes care in particular. **In other words, health professional's lack of culture-specific education seemed to affect their perceptions and interactions with South Asian diabetes patients.**

Discussion: This data highlights the need for additional information and education to inform health professionals and address any cultural misconceptions. Therefore, they can more appropriately support South Asian patients in diabetes self-management.

11:30 - 11:45

Health-mediation for segregated Roma: evaluation of a community-based participatory program in Slovakia

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Background: In Central and Eastern Europe (CEE), health-mediation programs are becoming adopted as central policy instruments to tackle health inequalities among segregated Roma and general populations. We performed a qualitative evaluation study of one such program based in Slovakia. Our study aim was to evaluate whether the program: 1) addressed social determinants of health (SDH), and 2) enabled emancipatory participation.

Methods: To produce detailed data on the program everyday practice, we used primarily ethnographic techniques across all organizational levels of the program over a period of 17 months. To evaluate the merits of the program, we then summarized through a qualitative content analysis in what the thus reconstructed practice of the program were consistent with: 1) the World Health Organization framework on SDH (WHO SDH), and 2) contemporary anthropological critiques of participation in development.WHO

Findings: **We found that in both respects, the program's theory was too narrow and inconsistent. The program's goals, targets and procedures: 1) focused solely on health-related behaviour and access to health-care, and 2) conceived off participation in a superficial way. However, we also found that in the actual everyday implementation, the program's staff managed: 1) to cover more SDH aspects, and 2) to facilitate participation in a more emancipatory way than set out in the program's theory.**

Discussion: The CEE health-mediation trend presents an unprecedentedly hopeful approach to health inequalities among segregated Roma and respective populations, but its theory and related implementation processes need to be extended with a more structural and emancipatory focus.

11:45 - 12:00

Miles to go before we sleep: how illness experiences shape health behaviours in India

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Background: The current project synthesized qualitative research exploring illness experiences and health behaviours among medical care recipients of different chronic diseases in India.

Methods: Semi-structured, tape-recorded interviews were conducted with patients with diabetes (50), cancer (26), high risk pregnancies (26), and with parents of children with neurological diseases (25). The data was analysed using Interpretative Phenomenological Analyses.

Findings: Main themes included (i) poor psychosocial outcomes: participants reported poor levels of medical literacy, an inability to navigate the healthcare system (due to psychosocial and structural barriers), relying primarily on personal experiences to guide them through their care, increased psychological distress, and negative illness perceptions, (ii) poor behavioural outcomes: participants reported poor medical adherence, inability to follow the prescribed diet and exercise, and not attending medical appointments, (iii) positive participant attitudes: most participants expressed a desire to correct their unhelpful behaviours but were unable to access adequate and appropriate support, and (iv) capacity for coherence and agency in supportive role allocation: participants were able to identify supportive roles for their social groups (e.g., physicians provided medical informational support, family offered emotional support).

Discussion: At a national level, this project emphasizes a need to reassess existing public health and medical programmes. In order to improve their effectiveness, it is useful to include the lived experiences of medical care and elements of patient empowerment during the development of these programmes. At an international level, this project invites health researchers to expand on existing theory and practice to include socio-cultural contexts of care.

12:00 - 12:15

Post-migration stress among refugees – development of a new scale and associations with wellbeing

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Background: Trauma-afflicted refugees often report low subjective wellbeing and mental ill health. In addition to ill health related to pre-migration traumas, post-migration stress may contribute to the poor mental health and low wellbeing of refugees. There are currently only a few instruments for assessing post-migration stress. However, none of the existing instruments fully capture the wide variety of stressful experiences specifically faced by refugees. The current study describes the systematic development of a new measure for assessment of post-migration stress among refugees and preliminary results regarding its associations with wellbeing.

Methods: A mixed-methods psychometric study comprising: construct conceptualization and initial item pool generation, linguistic and cultural adaptation, pre-testing of the scale by cognitive interviewing, content validity ratings (CVR's) of items by an expert group, and correlational analysis with WHO-5 wellbeing index (n=41).

Findings: Seven domains were conceptualized; perceived discrimination, lack of host country-specific competences, economic strain, loss of home country, home country and family concerns, social strain, and family conflicts. Cognitive interviewing, inter-item correlations and CVR's resulted in a 24-item scale. CVI for items ranged between 0.83 and 1.0, and for the entire scale (S-CVI) was 0.95. 70.7 % (n=29) reported wellbeing below 13 on WHO-5, indicating poor wellbeing. Wellbeing was negatively associated with economic strain ($r = -0.50, p < 0.01$), and social strain ($r = -0.46, p < 0.01$).

Discussion: Findings indicate preliminary support for the scale's validity. Post-migration stress stemming from social and economic strains appear as predominant adversities in regard to wellbeing for refugees.

12:15 - 12:30

The revised dental beliefs survey: reliability and validity in a Chinese population

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Background: Patient perceptions of behaviors and attitudes of dentists are associated with dental fear and poor dental attendance in Western countries. However, there is a paucity of research exploring patients' perceptions of the dentist in China. One reason for this may be the lack of a valid and reliable scale in Chinese to measure this. This study aimed to translate the Revised Dental Beliefs Survey (R-DBS) into Chinese and then explore the reliability and validity of this measure in a Chinese population.

Methods: We translated the R-DBS using the forwards-backwards method and pilot tested it on a small sample of adults in China. Following this, 349 Chinese adults completed the newly translated scale, as well as a standardised dental anxiety questionnaire (the Modified Dental Anxiety Scale Chinese version) to test construct validity. 107 participants completed the R-DBS again 2 weeks later for test-retest reliability.

Findings: The Chinese R-DBS was internally consistent ($\alpha = 0.9$), demonstrated construct validity ($r = 0.6$) and test-retest reliability was good ($r = 0.7$).

Discussion: These findings suggest that the R-DBS is a reliable and valid measure for assessing Chinese patient perceptions of behaviours and attitudes of the dentist. The next step is to use this measure in a largescale study in order to assess dentist perceptions as well as oral health, anxiety and dental attendance in China.

Coping and managing chronic illness

11:00 - 12:30 | CROMBIE B SUITE

11:00 - 11:15

The Essen Coping Questionnaire (ECQ) in “public domain”

G.H. Franke¹, M. Jagla¹¹University of Applied Sciences Magdeburg and Stendal, Germany

Background: Coping with disease, defined as the thoughts and behaviours used to manage the internal and external demands of chronic illness, has been a focus of medical and health psychology for four decades. This study proves the applicability and the psychometric properties of the Essen Coping Questionnaire (ECQ), which is in public domain. It consists of 45 items and nine scales: (1) Active problem-solving coping, (2) Diversion and encouragement, (3) Information-seeking and exchange of experience, (4) Minimization and wishful thinking, (5) Depressive coping, (6) Openness for help, (7) Active search for social support, (8) Confidence in doctor's competence, and (9) Working out an intrinsic stability.

Methods: 1.815 patients with different somatic diseases (51% female), mean age 48 years (·) 16, 16-86) served as the normative group. Reliability and validity were investigated; Stanine-scores were presented.

Results: Minor gender (women scored higher on scales 3, and 8) and age effects (older patients scored higher on scales 3, and 4; younger patients scored higher on scales 5, and 7) were found. **Cronbach's Alpha** was sufficient (scales 1, 3, 5, and 7 > 0.70; scales 2, 6, 8, and 9 > 0.60; scale 4 > 0.50). Explorative factor analyses supported a five-factor solution. Scale 5 correlated high with psychological distress; scale 7 with social support. Replicability was proven in a small sample of neurological rehabilitation patients (n = 48).

Conclusion: The ECQ serves as a short screening tool for assessing coping with disease. Item and scale reduction are possible after future research.

11:15 - 11:30

Antecedents, appraisal, coping, and legitimisation: factors affecting help seeking in men with cancer

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Background: Men with cancer typically access support services to improve their psychosocial health or health behaviours less than women with cancer. This study aimed to explore the factors affecting help seeking behaviour to make recommendations for the development of interventions for men with cancer.

Methods: Adult men with a diagnosis of cancer in the East of Scotland were recruited for a qualitative study of semi-structured interviews. Data were analysed inductively using thematic analysis and a coding framework was developed as themes emerged.

Findings: Twenty participants were interviewed. A complex range of factors impacted on men's help seeking. Appraisal of, and coping with, cancer and biopsychosocial antecedents, including the role of masculinity, along with service contexts impacted on help seeking and psychosocial outcomes. The themes that emerged reflected a modified model of the transactional model of stress and coping relevant to men with cancer. Legitimation of help seeking and the use of some coping styles were needed by some men to access supportive services. This was particularly apparent where ideas about masculinity played a strong role in men's appraisal of, and coping with cancer.

Discussion: Implications for practice include the need to carefully tailor and advertise services to men, and for health professionals to help legitimise the use of certain coping strategies, including help-seeking. Services may need to be gender-sensitive without over-emphasising the role of masculinity in order to support men to access specific services and promote broader help-seeking behaviour.

11:30 - 11:45

The importance of relationships in patient experiences of leg ulcer treatment

P. Tollow¹, J. Ogden¹¹University of Surrey, United Kingdom

Background: Leg ulcers are a chronic wound of the lower leg, known to have a profound effect on patient quality of life. Whilst the comparative effectiveness of treatment modalities is often investigated, no previous research has explored the patient experience of different treatments for chronic leg ulceration. This study aimed to investigate patient experiences of both conservative and surgical treatment for leg ulcers.

Methods: Semi-structured interviews were conducted with thirty-two participants who had undergone conservative or surgical treatment for chronic leg ulceration. Interviews were transcribed verbatim and analysed using Thematic Analysis.

Findings: Four primary themes were identified: 'uncertainty', 'chronology', 'agency' and 'adjustment', transcended by an overarching theme of 'relationships'. Participants discussed significant uncertainty regarding their condition, their treatment expectations and their experiences. They demonstrated varying perceptions of chronicity, and this often appeared to change through the course of treatment. Many undergoing conservative treatment described feelings of powerlessness and resignation, whilst the process of surgical treatment appeared to trigger a sense of empowerment. Overarching all of these findings was the importance of patient-clinician relationships in treatment, and the potential for these to fundamentally change the patient experience.

Discussion: These results demonstrate how relationships are an integral part of the treatment process, having the power to damage or redeem patient's experiences. This key role of relationships is discussed in the context of patient-centred care and related disciplines, including therapeutic alliance and learner-centred education. The findings have implications for clinical guidelines and integrated care.

11:45 - 12:00

Fear of movement in patients with heart failure - correlates and associations with accelerometry data

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Background: Guidelines recommend physical activity (PA) for patients with heart failure, yet PA levels in this group are low. Fear of movement might constitute a barrier to PA, but not much is known about its correlates and associations with objectively assessed PA.

Methods: The newly developed Fear of Activity in Situations – Heart Diseases (FActS-HD) questionnaire was given to 132 patients (80% men, mean age 67 ± 12 years) with heart failure. The FActS-HD consists of 24 situational descriptions of physical activities with varying intensities (light, moderate, vigorous). Trait anxiety and depression, symptom burden, demographic and disease-related characteristics were assessed. Energy expenditure due to PA and frequency of activity types (e.g., walking, stair climbing) across 6 days were measured via accelerometry in 61 participants. Associations of FActS scores with potential correlates and PA were examined using multiple regression analyses.

Findings: Fear of movement (total score/moderate intensity Cronbachs' $\alpha = .98/.90$) was correlated with higher anxiety and depression scores, higher symptom burden, not attending cardiac exercise groups, feeling less educated about heart failure, implanted defibrillator, comorbidities, and lower education (all p-values < .01). Controlling for age, gender, and BMI, both FActS-scores predicted **fewer stair climbing** ($\beta = -.31/-.30$, $p < .01$), whereas anxiety and depression did not. FActS-moderate tended to be associated with lower energy expenditure ($\beta = -.18$, $p = .089$).

Discussion: Fear of movement, but not trait anxiety and depression, appear to impede physical activities in cardiac patients. Tailored interventions to decrease this fear and increase PA are warranted.

12:00 - 12:15

Who loses weight and keeps it off? A representative population survey of 2000 overweight/obese adults

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Background: Most weight loss (WL) attempts take place in the 'real world', outside of controlled clinical or research contexts. Consequently, little is known about factors influencing the success of these efforts. We undertook the largest European survey to date of WL, WL maintenance and their correlates in overweight and obese adults.

Methods: Nationally-representative population samples from the UK, Portugal and Denmark (N=2000; 1021 men) completed an online survey. **Inclusion criteria were BMI $\geq 25\text{kg/m}^2$ and ≥ 1 completed WL attempt.** Respondents reported details of their most recent completed WL attempt, any subsequent regain, WL strategies used, psychological and demographic data. Using regression analyses, correlates of WL and maintenance were identified.

Findings: Mean reported WL was 9%. 1310 respondents (67%) achieved clinically significant WL ($\geq 5\%$). Respondents with greater WL used professional support and employed more numerous self-regulatory WL strategies. Most respondents explicitly discontinued weight management strategies once active WL ended. Overall, respondents regained weight to 2% below start weight. However, 516 (26%) respondents maintained $\geq 5\%$ WL. **These respondents were older, with a higher initial BMI, greater and faster WL than the remainder of the sample.** They reported less loss of control over eating, and lower frustration and greater motivation to reinitiate WL in response to minor regains.

Discussion: These findings highlight novel, ecologically-valid correlates of 'real world' WL and WL maintenance success in large, nationally-representative samples. They potentially inform the development of generalizable guidance to support WL maintenance in the overweight/obese European general population, e.g. by encouraging WL re-initiation following even minor regains.

12:15 - 12:30

Task engagement decreases pain perception in response to controlled pressure pain

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Background: To serve as a signal of potential threat a stimulus perceived as painful must achieve salience. The salience of a pain stimulus and its disruptive function on cognitive ability is well documented. This study investigates the hypothesis that increasing task demand reduces saliency of a painful stimulus and modifies **observers' pain perception**.

Method: In a controlled within subjects laboratory experiment, healthy adults (N=22) rated subjective pain level in response to a painful stimulus while performing a **standardised 'n-back' visual working memory task** varying in level of difficulty; 1-back (easy) vs 3-back (hard). Using a custom-built device, physical force (pain stimulus) **was gradually increased over time on the participants' fingertip**. Force (Newtons) was recorded when participants rated the pain level as a 5 on a 10-point scale (1 signalling pain threshold and 10 pain tolerance) when engaged in the easy and difficult visual memory tasks and when there was no task. No-task measurements were made before and after visual memory blocks.

Findings: Measured pain stimulus (force applied to the fingertip in Newtons) a participant would attribute a level of 5 (pain perception) was significantly greater on task blocks compared to no-task blocks, varying the task difficulty had no significant effect. During the task individuals could significantly endure more force applied (40% more) before rating pain as 5.

Conclusion: Engaging in a cognitively demanding task, irrespective of level of difficulty, competes with the pain stimulus to reduce its subjective intensity. Task engagement presents an effective and pleasant strategy for pain management.

Individual correlates of health-related resilience

11:00 - 12:30 | BALMORAL SUITE

11:00 - 11:15

Longitudinal relationship trajectories of young Australian women: are they associated with physical and mental health?

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Background: Transitions into adulthood are more complex and less certain than for previous generations, and their relationships with physical and mental health may also have changed. We examine transitions in relationship status amongst young women over a 16-year period, and their associations with physical and mental health.

Methods: We analysed data from 10,438 participants (born 1973-78) in the first six waves of the Australian Longitudinal Study on Women's Health, from 1996 (aged 18-23) to 2012 (aged 34-39). Group-based trajectory modelling of partnered status was used to identify coherent groups undergoing similar patterns of relationship change, general linear models to compare these groups on mental health over time, and logistic regression to examine predictors and outcomes of group membership.

Findings: We identified four relationship trajectory groups. 'Early Start' (40%) were partnered throughout most of the study period; 'Later Start' (38%) were generally partnered throughout the second half of the period; 'In and Out' (15%) moved in and out of relationships inconsistently; 'Not Partnered' (8%) were unpartnered at most or all surveys. Partnership was weakly related to mental health, while all groups showed significant and meaningful improvement in mental health over the 16 years. There were few consistent group differences in physical health or health behaviours, but the groups differed on many sociodemographic factors.

Discussion: In this cohort of women, relationship trajectories appear relatively unrelated to physical or mental health. Rather, the findings suggest a pattern of positive adaptation to circumstances, and improving mental health regardless of partnership status.

11:15 - 11:30

Personality makes a difference: attachment orientation moderates theory of planned behaviour prediction of medication adherence

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Background: Although medication has been proven effective in reducing recurrence and mortality following acute coronary syndrome (ACS), patients adhere differentially to medication recommendations. To achieve a comprehensive understanding of patients' adherence to medication recommendations following ACS, we followed up on recent calls for integrating personality theories into health psychology research. Specifically, we assessed the possible moderating role played by attachment orientation (Attachment Theory; Bowlby, 1969) in the effects of attitudes, subjective norms and perceived behavioral control (PBC) as derived from the Theory of Planned Behavior (TPB; Ajzen, 1991), on intention and reported medication adherence.

Methods. A prospective longitudinal design was employed, with two measurement time points. During hospitalization, ACS male patients (N=106) completed a set of self-report questionnaires including sociodemographic variables, attachment orientation, and measures of TPB constructs. Six months after discharge, 90 participants completed a questionnaire measuring adherence to medication recommendations.

Findings. As hypothesized, attachment orientation moderated the relationship between TPB variables and intentions as well as the direct and indirect effects of PBC on adherence. Findings indicate that PBC does not predict intentions and adherence among highly anxiously-attached individuals, and that subjective norms may inhibit highly avoidant- attached patients' intentions, such that for them, subjective norms are negatively associated with intentions.

Conclusions. Cognitive variables appear to explain both adherence intention and adherence behavior in accordance with people's individual personality characteristics. Integrating personality and cognitive models may prove effective in understanding patients' health behaviors.

11:30 - 11:45

How can social connectedness foster patient resilience? Implications for health care practice and health campaigns

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Background: Our goal is to disentangle the most important aspects of social connectedness fostering resilience in chronically ill across various patient groups. As we conceptualized resilience as retaining a high level of well-being even in the presence of a chronic illness, we examined which aspects of social relationships can explain the difference in patients' life satisfaction.

Methods: The Swiss Household Panel (SHP) data (wave 2013) was used for secondary data analysis. Our sample consists of 2124 participants diagnosed with a chronic illness (970 men, mean age 55). We created a regression model in order to explain life satisfaction in the chronically ill respondents. Life satisfaction is a reliable proxy of well-being as it is considered to be a cognitive measure of subjective quality of one's life.

Findings: A Multiple Linear Regression model including the following predictors: relationship satisfaction with partner, children and personal relationships in general, practical support from the partner and general trust in people explained 25,6% of the variance of the life satisfaction scores in the chronically ill people across all patient groups ($R^2=.256$, $F(6,1233)=71,553$, $p<0.001$).

Discussion: Our results indicate that receiving practical support from one's partner is crucial in fostering patient resilience. Therefore, health care providers and campaigns – which aim to promote patients' well-being through family engagement – might focus on facilitating patients' partners to provide practical support (e.g., giving advice, guidance). Furthermore, relationship satisfaction, feeling lonely and general trust in people might be considered as potential mediators of the effects of social relationships on resilience.

11:45 - 12:00

Association between impulsivity and weight status in a general population

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Background: Impulsivity is a personality trait which has been inconsistently found to be associated with weight status. In addition, this relationship has rarely been explored in a large general population. We aimed to examine the association between impulsivity and weight status in a large sample of the adult general population in France, and the influence of gender on this relationship.

Methods: A total of 11,929 men and 39,114 women aged ≥ 18 years participating in the NutriNet-Sante study (a large ongoing web-based prospective cohort started in France in May 2009) were selected in this cross-sectional analysis. The Barratt Impulsiveness Scale (BIS-11) was used to assess impulsivity. Weight and height were self-reported. The association between impulsivity and weight status was estimated using multinomial logistic regression models adjusted for socio-demographic and lifestyle factors.

Findings: Individuals with high impulsivity levels (BIS-11 total score > 71) were more likely to be overweight (OR = 1.41, 95% CI: 1.16-1.71 in men; OR = 1.13, 95% CI: 1.02-1.26 in women) compared to individuals in the normal range of impulsivity. The strongest associations between impulsivity and obesity were observed in men, where highly impulsive participants were more likely to be class III obese (OR = 3.50, 95% CI: 1.83-6.71).

Discussion: These observations support the existence of a relationship between impulsivity and weight status, especially in men, and confirm the importance of taking psychological factors into account in the prevention and management of obesity.

12:00 - 12:15

Are better blood glucose levels linked to resilience in young adults with type 1 diabetes?

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Young people with type 1 diabetes frequently find it difficult to live effectively with their condition as evidenced by poor blood sugar control. This problem has been identified in many countries, but is pronounced in England. However, there is no consensus in understanding this issue. Resilience as adaptive and effective handling of adversity has been suggested as a protective factor. The aim of this pilot study was to determine how members of this group with either good or poor glucose control differ with regards to resilience and correlated factors including social support and wellbeing.

We recruited 41 young adults with good or poor blood glucose HbA1c levels (defined as HbA1c <58 or >75mmol/mol respectively) from 2 secondary care centres in England (21 women; age M=19.7 years). Standardised questionnaires were used. A subset of participants (n=21) took part in semi-structured interviews and filled in event diaries (n=11). Ethical approval was granted. Participants with lower glucose levels showed stronger resilience ($P<0.0005$). Better social support was associated with a lower HbA1c (emotional support $p=0.007$; practical support $p=0.02$). Wellbeing and attachment were not associated with HbA1c ($p>0.1$).

Qualitative findings illustrate how diabetes is negotiated in everyday life, how it shapes identity and promotes a sense of agency where young people actively take control of their own situations. Self-care involves an understanding of transitions and pathways through the condition and its medical implications, alongside the notion of embodied self-care. In conclusion, resilience should be explored in a longitudinal study, in conjunction with social support.

12:15 - 12:30

Personality correlates of breast cancer patients

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Background: Previous studies about personality correlates of cancer patients led to inconclusive results. Studies by Kreitler et al. (2002) showed that focusing on theoretically-relevant factors provides new insights into personality correlates of cancer patients. The study was done in the framework of the Cognitive Orientation (CO) theory of health behavior and wellness which enables identifying relevant factors in cancer patients.

The goal was to examine whether personality tendencies grounded in the CO theory can be identified in breast cancer patients.

Methods: The participants were 250 breast cancer patients and 180 matched healthy controls. They were administered the CO questionnaire of breast cancer assessing personality dispositions identified in pretests as relevant for breast cancer.

Findings: Discriminant and logistic regression analyses showed that patients and controls differed significantly in most personality dispositions, including concern with controlling oneself and others, **dependence on others'** evaluations, emotional blocking, perfectionism, and conflicts about self identity and giving to others. Some of these variables were related to medical features, none to demographic ones.

Discussion/Conclusions: There exists a relevant set of psychological correlates of breast cancer patients that could serve as basis for psychological interventions accompanying medical treatments and needs to be examined in other cultural settings.

Interventions for healthcare professionals

11:00 - 12:30 | GORDON A SUITE

11:00 - 11:15

Practice nurses' adherence to smoking cessation guidelines and needs for web-based support: a needs assessment

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²University of Amsterdam, Netherlands

Background. Dutch practice nurses sub-optimally adhere to evidence based smoking cessation guidelines, but psychosocial determinants explaining their adherence have not yet been investigated. Online interventions could improve guideline adherence by providing personal advice tailored to adherence determinants. This study explored psychosocial determinants of practice nurses' adherence to smoking cessation guidelines and their needs for online adherence support.

Methods. Semi-structured individual interviews (N=19), based on the I-Change Model and The Diffusion of Innovations Theory, with practice nurses were conducted in May-September 2014. Data was systematically analysed using the Framework Method and considered reliable (Kappa .77; percent agreement 99%). Results from these interviews were used as input for a questionnaire, aimed to quantify the impact of the identified psychosocial determinants among a large group of Dutch practice nurses (N=157).

Findings. Practice nurses reported motivational (e.g. difficulties enhancing patient motivation and conducting follow-up consultations) and practical barriers (e.g. outdated information on quit support compensation) to smoking cessation guideline adherence. All respondents reported to use a guideline and 89% were interested in online adherence support. Quantitative results confirmed practice nurses' suboptimal guideline adherence, and revealed that self-efficacy (e.g. to counsel non-Dutch and low educated smokers) and perceived advantages (e.g. enhancing smokers' awareness and providing reliable information) were important determinants for their adherence.

Discussion. Addressing practice nurses' motivational and practical barriers via a tailored online adherence support program can potentially improve their smoking cessation guideline adherence, ultimately benefitting the quality of smoking cessation care in Dutch general practices.

11:15 - 11:30

Evaluating and improving multidisciplinary team working in breast cancer: the consensus approach to behaviour change

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Using Michie et al's (2005) 12 theoretical domains, the aim of this study was to assess and explore feasibility of using the consensus approach to behaviour change (BC) in a breast cancer team. Non-participant observation of 30 care planning meetings was conducted in three phases (baseline, P1, P2). After each phase, we facilitated a discussion with the team including a delivery of data feedback, and formulation of interventions. We then tested the summary proposals.

The study took place at a London teaching hospital (2013-2015) with a breast cancer team of 20 members. A validated observational tool with 13 variables, denoting quality of presented information and contribution to discussion by individual disciplines, was used to rate 1335 patient discussions. A one-way ANOVA showed a significant main effect of initial interventions (i.e., change of room layout and appointment of a chair) on contribution to discussion, $F(3, 1331)=143.18$, $p<.001$. In P1 and P2, a two-way ANOVA showed significant interaction between the effects of time lapse within meetings and an additional intervention (i.e., 10-minute break) on information presentation, $F(1, 984)=5.21$, $p<.05$, and contributions, $F(1, 984)=45.55$, $p<.001$. Simple main effects analysis showed significant decline in information presentation and contributions between first and second half of the meeting in P1 ($p<.001$), and a significant increase in P2 when break was introduced ($p<.001$).

The consensus approach to BC in teams is feasible, and Michie's theoretical domains are useful for designing effective interventions. Team performance grows worse during consecutive efforts, and is positively influenced with a 10-minute break.

11:30 - 11:45

Supporting healthcare professional behaviour change through personalized feedback: a qualitative study of doctors' prescribing practices

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Background: Prescribing errors that result in patient harm cost the NHS in England about £ 750 million annually. Consequently there is a need to develop more effective training that includes providing feedback on prescribing practices. This study aimed to explore doctors' perceptions of: (1) receiving feedback about prescribing errors; and (2) how feedback impacts on subsequent practice.

Methods: Semi-structured interviews (n=23) were conducted with junior and senior doctors working at hospitals in North West England. Interviews explored the acceptability of two feedback interventions they had received (written individual feedback or a group workshop) about prescribing errors. A thematic approach was used to analyse the data.

Findings: Doctors reported changes in their prescribing behaviours following feedback about their prescribing errors. In particular, feedback was perceived as valuable for identifying gaps in knowledge, encouraging self-reflection and learning from others through peer-comparison. Awareness of errors provided opportunities to construct personalised action plans to support future prescribing behaviours and address perceived knowledge and skills deficits.

Discussion: Personalised feedback about prescribing errors has the potential to support behaviour change relating to doctors' prescribing behaviours. Feedback may act as an effective training strategy by providing opportunities for personal development by identifying gaps in knowledge and skills.

11:45 - 12:00

The gender awareness approach in health: a scoping review

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Background: Many findings show gender biases in health and health care services. Gender Awareness (GA) is a concept that has emerged in the 1990's and since then discussed as a potential alternative to minimizing gender biases in health. This study consisted on a scoping review providing an analysis of how GA has been conceptualized and measured in the literature and what findings have supported its relationship with healthrelated outcomes.

Methods: Database search was conducted on PubMed, PsycINFO and ERIC. The quality and relevance of 1888 articles was assessed and 14 empirical studies were selected and included in the review.

Findings: Our results showed some conceptual confusion surrounding the GA concept; GA and gender sensitivity were often presented as interchangeable. Most papers aimed to measure and compare the levels of GA among health professionals. Five studies focused on the implementation of intervention programs aiming to increase health care professionals GA. Nevertheless, no studies establishing the relationship of GA with relevant health-related outcomes were found.

Discussion: Our findings stress the need to further clarify the theoretical underpinnings of GA and to collect empirical evidence supporting the contention that increasing health-care professionals' GA will contribute to the suppression of gender biases in health.

12:00 - 12:15

Exploring knee osteoarthritis patients' views of talking about weight with health professionals

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Background: By 2030, it is estimated that sixty per cent of the world's adult population could be obese. Overweight or obese is a risk factor for osteoarthritis, notably knee osteoarthritis (KO). Key policy documents recommend that health professionals (HPs) provide weight management support and target weight loss in KO patients which eases symptoms. However, we know that HPs find discussions about weight challenging and if they are to assume a greater role in weight management understanding the patient perspective will help to facilitate this role change and improve HP-patient communication. Little is known about weight management communication between HPs and KO patients and what factors facilitate and inhibit these discussions. This study will therefore be undertaken in order to gain a better understanding of this process.

Methods: 25 semi-structured interviews were carried out with patients who have KO and a BMI of over 25. Interviews were audio recorded, transcribed and analysed using thematic analysis.

Findings: Patients actively desire weight management support from their health professionals but limited discussions leave them frustrated and hopeless. When discussing weight patients wanted HPs to consider **their personal story and responded positively to both empathy and sensitivity**. Patients' knowledge of KO varied and they expressed faulty illness perceptions e.g. that exercise damages the joints further.

Discussion: Patients can be motivated by HPs to lose weight but at present receive limited support. Providing further training to HPs would help them address this sensitive topic and may play an important role in helping patients manage KO symptoms.

12:15 - 12:30

How does physician empathy interact with patient emotional skills to predict patient quality of life?

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Research into the effect of physician empathy on cancer patients' emotional quality of life (QoL) has provided contradictory results: in some studies, empathy was associated with a better QoL while in other studies, no association was found. We hypothesized that the link between physician empathy and QoL would depend on patient emotional skills (emoSkills). Patients with high emoSkills would benefit from physician empathy (as they would be sensitive to empathy and encouraged by it), while those with low emoSkills would not (because of a lack of emoSkills to cope with the disease).

Methods. In a cross-sectional design, 149 French cancer patients completed questionnaires about **their physician's empathy (5 physicians assessed using the CARE)**, their emoSkills (S-PEC) and QoL (FACT-G emotional dimension). Multiple regressions were performed.

Findings: Four emoSkills interacted with physician empathy to predict QoL: the patient's **ability to express his/her emotions** ($p < .01$), to listen to the emotions of others ($p < .05$), to use his/her emotions ($p < .05$), and to use the emotions of others ($p < .005$). However, contrary to our hypothesis, patients with low emoSkills were those for whom **their physician's empathy was beneficial, i.e. related to a better QoL**. For these patients, QoL was poor when the physician was not empathic, but much better with an empathic doctor. Patients with high emoSkills had a good QoL, which was not affected by their physician's empathy.

Discussion. This study demonstrates the importance of medical empathy, particularly for patients with low emoSkills. Indeed, **physician empathy "compensates for" patient low emotional skills.**

Maintaining health and well-being in older age: the role
of strategy use and health behaviour change

11:00 - 12:30 | FORBES SUITE

11:00 - 11:15

Effect of physical activity characteristics on activities of daily living in older adults: systematic review

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Background: Physical activity (PA) is associated with improved independence in old age, however, questions regarding the optimal level (frequency, intensity, duration) and type required to achieve benefit remain. As living independently requires mental (e.g. memory, concentration), physical (e.g. balance, co-ordination) and social (e.g. social interaction) skills, it is possible that PA types with mental, physical and social demands (i.e. multitask activities) will be more beneficial than others. The present study aimed to systematically analyse the effects of different PA characteristics on activities of daily living (ADL) performance in older adults.

Method: Randomised controlled trials (n=47) exploring the effects of PA on ADLs in older adults were systematically identified. Subjective and objective ADL measures included the Barthel Index and the Timed Up and Go. Quality was assessed using the PEDro scale. Frequency, intensity and time of PAs were extracted and used to calculate PA level. Mental, physical and social demands of different activities were coded and used to classify PAs as high, moderate or low multitask activities. Using a random effects model, meta-analyses were performed on 31 studies.

Findings: A significant effect of PA on ADL (SMD=0.77 [95% CI=0.51-1.03]) was found. Greater effect sizes were found for moderate PA levels (SMD=1.23 [95% CI=0.68-1.77]) than high and low levels. High multitask activities produced a larger beneficial effect than moderate and low multitask activities (SMD=1.22 [95% CI=0.67-1.78]). **Discussion:** While any PA may be beneficial to ADL in old age, future interventions should consider using moderate levels of high multitask activities for optimal results.

11:15 - 11:30

Barriers and enabling factors to participation of older adults in physical activity/exercise prior to surgery

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Background: In the UK, 170,000 adults undergo major non-cardiac surgery annually. Of these approximately 100,000 will develop post-operative complications contributing to approximately 25,000 post-operative deaths. A substantial proportion (80%, 20,000) of post-operative deaths occur within high-risk populations that include **adults aged ≥ 65 years. Cardiorespiratory fitness impacts positively on post-surgical outcomes and 'fitter' adults have the fewest post-operative complications.** However, a majority of older adults are inactive/unfit and report multiple barriers to engaging in physical activity/exercise.

Methods: Five Theoretical Domain Framework-based focus group discussions were conducted with a purposive sample of **28 adults aged ≥ 65 years.** The participants were enrolled in an RCT to assess the effect of two exercise interventions on cardiorespiratory fitness. Focus group discussions identified barriers and enabling factors to engagement in physical activity/exercise in the context of pre-surgery. Focus group discussions were audio recorded, transcribed verbatim and content analysed.

Results: Barriers to physical activity/exercise in the pre-surgical period fell broadly into three theoretical domains: environmental context and resources; social influences; and emotion. Enabling factors into five theoretical domains: knowledge; beliefs about consequences; behavioural regulation; reinforcement and memory, attention and decision processes. A tailored approach to increasing physical activity/exercise, feedback and proximity of services were dominant themes identified across discussions.

Discussion: Engaging older adults in physical activity/exercise prior to surgery necessitates a tailored multi-factorial approach that addresses knowledge, attitudes, social influence, self-regulatory capacity and incentivisation. Future research will develop co-designed intervention prototypes to assess usability and acceptability to older adults during the pre-surgical period.

11:30 - 11:45

Psychological determinants of medication adherence in stroke survivors: a systematic review of observational studies

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Background: Medications targeting stroke risk factors have shown good efficacy, yet adherence is suboptimal. To improve adherence, its determinants must be understood. To date, no systematic review has examined psychological determinants that most influence medication adherence in stroke survivors.

Purpose: To identify psychological determinants that most influence medication adherence in stroke survivors.

Methods: In line with the prospectively registered protocol (PROSPERO CRD42015016222), five electronic databases were searched from 1953- 2015. Hand searches of included full text references were undertaken. Two reviewers conducted screening, data extraction and quality assessment. Determinants were mapped into the Theoretical Domains Framework (TDF).

Findings: Of 32,825 articles, twelve fulfilled selection criteria (N=48,346 stroke survivors). Tested determinants mapped into 9/14 TDF domains. Data was too heterogeneous for meta-analysis due to variance in measurement of adherence and psychological determinants. In the primary studies, two TDF domains appeared most influential. **Negative emotions** ('Emotions' domain) such as anger, and **concerns about medications** ('Beliefs about Consequences' domain) were significantly associated with reduced adherence. Increased adherence was associated with stronger beliefs about medication **necessity** ('Beliefs about Consequences' domain). Study quality varied, often lacking information on questionnaire items used.

Discussion: Five TDF domains did not appear to have been tested in the published literature. This may represent a "file drawer" problem or gap in research design. Future research should standardise medication adherence measurement and clearly report measurement of determinants to facilitate meta-analysis. It should also broaden the range of determinants explored to enable a more holistic understanding of medication adherence in stroke survivors.

11:45 - 12:00

A systematic review of studies examining the selection, optimisation and compensation model in older adults

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Background: The regulatory processes that allow individuals to adapt well as they cope with changes throughout life have been the focus of several lifespan theories over the past twenty years. The Selection, Optimisation and Compensation (SOC) model is a lifespan theory describing three processes used by people to achieve their goals as they age and experience both gains and losses. Whether adults use the processes of selection, optimisation and compensation as they age, and the relationships between their use and positive outcomes, has been examined using a range of approaches. The aim of this study was to conduct a systematic review of studies examining the SOC model in older adults and those with health conditions.

Method: A systematic review of studies utilising the SOC model in adults was conducted, using a systematic database search and hand-searching of eligible studies.

Findings: The full text of 363 articles was reviewed, with 49 selected for inclusion in the review. Cross sectional and longitudinal studies were the most common SOC study designs. The relationship between SOC and outcome was examined in a range of conditions including arthritis, stroke and in those undergoing orthopaedic rehabilitation. In general, the studies found a positive relationship between the use of SOC strategies and positive outcomes, particularly when resources, e.g. good health, were low.

Discussion: Whilst there were positive relationships between SOC strategy use and outcomes, there is a reliance on cross-sectional data. Further research is necessary to determine whether the use of SOC strategies can be taught.

12:00 - 12:15

Emotion perception and quality of life in aging

C. Cooper¹, L. Phillips¹¹University of Aberdeen, United Kingdom

Background; Quality of Life (QoL) and Social Functioning (SF) can be negatively impacted in Normal Aging (NA) and diseases of aging e.g. Alzheimers disease (AD) and Stroke, which can lead to suboptimal recovery from illness and put individuals at greater risk of depression and anxiety. Perceiving and interpreting emotional information is essential for successful social interaction and difficulties in Emotion Perception (EP) has been shown to occur in NA, AD and stroke. We hypothesised an association between EP difficulties and reduced QoL and SF.

Method; Across 2 studies 85 Individuals, NA (n= 30), AD (n= 27), and stroke (n = 28) completed measures of EP (FEEST, Florida Affect Battery and TASIT), SF (mFLP) and QoL (WHO-QoL-BREF).

Results: AD performed worse than NA on EP, $t(55) = 4.83$, with no group difference in QoL, $t(55) = 0.58$. **Correlations between EP and QoL in NA ($r = .46$) and AD ($r = .59$) weren't explained by disease severity or mood.** In Stroke, EP correlated with SF limitations ($r = .46$) and psychological QoL ($r = .48$).

Conclusions; EP difficulties in NA, AD and stroke negatively impacted QoL and SF. Taken together, these results indicate that EP difficulties accompanying NA, AD and stroke may have far-reaching implications for the quality of life and engagement in social participation of many older adults. Further exploration of the links between different forms of social cue decoding and social functioning in NA, AD and stroke is required in order to target interventions effectively in the future.

12:15 - 12:30

Longitudinal psychosocial predictors of life satisfaction in old persons

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Life satisfaction has been regarded as indicator of psychological adaptation in ageing, but also as linked to health. It has been suggested that positive emotions promote a more active lifestyle and a motivation toward self-care. Predictors of life satisfaction in old age, determined predominantly by cross-sectional research, were social engagement, self-perceived health, and depression, adversely. There are no conclusive results on longitudinal predictors of life satisfaction including social, physical and cognitive functioning in old persons.

The aim of this longitudinal study was to determine the predictive contribution of psychosocial factors to the life satisfaction in old persons. Participants were **138 retirement homes' residents in Zagreb, Croatia**, 22% men, 78% women, aged 69-100 years, average 84 years (56-96 years, average 79 years at baseline), ambulatory and not diagnosed with dementia. Variables were: sociodemographic, depression, self-perceived health, functional ability, cognitive function, social participation and life satisfaction. Measurement was applied three times: baseline in 2008, and two follow-ups in 2010 and in 2016, individually, by trained interviewers. Life satisfaction variable was measured only in 2016.

Regression analyses results indicated that the observed set of predictors explained 31,6% of the life satisfaction variance ($R^2 = 0,316$). The strongest cross-sectional predictor was self-perceived health, and the significant longitudinal predictors were baseline depression and cognitive function. The implications of this study are in recognizing and modifying factors that affect life satisfaction, by both medical and psychological interventions.

Occupational health: determinants and interventions

11:00 - 12:30 | ROOM 10

11:00 - 11:15

Professional recognition as protective factor against burnout

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Background: The theoretical framework of equity has been widely used to study the antecedents of burnout. Hence, it has been shown that lack of organizational justice, and effort/reward imbalance are predictors of burnout. Within this perspective, this contribution focuses specifically on the notion of professional recognition (PR). We define PR as the acknowledgement coming from others (colleagues, superiors, and organizations) of the skills and the moral qualities that one perceives to have with regard to the sphere of work. We hypothesise that PR is a protective factor against burnout.

Methods: 328 workers (241 women, mean age = 36, sd = 11.60) filled out an online questionnaire comprising, inter alia, the Professional Recognition Scale (Fall, 2015; $\alpha = .867$) and the Oldenburg Burnout Inventory (OLBI, Demerouti et al, 2001; $\alpha = .848$). To test our hypothesis, we conducted linear regressions using separately the OLBI and its 2 sub-dimensions (i.e. emotional exhaustion and disengagement) as outcome variables and the PR score and its 3 sub-scales (i.e. PR coming from colleagues, the superiors, and the organization) as predictors. We performed automatic linear modelling procedures for evaluating the respective strength of the 3 sources of PR in predicting the outcomes.

Findings: Results show that PR is a protective factor of burnout ($\beta = -.521$, $p < .000$; $R^2 = .271$) and that PR coming from the organisation is the strongest source protecting against emotional exhaustion and disengagement.

Discussion: Results suggest that deploying both PR policies and practices participate in preventing workers from developing burnout.

11:15 - 11:30

Effects of work load on decision making in the workplace: implications for work health status

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BACKGROUND: Work load (WL) represents the cost of accomplishing mission requirements for the human operator. Several negative effects on task performance and health status may be related to inadequate WL. Based on previous evidence, this study analyzes the relationship between WL and one specific dimension of intellectual work performance: decision making (DM).

HYPOTHESIS: WL should be related with quality of DM; specifically, intermediate levels of WL will be related to different patterns of decision making when compared with high and low levels of work load.

METHODS: Longitudinal design. Subjects: intentional stratified sample of 179 Workers of an academic institution. Measurements: WL before and after job performance, measured by NASA-TLX (Hart & Staweland, 1988); DM measured by CTD Scale (Decision Taking Questionnaire, validated by Soria-Oliver, 2010), integrated the following subscales: Uncertainty, Temporal Stress, Information/Goals, Consequences, Motivation, Self-regulation, Cognition, Emotion, Social Stress, Work Stress. Analysis: One-way ANOVA with post-hoc contrast between WL (Low, Intermediate and High) and DM measures.

FINDINGS: Significant relationships appear between Work Load and Decision Making Global Scale ($F=4,03$; $p<0,05$) and different Subscales, specifically Uncertainty ($F=3,34$; $p>0,05$), Consequences ($F=5,58$, $p<0,01$), Self-regulation ($F=4,374$; $p>0,05$), Cognition ($F=4,82$; $p>0,01$). Descriptive, graphic analysis and post-hoc contrasts put on evidence differences on DT between low and high levels of WL, by one side, and intermediate levels of WL by the other in different subscales and also Global DT Scale.

DISCUSSION: Evidence shows that WL is potentially involved in work performance and subsequently work health status.

11:30 - 11:45

Understanding sedentary behaviour in office workers: a qualitative study using the COM-B model of behaviour

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Background: Prolonged sitting has been described as the 'new smoking' and this has resulted in public health recommendations for desk-based workers to break up sitting time. The aim of this study was to use the Capability Opportunity Motivation-Behaviour (COM-B) framework to explore office workers' perceptions of barriers and facilitators to reducing sitting time in the workplace

Methods: Ten office-based workers (aged 26-55 years) were interviewed about their current sitting behaviour at work using the COM-B framework to identify participants' capabilities, opportunities and motivation that influenced this behaviour. Data were analysed using framework analysis.

Findings: In terms of capability, it emerged that participants were physically capable of reducing sitting and recognised the psychological benefits of breaking up sitting. However, it was evident that lack of knowledge and work pressure reduced psychological capability to change behaviour. The physical infrastructure offered both barriers (e.g., computers and phones 'make me sit') and opportunities to break up sitting (e.g., printer downstairs). Social opportunities were limited by the social norms to normally sit at work, but participants did identify that it was socially acceptable to break up sitting. Motivation for sitting was mainly influenced by automatic processes because participants reported sitting was a habit.

Discussion: Sitting behaviour at work is influenced by a number of malleable factors, and future interventions could focus on addressing lack of knowledge, sitting habits and environmental changes to the office.

11:45 - 12:00

Stress and subjective health as indicators of psychological intervention need among firefighters in Lithuania

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Background: In 2015 the Program of Workplace Mental Health was implemented in Kaunas Region Firefighting Department, focusing on mental health promotion. Self-rated health (SRH) and experience of stress are important in this process. Screening of environmental psychosocial stress factors was implemented to assess the need for targeted occupational and psychological health interventions.

Methods: 174 firefighters based in Kaunas region responded to the survey assessing psychosocial stress factors, with integrated L. Reeder Psychosocial Stress Scale (Cr.α-0,8), SRH (Cr.α-0,8) and questions related to psychological interventions. Results were compared with data from general population survey of Kaunas region. Statistical analysis involved calculations of mean and contingency tables, statistical significance $p < 0.05$.

Findings: Significantly more firefighters report excellent and very good SRH, as well as lower psychosocial stress (PSS) than in general population. Need for consultation with psychologist was expressed by 8% of firefighters. This group produced significantly worse indicators of PSS and SRH, than the rest of firefighters. Lower SRH was associated with age, while PSS indicator did not reveal differences between age groups.

Discussion: Firefighters are professionals selected according to stringent health requirements. Stigma attached to mental problems prompts the need for discreet indicators to identify clients who could benefit from psychological interventions in this otherwise very healthy group. Higher occupational hazards could be countered with health promotion and counseling. The results of this project indicate that subjectively experienced psychosocial stress among firefighter correlates with positive admission of counseling need. This is helpful in planning and delivering the psychological counseling in the workplace.

12:00 - 12:15

An evaluation of an eight week mindfulness based stress reduction course, focusing on work-related factors

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Background: Mindfulness is becoming increasingly popular within an organisational context. Research to date has not fully explored the links between work and life balance and how mindfulness can support this. The current research aimed to evaluate if levels of dispositional mindfulness increase after participating in a Mindfulness based stress reduction course (MBSR). The study explored the effects of mindfulness on work-related outcomes.

Methods: A mixed methods design was used; a self-report Mindfulness attention awareness scale (MAAS) was administered to participants at baseline and post course to assess levels of dispositional mindfulness. A paired t test analyses was then carried out on SPSS, allowing a comparison of pre and post course scores. After attending an eight week MBSR seven participants took part in semi-structured interviews and thematic analysis was employed to analyse the data.

Findings: Positive differences in a work and study context, personal life and health were revealed. The paired t-test revealed that there was a significant increase in mindfulness scores from baseline to post course ($t(5) = -3.06, p = 0.028$). Interviews were transcribed and thematic analysis of the interviews then revealed three main themes; a) Pre and post course difference, b) Noticing and accepting and c) Practice.

Discussion: The findings contribute to the practical implications for mindfulness and the improvement of work-related stress. Implementing MBSR courses in a work environment may enable individuals to benefit in a work context and a personal and health perspective. Further research needs to explicitly measure work-life balance outcomes on a larger scale.

12:15 - 12:30

Predictors of work ability in employees with migraine/severe headaches

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Background: This study aims to determine to which extent job demands and job resources predict work ability in employees with migraine/severe headaches, and whether work ability for these employees is more hampered by high demands and lack of resources than for employees without chronic disease.

Methods: Secondary analyses are conducted on data from the 2013 Netherlands Working Conditions Survey (NWCS). Through a self-report questionnaire the NWCS assesses amongst others job demands (quantitative, emotional, and cognitive demands), job resources (autonomy, supervisor and colleague support) and indicators of work ability, i.e. absenteeism, employability, work engagement, and emotional exhaustion. Regression analyses are conducted to determine the association between job demands and resources and work ability in 680 employees with migraine/severe headaches in comparison to 13,086 employees without chronic disease.

Findings: In employees with migraine/severe headaches higher quantitative and emotional demands contribute to higher absenteeism and emotional exhaustion, whereas higher cognitive demands are associated with higher work engagement. Higher autonomy is related to higher employability, lower absenteeism and lower emotional exhaustion. Higher supervisor and colleague support is associated with higher employability, higher engagement and lower emotional exhaustion. Only supervisor support emerged as a stronger predictor for engagement in employees with migraine/severe headaches than in employees without chronic disease.

Discussion: Overall, job demands and resources seem to be as important for work ability of employees with migraine/ severe headaches as for employees without chronic disease. Only with regard to work engagement, employees with these chronic conditions seem to benefit more strongly from a supportive supervisor.

Adherence to medications: evidence synthesis
strategies for intervention development

14:00 - 15:30 | CROMBIE A SUITE

14:00 - 14:15

Medication adherence and apparent-treatment resistant hypertension: systematic review and meta-analysis

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Background: Medication non-adherence is a known behavioural contributor to poor blood pressure control that puts patients with apparent treatment-resistant hypertension (aTRH) at elevated cardiovascular risk. Studies of medication adherence for aTRH vary significantly with respect to design, methods, and setting; and as a result have produced highly variable figures describing the prevalence of non-adherence. This review aimed to elucidate the prevalence and potential moderators of medication non-adherence estimates for aTRH.

Methods: A systematic literature search identified 26 studies that measured medication adherence for patients with uncontrolled blood pressure despite being prescribed three or more antihypertensive medications of different classes.

Findings: Non-adherence rates ranged from 7.0 – 86.1%. The strongest contributor to variance in nonadherence rates was the method of adherence assessment used. Studies that relied on self-report measures of adherence and/or pharmacy data reported lower levels of non-adherence than studies using more objective methods, such as liquid chromatography–mass spectrometry in single time point bioassays or continuous electronic monitoring of medication taking.

Discussion: Findings indicate that medication non-adherence is a significant problem among aTRH patients, and a major contributor to uncontrolled blood pressure at all healthcare levels. Identifying the most accurate and clinically feasible adherence assessment method is necessary to facilitate early intervention, reduce unnecessary prescribing of antihypertensive medications, and reduce the risk of adverse cardiovascular events for non-adherent aTRH patients.

14:15 - 14:30

Taking oral medications for type 2 diabetes: a systematic review and metasynthesis of qualitative studies

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²University of Manchester, United Kingdom

³University of Oxford, United Kingdom

Background: Poor adherence to oral medications for Type 2 diabetes (T2DM) is common and associated with negative outcomes. The current study aimed to explore patients' perceptions and experiences of taking oral medications for T2DM to inform future intervention development.

Methods: Four databases were searched in 2014 to identify qualitative studies exploring patients' perceptions or experiences of taking medications for the management of T2DM, yielding 787 abstracts that were doublescreened for inclusion. Key concepts and themes were extracted, appraised for quality and synthesised using meta-ethnography.

Findings: The findings of nine studies were used to develop three higher-order constructs that moved beyond the results of individual studies. "Medications for diabetes: A necessary evil" outlines how patients' negative perceptions of medication risks co-exist with a resounding view that medications are beneficial. "Passive Patients but Active Experimenters" highlights the contrast between patients' passive acceptance of medication prescriptions and the urge to actively experiment and adjust doses to optimise medication use. Finally, "Taking oral medication for T2DM: A unique context" describes features of T2DM, including perceived relationships between medication and diet, which can impact on medication taking.

Discussion: T2DM is a unique adherence context, which may require the development of condition-specific interventions. Our findings indicate patients understand the need for medications but adjust dosage and timing in line with their own beliefs. Our review suggests providers should acknowledge patient preferences in the development of management strategies and highlights an opportunity to direct the motivation evident in patients' experimentation towards more beneficial medication taking behaviours.

14:30 - 14:45

Adherence to disease modifying therapies (DMTs) in multiple sclerosis: a thematic meta-synthesis of qualitative research

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²Aston University, United Kingdom

Up to 59% of people with multiple sclerosis (MS) are sub-optimally adherent to disease modifying therapies (DMTs), leading to relapses and hospitalization. The aim of this review is to systematically identify, appraise and synthesise qualitative research exploring views and experiences of people with MS regarding DMTs, to identify factors potentially influencing treatment adherence.

Systematic searches of six databases and citation searching identified 1326 unique citations. Screening by two reviewers yielded 12 studies for inclusion. These were appraised using the Critical Appraisal Skills Programme tool and synthesised thematically.

Included papers dated from 2001-2014, reporting studies conducted in the USA (n=8), Canada (n=3) and the UK (n=1). The majority focused on experience of self-injecting DMTs, though one study examined only intravenous infusions and four additionally considered oral therapies. Synthesis generated higher-order analytical themes leading to broader conceptual understandings than presented within individual studies.

Themes encompassed the importance of feeling in control; the desire to lead a normal life and the extent to which DMTs facilitated or inhibited this; and the continual process of weighing up costs and benefits of treatment (including adverse side effects and perceived effectiveness) to achieve optimal quality of life now and in the future.

People with MS take DMTs when they believe the drugs will facilitate their living a 'normal' life, and avoid taking them when they believe they will interfere with quality of life or present risks. Future research should investigate adherence to oral and intravenous DMTs, and interventions should address these patient objectives.

14:45 - 15:00

Effectiveness and content analysis of interventions to improve medication adherence in hypertension: a systematic review

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²McMaster University, Canada

Background. Hypertension control through pharmacological treatment has led to benefits in the prevention of morbidity and mortality from cardiovascular diseases. However, evidence suggests that as many as 50% to 80% of patients treated for hypertension are have low adherence to their treatment regimen. The objective of this systematic review is to evaluate the effectiveness of medication adherence interventions for hypertension. In addition we aim to explore what barriers and facilitators in the interventions may have been targeted and how these might be related to the effect size on BP.

Methods. This review is a hypertension-specific update to the previous Cochrane Review by Nieuwlaatz et al. (2014) on interventions to enhance medication adherence. A systematic literature search was carried out and two authors independently screened titles and abstracts. A meta-analysis was conducted and theoretical factors in interventions were identified using the Theoretical Domains Framework.

Findings. Seventeen RCTs were identified for inclusion. There was significant heterogeneity in sampling, measurement, intervention approaches and analytical approaches among the identified studies. These included interventions employing combination pills, self-monitoring of BP and mHealth components. The most common theoretical domains targeted were 'Environmental Context and Resources' (87.0% of studies), 'Memory, Attention and Decision Processes' (82.6% of studies) and 'Social Influences' (60.9% of studies).

Several individual domains and clusters of domains were associated with outcomes in univariate analyses.

Conclusions. Understanding whether adherence enhancing interventions are effective and which theoretical components are involved can inform future interventions and practice. The next stage of this study will involve further quantitative synthesis of these studies.

15:00 - 15:15

Supporting medication adherence using Interactive-Voice-Response (IVR): development and delivery of a theory- and evidence-based intervention

K. Kassavou¹, S. Sutton¹¹University of Cambridge, United Kingdom

Background: non-adherence to anti-hypertensive medications is a significant challenge to public health, and **primary care practitioners have limited time to address each patient's reasons for non-adherence.** Our recent meta-analysis of RCTs suggested that IVR interventions can promote medication adherence. However, no such intervention is available in the UK. The aims of this presentation are to describe the process of developing an IVR intervention to promote medication adherence in patients with hypertension, as an adjunct to primary care, and to present evidence on its acceptability.

Methods: we used a guide to development and evaluation of digital behaviour change interventions (West&Michie), and followed five phases: (a) exploratory face-to-face interviews with twenty non-adherent **patients and five health care providers to identify patients' reasons** for non-adherence, and to assess the acceptability of an IVR intervention, (b) mapping of effective behaviour change techniques to proximal determinants of medication adherence, (c) development of tailored voice messages, (d) development of the IVR platform, and (e) feedback using think-aloud protocol with targeted population. Analysis was informed by the constant comparison approach, with findings from each phase informing subsequent phases.

Findings and discussion: We developed the first IVR intervention to promote medication adherence in people with hypertension in the UK, based on theory and evidence. The intervention aims to encourage patients to take their medications as prescribed using personalised and tailored voice messages targeting perceived self-efficacy, affective attitudes, health outcome expectations and habit formation. A 4-week intervention study will test further its feasibility and potential effects on medication adherence.

Efficacy and mechanisms of theory-based behaviour change interventions

14:00 - 15:30 | BALMORAL SUITE

14:00 - 14:15

Effectiveness of behaviour change strategies for pelvic floor muscle training in urinary incontinence: a meta-analysis

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Background: It is known that pelvic floor muscle training (PFMT) is effective in reducing mild to moderate urinary incontinence (UI) in women. However, there are factors hampering effectiveness of PFMT such as low discipline to exercise, interference with routines, low self-efficacy, all of which make elements of delivery important in treatment effectiveness.

Aim: We investigated whether and which theory-grounded strategies used in interventions increase effectiveness of PFMT.

Method: A meta-analysis was conducted with 55 interventions reporting effects of PFMT. A literature search was performed on ISI WOS, PubMed, PsychInfo, Cochrane, and included experimental and quasiexperimental (pre-post) reports of interventions comprising PFMT for women with mild and moderate UI, regardless of age. Intervention strategies were coded by using the behavior change techniques taxonomy.

Results: Overall, there was a significant effect, of medium size of PFMT on behavioral indices of UI, $g = .52$, $CI95 = [.48, .64]$, $p < .001$. There was a little effect of specific behavior change techniques, with only 1 (prompting practice) being associated with effectiveness, $g = 0.44$, $CI95 = [.37, .50]$, $p < .009$. The results should be cautiously interpreted, as it is hard to estimate the degree to which the interventions corresponded to the reported strategies or the approaches of different persons implementing the PFMT protocols.

14:15 - 14:30

An intervention study to decrease compensatory health beliefs for physical activity

M. Amrein¹, U. Scholz¹¹University of Zurich, Switzerland

Background: Compensatory health beliefs (CHBs) are beliefs that the negative effects of unhealthy behaviors can be compensated by healthy behaviors. Several studies have provided evidence that CHBs are negatively related to intention and some studies show negative effects on healthy behavior. Interventions to reduce CHBs have not been reported yet. The aim of this study was to develop and evaluate a CHB-intervention.

Methods: 73 people (57 female; M age = 24.34 years, SD = 7.07) were randomly assigned to an intervention and a control group. After the baseline (T1), participants performed strength exercises for two weeks and subsequently answered a follow up questionnaire (T2). The intervention group additionally received information about CHBs and generated coping plans for CHBs.

Findings: On average, participants performed 2.28 (SD = 1.53) strength exercises for 9.98 minutes (SD = 14.17) per day. The number and duration of strength exercises did not differ between groups. The intervention group significantly reduced CHBs from T1 to T2 ($d = 0.35$) whereas CHBs in the control group remained stable. CHBs were not associated to strength exercises. The evaluation of the intervention shows that the intervention group rated the CHB-intervention as comprehensible and realistic, but as less helpful for physical activity.

Discussion: This CHB-intervention significantly reduced CHBs although there were no effects on strength exercises. The evaluation shows that the intervention seems to be perceived to be less helpful for strength exercises. Future studies should investigate how CHB-interventions can be more efficient in order to change health behavior.

14:30 - 14:45

Randomised trial of the effects of omitting affective attitudes on intention to donate organs

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Background: Including or excluding certain questions about organ donation may influence peoples' intention to donate. We investigated the effect of omitting certain affective attitudinal items on potential donors' intention and behaviour for donation.

Methods: Members of the public (n=578) participated in a cross-sectional randomised trial. Non-donors (n=349) were randomly assigned to one of three groups: Group 1 completed items on affective and cognitive attitudes, anticipated regret, intention, subjective norm and perceived behavioural control. Group 2 completed all items above but excluded affective attitudes. Group 3 completed all items but omitted negatively-worded affective attitudes. The primary outcome was intention to donate; taking a donor card after the interview was a secondary behavioural outcome. Outcomes were predicted using linear and logistic regression with group 1 as the reference.

Results. Mean (SD) 1-7 intention scores for groups 1, 2 and 3 were respectively: 4.43 (SD 1.89), 4.95 (SD 1.64) and 4.88 (SD 1.81), with **group 2 significantly higher than group 1** ($\beta=0.518$, 95% confidence interval [CI] 0.18 to 0.86). At the end of the interview, people in group 2 (OR=1.40, 95% CI .94 to 2.07, p=.096) but not those in group 3 (OR=1.10, 95% CI .69 to 1.75, p=.685), were marginally more likely to accept a donor card from the interviewer than people in group 1.

Conclusions. Omitting affective attitudinal items results in higher intention to donate organs and marginally higher rates of acceptance of donor cards, which has important implications for future organ donation public health campaigns.

14:45 - 15:00

Forming a habit in a novel behaviour: the role of cues to action and selfmonitoring

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Background: Habit formation occurs when behaviour is practiced consistently in the same context over time. Initially, a cue to action is needed to trigger behaviour, but after time behaviour will be initiated without conscious processing of this cue- at this point behaviour has become habitual. Our previous research demonstrated that habits can be developed over a period of 33 days. However, it is not clear whether monitoring or cue response was most important.

Objectives: To determine whether a cue to action or selfmonitoring are both necessary in forming a novel habit.

Methods: A 2 (cue vs. no cue) by 3 (irrelevant habit monitoring vs. habit monitoring vs. behaviour monitoring) design was used. Participants (N=135) were provided with study materials and told to engage in the behaviour every day. Participants completed outcome variables of behaviour and habit strength before and after the habit formation period and one week after habit formation period had ceased.

Findings: Analyses revealed a significant main effect of time for both habit strength, $F(2,100) = 180.775$, $p < .001$, $\eta^2 = .783$, and behaviour, $F(2,125) = 454.563$, $p < .001$, $\eta^2 = .879$, such that all conditions improved on habit strength and behaviour over time. There were no significant main effects of cue or monitoring, or the interactions between these variables and time.

Discussion: This is the first study to explore whether both cues to action and self-monitoring are needed to form a habit. This has important implications for habit formation theory and interventions based on theory.

15:00 - 15:15

When and how does normative feedback reduce intentions to drink irresponsibly? An experimental investigation

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Background: Recognizing that university-based cultures have a critical influence on student drinking, universities have been challenged to take a much more active role in discouraging irresponsible drinking. One way to do so is to use poster campaigns, sometimes designed by students themselves, to encourage students to drink responsibly. However, whether and how such campaigns work is under-investigated. The current research tested the effects of exposure to a student-designed campaign to discourage drinking alcohol drinks **down in one gulp** (“bolting”).

Methods: Laboratory experiments assessed the effects of exposure to (1) the campaign (Study 1; N=48), (2) the campaign combined with explicit peer disapproval information (by manipulating injunctive norm in Study 2; N=78), and (3) the campaign and explicit prevalence information (by manipulating descriptive norm; Study 3; N=96) on normative perceptions of bolting and bolting intentions.

Findings: Study 1 showed that the campaign had no effect. In Study 2, the campaign was associated with higher, not lower, intentions to bolt drinks, an effect exacerbated by disapproval information. Bootstrapping analyses of the indirect effects showed that participants perceived that bolting was more common when exposed to the campaign combined with disapproval information, and these negative prevalence perceptions were associated with stronger bolting intentions. In contrast, Study 3 showed that (low) prevalence information enhanced the effectiveness of the campaign.

Discussion: The results highlight the potentially harmful effects of providing (dis)approval information and distinguish them from the beneficial impact of prevalence information. The studies also highlight the importance of pre-testing campaigns and providing process evaluations.

15:15 - 15:30

Mechanisms of health behaviour change with dental hygiene as an example

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Background: In health behavior change, several constructs have been found important such as self-efficacy, planning, action control, and behavioural intention. Findings from five intervention studies on dental hygiene will be compared in terms of the functional roles of these constructs.

Methods: Two-arm interventions were conducted in Iran (N=166), Poland (N=287), China (N=284), and India (N1=205, N2=112). Very brief treatments were inspired by the Health Action Process Approach with the aim to **improve participants' self-efficacy, planning, and action control.**

Findings: Quantitative analyses yielded time by treatment interactions in all five studies confirming the usefulness of the interventions. The main focus was on ex post modeling the roles of the treatment ingredients which resulted in sequential mediation effects in four studies and a moderated mediation effect in one study where self-efficacy and action control operated as moderators.

Discussion: The interventions have been found to produce changes in motivation and one or more of the treatment ingredients (self-efficacy, planning, and action control) which in turn had some effect on later dental behaviours. However, the models were inconsistent, raising the question whether individual differences in **participants' readiness for change might be responsible for this inconsistency.**

Adherence and maintenance issues in health behaviour change

14:00 - 15:30 | FORBES SUITE

14:00 - 14:15

Applying the theoretical domains framework to adherence to nebuliser treatment in adults with cystic fibrosis

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Background: Poor adherence to nebulised treatments in adults with Cystic Fibrosis (CF) is prevalent and related to poor health outcomes. Understanding which factors influence adherence is an important first step in the development of a behaviour change intervention. The Theoretical Domains Framework (TDF) was used to inform this investigation.

Methods: Interviews were conducted with 18 adults with CF, purposively selected to represent a range of patient characteristics. An interview guide was developed using the TDF to explore nebuliser adherence. During the interview participants were presented with charts of their own nebuliser adherence data, and this was used to prompt discussion. Interview transcripts were content-analysed using the TDF as the coding framework.

Results: All 14 theoretical domains were identified as being relevant to nebuliser adherence, although the specific domains of influence were variable across individuals. Participants expressed; a broad range of 'Beliefs about the consequences' of adhering to treatment and varying 'Knowledge' about treatment; a lack of positive 'Reinforcement' for treatment adherence; difficulties with 'Memory' for treatment and 'Behavioural Regulation'; a range of personal 'Goals' related to, and in conflict with, treatment adherence; facilitatory and inhibitory 'Social influences' and 'Environmental context and resource' issues.

Discussion: The TDF allowed for the identification of a range of factors influencing adherence to nebuliser treatment that could be targeted in a future intervention. It was clear that different participants had very different factors influencing their treatment adherence, highlighting the importance of individual tailoring.

14:15 - 14:30

Predicting medication adherence: testing the health action process approach at the inter- and intrapersonal level

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Background: More than 50 % of people over 60 years of age have two or more co-occurring diseases, and are thus multimorbid. As a result, these individuals often have to adhere to complex polypharmacy therapies whereby non-adherence to the prescribed medication is a known problem. The Health Action Process Approach (HAPA) has been applied successfully for various health behaviors. This study aimed at testing the HAPA at the inter- and intrapersonal level in the context of medication adherence.

Methods: N=83 (n = 37 men; Mage = 61.8, SD = 13.3) multimorbid individuals completed thirty diaries reporting their daily medication adherence and HAPA variables. Multilevel models tested the assumptions made by the HAPA at the intra- and interpersonal level.

Findings: Overall, participants reported high intentions to adhere to their medication and high medication adherence. However, 50% of participants reported at least one non-adherent event. On days with more than usual self-efficacy higher intention was reported. Moreover, individuals reported higher levels of medication adherence on days with higher than usual action control. Additionally, interpersonal differences in self-efficacy and action control were significantly positively associated with medication adherence. Planning was negatively associated with medication adherence at both levels but causal direction remains unclear.

Discussion: These findings partially confirm the assumptions of the HAPA in the context of medication adherence at both the inter- and intrapersonal level. Especially self-efficacy and action control show positive effects on medication adherence. Future studies in the context of medication adherence should take care of a heterogeneous sample.

14:30 - 14:45

Predicting adherence to combination antiretroviral therapy for HIV in Tanzania using an extended TPB model

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Background: Combination antiretroviral therapy (cART) for HIV is now widely available in sub-Saharan Africa. Adherence is crucial to successful treatment. There is currently a lack of high-quality, theory-informed evidence identifying the psychological predictors of adherence in this setting. This study aimed to apply an extended Theory of Planned Behaviour (TPB) model to predict objectively measured adherence to cART among Tanzanian patients.

Methods: Prospective observational study (n=158) where patients completed questionnaires on demographics (Month 0), socio-cognitive variables including intentions (Month 1), and action planning and self-regulatory processes hypothesised to mediate the intention-behaviour relationship (Month 3), to predict adherence (Month 5). Taking adherence (% of prescribed doses taken) was measured objectively using the Medication Events Monitoring System (MEMS) caps. Mokken scaling analyses confirmed the TPB factor structure. Model tests were conducted using regression and bootstrap mediation analyses.

Findings: Perceived behavioural control (PBC) was positively ($\beta=.798$, $p<.001$) and outcome expectancies were negatively ($\beta=-.163$, $p<.01$) associated with adherence intentions. Intentions did not predict behaviour directly, but exercised an indirect effect on adherence ($B=1.34$ [0.339 to 3.28]) through self-regulatory processes ($B=1.11$ [0.122 to 2.98]). Self-regulatory processes ($\beta=.238$, $p=.010$) were the only significant predictor of better adherence.

Discussion: This observational study, using an objective behavioural measure and psychometrically sound scales, identified PBC and self-regulatory processes as the main drivers of adherence (intentions).

14:45 - 15:00

Mediators and moderators of maintenance of physical activity behaviour change: a systematic review

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Background: Adults should undertake 150 minutes of moderate physical activity (PA) weekly for reduced risk of non-communicable disease. Physical inactivity levels are high, calling for effective methods of maintaining PA behaviour. Interventions are limited in achieving PA maintenance, and causal mechanisms are poorly understood. This review investigated potential mediators and moderators for maintained PA behaviour.

Methods: Six databases were searched (Medline, EMBASE, PsycINFO, CINAHL, Cochrane, Web of Science). Search terms: 'Physical activity', 'study design', 'behaviour change', 'maintenance'. Eligibility criteria: adults; non-clinical; validated PA measure at baseline and 6 months (maintenance); comparison group. Mediators were separated according to studies testing effect on the mediator, association with PA, or carrying out formal mediation tests. Number of studies, tests and percentage significant effects were reported. Moderators were separated according to subgroup analyses or formal tests. Number of studies and percentage significant effects were reported.

Findings: 57 studies were included (26 examined mediators, 18 examined moderators). 49 mediators were categorised using the Theoretical Domains Framework. Variables with strongest empirical support in formal mediation tests were: revitalisation (passing 4/4 tests), self-concept (1/1), behavioural processes of change (6/7), positive intentions (2/4), self-regulation (1/2). 18 variables were used in moderator tests. These focused on demographic variables but environmental accessibility showed potential (one study favoured high access).

Discussion: Formal mediation tests should have theoretical justification. Assessments should incorporate longer timeframes and relevant maintenance constructs such as habit, coping planning, recovery self-efficacy or outcome satisfaction. Consideration of the interplay between mediators and moderators should lead to theoretical developments.

15:00 - 15:15

Strategies and factors of successful weight loss: a pluralistic qualitative research

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Background: The successful weight loss (SWL) process is a complex one, involving different stages and efficacious strategies. Therefore, this exploratory research aims to explore the perceived strategies and factors associated to the 1) initiation and 2) maintenance of a SWL.

Method: This study comprises a community and clinical sample of thirty men and women, who have made a SWL (loss of a minimum of 7% of initial weight and maintained for at least 12 months). The participants were interviewed and the content of the transcribed interviews analyzed through a pluralistic qualitative approach, i.e. using both content and thematic analysis (done by a jury of two psychologists). All subcategories mentioned by at least 10% of the participants were subjected to multiple correspondence analysis.

Findings: In total, 215 subcategories emerged. Both initial and maintenance phase of SWL were better explained by four-factor models. Initial phase of weight loss was defined by 1) adherence, 2) self-monitoring, 3) autonomy, and 4) self-image. Maintenance was defined by 1) habits formation, 2) motivation, 3) stabilization and 4) attainment.

Discussion: The design of the study (crosssectional) limits the conclusions being drawn. However, the use of in-depth interviews, focusing successful cases of weight loss, and having a balanced sample of men and women will allow this study to make a meaningful contribution. The exploratory nature of the research also allowed the emergence of multiple constructs in the two phases (beginning of the weight loss and maintenance), framed by several theoretical models of cognitive-behavioural change.

15:15 - 15:30

The social cognitive predictors of adherence to an exercise referral scheme

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Introduction: In order to add to the developing literature on adherence to exercise referral schemes the present study utilized Bandura's (1997) social cognitive theory to examine what contributes to adherence to the schemes from a psychological perspective. Specifically, constructs of exercise planning, goal setting, self-efficacy, outcome expectations, and social support were examined.

Methods: One hundred and twenty-four adults who had been referred to an exercise referral scheme completed self-report measures across social cognitive variables at the start of the scheme and at four-weeks into the scheme (N=58). Logistic regression was conducted to examine predictors of adherence to the scheme with mixed-ANOVAs assessing differences between adherers and non-adherers.

Results: At the start of the scheme there were no psychological variables that successfully predicted adherence to the 8-week scheme, nor were there any significant differences between adherers and nonadherers in exhibiting levels of social cognitive constructs. At four-weeks into the scheme, a logistic regression model consisting of social cognitive constructs (exercise planning, goal setting, task self-efficacy, outcome expectations, and social support from family) explained 33-45% of the variance of adherence to the scheme. Additionally, adherers exhibited significantly higher levels of these social cognitive constructs than nonadherers at this stage of the scheme.

Discussion: The findings provide evidence for the usefulness of social cognitive constructs in understanding adherence to an exercise referral scheme. Social cognitive theory can provide a basis for theory-led interventions to help enhance adherence to exercise referral schemes in order to offset physical inactivity levels and any pre-existing health conditions.

Patient experience

14:00 - 15:30 | ROOM 10

14:00 - 14:15

"Not all in my head": a qualitative exploration of living with fibromyalgia and its treatments

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Background: Fibromyalgia is a complex condition which causes pain, sleep disturbance, fatigue and distress, limits the capacity to work and damages relationships. Aetiological and diagnostic uncertainty and the lack of effective treatments further complicate the lives of patients. To develop effective and acceptable interventions it is essential to understand the patient's expectations and perceptions of their experiences and existing treatment options.

Methods: 14 people with fibromyalgia, recruited via online support networks, participated in in-depth interviews about their experiences of living with and being treated for fibromyalgia. Data collection and analysis were guided by an interpretative phenomenological approach

Findings: Six themes were generated: Inauthenticity of Fibromyalgia; An Unconventional healthcare experience; Re-creating support networks; Challenging the working identity; Threatening the family dynamic and Fighting, accepting or accommodating? The theme Inauthenticity of Fibromyalgia was central and underpinned these participant accounts, leading to the repeated assertion that **fibromyalgia wasn't simply "in their head"**.

Discussion: Analyses suggested that chronic illness threatens identity, and disrupts lifestyle, roles and relationships, challenges which are exacerbated when the illness is not adequately recognised. Leventhal's Self-Regulation Model highlights the importance of individual and social interpretations in coping with illness. These findings suggested that the perception of contested authenticity of fibromyalgia was a dominating feature of these participants' lives and treatment experiences. The results informed the design of a national survey to capture variations in symptoms, experiences and treatments from a larger, national sample. Outcomes will help guide the development, targeting and trial of an intervention based upon user perspectives.

14:15 - 14:30

Illness specific cognitive biases in chronic fatigue syndrome independent of mood and attentional control deficits

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Background: Studies have identified specific cognitions and behaviours play a role in maintaining chronic fatigue syndrome (CFS); however little research has explored illness specific cognitive processing in CFS. This study investigates whether CFS participants have an attentional bias for illness-related stimuli and a tendency to interpret ambiguous information in a somatic way; and determines whether these cognitive processing biases are associated with cognitions and behaviours, mood or attentional control.

Methods: Fifty two CFS and 51 healthy participants completed self-report measures of symptoms, disability, mood, and cognitions and behaviours; and three experimental tasks, using materials specifically designed to tap into CFS salient cognitions (i) Visual-Probe task measuring attentional bias to illness (disability and somatic) versus neutral words (ii) Attention Network Test measuring attentional control (iii) recognition task measuring positive versus somatic interpretations of ambiguous information.

Findings: Compared to controls, CFS participants showed a significant attentional bias for illness words; and were significantly more likely to interpret ambiguous information in a somatic way; even when controlling for comorbidity. The CFS group had significantly poorer attentional control than healthy participants; which was not related to cognitive biases. Somatic interpretations were associated with self-reported fatigue, catastrophizing and fear/avoidance beliefs.

Discussion: People with CFS have illness specific biases in how information is attended to and interpreted, which may play a part in maintaining symptoms by reinforcing negative illness beliefs and behaviours. Enhancing adaptive processing, such as positive interpretation biases and more flexible attention allocation, may provide beneficial intervention targets.

14:30 - 14:45

Emotional processing in individuals with Irritable bowel syndrome: a qualitative study

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Background: There is little research on the role of emotional processing in the development and maintenance of symptoms in Irritable Bowel Syndrome (IBS). This study aimed to explore in depth how individuals with refractory IBS express, experience and manage their emotions after either standard Cognitive Behavioural Therapy (CBT) or low intensity web-based CBT (LICBT) compared to Treatment as Usual (TAU).

Methods: We conducted 41 semi-structured interviews at post-treatment (3 months post-baseline) with 15 CBT participants, 12 LICBT and 14 TAU. We analysed the transcripts using inductive thematic analysis with elements of grounded theory and framework analysis to compare themes across groups.

Findings: From the interviews, it was evident that participants had high expectations of themselves and that social desirability was a recurring reason for how they expressed their emotions to others. Five themes with subthemes captured how these high expectations played out in relation to specific aspects of emotional processing: 1) Causes of emotions; 2) Bidirectional relationship between IBS and emotions; 3) Emotions related to general life; 4) Responses to negative emotions; 5) Responses to positive emotions. There were no major differences between groups.

Discussion: High standards of self seem to influence the way IBS patients experience, express and manage their emotions. Future psychological interventions in IBS may benefit from addressing negative beliefs about experiencing and expressing negative emotions, exploring the negative effects of emotional avoidance and bottling up, and promoting assertive expression of emotion. This may reduce negative effects of psychological distress on IBS symptoms and improve patients' well-being.

14:45 - 15:00

Sexual problems and relationship satisfaction among people with cardiovascular disease

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Background: Sexual problems are common among people with cardiovascular disease. Marital or intimate relationship satisfaction is generally positively correlated with sexual satisfaction, but this relationship has not been examined among people with cardiovascular disease. We aimed to answer: Are sexual problems related to satisfaction with relationships among people with cardiovascular disease?

Methods: Semi-structured telephone interviews were conducted with 382 people with cardiovascular disease (32% response rate) recruited from six hospital cardiac rehabilitation centres in Ireland. Data were gathered on: demographic and clinical variables, sexual problems, and relationship satisfaction, including satisfaction with the physical, emotional, affection and communication aspects of relationships. Comparisons between people reporting sexual problems and those not reporting sexual problems were conducted using independent samples t-tests.

Findings: Two-hundred-and-one people reported that they were currently in a sexual relationship with one main partner. When we compared people who reported sexual problems (n=108) with those without sexual problems (n=89), there were no significant differences in any aspect of relationship satisfaction, including mean levels of reported physical satisfaction ($t(195)=-.726$, $p=.47$), emotional satisfaction ($t(194)=-.632$, $p=.52$), satisfaction with showing affection ($t(194)=-.805$, $p=.80$), or satisfaction with communication about sex within relationships ($t(194)=-.705$, $p=.48$).

Discussion: Experiencing sexual problems does not seem to impact on satisfaction with relationships. Satisfaction with communication about sex was lower than satisfaction with other aspects of relationships among this sample. Improving ability to communicate effectively about sex between couples may have the potential to reduce the experience of sexual problems among patients with cardiovascular disease.

15:00 - 15:15

A systematic review and qualitative analysis of anxiety among people with multiple sclerosis

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Background: Anxiety is common among people with Multiple Sclerosis (PwMS) but under-researched in the literature. We conducted 1) a systematic review of the factors associated with anxiety in PwMS 2) a qualitative study of PwMS who have clinically significant levels of anxiety in order to gain a richer perspective on their experience.

Method: The systematic review was carried out in accordance with the Preferred Reporting Items for Systemic reviews (PRISMA). Twenty semi-structured interviews were conducted with PwMS recruited from the Neurology Department of Kings College Hospital who had scored 10 or above on the anxiety sub-scale of the Hospital Anxiety and Depression Scale (HADS). Responses were then analysed using inductive thematic analysis.

Findings: 149 studies met inclusion criteria in the systematic review. Comorbid depression, severity of MS and lack of social support were associated with anxiety in PwMS. The main themes that emerged from the qualitative analysis were the impact of diagnosis, the negative effect on social functioning, feelings of worry and embarrassment, the use of coping strategies, and the need for psychological intervention.

Discussion: This review confirms that anxiety is commonly reported by PwMS and can have many negative implications for them. The findings suggest that clinicians should evaluate all PwMS for anxiety disorders as they may represent a treatable cause of disability in MS. The insights gained from this research may be of particular interest to clinicians involved in designing, developing or delivering interventions for anxiety among PwMS, particularly for early intervention.

15:15 - 15:30

Illness representations and life satisfaction of chronic pain patients and their partners

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Background: Severe dyadic stressors, like a chronic pain disorder of one partner, require extensive coping efforts from both partners. According to the “developmental-contextual model of couple coping” (Berg & Upchurch, 2007), illness representations of both partners are crucial for their own and their partners’ life satisfaction. The aim of the present study was to investigate the relations between patients’ and partners’ representations of the patients’ chronic pain disorder and both partners’ life satisfaction.

Methods: In this cross-sectional study, 119 pain disorder patients (age M=55) and their partners (age M=57) filled in the IPQ-R or the IPQ-R-partner version and a questionnaire assessing life satisfaction (FLZ). Data were analyzed using actor-partner-interdependence-models (APIMs).

Findings: APIMs revealed both actor effects (AE) and partner effects (PE). Patients’ representations of the disorder as less chronic (AE=-.42***; PE=-.26*), causing fewer consequences (AE=-.52***; PE=-.17ns), evoking fewer emotional representations (AE=-.32**; PE=-.13ns) and as highly controllable through own behavior (AE=.61***; PE=.46***) and treatment (AE=.46***; PE=.37***) were related to their own and partly to their partners’ higher life satisfaction. Partners’ representations of control were negatively related to patients’ and partners’ life satisfaction. However, these APIM-findings turned out to be suppressor effects.

Discussion: Patients’ illness representations that explain a chronic pain disorder in more positive terms are associated with both partners’ life satisfaction. Contrary to expectations, partners’ illness representations do not contribute substantially to patients’ or partners’ life satisfaction. Psychological interventions should focus on increasing both personal and treatment control beliefs in chronic pain patients to enable appropriate coping in daily life.

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15:30 - 17:00

15:30 - 17:00

Qualitative analysis of health education need and mHealth feasibility in Chikwawa, Malawi

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Background: Early marriage and teenage pregnancy are significant issues in Malawi, particularly within rural regions. Preventative health education of these issues is the responsibility of overburdened and under staffed village health centres, consequently reproductive health knowledge is poor. The introduction of a culturally tailored mHealth health education programme, addressing the needs of youth, could help to increase contraceptive knowledge and behaviour change. This study aimed to examine the feasibility of implementing a mHealth messaging service in rural Malawi, and to **engage local participants' in its design and execution.**

Methods: Seventy-five participants were recruited from two villages, Chimoto and Sikenala, for 8 focus group discussions (4 male and 4 female). Focus groups were conducted in Chichewa, transcribed verbatim and translated into English. Thematic analysis was used to analyse the data.

Findings: Five themes emerged from the data, reflecting the opinions and beliefs of the participants; Recognised Need for Health Education, Practical Implementation, Barriers to Phone Access, Trust and Sustainability. Participants indicated they would engage with the service and provided in depth examples of health information they require, however expressed concern over accessibility in terms of mobile phone ownership, user ability and financial limitations.

Discussion: Participants provided support for the messaging service, and engaged in discussion around cultural and financial barriers as well as preferences in regards to the real-world application of the service. Moving forward, effort needs to be focused on overcoming accessibility barriers in the area and applying the results to the implementation of the mHealth intervention pilot.

15:30 - 17:00

Public views on e-mental health services –a systematic review of the current evidence

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Background: Considering both the Internet becoming a common mental health advisor and the unmet needs among various European mental health populations due to limited care resources, lacking health literacy or stigmatised beliefs, e-mental health services are suggested as appropriate option to improve the access to professional help. To overcome such barriers, however, knowledge about users' preferences predicting the acceptability and perceived helpfulness of online self-help is required. Therefore, this review aims to determine the evidence on attitudes toward e-mental-health in the general population.

Methods: A systematic search through Medline, PsycINFO and Cochrane Library was carried out, including research papers published in peer-reviewed journals between 2010 and 2015. Inclusion criteria contained studies focussing on preferences and attitudes toward e-mental health among adults. Clinical trials or surveys on the views of providers, participants in an intervention (e.g. clients) or specific risk groups were excluded.

Findings: From the 63 results identified in electronic databases, four papers met the inclusion criteria. Sample sizes ranged from N=217 to 2.411. Data mainly stem from Canada, Australia and Austria, respectively Germany. Methodology varied across the studies. Overall, results indicated type-specific differences for preferences. Despite the low likelihood of e-mental health use in the future observed in most samples, health literacy and e-awareness tended to be associated with positive attitudes.

Conclusions: Currently, the evidence on users' preferences and attitudes toward e-mental health services remains scarce. Due to the limited research available, and methodological issues, further research is recommended in order to enable informed decisions.

15:30 - 17:00

“It was so comforting knowing she was okay”: evaluation of a neonatal care e-health intervention

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Background: This paper will report findings from an evaluation of a new e-health intervention designed to help mothers ‘keep in touch’ with their infant/s when they are in a neonatal care unit (NNU). The intervention, mylittleone, involves IP cameras being placed over incubators in the NNU, which then transmit real-time videos wirelessly to coupled tablet devices at the mothers’ bedsides in post-natal care. The aim of the evaluation was to explore parent and professional views of the technology and make recommendations for its future development, use and evaluation.

Methods: A qualitative approach was adopted, guided by a critical realist perspective. The study was undertaken in the only unit in the UK currently using the technology. Parents (n=33) and professionals working in neonatal and postnatal care (n=21) were recruited purposively. Data were collected using semi-structured individual, paired and small group interviews and were analysed thematically.

Findings: The majority of parents and professionals spoke positively about the technology. Perceptions were that its use reduced anxiety levels, that it helped to promote the early bonding process and that it allowed mothers to be more responsive to their baby’s needs. In a small number of instances, use of the technology appeared to increase levels of maternal anxiety.

Discussion: Findings from this preliminary evaluation will guide future developments of the technology. The findings will also inform the design of a future trial to assess the impact of the technology on a range of psychological indicators of postnatal adjustment.

15:30 - 17:00

Run'n'Play: promoting physical activity and intention control using an appbased game and fitness tracker

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A sedentary lifestyle is one of the main causes for obesity among youths. Crucial factors are a lack of motivation and intention control and should be addressed in intervention programs. This study aims to evaluate the efficacy of an **app-based game combined with a fitness tracker in terms of participants' physical activity, motivation for physical activity, intention control, and body-mass-index (BMI).**

Normal and overweighed youths aged 14 to 17 (N=60) will be randomized to (1) the experimental condition using a game-based smartphone-app and fitness tracker for step count versus (2) the control condition using a non-game-based smartphone-app and fitness tracker. In the experimental condition, feedback regarding the participants' activity will be provided by interlinking the participant's physical activity with the abilities of her/his avatar. Physical activity will be monitored by tracking step count for 4 weeks.

Before and after the intervention, motivation for physical activity, intention control and BMI will be assessed. We suppose that participants in the experimental condition show a higher increase in their physical activity that is associated with a reduction in BMI when compared to the control group. By interlinking physical activity with the performance of the avatar, a raise in motivation towards physical activity and intention control is expected.

The development of the app and game has been completed. Currently participants are recruited and will following be assessed. Results may help clarifying whether a target-group-specific game and app design based on concepts of health psychology may help increasing physical activity in normal and overweighed youths.

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15:30 - 17:00

15:30 - 17:00

SIGMA: A Self-help, Integrated, and Gamified Mobile-phone Application for weight management in young adults

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Background: Cognitive behavioral therapy (CBT) is an effective treatment for weight management and relapse reduction in overweight and obese individuals (Cooper & Fairburn, 2001). However, more easily accessible interventions are necessary. Therefore, SIGMA (i.e., the Self-help, Integrated, and Gamified Mobile-phone Application) is the first mobile application based on CBT principles. The objectives of the SIGMA project are to develop and test a mobile application for maladaptive behavioral (e.g., dietary styles) and cognitive (e.g., dysfunctional beliefs) weight management habits.

Methods: The SIGMA application will be tested via a pilot randomized controlled trial, contrasting the SIGMA application versus self-help CBT, totaling 20 participants per condition. Selected participants will be overweight young adults with deficient eating behaviors (e.g., binge eating). The intervention will last three months, having a three-month follow-up. SIGMA will assess the shift in cognitive and behavioral habits, as well as weight changes. Completers-only and intent-to-treat analyses will ensue.

Expected results: The results are expected to render an efficacious SIGMA application in comparison to selfhelp CBT in terms of maladaptive cognitive and behavioral habits, with long term benefits for weight reduction.

Current status: The SIGMA application is a work in progress, expected to be due by the end of 2016. It is part of the PNII-RU-TE-2014-4-2481 grant. The current status of the work focuses on designing and building the core features of the SIGMA application.

Discussion: The SIGMA project drives the research towards integrative applications, intertwining scientific cognitive-behavioral principles with gamified elements for long-term changes in cognitive and dietary habits.

15:30 - 17:00

Patients' experience in the development of an app for self-management of hypertension: a qualitative study

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Background: Patients with hypertension in the community frequently fail to meet treatment goals. The powerful on-board computing capacity of mobile devices, along with the unique relationship individuals have with newer technologies, suggests that they have the potential to influence behaviour. However, little is known regarding the views and experiences of patients using such technology to self-manage their hypertension and associated lifestyle behaviours. The aim of this **study was to explore patients' views and experiences of using technology based self-management tools for the treatment of hypertension in the community.**

Methods: Fifty hypertensive patients were recruited from a community setting. Semi-structured interviews were conducted in focus groups and were taped and transcribed. Framework analysis was utilized to analyse the data.

Results: Four key inter-related themes emerged from the analysis: Personalisation; trust; motivation; and communication. Patients favoured a solution that was personalised to their particular needs. The source of app 'prescription' is another issue, with trust a key factor in impacting on engagement. Apps recommended by their healthcare providers were more likely to increase engagement. The potential ability of technology to facilitate a personalised flow of communication between patient and healthcare provider was highlighted.

Conclusions: Newer technologies such as mobile devices and the internet have been embraced across the globe despite technological challenges and concerns regarding privacy and security. In the design and development of technology based self-management tools for the treatment of hypertension, flexibility and security are vital to allow and encourage patients to customise, personalise and engage with their devices

15:30 - 17:00

Increasing skin self-examination after melanoma: an intervention using text and tablet delivery

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Background: Following treatment for melanoma, recurrence risk is high and it is recommended that patients perform regular total skin self-examination (TSSE). However TSSE practice is sub-optimal and reported barriers include lack of training, waning motivation and the time required. The Achieving Self-directed Integrated Cancer Aftercare (ASICA) intervention was developed based on the Information-Motivation- Behavioural skills model (IMB) and Control Theory to tackle these barriers and to facilitate TSSE in people treated for melanoma. This study aimed to assess acceptability and feasibility.

Methods: The tablet-based intervention provides TSSE information/video demonstration, text message prompts to perform TSSE and allows users to take and send photographs of skin changes to a nurse specialist for review/action. N=20 people previously treated for melanoma piloted the intervention. Intentions and self-efficacy to perform TSSE were reported, adherence was automatically recorded and participants were interviewed about usability and acceptability.

Findings: Adherence was good (15 adhered well, 4 intermittently and 1 withdrew). Participants were positive about using technology to remind and instruct on TSSE, conducting it in their homes and getting feedback quickly. Symptoms were reported by 7 participants and 2/7 had further surgery as a result, one with recurrent melanoma. **Participants' intention (ns) and self-efficacy (p<.05) to perform TSSE increased.**

Discussion: The ASICA intervention was acceptable and feasible for most patients. ASICA may provide a valuable adjunct to standard melanoma follow up, helping to reinforce and sustain TSSE and to facilitate earlier detection of recurrence. It is now proposed to evaluate the intervention in a randomised controlled trial.

15:30 - 17:00

Online social networking attitudes and health behaviour

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The aim of the study was to investigate whether attitudes towards the Internet and social networking sites (SNS) have effects on Internet addiction. An additional focus was the effect of personality on online health behaviour. Data were gathered by means of a questionnaire completed by 435 participants, aged between 12 and 76 (M=28). The measures included scales for: Internet attitudes, Internet addiction, SNS attitudes, and personality traits. Mediation analyses revealed that perceived SNS usefulness and trust mediated the relationship between Internet attitudes and Internet addiction.

Specifically, preference for online socialisation was associated with increased Internet addiction through the mediators perceived SNS usefulness and trust. Negative Internet attitudes were associated with decreased Internet addiction when the relationship was mediated by SNS usefulness and trust. As far as positive Internet attitudes were concerned, no direct effect on Internet addiction was found, but there were significant indirect effects through SNS usefulness and trust.

Furthermore, SNS attitudes mediated the effects of personality traits on tendencies for Internet addiction. The findings of the study are an important indication of the interrelatedness of various online behaviours which function as an integrated mechanism. They also clarify that focusing on new additional aspects of Internet use can modify or even invert the relationships between personality traits, attitudes and Internet addiction.

Resilience in illness and disability

15:30 - 17:00

15:30 - 17:00

Resilience following chronic disability: a longitudinal study after the onset of spinal cord injury

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Background: The objective of this project is to gain a thorough understanding of resilience and the adjustment process following the onset of spinal cord injury (SCI). The specific aims are 1) to identify subgroups across indicators of well-being and mental health at rehabilitation discharge, 2) to determine the trajectories of wellbeing and mental health following disability onset, and 3) to test an adjustment model to investigate the mechanism underlying adjustment to SCI.

Methods: The project is embedded within the longitudinal Swiss Spinal Cord Injury Cohort Study (SwiSCI). Currently, around 170 newly injured patients of one of the four Swiss SCI rehabilitation centres have completed questionnaires assessing mental and physical health, well-being and other psychosocial factors during first rehabilitation. We will use exploratory latent profile analysis to identify the subgroups across the adjustment indicators, apply latent growth mixture modeling to detect the trajectories, and structural equation models to test the adjustment mechanism.

Expected results: We expect 1) to identify at least three different subgroups at rehabilitation discharge (resilient, vulnerable, average copers), 2) to find between 3 and 5 different trajectories for mental health and well-being, and 3) to find a direct effect of purpose in life, self-efficacy and social support on well-being and mental health, with partial mediation by appraisals and coping processes.

Current stage of work: Data assessment is on-going.

Discussion: Understanding the adjustment process following disability onset and identifying determinants of this process can support clinical decision making and contribute to the optimization of the rehabilitation process.

15:30 - 17:00

The association between Type D personality and insomnia in breast cancer patients

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Background: Type D personality, the combination of negative affectivity (NA) and social inhibition (SI), is associated with poor clinical outcome in various patient groups. For example, research has identified that Type D is associated with poor mental health and quality of life in cancer patients. Disturbances in sleep represent another common consequence of cancer diagnosis, but to-date, no study has investigated the association between Type D and sleep problems in cancer patients.

Methods: In a longitudinal study, 108 female breast cancer patients completed self-report measures of Type D personality (DS14) and insomnia severity (ISI) four years post-diagnosis. The relationship between Type D and insomnia was investigated using both the traditional categorical method of analysing Type D and the dimensional method of analysis (utilising the NAxSI interaction term).

Findings: Analysis showed that 18% of the sample had a Type D personality, and that these patients ($M=9.7$, $SD=6.9$) had significantly higher levels of insomnia than non-Type D patients ($M=6.4$, $SD=6.1$, $t(105)=2.09$, $p<.05$). In addition, dimensional analysis showed that Type D (NAxSI) was significantly correlated with higher levels of insomnia ($r=.224$, $p<.05$). However, on examination of the NA and SI components of Type D, it was found that only NA (and not SI) was significantly associated with insomnia ($r=.505$, $p<.001$). **Discussion:** The results demonstrate that although Type D breast cancer patients have elevated levels of insomnia, these elevated levels are associated solely with the NA component of Type D, as opposed to the interaction between NA and SI, which delineates Type D.

15:30 - 17:00

Psychosocial factors and problems with voice production

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Background: The subject of the research is connection between psychosocial factors like: anxiety, life satisfaction, stress and selfesteem and problems with voice production.

Material and methods: From January 2014 to September 2015 almost 600 people have been examined (the sample was various and representative). I have two research problems. If there is a correlation between variables and which variables are the best explanation of problems with voice production. I chose two statistical methods: correlation and regression (MR). The group was examined by questionnaire methods (for measuring psychosocial factors (STAI, PSS10, SWLS) and Sheet of the Voice Emission Diagnosis (SVED) which measuring principles problems with voice production: breathing (respiration), phonation, articulation, efficiency of articulatory apparatus and resonators. I also use Voice Handicap Index (VHI).

Results: The results have been proved that there is a correlation between psychological factors like: stress, anxiety and life satisfaction and problems with voice production. Research can help with preparation of prophylactic programs for those profession in which voice is the most important thing (like: teachers, actors, doctors etc). Moreover regression model tells us which factors (and variables) are connected with problems with voice productions.

15:30 - 17:00

Resilience, parental attitudes and cooperation in adolescents with chronic diseases in the therapeutic process

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Background: Current concepts of health psychology focus on the role of protective factors to decrease negative effects of the experiences associated with chronic diseases. Resilience is one of the key factors responsible **which protect and facilitate patients' adaptation process. The aim of the study was to enquire:** 1) whether resilience predicts adherence in medication regimens and the level of cooperation between physician and the patient 2) whether the types of parental attitudes determine **development of patient's resilience.**

Methods: 186 children with different chronic diseases (kidney and liver transplant patients, inflammatory bowel diseases and diabetes) and 185 parents participated in the study. To assess parental attitudes (SPR), **patients' resilience (SPP – 18)**, adherence to medication regimen (MMAS-8), patients cooperation **questionnaire was used. In the statistical analysis the Pearson's correlation coefficient was calculated.**

Findings: The higher level of resilience the greater medication adherence ($r = 0.181$) was observed in patients. Persistence as a component of resilience was associated with better cooperation and regularity in taking medications in the group of diabetics ($r = 0.334$). Parents with acceptance ($r = .245$) and autonomous ($r = 0.158$) attitudes have positive impact on the resilience development of their children.

Discussion: Parental attitudes are related to the development of resilience which may determine medical adherence. Poor cooperation between physicians and children in the medical treatment may lead to health worsening of the patients. In the process of treating a patient, it is important to draw attention to positive parental attitudes, which can reduce health risks.

15:30 - 17:00

Reverse relationships between utilization of personal resources and psychopathology

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Background: Hobfoll's research documented decrease in psychopathological manifestations in individuals who utilized psychosocial and material resources. We have developed a rehabilitation planning and progress monitoring instrument (Resourcefulness for Recovery Inventory –Research Edition) that fills the gap in the assessment and treatment of patients with physical and psychological conditions. This 18 bipolar scale instrument includes subscales such as: having control versus being controlled, having positive ideations versus negative, positive emotions versus negative, integration versus disintegration, and acceptance versus non-acceptance among others.

The scale was standardized in Canada on more than 550 patients who suffered psycho-traumatic and physical injuries.

Method: 52 patients who were treated with psycho education, cognitive therapy and hypnotherapy for panic and generalized anxiety disorders at the Moscow Research Institute of Psychiatry were administered RRI-RE preand post along with various measures of psychopathology (such as SCL-90-R, BDI, The Spielberger State Trait Anxiety Inventory, Five-Factor Mindfulness Questionnaire, Mindful Attention Awareness Scale, and Qualitative-Quantitative Clinical Scale). Nonparametric statistics (Wilcoxon matched pairs test and Mann- Whitney Test) were used to make comparisons between T1 and T2.

Conclusion: The treatment group have improved to various levels (ranging from $p < .0001$ to $p < .002$) on the measures of psychopathology as compared to the control group. The subgroup that achieved full recovery was characterized by the substantial improvement on the RRI-RE negative scales, while the subgroup showing partial recovery demonstrated moderate improvements on both RRI-RE positive and negative scales but to a lesser degree than the group with full recovery.

15:30 - 17:00

Association between mental speed and quality of life: age effect in healthy women

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There are many related evidence association between mental speed and intelligence as well as between intelligence and mortality. Thus, reaction time as the stronger indicator of age-related changes in brain functions may be non invasive alternative tool for regular evaluation of health status in older peoples. We hypothesized negative correlations between reaction time (RT) in a variety of information selection situations both IQ and self-reported mental health.

The study included 42 healthy women (19 years) (YG) and 49 senior women (65 years) (OG). RTs were measured using the Attention Network Test (ANT) and a 2-choice reaction time test (CRT). Verbal/figural intelligence (IQv and IQf) and Quality of Life (QoL) were assessed using the Amthauer subtests and the 36- Item Health Survey, correspondingly.

The RTs in experimental tasks were significantly shortened in YG when compared with OG, and two of eight QoL scales were significantly lower in OG vs.YG. Simple RT was inversely related to the 'mental health' component of QoL only in YG whereas in OG this component negatively correlated with complex RT in the ANT and physical components negatively correlated with processing speed of alertness system but positively with functions of orientation system. IQ was inversely related to the RTs in both groups. Also OG was characterized by negative relationship between IQf and standard deviation of RTs. Obtained results support the concept that high mental speed and its intra-individual invariability are associated with high-quality of life in aging.

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15:30 - 17:00

Prevalence and factors associated to post-traumatic stress disorder among French mountain rescuers

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Rescue workers are more repeatedly exposed to traumatic events than general population and they consequently are at higher risk of posttraumatic stress disorder (PTSD) (Berger and al., 2012). A large literature showed that the role of risk or protective factors involved in PTSD depends on the population (Brewin, Andrews, & Valentine, 2000).

Our aims were to estimate the current prevalence of PTSD among mountain rescue workers and to identify specific factors of risk or protection associated with. Rescue mountain workers (n=33) responded to individual clinical interviews used to diagnose PTSD (CAPS-DSM-4) and completed some measures of the mindful trait (FMI), alexithymia (TAS), coping strategies (Brief Cope), perceived social support, normative pressure, distress face to the victims' family, identification with the victim.

Our results show that rescue mountain workers have been exposed to many traumatic events, with 22% of them showing PTSD syndrome and 19% of them sub-syndromal state. The mindfulness trait was associated with reduced number of PTSD symptoms ($r=-.35$, $p < .05$) and should be considered as involved in protective emotional and cognitive processes face to trauma (Smith et al., 2011). As a whole our results offer some tracks for prevention of PTSD among rescue workers.

15:30 - 17:00

Maladaptive personality traits in a sample of patients with opioid dependence

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Background: Different personality features has been linked in the literature to drug abuse. The objective of this study is to compare the prevalence of maladaptive personality traits in a sample of patients with opioid dependence, with that in healthy volunteers from the general population. **Methods:** Of 306 subjects included, 95 were adults (mean age 32,24 (SD=4,06) with opioid dependence and 211 - healthy volunteers (mean age 37,92(SD=12,38). The patients were long – term opiate users, with minimum 1 year of opiate dependence, included in a Methadone maintenance program.

All patients included achieved stability on maintenance dose of Methadone and showed reduction or cessation of heroin and/or other substance use. They were in a process of rehabilitation , where the psycho-social interventions were the most important. The healthy subjects were working persons and students. We used The Personality inventory PID-5-BF, assessing personality characteristics, impeding the successful adaptation, DS-14 questionnaire for Type D Personality and STAI –T, together with an interview, collecting detailed sociodemographic data and information, related to the psychiatric status and drug use. **Findings:** The co-morbidity with other mental disorders in the patient group was: with depression - 7,5%, with panic disorder - 1.1 %, and with gambling disorder - 7.7%.

We found significant differences between the groups tested in two of the PID-5 BF domains: disinhibition ($p < .001$) and antagonism ($p = .058$) (Mann-Whitney test).

Conclusions: Our findings confirmed the relation of opioid use with disinhibition and antagonism, which could be used in the psycho-social interventions with drug users.

15:30 - 17:00

Personality, negative emotional states and self-determination of gambling involvement

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The present study examined the relations between personality traits, depression, anxiety, stress and selfdetermination variables associated with gambling involvement. Participants were 126 university students using self-report method. Gambling behaviour is conceptualized on a continuum ranging from non-gambling to problem and pathological gambling using SOGS-RA. At risk gamblers represented 17, 5 % of the sample while 7.1% were classified as pathological gamblers. No significant gender differences were found. Personality variables associated with gambling problems were low conscientiousness, high levels of neuroticism and sensation seeking. Negative emotional states like anxiety and stress (but not depression) were associated with more severe gambling involvement.

Regression analysis revealed that ascribing personal value to gambling behavior (identified regulation) and gambling in hopes of becoming rich (external regulation) were significant motivational predictors of severity and frequency of gambling behavior. These findings support a linkage between personality traits, different forms of motivation, emotional states, and gambling behaviour. The results are interpreted with the aim of improving prevention initiatives for young people.

Cognitions, performance and behaviour in stress and coping

15:30 - 17:00

15:30 - 17:00

Mental performance strategies as determinants of flow, performance satisfaction and performance among soccer players

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Background: This longitudinal study aimed at examining whether athletes' psychological skills in applying mental strategies predicted satisfaction with performance, performance and flow at short- and long-term follow-ups.

Methods: Data from 96 soccer players (100% men, aged 16 -27) were collected three times; before the season (T1; baseline), in mid-season (T2; two-month follow-up), and after the soccer season (T3; seven month follow-up). Athletes were recruited from 2nd and 4th league football clubs. Participants filled in questionnaires, measuring: mental strategies (Test of Performance Strategies), satisfaction with performance, and flow. Performance was measured with running and dribbling drill tests.

Findings: High levels of mental strategies, including: emotional control, activation, relaxation, distractibility self-talk and automaticity (all **assessed at T1**) **explained players' report of their** satisfaction with performance, flow, and objectively measured performance (T3).

Discussion: The study provides an insight into the beneficial effects of mental strategies such as relaxation, self-talk, and activation in the development of satisfaction with performance, performance and flow.

15:30 - 17:00

Stranger and nonstranger harassment: coping strategies and barriers to support seeking

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²Australia Catholic University, Australia

Background: Sexual harassment is a pervasive issue disproportionately affecting women. The high incidence of sexual harassment and associated negative outcomes constitutes a significant public health problem that needs to be examined in health psychology. Recent studies utilising Stress-Coping theory suggest women cope differently with sexual harassment depending on the context and relationship with perpetrator. **The current study was designed to examine women's coping in response to sexual harassment perpetrated by strangers and known persons (i.e. nonstrangers).**

Methods: A mixed methods design was used, with 727 participants who completed validated measures and open-ended questions in an online survey. Open-ended questions focused on how women coped with harassment and barriers to support seeking. Data were analysed using SPSS and NVivo.

Findings: Preliminary findings revealed that 84% of the sample experienced both forms of sexual harassment in the past two years. On average participants first experienced sexual harassment at the age of 13-14 years old. Passive coping strategies were most commonly employed in both contexts. Thematic analyses revealed key barriers to support seeking were victim blaming, shame and normalisation. A core theme was also having struggled to cope with sexual harassment at a young age.

Discussion: Women used a range of coping strategies, however, consistent with past research passive coping was most frequently used. Qualitative findings revealed multiple barriers to support seeking and limited knowledge of coping options when young. Further research is needed to better **understand adolescents'** experiences of sexual harassment and coping in order to inform interventions for this vulnerable population.

15:30 - 17:00

Does cognitive control predict everyday emotions and control strategies? An ecological momentary assessment study

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Background: This study aims to examine the associations of cognitive control with positive affect (PA), negative affect (NA), and control strategies (Heckhausen, 1998) in everyday life. It is hypothesized that cognitive control is associated with higher PA, lower NA, higher primary control strategies, and lower secondary control strategies.

Methods: A total of 108 younger and older adults were recruited and administered the Simon Task for assessing cognitive control. Following the baseline assessment, the participants reported their PA, NA, and four control strategies, namely primary selective, primary compensatory, secondary selective, and secondary compensatory control, five times a day over seven days. Multilevel modeling was used to test the study hypothesis. All models consisted of two levels, sessions (Level 1) and individuals (Level 2). Level 1 included PA, NA, and the four control strategies (dependent variables), whereas Level 2 included the scores on cognitive control (independent variable).

Findings: Cognitive control significantly predicted primary selective control ($\beta=0.02$, $SE=0.01$, $p=0.02$), but not PA ($\beta=0.02$, $SE=0.01$, $p=0.11$), NA ($\beta=-0.00$, $SE=0.01$, $p=0.90$), primary compensatory control ($\beta=0.01$, $SE=0.01$, $p=0.23$), secondary selective control ($\beta=0.02$, $SE=0.01$, $p=0.15$), and secondary compensatory control ($\beta=0.02$, $SE=0.01$, $p=0.13$).

Discussion: Participants who have higher cognitive control might invest more cognitive resources for primary selective control strategies, which facilitate attainment of important personal goals. Age-related differences in cognitive control and their associations with everyday emotions and control strategies will be discussed.

15:30 - 17:00

Coping with cyberbullying: which strategy works?

F. Dehue¹¹Open University of the Netherlands, Netherlands

Coping strategies have differential impacts on health. In general, the literature shows that problem related or active coping strategies, which are used to solve the problem, are positively related to health, whereas emotion related or passive coping strategies, which are used to decrease the stress as a result of a problem, are detrimental to health.

The use of coping strategies and their effectiveness depends on personal dispositions, outcome-expectancies and contextual features. In this presentation these aspects are discussed in relation with (cyber) bullying. The presentation will try to explain why victims of (cyber) bullying mostly use emotion related or passive coping strategies, why these strategies are more effective for health than problem related coping strategies, and why some coping strategies are effective for traditional bullying but not for cyberbullying. It is concluded that more research is needed but that yet it is possible is to advice victims of cyberbullying.

15:30 - 17:00

Cyberbullying: improving awareness of perpetrators, adults, and bystanders

T. Vollink¹, F. Dehue¹¹Open University of the Netherlands, Netherlands

Differences in perceptions concerning cyberbullying of perpetrators, bystanders, victims, teachers, parents and researchers makes it difficult to intervene at the right moment: when a child needs help to stop cyberbullying. Not all children that have been cyberbullied (as measured by researchers) are in need of help. **On the other hand most perpetrators think unjust that their bullying behavior was 'just a joke'. This leads to an overestimation (by some researchers) as well as an underestimation (parents, bystanders, perpetrators and teachers) of the problem.**

In this presentation differences in perception and difficulties of improving awareness of adults and young people in different roles will be presented, as well as methods to improve awareness and effective parental monitoring. In the literature it is shown that cyber victimization is associated with lower levels of parental control. So parental control or parental monitoring can be considered as a determinant of (cyber)bullying.

On the other hand, parental control can also be a risk factor. Based on the literature, in the presentation several parental risk factors will be discussed as well as methods to improve awareness, signals to detect victimization of cyberbullying, and possibilities for parents and teachers to provide interventions. The presentation will be based on new empirical findings as well as available studies on cyberbullying.

15:30 - 17:00

Cyberbullying and health: what can be done to combat cyberbullying and prevent negative health consequences?

C. Mc Guckin¹¹Trinity College Dublin, Ireland

There is a well-established interrelatedness between health and well-being on the one hand and (cyber-) bullying on the other. Victimization of (cyber) bullying leads to various health physical and psychological health problems. Moreover, children with health- and psychosocial problems are more vulnerable for involvement in (cyber-) bullying. Also involvement in “traditional” bullying, time spent online and risky Internet behavior are important risk factors.

One of the most frequently investigated contextual risk factors is parental control. Parents and teachers underestimate the scale of the issue and the negative personal health aspects of cyberbullying. Awareness raising among parents and teachers is a critically important factor to enhancing their motivation to improve their mediation/coping strategies to prevent and combat cyberbullying.

Not all youth who encounter cyberbullying suffer negative effects. Some are upset and experience difficulties, and some are resilient. Hence, they cope differently. However, cyberbullying has some specific characteristics. Therefore, coping strategies to effectively handle the stress and hence are positively related to health, are not always effective in cyberbullying situations. Moreover, coping strategies, which seem to be detrimental for health in traditional bullying situations, seem to be effective in cyberbullying situation.

There is a host of intervention developed to prevent (cyber)bullying and/or the negative consequences. Problem is however that almost none is theoretically based and/or tested on effectiveness. Another problem is the selection of children in need for these interventions. There is still discussion on how to define and measure cyberbullying.

Treatment beliefs and illness perceptions

15:30 - 17:00

15:30 - 17:00

Global prevalence of dental anxiety in adult population: a systematic review

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Background: Dental anxiety is a problem that impacts significantly in the oral health and dental compliance in adult. However, there is no enough clarity about the prevalence of this phenomenon in the global population. The objective of this study is determine the global prevalence of dental anxiety in adult population with a systematic review.

Methods: The authors search PubMed, Scopus, Scielo and ISI Web of Science databases with no time limit on the search period, and review studies published in English, Spanish and Portuguese language. MeSh terms, key words and other free terms related to Dental Anxiety, Dental Fear, Dental Phobia, Odontophobia, Adults will be used with Boolean operators (OR, AND) to combine searches. Studies were included if the age of the sample was between 18 until 70 years old, used a quantitative dental anxiety scale and the type of the study was observational studies, including cross-sectional study designs and prospective study designs. The risk of bias was assessed using a critical appraisal tool (Risk of Bias Tool).

Expected results: In process.

Current Stage of Work: The project was accept by PROSPERO International prospective register of systematic reviews (CRD42016033317). We are at the stage of retrieved information from database.

Discussion: Knowing the levels of dental anxiety allow us to compare differences by country, year of study, sample size, study design, patient population studied, mean age of sample/age-range, gender of the population, age, sex and education level, identify the most used dental anxiety scales and hypothesize the causes of dental anxiety.

15:30 - 17:00

Facial expression to emotional stimuli in non-psychotic disorders: a systematic review and meta-analysis

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Facial expression of emotion is crucial to social interaction and emotion regulation, therefore altered facial expressivity can be a contributing factor in social isolation, difficulties with emotion regulation and a target for therapy. This article provides a systematic review and meta-analysis of the literature on automatic emotional facial expression in people with non-psychotic disorders compared to healthy comparison groups. Studies in the review used an emotionally salient visual induction method, and reported on automatic facial expression in response to congruent stimuli.

A total of 38 studies show alterations in emotional facial expression across all included disorders, except anxiety disorders. In depression, decreases in facial expression are mainly evident for positive affect. In eating disorders a meta-analysis showed decreased facial expressivity in response to positive and negative stimuli.

Studies in autism partially support generally decreased facial expressivity in this group. The data included in this review point towards decreased facial emotional expressivity in individuals with different non-psychotic disorders. This is the first review to synthesise facial expression studies across clinical disorders.

15:30 - 17:00

The relationship between the quality of life, hardiness and parameters of autonomic balance

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It can be supposed that a person's subjective description of their state of health and their attitude towards life's problems are connected in a way that is not entirely apparent with the peculiarities of internal control over physiological processes and therefore has prognostic value when it comes to assessing a person's health in general, as well as very early symptoms of changes in their body's regulatory processes. It was of interest to evaluate the prognostic significance of the two tests most often used by health psychologists: the Short Form-36 Health Status Survey (SF-36) and the Hardiness Test (Maddi, 1987, 1998). As an indicator of the state of internal control, the correlative activity of two parts of the autonomic nervous system (ANS) – the sympathetic nervous system (SNS) and the parasympathetic nervous system (PNS) – was chosen.

Our study sample consisted of 59 students and office workers between the ages of 18 and 70 in the city of Yelets (with a mean age of 25.1 ± 11.0 years). An interconnection (high, significant correlation of moderate strength) was established only between the PSNS and RP (Role-Physical Functioning) scores. We have shown that **a person's own feeling about the state of their health is not connected with the important parameters that describe the state of the internal environment. The only correlation between a person's own description and the actual inner state arises when they are describing their real responsibilities and how they carry them out.**

15:30 - 17:00

The relationship between irrational cognitions and mindfulness in clinical and non-clinical subjects

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The observation that psychopharmacology is only temporarily improving the general psychic state of the patients is the basis of this work. A high level of irrational cognitions will remain present and will react after the ending of the medical treatment. This study compares two samples of subjects, with and without psychiatric diseases, from the perspective of their irrational cognitions and the level of their conscious presence (mindfulness). We hypothesised that irrational cognitions and the level of mindfulness are negatively correlated in the two groups, with a significant higher level of irrationality for the psychiatric patients. The subjects (N_{tot}=103) were divided into two groups, the clinical out-patients (N₁=52 subjects under psychiatric medication) and non-clinical subjects (N₂=51 subjects without psychiatric medication). The irrational cognitions are measured using Shortened General Attitude and Belief Scale (SGABS), whereas mindfulness level is measured with Five Facet Mindfulness Questionnaire (FFMQ).

The results show that the irrationality level is significantly higher in the clinical group ($m=74.43$, $SD=17.17$), compared to the non-clinical group ($m=61.27$, $SD=16.12$), $t(100) = 3.98$, $p<.01$, $d=3.22$), whereas the mindfulness level is only slightly higher in the non-clinical sample. Also, the results show that there is an negative correlation between the level of irrationality and mindfulness, in the non-clinical sample ($r = -.51$, $p<.01$, $r^2 = 0.26$).

These results pinpoint the possibility of addressing the irrational beliefs, via psychological approaches, in order to maintain a good level of psychic functioning.

Psycho-social issues and chronic disease

15:30 - 17:00

15:30 - 17:00

Self versus context: the experience of mobility disability in the Romanian social and built environment

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¹Babes-Bolyai University, Romania

Background: This study aims to investigate how people with mobility impairments in Romania experience disability, in the physical and social context they interact with on a daily basis.

Method: Semi-structured interviews were conducted with eleven participants with various mobility disabilities such as paraplegia, spastic tetraparesis and hemiparesis, recorded and transcribed verbatim. The data is analysed using interpretative phenomenological analysis.

Expected results: Preliminary findings suggest important roles of family and friends in building independence. The continuous construction of normality by integrating disability into daily life is disrupted by perceptions of being labelled and pitied by people without disability. Participants expressed feelings of fear, frustration, and hopelessness regarding the limited accessibility of the built environment, which was perceived as an obstacle to independence lying outside the control of the individual.

Current stage of work: Data analysis is in process.

Discussion: Participants conceptualized disability as a specific context for „normal” people to live their lives in, and did not define their identities around it. They felt that the built environment and how they are viewed by others often contradict this representation, by limiting their independence and labelling them as incapable. Social support was presented as a resource in becoming visible and living a productive life. To the extent of the authors' knowledge, this is the first study to propose an in-depth exploration of the experience of mobility disability in the physical and social context of Romania. These findings may serve in the future as guidelines in the development of health policies regarding disability.

15:30 - 17:00

Adjustment to coronary heart disease: associations with gender-related traits

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Previous studies suggest that gender-related traits have an impact on the adjustment to chronic illnesses. Agency (A) and communion (C) predict better health outcomes, while unmitigated agency (UA) and unmitigated communion (UC) are associated with physical and mental adjustment difficulties. The aim of the study is to evaluate the role of gender-related traits on adjustment to coronary heart disease. Evaluating the baseline (T0) data of our longitudinal study 113 acut coronary syndrome patients' resposes are examined (73% male; age: 60,28-}10,7 years). EPAQ, RUCS, BFI, COPE-Brief, social support, RSES, BSCILM, ZTPI were used for assessment.

High UA is related to neuriticism positively, while A is negatively. A is a negative predictor of depression, while UA is related negatively to social support. As regards of coping styles UA correlates negatively to positive reframing and use of emotional support while UC is positively. The strongest positive correlation is between A and self-esteem, while UA is related to self-esteem and meaning of life negatively. All traits, except for UA are positively related to future time perspective, which enhances adjustment mostly.

We are collecting longitudinal datas, 2 months (T1) and 6 months (T2) after acut coronary event and recruiting new patients. Our preliminary results show that unmitigated agency patients report worse adjustment than agency which is associated with better mental health. Surprisingly communion and unmitigated communion does not show strongly different correlations.

Understanding the effects of these traits on the adjustment allows us to create specially tailored psychosocial intervention programmes during the rehabilitation.

15:30 - 17:00

Development of a questionnaire to identify the levers of adhesion to patients' medication: QUILAM

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Introduction: Health outcomes in chronic disease are largely dependent on treatment adherence. Thus, developing a questionnaire to identify the barriers and the levers to medication adherence is needed to adapt the educational monitoring in order to help the patients with chronic diseases to take their treatment as the doctor prescribed it.

Methodology: Firstly, we carried a thematic analysis of semi-structured interviews with 30 patients with diabetes mellitus type II, chronic obstructive pulmonary disease and heart failure and 5 healthcare providers. Secondly, we realised a review of the literature related to the validated medication adherence scales. Thirdly, with an expert committee, we gathered 62 items related to the 5 dimensions of the WHO (disease, treatment, **patient and one's relatives, sociodemographic factors** and health care system). Fourthly, 116 patients with the 3 targeted pathologies filled out the questionnaires.

Findings: An exploratory factor analysis with maximum likelihood and Oblimin rotation was run to reduce the scale. We obtained a 14-item scale with 4 dimensions: general beliefs, specific beliefs, management of the treatment and relation between the patient and the health care system. The final scale QUILAM showed **Cronbach's Alphas of .6 minimum for the dimensions.**

Discussion: The scale showed satisfactory psychometric properties. The next stage will be to analyse the factorial structure of the questionnaire with the convergent and predictive validities among 330 patients with chronic conditions. In future, this scale will enable to classify the patients in function of **one's score of each dimension** and propose a tailored intervention.

15:30 - 17:00

Improving care after heart transplantation: factors related to patients' expectations toward medical staff

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Aim: The aim of this study is to assess relation between psychological factors (coping style, level of distress, acceptance of illness) and expectations toward medical staff (for explanation and reassurance, for emotional support, and for investigation and treatment) among heart transplant (HTx) recipients.

Method: Group of 108 patients after heart transplantation (age range 19-75; M=52,68; SD=14,35; 11(10,18%) F/ 97(89,82%)M; 1-24 years after HTx) were asked to fill out questionnaires assessing coping style (CISS), acceptance of illness (AIS), prevalence of distress (GHQ-28) and expectation toward medical staff (PRF). Data were analyzed using stepwise regression statistic.

Results: The most effective predictors of need for explanation and reassurance were: number of years since HTx ($\beta=0,33$) and level of depression ($\beta=0,21$) ($p<0,05$). Need of emotional support was explained by emotion-focused coping style ($\beta=0,25$; $p<0,05$). The best predictors of need for investigation and treatment were: number of years since HTx ($\beta=0,35$), level of overall distress ($\beta=0,40$) and acceptance of illness ($\beta=0,30$) ($p<0,05$).

Conclusions: Among heart transplant recipients number of years after HT and symptoms of distress and depression are related to particular expectations toward medical staff, concerning getting more information and reassurance. Patients who use more emotion-focused coping style needed more emotional support from medical team.

15:30 - 17:00

The impact of learning within a self-management patient education programme

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Background: The current study explores the role of learning within a self-management patient education programme. Emerging research identifies learning as being important to the illness experience. There has also been a growth of research interest on the effectiveness of patient education programmes. However, no research has investigated the learning taking place within these programmes, nor the impact of such learning on the day-to-day experience of illness. Using a sociocultural theoretical lens, the patient education programme and the interactions within it were explored in terms of their role in **patients' learning and the illness** experience.

Methods: Qualitative data was generated through ethnography of the patient education programme employing multiple methods: observations, fieldnotes, collection of materials, and one-to-one interviews. Data was analysed using an inductive grounded theory approach.

Findings: The learning taking place within the patient education programme contributed to the psychosocial experience of illness in several ways. Three themes emerged from the analysis: negotiating peripherality and marginality within the healthcare community; the importance of access to patient peers; and, patient motivations for action. **Applying Wenger's Communities of Practice theory**, themes are discussed in terms of learning, participation in practices, and identity.

Discussion: The learning taking place within the patient education programme was transformational for **patients' psychosocial** experience of illness. Learning within the patient education programme served to **support patients' participation within the healthcare community**, from which patients can learn about the values, practices and language of that community and their place within it, facilitating the development of health-enhancing behaviours.

15:30 - 17:00

Improving beliefs about emotions and quality of life in IBS: a single case experimental design

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Background: Previous research has found beliefs about the unacceptability of expressing and experiencing emotions to be related to poorer quality of life in irritable bowel syndrome (IBS). This relationship has not previously been explored experimentally.

Methods: The current study designed a five-week course using cognitive behavioural techniques addressing beliefs about emotions and emotional suppression. This course was evaluated using a single case experimental design (n=4), taking repeated idiographic measures adapted from the Beliefs about Emotions Scale, the Courtauld Emotional Control Scale, the Hospital Anxiety and Depression Scale, and the IBS Quality of Life instrument. Measures were taken from four weeks prior to the course and for ten weeks follow-up.

Results: Tau-U non-overlap analyses indicated significant improvements in quality of life and significant reductions in negative affect, beliefs about emotions and emotional suppression for three of the four participants.

Discussion: This study provides early experimental evidence for the role of emotional suppression and beliefs about emotions in IBS within a therapeutic framework. This supports prior evidence from cross-sectional, correlational findings. Future research should explore beliefs about emotions and emotional suppression as a component of intervention in a larger sample with a control group for comparison.

15:30 - 17:00

Determinants of physical activity and dietary choices in adolescents with intellectual disability: a feasibility study

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Background: The prevalence of obesity is higher in those with intellectual disabilities than the general population. Research suggests that the transitional period between adolescence and adulthood is a time of particular risk for the development of obesity in the general population. However, no research has explored the factors which influence the lifestyle behaviours of adolescents with intellectual disabilities immediately pre transition from school to adulthood. Thus, the aim of the study was to understand the determinants of physical activity and dietary patterns and choices in this population during their final year of school.

Methods: Qualitative data was generated from 10 interviews with adolescents with mild-moderate intellectual disabilities in their final year of secondary school. Participants were recruited from four additional support need (ASN) schools in the Greater Glasgow and South Lanarkshire area. Data were analysed using inductive thematic analysis.

Findings: Pre-transition, adolescents' school environment and social interactions play a pivotal role in influencing their engagement with physical activity and dietary choices. Three themes emerged from the analysis: situatedness, motivation and wider environmental influences. Themes are discussed in terms of autonomy, competence, and social relatedness, supporting Deci and Ryan's Self Determination Theory (1985).

Discussion: School structure and social connectedness facilitate increased physical activity, healthier diet, and increased perceived self-efficacy in adolescents with intellectual disabilities. Out-of-school/home life and a lack of social connectedness can serve as a barrier to self-determination, impacting on engagement in healthenhancing behaviours in adolescents with intellectual disabilities.

Patient experience

15:30 - 17:00

15:30 - 17:00

Patients' expectations of cancer treatment: a qualitative study

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Background: Patients' expectations about their cancer treatment have been studied with regards to efficacy and side effects. However, previous research is largely quantitative and therefore more in-depth information about what patients expect before treatment is lacking. Exploring patients' expectations of cancer treatment qualitatively may uncover additional concerns that have not previously been addressed. Therefore the current study aimed to qualitatively explore patients' expectations of cancer treatment.

Methods: Qualitative, semi-structured interviews were conducted with twelve individuals who had received cancer treatment no more than two years previous. Interviews occurred face-to-face or on the telephone. Data were analysed using thematic analysis.

Findings: Thematic analysis uncovered three themes: 'focusing on the process or the outcome', 'investing in treatment' and 'physical and psychological impact'. Participants were invested in their treatment's efficacy, treatment gave hope and was often expected to be, and viewed as, a necessary evil. The impact of treatment was ameliorated by familiarity and feeling prepared, and opportunities for social contact. Participants fell into one of two groups: those with initially negative treatment expectations who experienced some relief when treatment was not as bad as anticipated and those whose expectations were more positive who then felt shock when treatment became a reality.

Discussion: Patients' expectations of cancer treatment do include thoughts about treatment outcomes or efficacy and side effects but also focus on other factors such as the impact treatment will have on work and family life. Future research should attempt to incorporate these broader aspects of expectations and explore them further.

15:30 - 17:00

Life after a coronary artery bypass graft: the lived experience of Maltese men

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Introduction: Cardiac surgery is frequently described as a "multidimensional phenomenon"; spanning over the biological, psychological and social fields. Coronary artery bypass graft (CABG) is well known to encompass extensive stress and emotions on the patient. There is however, a paucity of psychosocial literature on the Maltese patient's experiences of this procedure. This study therefore aimed to explore the lived experience of undergoing CABG in Maltese men.

Methods: A qualitative approach, namely Interpretative Phenomenological Analysis (IPA) was used and audio recorded semi-structured individual interviews were conducted with Maltese men who had undergone CABG. The recruited participants were all between the age of 55 and 71 and were recruited through purposive sampling.

Results and Discussion: Five major themes were extrapolated from the participant's narratives during data analysis through IPA. Prevailing factors originated from the experience involve dealing with the knowledge of undergoing major heart surgery, attitudes towards the outcome of the procedure, perceived change of self, struggles with anxiety and depression and the importance of spiritual and family support.

Conclusion: Findings show that each of the mentioned factors may not only influence patients' recovery from CABG, but may also impact a person's entire lifetime. Recommendations for future research proposed the implementation of a longitudinal study for better comprehension of the lasting impacts of CABG. Sustained psychological support throughout the CABG experience is also highly advised.

15:30 - 17:00

Pregnancy and motherhood with congenital heart disease: exploring lived experience, difficulties, resources and coping strategies

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Background: For the first time in history, a generation of women with congenital heart disease (CHD) stands before the question of procreation. Medical research has recently established precious knowledge and guidelines regarding these high-risk pregnancies, embedded in a bio-medical perspective. The present qualitative study explored lived experience of mothers with CHD aiming to identify potential difficulties and disclose specific resources as to improve health services.

Methods: Semi-structured interviews were conducted with five women aged 33 to 41 years, who gave birth to a healthy baby. We analysed discourses using grounded theory, and elaborated theoretical results embracing an embodied-societo-psychological perspective.

Findings: Pregnancy and motherhood were not only times of joy and pleasure, but were also subject to specific concerns, anxiety and automatic thoughts, which lead up to restraining emotional implications towards the future baby. In order to clarify symptoms, women used medical communication and information as main resources. Exchanging their experience and emotions with partners, family, friends and especially within **patient's association provided strong means of support**. Furthermore, women developed specific behaviours, such as limiting daily and professional activities while organising help, in order to keep physical risks under control. Becoming a mother seemed to **have an important impact upon their own and other's perception of living with illness, normality and sense of belonging**.

Discussion: In this specific context, health psychologists may provide adequate counselling, ideally starting during pregnancy or earlier. Moreover, patient education is essential, allowing women to adopt a health protective behaviour.

15:30 - 17:00

Co-constructed dyadic illness experience in the discourse of couples living with severe uncontrolled asthma

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Background: The research aims to explore dyadic constructed illness experiences and identities in couples living with severe uncontrolled asthma (SUA)

Methods: Following NHS ethical approval, three couples, where one partner was being treated for SUA, were recruited from an asthma clinic. Each couple took part in a dyadic semi-structured, face-to-face interview. Mean duration since disease onset was 34 years (range 24-49). Patients' mean age was 66 years (range 59-73). Data were analysed using discourse analysis.

Expected results: Preliminary results show that couples' dyadically constructed identities are fluid identities that adapt to variable illness severity over the disease course. Couples' dyadically constructed 'coping scripts' emerged from the non-asthmatic partner's expectations for coping strategies. Couples articulated unresolved emotional burden from old illness-related memories around acceptance of condition or traumatic encounters with health services. They highlighted lack of professional psychological support in coping with the illness. Participants perceived unique relationship and rapport with specific physicians. Despite physical suffering and life constraints, couples reported a good quality of life that they actively constructed.

Current stage of work: A further 7-10 couples are being recruited to explore the preliminary findings further.

Discussion: Exploring co-constructed illness experiences of SUA with dyadic approach provides valuable data on the significant other's influences and the impact of illness on the couple as a unit. Joint dyadic interviewing is useful in exploring the co-construction of illness experience in discourse, potentially applicable to areas of chronic disease management and health behaviour change.

15:30 - 17:00

Living with grief: a phenomenological analysis of the lived experience of PCOS

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Background: Polycystic ovary syndrome (PCOS) is a highly prevalent endocrine condition affecting between 5-18% of reproductive-aged women. There is no single diagnostic criterion and identifying PCOS is often a lengthy process.

Although a specific cause is still unknown, the syndrome can result in a multitude of symptoms. These include; ovarian cysts, menstrual abnormalities, hirsutism, androgenic alopecia, and insulin resistance. This study sought to understand the adjustment process after diagnosis, in order to explore the psychosocial experience of women as they face the bodily changes caused by PCOS.

Methods: A purposive sample of 10 young women living with a diagnosis of PCOS took part in semi-structured interviews. The transcribed interviews were analysed using Interpretative Phenomenological Analysis.

Findings: Four super-ordinate themes, overlapping in nature, were drawn from the analysis; Isolation (internalising difference, social insecurity), Helplessness (lack of choices, diagnostic process), Resilience (increasing knowledge, acquiring support), Grief (gender expectations, potential futures).

Discussion: The findings suggest that further support is needed for women during the diagnostic process as well as after appropriate treatment for symptoms has commenced. Stigma epitomises the **patients' experience** of PCOS and often results in avoidance behaviours and isolation. This should be recognised by healthcare professionals in order to facilitate open conversations, reduce misinformation, minimise distress and improve overall quality of life.

Through the development of appropriate interventions healthcare professionals can assist in helping women develop adaptive coping strategies in order to establish a more positive sense of self that is not defined by their illness.

15:30 - 17:00

Living with diabetes in adolescence: a mixed methods study

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This study aimed to understand how adolescents experience type 1 Diabetes (DM1) and if their experiences are associated with their illness perception. Participants were 32 teenagers, aged 12 to 18 years from a pediatric endocrinology clinic in Oporto.

As part of a larger research project, patients completed the Brief Illness Perception Questionnaire (IPQ). They **were also asked to write a text about "What is it like to have DM1"**. The texts were explored through a thematic analysis and a core theme emerged supported by 7 subthemes, all **related to the process of "negotiating a sense of normalcy"**.

Results from Brief IPQ show that adolescents perceive their illness as relatively benign. Moreover, qualitative findings illustrate how adolescents experience their everyday life in the presence of the disease and the strategies used to maintain and improve a sense of normalcy. Significant associations between the scores for illness perceptions and the frequency of subthemes were found, namely showing that higher coherence beliefs were associated with a less frequent reference to the **subtheme "things I can't do"** ($r = -0,445$; $p = 0.011$), suggesting that a coherent understanding of DM1 helps adolescents to feel less affected by the disease.

For clinical interventions aimed to promote adaptation of young people with diabetes findings of this study point to the need to focus on normalizing their lives and to foster more positive illness beliefs as well as the development of coping strategies, as a way of compensating the restrictive and undesirable impact that DM1 has on their lives.

Psychosocial interventions in long-term conditions 1

15:30 - 17:00

15:30 - 17:00

A meta-analytic systematic review of the effectiveness of psychosocial interventions for end-stage kidney disease fatigue

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Background: Fatigue affects 42-89% of End-Stage Kidney Disease (ESKD) patients, with huge repercussions on functioning and patient outcomes. Its management represents a clinical priority. The majority of currently available fatigue interventions in ESKD revolve around drug-treatments or exercise, with only modest and short-term improvements, unsuitable for patients in poorer health. The main aim of this systematic review was to explore whether controlled, theory-driven and effective psychosocial interventions are currently available to improve fatigue in ESKD.

Methods: MEDLINE, PsycINFO, EMBASE, CINAHL, Global Health, Web of Science, and CENTRAL databases were searched to identify randomized controlled trials (RCTs) and quasi-RCTs that determined the effect of psychosocial interventions on fatigue, in the renal patient population. All included studies underwent quality and risk-of-bias assessments. A narrative synthesis and meta-analyses, where possible, will be undertaken.

Preliminary/Expected Results: 16 RCTs, involving 1,375 renal patients, predominantly undergoing dialysis, were included. There was some evidence in favour of tailored interventions including cognitive-behavioural techniques, and education, targeting quality-of-life or sleep quality. In contrast, interventions targeting adherence to medications and fluid restrictions did not display any secondary benefits on fatigability.

Current-Stage-of-Work: We are currently awaiting missing data and clarifications from authors, before proceeding to the meta-analytic stage.

Discussion: The preliminary findings of this systematic review indicate that there is a lack of theory-driven interventions targeted specifically at fatigue in ESKD. Following in the footsteps of integrated models of fatigue and effective interventions developed in other chronic conditions, like cancer, it is important to adopt the same approach in ESKD.

15:30 - 17:00

Impact of a personalized support programme for patients with ACS: beliefs, persistence, and lifestyle change

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Introduction: The 'Life After Heart Attack' (LAHA) patient support programme (PSP) is designed for patients diagnosed with Acute Coronary Syndrome (ACS) and prescribed any type of oral anti-platelet (OAP) medication. LAHA is a six month intervention which is personalised to beliefs shown to be associated with non-adherence. The aim of this research was to evaluate the impact of LAHA on a range of outcomes.

Method: Data were collected measuring patients beliefs (treatment necessity, treatment concerns, duration of illness, and likelihood to discuss condition and treatment with HCP), persistence with treatment, and self-reported lifestyle change up to twelve months after enrolment. Percentage of persistent participants was calculated, and non-parametric Friedman's ANOVA were conducted to measure change in beliefs.

Results: In the sample of 394 participants, there was a significant decrease in medication concerns ($\chi^2 (4)=45.24, p<.001$), increase in perceived of duration of condition ($\chi^2 (4)=290.42, p<.001$) and increase in likelihood to discuss condition and treatment with HCP ($\chi^2 (4)=37.17, p<.001$). 83% of participants were persistent twelve months after enrolment. At six and twelve months approximately half the participants reported making making 'quite a lot of change – a lot of change' in relation to smoking, diet and exercise.

Conclusions: This research shows that over the course of the programme participants who have received the LAHA PSP report high levels of persistence. Patient beliefs, including beliefs about their medicines and their illness, significantly improve, and a large proportion of participants report making lifestyle changes in relation to exercise, diet and smoking.

15:30 - 17:00

Increasing self-efficacy to reduce injecting risk-taking behaviour in drug users on hepatitis C treatment

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Background: Approximately 214,000 people are infected with hepatitis C (HCV) in the UK, with c90% of new infections occurring via injecting drug use. HCV treatment in IDUs is limited by high reinfection risk and low cost-effectiveness. Psychosocial factors (e.g. self-efficacy to refuse sharing) are associated with injecting risktaking behaviour.

Research questions: 1. Will significant differences in self-efficacy scores and injecting risk behaviour be observed between intervention and control group? 2. Will increasing self-efficacy decrease injecting risk behaviour at follow-up?

Method: The randomised controlled trial, based on the Theory of Planned Behaviour, will use a volitional help sheet, using implementation intentions to increase participants' self-efficacy to refuse sharing of injecting equipment (n=70). The control group (n=70) will receive harm reduction leaflets. Self-efficacy and injecting risk behaviour will be measured prior to the intervention, at end of treatment and at 4 weeks follow-up. The data will be tested with a mixed between-within MANOVA and with correlation analysis.

Expected results: Differences in self-efficacy and injecting risk behaviour will be observed between intervention and control group and at different treatment time-points. Increases in self-efficacy are expected to be associated with a decrease in injecting risk behaviour at follow-up.

Current stage of work: The intervention was designed and integrated in the 'Eradicate' trial's study protocol. Data collection will commence in summer 2016 for two years.

Discussion: The feasibility of implementing Health Psychology-based behaviour change interventions targeting IDUs, to reduce injecting risk behaviour and risks of HCV infection, will be discussed in light of study findings.

15:30 - 17:00

ACT Now! Guided self-help to improve self-management and emotional wellbeing type 2 diabetes

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Background: Our aim was to evaluate ACT Now!, a brief, manualised, guided self-help intervention designed to improve diabetes control and emotional wellbeing in people with Type 2 diabetes.

Methods: A prospective cohort study. ACT Now! consisted of up to 8 appointments complimented by web-based support that reinforced education, goals, provided expert advice, and patient-stories. **Based on acceptance and commitment therapy, values (the important aspects of people's lives) were used as motivation, rather than health itself. Participants were adults diagnosed ≥ 12 months previously with Type 2 diabetes, and most recent HbA1c ≥ 61 mmol/mol. We recruited from primary and secondary care. We measured anxiety, depression (HADS), diabetes-related distress (PAID), and activity levels (Fitbit pedometer) at baseline and post-intervention. Diabetes control (HbA1c) was obtained at baseline and 3 month follow-up. Wilcoxon-signed rank tests were used to evaluate changes over time, and Cohen's d was calculated.**

Findings: We had post-intervention data on 35? participants and HbA1c data on 27. Participants did not differ significantly from the local Type 2 population on age, years since diagnosis, BMI and deprivation. Compared to baseline, follow-up mean HbA1c was 7.2 mmol/mol lower ($p < 0.05$, $d = 0.18$). Post-intervention, **people walked 13,546 steps further per week (≈ 6.7 miles, $p < 0.001$, $d = 0.61$), and had significantly lower levels of anxiety ($p < 0.001$, $d = 0.61$), depression ($p < 0.001$, $d = 0.52$) and diabetes-related distress ($p < 0.001$, $d = 0.55$).**

Discussion: ACT Now! is a promising low-resource intervention that may be effective in improving diabetes control and reducing anxiety, depression and diabetes-related distress. Further research is warranted.

15:30 - 17:00

The cognitive-behavioural training, compliance and metabolic status among patients with diabetes type 2. Pilot study

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²Medical University of Silesia, Poland

Background: Enforcing medical recommendations in patients with diabetes is a necessity, not a well thought-out choice – therefore typical intervention based on models of health behaviors seems to be insufficient. We focused our research on cognitive-behavioral intervention, which was oriented on enhancing self-efficacy related to the ability of changing health-related behaviors (i.a. time planning, problem solving, changing automatic negative thoughts).

Methods: Intensive longitudinal study included 15 patients with type 2 diabetes and obesity. During 3 months, patients participated in a weekly cognitive-behavioral sessions, where they developed general skills in time planning, problem solving and changing negative automatic thoughts. In the next two months, participants had a chance to use telephone consultation. Metabolic profile, glycemic level, body mass, mood, distress, level of health related behaviors and level of self-efficacy in the scope of acquired cognitive-behavioral skills were monitored.

Findings: Better average glycemie rebalance was correlated with lower levels of distress, anxiety and depression, and this relations were moderated by self-efficacy related to the scope of using cognitive-behavioral skills. Stabilization of blood sugar concentration on desired level occurred averagely after 9 weeks and its predictors were: self-efficacy related to cognitive-behavioral skills, moderate level of distress, decrease of body mass, implementation of physical activity and decrease of depression. Decrease of body mass and improvement of metabolic parameters were observed in all participants.

Conclusions: Self-efficacy related to time planning, problem solving and examining negative automatic thoughts skills may conduce implementing and maintaining medical recommendations in type 2 diabetes patients.

15:30 - 17:00

Enhancing physical activity in patients and equipping nurses to deliver a behaviour change intervention

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Background: Self-management interventions are considered effective in chronic disease patients, but trials have shown inconsistent results and it is unknown which patients benefit most. Adequate self-management often requires behaviour change. To unravel effectiveness of self-management, a nurse-led intervention was comprehensively developed using the Behaviour Change Wheel (BCW) to target one component of selfmanagement namely physical activity.

Methods: Firstly, a literature review was conducted to understand which components of COM-B and Theoretical Domains Framework (TDF) **needed to be targeted to increase patients' physical activity level**. Subsequently, intervention functions were identified and matching Behaviour Change Techniques (BCTs) were selected.

Secondly, the BCW was applied to analyse what behaviour change is needed in nurses to adequately deliver the selected BCTs by conducting a literature review and a focus group with nurses.

Findings: All components of COM-B were **applicable for both patients' and nurses' behaviours**. For patients this resulted in 17 BCTs that are integrated in four nurse-led consultations: the Activate intervention. For nurses 21 BCTs were identified to adequately apply the BCTs in patients. BCTs for nurses are integrated in a one-day training and a coaching session in delivering the intervention.

Discussion: The Activate intervention aimed to increase physical activity in patients, however, nurses also need to change their behaviour to adequately deliver the intervention. Therefore the BCW was applied twice and resulted in an in-depth analysis in the targeted behaviour in order to increase the fidelity of delivery and effectiveness of the intervention.

Psychosocial interventions in long-term conditions 2

15:30 - 17:00

15:30 - 17:00

Comparative efficacy of three psychotherapeutic interventions (CBSM, ACT, relaxation) for patients with chronic pain

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Objective: Patients with chronic pain could have lot of stress, depression, and reduced quality of life. Many studies showed the efficacy of CBSM (Cognitive Behavioral Stress Management) and ACT (Acceptance and Commitment Therapy) for patients with chronic disease. We would like to compare the efficacy of those therapy to a control group (relaxation), for chronic pain patients.

Method: Three psychotherapeutic interventions groups (CBSM/ACT/relaxation) had been tested during a 10-week session, among 60 patients with chronic pain. The efficacy of those groups has been compared, evaluating the quality of life (SF-12), level of pain (EVA), stress (PSS), rumination and coping (FABQ).

Results: CBSM and ACT interventions learn to patients what is stress, coping, cognitive distortions and rational thought replacement, social support and assertiveness. They both have an efficacy to enhance quality of life and reduce pain, stress and rumination, compare to the control group relaxation.

Conclusion: Those interventions reduce stress, pain and enhance quality of life for chronic pain patients. We would like to develop those techniques in France to other patients.

15:30 - 17:00

Development and pilot testing of a communication training for persons with rheumatic and musculoskeletal diseases

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Background: Persons with rheumatic and musculoskeletal diseases (RMDs) frequently experience problems in disease-related communication in their daily lives. Based on an online survey and interviews with experts, we **develop and evaluate a training ("KOKOS-Rheuma") to enhance the communication skills of persons with RMDs in various situations (communication at work, with doctors, acquaintances, strangers and staff members of authorities and institutions).** The project is funded by the Deutsche Rheuma-Liga Bundesverband e.V (DRL).

Methods: We pursue a participatory research project: Four persons with RMDs are involved throughout the **project ("research partners")**. To assess the feasibility and acceptance of the training before the evaluation, the training is conducted by one research partner and one researcher each in two groups in February 2016. Eight women between 42 and 65 (M= 52.13 years, SD=7.28) participated in the first pilot group and completed an evaluation sheet.

Findings: All participants of the first pilot group stated that the training would change their communication and each of them wrote down aspects which they want to change. They also would recommend the KOKOSRheuma- training. The first pilot group also provided information regarding improvements such as some small changes in the sequence of the training and the design of the material.

Discussion: The findings are used to amend the training and influence the design of the train-the-trainer workshop for members of the DRL who will be trainers of KOKOS-Rheuma during the evaluation phase. The evaluation will provide evidence whether KOKOS-Rheuma can positively influence the social participation of persons with RMDs.

15:30 - 17:00

Challenges and learnings of implementing a medication adherence service in clinical practice

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Background: There is mounting evidence that medication non-adherence is prevalent and associated with poor disease control, reduced quality of life and higher costs of healthcare. This emphasizes the need for effective adherence interventions. However, the embedding of these interventions in the daily workflow of care professionals is a major challenge. We developed an online service that **assesses a patient's adherence profile** consisting of risks and barriers to non-adherence and provides profile-based intervention recommendations to health care professionals. The challenges and learnings from the implementation and use of the service in the daily workflow of pharmacists and nurse practitioners in primary care will be the focus of the presentation.

Methods: Qualitative research methods were used to understand the experiences of patients and health care professionals with the service. In parallel, the effect of using this service on the adherence of starters with oral blood glucose lowering drugs or cardiovascular medication (N=875 in 15 pharmacies) is examined in a randomized controlled trial.

Findings: The qualitative findings led to the identification of several challenges to implementing and using the service in daily practice. These were translated into specific recommendations for implementing adherence interventions in clinical practice.

Discussion: In order to optimize the impact of the adherence intervention service, it is essential to carefully address the challenges with respect to implementation and use in daily clinical practice. The findings and recommendations contribute to the effective implementation of adherence interventions in clinical practice.

15:30 - 17:00

Effects of neurofeedback training on behaviour and quality of life in children with ADHD

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Following promising results of neurofeedback trainings (NFT) in children with attention-deficit/hyperactivity disorder (ADHD), we aim at investigating effects of a near-infrared spectroscopy (NIRS)-based NFT on ADHD behaviour in schoolchildren with ADHD. Further, we aim at examining its effects on quality of life (QoL) and possible relationships with behavioural changes.

Sixty children with a DSM-V diagnosis of ADHD will be randomly assigned to either NIRS-based NFT in virtual reality or NIRS-based NFT in 2D. Children will receive 15 training sessions and will participate in a pre- and a post-test and 6-month follow-up. ADHD symptoms will be assessed via parent and teacher ratings on the Conners 3. Health-related QoL will be examined using the KINDL questionnaires for children and parents, behaviour-related QoL by the Strengths and Difficulties Questionnaire (SDQ).

We hypothesise that ADHD behaviour decreases and QoL increases in both groups. Further, we predict a higher increase in QoL when parents report higher symptom reduction.

The first participants started training in November 2015. Data from the first ten participants will be presented. Investigating the efficacy of NFT, most studies mainly looked at clinical outcome measures such as ADHD behaviour. However, parents do not primarily seek treatment because of ADHD symptoms, but due to the **symptoms' secondary impact on parents' and child's physical and psychological well-being**, hence QoL.

Consequently, further research needs to clarify the relationship of symptom and QoL improvement after NFT in ADHD children. Further examinations will later need to clarify the moderating roles of expectancies and parental commitment to treatment.

Improving health and well-being in later life:
behavioural approaches

15:30 - 17:00

15:30 - 17:00

Depression, anxiety and level of memory complaint promote memory clinic help-seeking for subjective cognitive decline

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Background: Experiencing subjective decline in memory as one gets older is a common phenomenon, even when objective cognition remains within normal limits. Only a few individuals with SCD actively seek medical help, either from their general practitioner or from a specialized clinic. Others are known to seek alternative, informal types of help (e.g., speaking with friends, self-help strategies). This study aimed to characterize memory clinic help-seekers, relative to informal help-seekers.

Methods: 57 subjects with SCD who sought help from a memory clinic and 87 who responded to an advertisement in a health insurance journal (informal help-seekers) were compared. All study participants (age=68.37±6.8, 76% female, MMSE=28.69±1.0) were enrolled in a psychoeducation program on SCD. Before beginning the intervention, they were administered a face-to-face interview, a neuropsychological assessment and computerized self-report questionnaires on memory complaint (McNair), depression and anxiety (HADS).

Findings: No differences were observed either on objective cognition evaluation or on sociodemographic factors and family history of AD. The only distinguishing characteristics of the memory clinic group were a significantly higher level of memory complaint ($p < .000$) and a greater level of depressive ($p < .000$) and anxiety-related ($p < .000$) symptomatology.

Discussion: Our results suggest that SCD subjects who seek help from a memory clinic have an equivalent level of cognition, but an increased psychological distress compared to informal help-seekers. Depression, anxiety and severity of memory complaint likely encourage medical help-seeking for SCD. For some patients with SCD, visiting a memory clinic may serve as the first step for subsequent mental care.

15:30 - 17:00

Understanding help-seeking behaviour in older people with urinary incontinence

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Background: The prevalence of urinary incontinence (UI) increases with age and can negatively affect quality of life, yet relatively few older people with UI seek help for this treatable condition. We sought to increase our understanding of this issue via an interview study.

Methods: Older people with UI were recruited from three continence services: a geriatrician-led hospital outpatient clinic (n=18), a community based nurse-led service (n=22) and a consultant gynaecologist-led service specialising in surgical treatment (n=10). Data generated via semi-structured interviews was analysed using thematic content analysis.

Findings: Three main themes emerged from the analysis: **'Being brushed aside'**, where participants expressed the feeling that general practitioners did not prioritise or recognise their concerns; **'Putting up with it'**, where participants delayed seeking help for their UI due to various reasons including embarrassment, the development of coping mechanisms, perceiving UI as a normal part of the ageing process, or being unaware that help was available; and **'Something has to be done'**, where help-seeking was prompted by the recognition that their UI was a serious problem, whether as a result of experiencing UI in public, the remark of a relative, the awareness that they had a serious illness, or the detection of UI during comprehensive geriatric assessment.

Discussion: The lack of awareness of UI as a treatable condition that does not arise inevitably with ageing is a barrier to both seeking and receiving appropriate help. This issue needs to be addressed, both in the general population and amongst health professionals.

15:30 - 17:00

Use of behaviour change techniques in the TACIT trial: TAI CHI for people with demenTia

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Background: Behaviour change techniques (BCTs) are frequently cognition-based in their approach. However, such techniques may be less effective among people with dementia (PWD) who have cognitive impairment. This presentation will describe the planned evaluation of the use of BCTs in a Tai Chi intervention for PWD.

Methods: In a randomised controlled trial, 150 dyads (PWD and their informal carer) will receive usual care or usual care plus Tai Chi for five months. A Tai Chi class will be delivered weekly and after two weeks, at a home visit, the instructor will ask dyads to carry out the exercises at home daily. Dyads will be facilitated to jointly set a goal, action plan, and coping plan. Other BCTs include self-monitoring, feedback on performance and adherence, and social support. Adherence to the intervention will be monitored through weekly calendars. Feedback will be sought qualitatively through joint interviews with a purposive sample of 10 dyads at the end of the intervention and thematically analysed.

Expected results: It will be reported whether achievement of goals and adherence to the plans are associated with greater levels of adherence to the intervention, and qualitative comments will indicate if the BCTs influenced adherence.

Current stage of work: By the time of the EHPS conference, the trial protocol will have been completed and submitted for approval to an NHS Research Ethics Committee.

Discussion: This study will assess whether BCTs completed jointly by PWD and their carer will lead to higher levels of adherence to a physical activity intervention.

15:30 - 17:00

Investigating an extended theory of planned behaviour to predict exercise in women aged 40 years+

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Background: Despite the well documented health benefits of physical activity (PA) middle aged women (aged 40 years+) have lower levels of PA compared to their younger and male counterparts. The Theory of Planned Behaviour (TPB; Ajzen, 1985) is extensively applied to predict PA in this population although findings have not been consistent (Conn et al., 2003). Instead it is argued that personality and motivational aspects are shown to be direct predictors of PA. This research aims to evaluate the predictive ability of an extended model of TPB (including personality and motivation) on intention and current levels of PA in women aged 40 years+.

Method: This cross-sectional study is currently recruiting women aged 40 years+ online (N=1000) using opportunistic sampling. Personality traits (Big 5), TPB constructs and motivational regulatory style (SDT) will be measured using the International Personality Item Pool, Intentions Attitude and Barriers to PA Measure and Behavioural Regulation in Exercise. Frequency and intention to perform PA (DV) will be measured using the IPAQ. Structural Equation Modelling will be used to examine the predictive relationships proposed in the extended TPB.

Current stage of work: A total of 305 participants have been completed the questionnaire. Recruitment is due to end beginning of June 2016.

Discussion: This research will provide an enhanced theoretical understanding of what factors impact on exercise behaviour in women aged 40+. Uncovering this knowledge will help inform the development of tailored behaviour change interventions which will serve to improve levels of physical activity of this cohort.

15:30 - 17:00

A proposed interactive activity for the elderly involving an entertainment robot

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Background: Residents of nursing homes are prone to solitude. Lack of social interaction affects all aspects of life – mental as well as physical. The decline in the working-age population and the increase in the number of elderly adults have led to inadequate care delivery. One solution would be to use recently developed humanoid and animallike robots. Therefore, we propose a rehabilitation program for the elderly using entertainment robots to improve sociality and self-efficacy.

Method: The exercise named “Robotic Dog Derby” was one of the proposed programs. We used entertainment robots created by Sony to chase pink objects. Participants with mild dementia (age: >70 years) used a pink ball to lead their own robots to the finish line. In the other proposal, residents chatted with therapist by speaking to the communication robot face to them. The therapist used iPad and headset to get the picture.

Findings and Discussion: Before the Derby race, participants placed bets on the dogs, and the winner received a reward after the game. This program helped improve the social quality of life of nursing home residents because it involved basic concepts of sociability, including ownership, conflict, and coordination. In the case using communication robot, the therapist were able to take multi-ply care of residents at a time. The residents made chat more vividly with robot than therapist in person. This might come from a stimulus property of robot.

Conclusion: The proposed program contributed to improving the sense of community between nursing home residents including therapists.

Promoting health behaviour

15:30 - 17:00

15:30 - 17:00

Effects of growth hormone therapy on psychosocial characteristics in children born small for gestational age

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The purpose of this study was to evaluate effects of growth hormone (GH) treatment on psychosocial characteristics over time in infants to school age children with small-for-gestational age (SGA). Psychosocial behavior was measured by a 29-item questionnaire completed by parents of total 88 SGA short stature children. Scores at the beginning of GH treatment and one year after were compared as well as those of subsets of low-dose group (43) and high-dose group (45) at such time points.

In total 88 children from the lowdose and high-dose groups, post-treatment average score for 7 items: “appetite”, “likes and dislikes”, “good sleep”, “finding of desk and chair as oversized and inconvenient to use”, “bullied for short stature”, “conscious of short stature”, and “apprehensiveness in daily activity” were significantly higher than pre-treatment.

The results to this study revealed that GH treatment contributes to improvement of various aspects in daily life. These improvements in psychology and behavior suggest that increase in height of SGA stature patients effectively improves psychosocial issues in daily life.

15:30 - 17:00

Body image and health complaints among adolescents: role of life satisfaction and weight reduction behaviour

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Background: Body image dissatisfaction is known to be associated with engagement in different forms of weight reduction behaviour among adolescents. Question remains, how this influences their psychosomatic health and whether this association goes through their life satisfaction. Aim of this study was therefore to explore association between body image and health complaints among adolescents with the specific role of life satisfaction and weight reduction behaviour on this association.

Methods: We obtained data from 5th to 9th grade students in 2014 via the Health Behaviour in School-aged Children cross-sectional study in Slovakia (n=8,849, 10-16 years old, mean age=13.5, 49.9% boys). Using structural equation modelling, we the model of proposed associations of body image with weight reduction behaviour, life satisfaction and health complaints.

Findings: Proposed structural model showed acceptable goodness of fit (e.g. Relative Chi-square=18.50; Root Mean Square Error of Approximation=.04; Comparative Fit Index=.98). Body image dissatisfaction was directly associated with engagement in weight reduction behaviour and also mediated through worse life satisfaction. Engagement in weight reduction behaviour was then associated with more frequent health complaints e.g. headache, stomach-ache, backache, sleeping problems, irritability, nervousness, feeling low and dizziness.

Discussion: As is indicated by our results, when approaching adolescents with body image dissatisfaction, it might be important to focus on the way they think about their body and their life satisfaction which affects the behaviour they choose to deal with this dissatisfaction as it seems to have negative impact on their health.

15:30 - 17:00

More than just food: a meta-analysis of family mealtime practices and children's nutritional health

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Family meals can be called the cradle of eating behavior: by the age of ten, a child has eaten about 10,000 meals, most of them in a family setting. The aim of this meta-analysis was to reveal potentially protective practices that could explain why frequent family meals foster children's nutritional health (i.e., body mass index and diet quality). No randomized controlled trials on potential family meal practices and nutritional health in children are currently available. We conducted a systematic review and identified seven mealtime practices frequently investigated in the context of children's nutritional health.

We ran separate meta-analyses and found the following consistently positive associations for all family mealtime practice and nutritional health: parental role modeling, children's involvement, positive atmosphere, meal quality, TV off, meal duration, and frequent family meals. We discuss the generalizability of the identified protective mealtime practices to other social contexts and their potential policy implications.

15:30 - 17:00

Mediating role of interpersonal emotion regulation in adolescent's close friendships

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Background. Through the life span, people learn how to regulate theirs and others emotions. Research revealed that adolescents exposed to childhood abuse (physical and emotional) are more likely to have difficulties in self-regulating emotions. Less attention was given to interpersonal emotion regulation (ER) conceptualized as the capacity of a person to use others to regulate their own emotions in social context. The objective of this study is to test the mediating role of interpersonal ER, between childhood exposure to abuse and perceived intimacy in close friendships.

Methods. Using a cross-sectional design, 97 adolescents (14-17 years old), over-sampled for history of abuse will be assessed with self-report questionnaires. Each of the adolescents will complete subscales for physical and emotional abuse (CECA-Q), interpersonal emotion regulation questionnaire (IERQ) and Adolescent Intimacy Scale Revised. The effect of gender will also be tested. Multiple regression analysis will be conducted.

Expected results. Exposure to abuse will be negatively related to perceived intimacy in close friendship. The relation will be mediated by interpersonal emotion regulation: adolescents with higher rates of exposure to abuse will report lower levels of interpersonal emotion regulation, which in turn will be related to less intimacy perceived in close friendships.

Current stage of work. Data collection.

Discussions. Interpersonal emotion regulation could be a mechanism that explains poor intimacy in close friendships in the case of adolescents with history of abuse. Given the stress buffer role that friendships can have, the implication for interventions in enhancing interpersonal emotion regulation skills will be discussed.

15:30 - 17:00

ACTmind: a mindfulness and acceptance and commitment therapy program for cultivating emotional health in children

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Background: Research on the effectiveness of Mindfulness and Acceptance-based approaches in promoting emotional health among children is still in an embryonic state. The present study examined the feasibility, acceptability and preliminary effectiveness of a mindfulness and acceptance program for cultivating emotional health in children.

Methods: 487 elementary school children (M age=9.04 years, SD=1.60) completed a “smiley face” questionnaire prior to and following each of two workshops, by circling the “face” that best represented how they usually react when scary or worrisome thoughts enter their minds. At post, children rated program likeability and helpfulness for dealing with emotions.

Findings: Students rated the program very favorably (M = 4.66; SD = .48) and found it very helpful (M= 4.46; SD = .71). There was a significant Time (pre vs. post) X Session (1st vs. 2nd) interaction, $F(1,141)=4.43$, $p<.05$, $\eta^2=.03$, showing significant differences between pre (M=3.30, SD=1.39) and post (M=2.58, SD=1.46) assessment during session 1 and a main effect for Session, $F(1,141)=27.46$, $p<.001$, $\eta^2=.16$, with higher “face” ratings (more experiential avoidance) for session 1 (M=3.16, SE=.09) compared to session 2 (M=2.63, SE=.09).

Discussion: Results suggest that an Acceptance and mindfulness program is feasible and well accepted by elementary school children. Students’ avoidance and unwillingness to experience worrisome thoughts decreased from pre to post during session one and overall from session one to two, suggesting that learning occurred and students started to become more open to experiencing negative thoughts.

15:30 - 17:00

Adolescent marijuana use: family but not peer use is associated when developing a dependence

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Background: Marijuana use has been studied mainly in the U.S. and some European, lacking of cultural diversity, as well as made the comparison between users to non-users, but not between users with that present or not dependence. Thus, the research aims were to examine whether (1) family and peer marijuana use are related to adolescent marijuana use in Chile, (2) family and peer use are associated with adolescent **dependence in adolescents using marijuana**, and (3) **the adolescent's age moderates the association between family or peer use and adolescent use and dependence.**

Methods: 4,413 adolescents, aged 12-19 were included from the Chilean National Survey on Drug Use (surveys 2008 and 2010). It was conducted a cross-sectional study using regression analyses to measure the association between adolescent marijuana use and dependence (ICD-10 criteria), family and peer marijuana use, and the interaction of an adolescent's age with family and peer marijuana use.

Findings: When adolescents have someone at home or a close friend using marijuana they were five or eight times more likely to use the drug ($p < .001$). In cases of adolescents using marijuana, having someone at home using marijuana they were three times more likely to present a dependence ($p = .015$), but no significant relationship was found for peer use ($p = .683$). No statistical interactions between family or peer use and age were found.

Discussion: Family and peer marijuana use were associated with adolescent marijuana use, but only family marijuana use was statistically associated with adolescent marijuana dependence.

Quality of life and well-being across the lifespan

15:30 - 17:00

15:30 - 17:00

Emotional intelligence, body image dissatisfaction and HRQoL in children

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Body image dissatisfaction (BID) is related to an increased risk for various health issues including decreased health-related quality of life (HRQoL), the development of problematic eating behavior and overweight. Previous research indicates that emotional intelligence (EI) is one important factor associated with BID in adults. Whether there is a similar relationship in children has not been investigated yet. Therefore, the aim of this study was to investigate the relationship between BID and EI as well as HRQoL in female and male primary school children.

EI, BID, HRQoL and the body mass index (BMI) were assessed by examination and questionnaires in a large sample of children from third to fourth grade and in their parents within the health promotion program “Join the Healthy Boat” which is implemented in several primary schools in the southwest of Germany. Complete data sets were derived from 991 children (492 girls) and 787 corresponding parents. Correlations obtained demonstrated that higher EI was associated with lower BID in both girls and boys.

Furthermore, small positive correlations showed that higher EI was associated with better HRQoL as measured by self-report as well as parental report. Our findings reveal that EI is associated with lower BID and better HRQoL in female and male primary school children. Prevention programs could benefit from including attempts to improve emotional abilities like intrapersonal, interpersonal abilities and adaptability in order to prevent both problematic eating attitudes and the development of eating disorders as well as overweight and obesity in children.

15:30 - 17:00

Can effects of expressive writing be enhanced using an emotion processing model from psychotherapy research?

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Expressive writing (EW) has been demonstrated to have positive if modest impacts on wellbeing with minimal draw upon resources. The present study tested an EW intervention modified by an emotion transformation model deriving from process psychotherapy research in emotion focused therapy (Pascual-Leone, 2009; Pascual-Leone & Greenberg, 2007). Participants were University students (N = 96) recruited into a randomised double-blind control trial and assigned to one of three conditions: Controls, neutral writing; Classic, standard EW instructions to write about an upsetting or traumatic event; Experimental, standard EW instructions modified by the emotion transformation model using stem sentences as prompts.

Participants attended three 15-minute writing sessions over one week and were followed up one month later; outcomes included physical health and psychological symptoms. The mediating effects of language use were also investigated to contrast with Pennebaker's (1993) cognitive processing theory in explaining the effects of EW, using language processing software LIWC (Pennebaker, Booth & Francis, 2007) and bootstrapped regression analysis (Hayes, 2009).

Preliminary data from mixed ANOVAe suggest weak impact of experimental condition on psychological symptom outcomes, but significant differences were observed between Classic and Experimental conditions in use of positive and negative words and cognitive mechanism words. Variations in response to experimental condition indicate participants respond differently to the modified EW instructions.

15:30 - 17:00

Feeling loved, a novel self-report health measure: convergent and discriminant validity

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Background: There is very little research regarding the sense of feeling loved or loving oneself, or how this might relate to other measures of mental and physical health. **Methods:** We created a self-report instrument with two Yes/No questions (Do you feel loved? Do you love yourself?) and two corresponding 0 to 100mm visual analogue scales assessing “How loved do you feel?” and “How much do you love yourself?” Concurrent comparators include general mental and physical health (SF12), social support (SPS), stress (PSS10), depression (PHQ9), mindful awareness (MAAS) and positive and negative emotion (PANAS).

Results: Some n=412 adults completed instruments. Most respondents felt loved, with 59% of people self-rating $\geq 75/100$ on both 0-to-100 VAS scales, and 28% rating $\geq 90/100$. Supporting convergent validity, statistically significant ($p < 0.0001$) Spearman's $\rho = \rho$ correlations of the summed Feeling Loved score were found with: SF12 mental health ($\rho = 0.492$); SPS ($\rho = 0.470$); PSS10 ($\rho = -0.470$), PHQ9 ($\rho = -0.316$), MAAS ($\rho = 0.364$) and both positive ($\rho = 0.502$) and negative ($\rho = -0.429$) emotion. Supporting discriminant validity, Feeling Loved scores were correlated with but distinct from all psychosocial comparators, and were not associated with gender, age, body mass index, socioeconomic status, self-reported physical health, or clinical laboratory values (hsCRP; HbA1C). Multivariate latent class analysis models suggested a 3-class structure (low, moderate and high love), with strong goodness-of-fit indicators. **Conclusions:** The Feeling Loved instrument displays convergent and discriminant validity, and has a coherent 3-class internal structure. Feeling Loved may turn out to be a useful measure for human health studies.

15:30 - 17:00

Acute affective responses in uphill mountain hiking - a randomised controlled trial

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Background: According to the psychophysiological stress recovery theory, exposure to an outdoor environment is believed to create additional affective benefits compared to an indoor environment. Physical activity in an outdoor environment may increase these benefits even more. Therefore, the aims of the present study were (1) to analyse affective responses of a single bout of physical exercise and (2) to detect possible environmental influences on affective responses.

Methods: Using a within-subject-design, 47 healthy participants were randomly exposed to three different conditions in small groups: uphill outdoor mountain hiking, uphill indoor treadmill walking, and sedentary control situation. Each condition lasted for 1.5 hours. Measures included the Feeling Scale, Felt Arousal Scale and a German mood survey scale. Univariate ANOVAs were used to analyse differences between the conditions.

Findings: 42 participants completed the study. Compared to the control situation, the participants showed a significant increase in affective valence ($\eta^2p=.36$), activation ($\eta^2p=.33$), elation ($\eta^2p=.41$), and calmness ($\eta^2p=.25$), and a significant decrease in fatigue ($\eta^2p=.37$), and anxiety ($\eta^2p=.28$) after uphill mountain hiking. In the same dimensions, walking outdoors produced significantly greater positive effects than walking indoors.

Discussion: The results indicate, that a single bout of uphill mountain hiking elicits higher positive and lower negative affective responses compared to a sedentary control situation. Additionally, the data suggest a synergetic effect of physical activity and being outdoors. These results provide support both for the psychophysiological stress recovery theory and for the affective benefits of green exercise.

15:30 - 17:00

Emotional intelligence-related health status in young and aged women

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It has been argued that emotion-regulation skills may impact quality of life and survival. Emotional intelligence (EI) refers to the abilities to perceive and understand emotional information and use it to adapt. So, the EI may impact quality of life. By considering that women use more emotion regulation strategies in adaptation than men, present investigation aimed to explore the role of aging in the relationship between self-reported different aspects of emotional intelligence and quality of life (QL) in women.

Eighty and eight healthy older women (64.5±0.8 years) (OG) and groups of young women (19.1±1.0 years, n=80) (YG) were involved in the study. The Russian versions of trait EI measures (EI-IPIP) and the 36-Item Health Survey (SF-36) were used.

Using analysis of variance, significantly more “positive expressivity” was found in YG than OG as well as more physical health than psychological health in YG whereas these components did not differ in OG. The varied patterns of correlations between the components of EI and QL were obtained in the groups differenced by age. “Responsive joy” and “responsive distress” were significant predictors (positively and negatively, correspondingly) of physic health in YG but not in OG. A ratio of “positive expressivity” to “negative expressivity” was universal predictor of high-quality psychological life.

Obtained results support the concept that dominance of positive affect is associated with high-quality of life in adolescents and seems to protect individuals against health status declines in old age.

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15:30 - 17:00

The changes in eating behaviours and lifestyles among middle-aged women with body shape in obese

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Background: Recently, obesity in middle-aged people is increasing, because of changes in lifestyle, such as westernization of eating habits and insufficient exercise. Obesity is regarded as a risk factor for onset of lifestyle diseases, such as diabetes, hyperlipidemia, and high blood pressure. This study investigated differences in eating behaviors and lifestyles depending on degree of satisfaction with body shapes.

Methods: Participants (N=600) were middle-aged women with BMI 25-30 (N=300) and with BMI 30 or more (N=300). A survey consigned to an online research company was conducted. The degree of satisfaction with body shape was classified as "Satisfied/ rather satisfied," "Slightly dissatisfied," and "Dissatisfied." A one-way ANOVA was conducted to examine differences in eating behaviors and lifestyles.

Results: The mean age of participants was 58.58 (SD=11.33) and mean BMI was 30.29 (SD=6.68). There were 36 participants in satisfied/rather satisfied, 130 in slightly dissatisfied, and 434 in dissatisfied groups. There were significant between-group differences in "overall eating behaviors" and all the sub-scales of eating behaviors ($p < .05-.01$). Moreover, There were significant between-group differences in "overall lifestyles," "sleeping hours," and "subjective stress" ($p < .05-.001$), with the dissatisfied group having low scores.

Discussion: It is suggested that early intervention is required for the dissatisfied group, because they are not satisfied with their body shape. It would provide a chance to change their eating behaviors. Moreover, the satisfied group had a high risk for developing lifestyle diseases. Awareness of health risks at an early stage is important and intervention for improving eating behaviors and lifestyle is required.

15:30 - 17:00

Purpose in life and psychosomatic symptoms among Japanese women at midlife

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Background: A growing body of literature suggests that purpose in life, a sense that one is moving in a personally meaningful direction, is important in predicting health and longevity. Across the lifespan, a metaanalysis of purpose in life indicates that purpose declines slightly in midlife and the decline becomes stronger in older adulthood. The present study investigated demographic factors associated with purpose in life among Japanese women at midlife, and the relationships between purpose and psychosomatic symptoms.

Methods: An online survey was conducted with 900 Japanese women aged 40-60 years (Mean age: 49.15, SD=5.614). Demographics, marital satisfaction, purpose in life (PiL) using the subscale of Ryff's Psychological Well-Being Scales, anxiety, depressive mood, and somatic symptoms were measured.

Findings: ANOVAs revealed that age, income, marital satisfaction, and time spent on community activities showed significantly different PiL scores in the positive direction. Women in managerial positions at work scored higher PiL than those in non-managerial positions, whereas parenting, caregiving, and education showed no significant differences in PiL scores. Finally, women with high PiL scores showed significantly lower scores on anxiety, depressive mood, fatigue, and autonomic stress responses than women with low PiL.

Discussion: This preliminary, cross sectional study implies that middle-aged Japanese women who have greater purpose in life are mentally and physically healthier. Future research should investigate factors that can prevent declines of purpose in life from midlife to older adulthood.

15:30 - 17:00

Aloneness need not be lonely: varieties and predictors of positive solitude experiences in daily life

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Background: Despite our basic need for social connectedness, solitude is a normal and sought-out part of life. However, previous research often links solitude (the state of being alone) with loneliness, stress, and disease risk, leaving potential benefits of solitude, such as self-reflection and sense of control, relatively understudied.

The current study aims to identify the thought patterns and affective states characterizing a full range of both negative and positive solitude experiences occurring in daily life and to identify key individual difference factors shaping the likelihood of experiencing potentially health-promoting kinds of solitude. Methods: 100 adults age 50+ and 50 university students in Greater Vancouver completed up to 30 momentary assessments over 10 days assessing current and desired social situation, thoughts, and affect.

Latent class cluster analyses will be used to categorize solitude episodes into distinct types based on thought-affect profiles. Next, a set of individual difference factors will be used to predict the likelihood of experiencing each identified type of solitude. Expected results: It is hypothesized that two or more solitude types will emerge from exploratory analyses, that age, introversion, openness to experience, preference for solitude, and social network strength will predict more positive solitude experiences, and that neuroticism, social anxiety, and loneliness will predict more negative experiences. Current stage: All data collection is completed and analyses underway.

Discussion: This study will provide a new framework for conceptualizing solitude by incorporating thoughtsampling into ecologically valid time-sampling assessments, and will identify key traits that predict individuals' propensity to thrive when alone.

Health expectations and experiences

15:30 - 17:00

15:30 - 17:00

Implicit and explicit believability of prevention messages for breast cancer and heart disease

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Background: This research examined implicit and explicit believability of messages about physical activity (PA) and healthy body weight as preventative of heart disease (HD) or breast cancer (BC); and the relationship of believability to attitudes and intentions toward PA and weight loss.

Methods: Female adults read HD and BC prevention messages, completed corresponding implicit believability tasks, questionnaires about message attention, believability, and involvement with the messages, and attitudes and intentions for PA (N = 98) and weight loss (N = 48).

Findings: No differences in implicit or explicit believability existed between HD and BC messages. Affective attitudes ($\beta=.494$) and implicit believability ($\beta=.328$) of the HD message were significant predictors of PA intentions; implicit believability ($\beta=.288$) and involvement with ($\beta=.384$) the HD messages and attention paid to the BC messages ($\beta=.277$) predicted instrumental PA attitudes. Regarding weight loss intentions, affective attitudes ($\beta=.388$) was the only predictor; but explicit believability ($\beta=.619$) and attention ($\beta= -.313$) paid to BC messages were related to affective attitudes and explicit believability of HD ($\beta=.413$) and BC messages ($\beta=.401$) were related to instrumental attitudes.

Discussion: Implicit and explicit believability of HD and BC prevention messages are equally strong, and implicit believability of HD messages is related to instrumental PA attitudes and intentions. The relationship of implicit believability of HD messages, but not BC messages, to PA intentions may come from the focus media and health promoters place on lifestyle factors as preventative of HD, whereas BC messages are more often human interest stories about 'survivors'.

15:30 - 17:00

Experiences of lifestyle management and support during pregnancy: a qualitative study

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Background: Overweight and obesity during pregnancy is associated with the risk of gestational diabetes mellitus (GDM) among other complications. Lifestyle interventions have been shown to be effective in this population however, studies often fail to identify the behavioural mechanisms by which the intervention is expected to be effective. Our aim is to identify the barriers and enablers to behaviour change from the perspective of overweight and obese pregnant women and healthcare professionals (HCPs) in order to inform the development of a lifestyle intervention.

Methods: Semi-structured interviews are being conducted with a purposive sample of overweight or obese women at different stages of pregnancy, recruited from a public antenatal clinic in a large academic maternity hospital in Cork (CUMH) (n=30). A purposive sample of HCPs will also be recruited (n=10-15). The Framework approach is being used for analysis, drawing on the Theoretical Domains Framework (TDF) and the COM-B model of behaviour change.

Results: Analyses of pregnant woman interviews suggest that pregnancy is 'a wake-up call' as the risks of overweight and obesity are made explicit. Social influences were identified as a potential facilitator; pregnant woman suggested behaviour change was easier for them when their partners engaged in a healthy lifestyle. Analysis of HCPs identified the environmental context and resources within the health system as barriers, particularly the lack of dedicated obesity clinics.

Conclusion: Both pregnant woman and HCPs see pregnancy as 'a wake-up call' for changing behaviour. However, there are limited resources available to support women to make these changes.

15:30 - 17:00

An exploration of health perceptions and factors influencing participation in health behaviours in cancer survivors

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Background: The purpose of the study was to explore colorectal cancer survivors' health perceptions following cessation of active treatment for cancer and to explore the factors influencing participation in health-promoting behaviours that may help reduce cardiovascular disease risk. **Methods:** Face-to-face interviews were conducted with participants that had completed active treatment for cancer within the previous two years.

Participants were colorectal cancer survivors (N = 24, men =11, women = 13 M age = 69.38 years, SD = 4.19) recruited from a private hospital in Perth, Australia on the basis that they had existing morbidities that put them at increased risk of cardiovascular disease. Interview transcripts were analysed using thematic analysis.

Findings: Seven main themes emerged: back to normal; the pleasures in life: "is it worth it?"; beliefs about health behaviour; Lack of knowledge concerning healthy eating and physical activity; conflicting information; desire for support and lack of motivation to change diet or physical activity. The majority of participants felt they were in good health and had made a full recovery. Participants questioned whether it was worth changing their lifestyle given their life stage. Lay health beliefs, scepticism of eating guidelines, and a lack of motivation were barriers to change.

Discussion: Interventions should target lay beliefs and scepticism in relation to health behaviours in order to reinforce the importance and value of participating in health-related behaviour.

Findings may inform the development of effective, patient-centred interventions that target lay health beliefs and build motivation for health behaviour change.

15:30 - 17:00

Identifying psychosocial predictors of medication non-adherence following acute coronary syndrome: a systematic review

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Objective: Medication non-adherence following acute coronary syndrome (ACS) is associated with poor clinical outcomes. While most of the research around the determinants of non-adherence has focused primarily on clinical and sociodemographic factors, there is increasing interest into how psychosocial factors affect medication use after ACS. A systematic review was conducted to evaluate the evidence around psychosocial predictors of non-adherence to cardiac medications following ACS.

Methods: A search of electronic databases (Cochrane Library, Medline, EMBASE, PsycINFO, Web of Science, International Pharmaceutical Abstracts, CINAHL and ASSIA, OpenGrey, EthOS and WorldCat) was undertaken to identify relevant articles published in English between 2000 and 2014. Articles were screened against our inclusion criteria and data on patient population, study design, predictors, outcomes, statistical analysis, key findings, study quality and study limitations was extracted.

Results: Our search identified 3609 records, of which 17 articles met our inclusion criteria. Eight studies found depression predicted medication non-adherence. Patients classified as having Type D personality were more likely to be non-adherent than patients with non-Type D personality. Three studies revealed that treatment beliefs based on the Necessity-Concerns Framework predicted medication non-adherence. Additionally, there was some evidence that increased social support was associated with a better medication adherence.

Conclusion: This review summarizes the evidence suggesting that psychosocial factors are important predictors of medication non-adherence. Targeting depressive symptoms, screening for Type D personality, challenging maladaptive treatment beliefs, and providing better social support for patients may be useful strategies to improve rates of adherence following ACS.

Interventions targeting health risk behaviour and sexual health

15:30 - 17:00

15:30 - 17:00

A randomised controlled trial of self-incentives to boost cessation in community based stop smoking services

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Background: Self-incentives are frequently embedded within complex health behaviour change interventions and are regularly referred to within stop smoking contexts. However, the unique effect of self-incentivising has not yet been tested in a randomised controlled trial. The aim of the present research is to see whether selfincentives can boost smoking quit rates.

Methods: Ninety-two participants were recruited from community stop smoking clinics and randomised to a control (asked to form a plan to quit smoking; 51 participants) or an intervention (asked to form an if-then plan to reward themselves at the end of the month if they had not smoked at all; 41 participants) condition. The main outcome measure was quit status at 3-month follow-up, which was self-reported. Chi square assessed the effectiveness of self-incentives on quit status.

Findings: Self-incentivising significantly boosted the effects of the community stop smoking programmes: Sixteen participants (39.0%) reported successfully quitting in the self-incentivising condition, compared with 9 participants (17.6%) in the control condition ($\chi^2 = (1, n = 92) = 4.22, p < .05, d = 0.44$). The odds ratio of quitting smoking with self-incentives compared to controls was 2.99, 95% CI = 1.15 to 7.76.

Discussion: Encouraging smokers to self-incentivise significantly boosted the effectiveness of the standard stop smoking programme. The effectiveness of community based stop smoking programmes could be augmented with widespread deployment of self-incentives.

15:30 - 17:00

A logic model outlining the processes involved in an intervention for smoking cessation during pregnancy

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Background: Cigarette smoking is a leading preventable factor associated with complications in pregnancy. We developed a text-messaging intervention to promote smoking cessation during pregnancy using narrative and images as modes of delivery. Initial feasibility testing indicates that the intervention is feasible, acceptable and likely to encourage smoking cessation for pregnant women.

Aims: To develop a logic model outlining the complex set of constructs necessary for facilitating positive behaviour change.

Methods: A literature review was carried out to inform the content of the logic model. This explored; existing psychological theory, evidence-based Behaviour Change Techniques, and inductively derived key intervention ingredients. Qualitative interviews (n=18) were then conducted with stakeholder groups to fill in gaps in the literature. This evidence was collated and a logic model informed by expert opinion was developed.

Findings: To achieve the desired outcome of long-term smoking cessation, we found that the key mediating variables are; increased participant self-efficacy and raised risk perceptions. Intervention processes designed to achieve these include; using narrative to embed information, providing a fictional coping model, personalised feedback, skills building, facilitating social support, and using images to increase concreteness. Contextual factors such as midwife engagement in the intervention are also integrated.

Discussion: This integrated approach to intervention development increased the clarity and comprehensiveness of the modelling approach. The final logic model demonstrates how a complex set of theoretical components were combined to underpin an intervention and optimise its likelihood of effectiveness.

15:30 - 17:00

Do implementation intentions reduce alcohol consumption? A metaanalysis

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Background: Asking individuals to form implementation intentions (i.e., if-then plans) has been shown to reduce subsequent alcohol consumption. The main objective of this study was to quantify the effect-size difference in alcohol consumption between individuals forming versus not forming implementation intentions.

Methods: Systematic literature searches were conducted using the following databases: Cochrane Database of Systematic Reviews; EThOS; PsychArticles; PubMed; Web of Science. Nine studies that reported alcohol consumption for control and implementation intention groups were included.

Findings: Random-effects meta-analysis was performed ($N = 3102$, $K = 9$) using effect-size differences (d) in alcohol consumption between control and implementation intention participants. Overall, there was a small, significant, positive effect-size difference in alcohol consumption between implementation intention and control participants ($d = 0.21$ [0.06; 0.36]; $\chi^2(8) = 17.71$, $p = 0.02$). To explore heterogeneity in results, length of follow-up (e.g., within one month; beyond one month) was examined as a moderator variable. There was a small, significant, positive effect-size difference in alcohol consumption when data was collected within one month ($d = 0.43$ [0.21; 0.66]; $\chi^2(8) = 17.71$, $p = 0.02$). However, the effect-size difference in alcohol consumption was non-significant when data was collected beyond one month ($d = 0.07$ [-0.02; 0.17]; $\chi^2(8) = 17.71$, $p = 0.02$).

Discussion: Meta-analysis confirms the utility of implementation intentions as an intervention to reduce alcohol consumption: Individuals who formed implementation intentions reported lower alcohol consumption at followup than individuals who did not form implementation intentions. These effects were stronger for shorter followup time points.

15:30 - 17:00

Effect of omega-3 fatty-acids on alcohol attentional bias, craving and consumption: a randomised controlled trial

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Background: Alcohol consumption and craving is closely related to heightened speed processing for alcohol-related stimuli, and greater difficulties in drawing attention away from alcohol-related stimuli (i.e. attentional bias). Inhibiting attentional bias depends on neural regions related to executive functioning, such as the dorsolateral prefrontal cortex, while craving due to alcohol-related cues is related to the orbito-frontal cortex. In parallel, omega-3 supplementation is known for its beneficial effects on executive functioning. No study has evaluated the effect of omega-3 supplementation on alcohol-related cognitions. Our aim was to test the efficiency of Omega-3 supplementation for reducing attentional bias and alcohol craving.

Methods: 218 participants followed a 6-week ambulatory treatment in which they were supplemented with a daily intake of omega-3. Critical measures of craving (Alcohol Craving Experience Questionnaire), self-reported alcohol consumption and a dot-probe task assessing attentional bias toward alcohol-related stimuli were completed at screening (T1) and a second time at the end of the protocol (T2).

Findings: Surprisingly, participants supplemented with omega-3 had a significantly stronger attentional bias toward alcohol stimuli at T2 compared to T1, but did not show a significant reduction in alcohol consumption. However, all participants showed reduced craving at T2, independently from the treatment they received.

Discussion: Overall, we did not observe a consistent effect of omega-3 supplementation on alcohol consumption and alcohol-related cognitions. Further research is needed to understand the impact of omega-3 fatty acids on attentional bias toward alcohol, craving and alcohol consumption within a clinical sample.

15:30 - 17:00

Interventions to reduce risky sexual behaviour in gay men: systematic review and intervention development

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Background: Guidance relating to individual level behaviour change interventions in HIV prevention is limited. New interventions are needed particularly within gay men.

Objective(s): Through systematic review and meta synthesis of supplemental analyses to identify effective components within interventions and to develop a candidate intervention.

Data sources: All major electronic databases were searched between January 2000 and December 2014.

Review methods: Interventions were examined using the behaviour change technique taxonomy, theory coding assessment and mode of delivery. Supplemental analyses used realist review methods, the assessment of the sequential delivery and content of intervention components, and the social and historical context of primary studies. Expert panels reviewed the candidate intervention for issues of acceptability and optimisation using the theoretical domains framework and normalisation process theory.

Results: Overall, trials included in this review (n=10) reported positive findings suggesting behavioural change interventions are effective. Exploratory meta-analysis showed a statistically significant reduction in risk behaviours (risk ratio 0.75; 95% CI 0.62, 0.91). Additional stratified analyses suggested effectiveness may be enhanced through face-to-face, immediately post-test delivery, theory based content and behaviour change techniques drawn from 'goals and planning' and 'identity' groups. In addition, the realist review highlighted the importance of affective dimensions to intervention delivery/receipt, and the analysis of sequential components highlighted the importance of the participant's journey through the intervention (and the patterning of BCTS).

Conclusions: Limited evidence suggests behaviour change interventions are effective. UK experts found the candidate intervention acceptable and provided ways of optimising the candidate intervention.

Promoting health and health behaviour among high risk individuals

15:30 - 17:00

15:30 - 17:00

The relationship between patients' memory and readiness to change health behaviour in cardiac rehabilitation

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Background: The short-term memory is linked with unhealthy behaviour changes (Blume, Schmaling, Marlatt, 2005). Nevertheless, memory interfaces with the intent to change unhealthy behavior is rarely investigated. The purpose of this study was to assess the link between cardiac patients' memory and variation of readiness to change their health behaviour before and after rehabilitation.

Methods: 304 cardiac rehabilitation patients participated in a two wave panel experiment. The experimental group (N=157) had a regular cardiac rehabilitation program including psychological counselling based on motivational interviewing, seeking to change unhealthy behaviour. The control group (N=147) had regular cardiac rehabilitation. Short version of Intelligence Structure Test was used to assess Short Memory, consisting from Verbal and Visual Memory. 'Readiness to Change Questionnaire' was used to measure patients' readiness to change alcohol consumption, smoking, physical inactivity and unhealthy diet.

Findings: T-test showed no statistically significant differences between the groups comparing patients' short memory ($p=0.534$) consisting from verbal ($p=0.574$) and visual memory ($p=0.628$). Experimental group patients' memory did not differ according to readiness to change alcohol consumption, smoking and diet ($p>0.05$) but short verbal memory ($p=0.048$) was lower for those patients whose readiness to change physical activity increased after intervention. Control group patients' memory did not differ according to readiness to change alcohol consumption, smoking, physical activity nor diet.

Discussion: Short-term memory isn't significant factor for changing unhealthy behaviour during psychological counselling based on motivational interviewing. Patients' with a better short-term verbal memory readiness to change physical activity decreased after intervention. Further academic insights are required.

15:30 - 17:00

Motivational interviewing in low socioeconomic adolescents with overweight or obesity

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Background: The PRALIMAP-INES trial aimed to investigate whether a strengthened care management strategy (SCMS) in low socioeconomic adolescents could have an equivalent effect in preventing and reducing overweight than standard care management in high socioeconomic adolescents. The SCMS includes 5 sessions of motivational interviewing (MI) aiming to develop motivation and to mobilize teenagers resources.

This study focuses on effect of MI on change talk, stages of change, autonomy, self-efficacy, self-esteem.

Methods: PRALIMAP-INES was a mixed, prospective and multicentre trial including 36 state-run schools in the North-Eastern France. It included overweight or obese adolescents, aged 13-17 years old. The SCMS was proposed to 414 adolescents in low socioeconomic status, among which 44,2% accepted to participate to MI. The five sessions of MI were distributed every two weeks and had addressed resolving ambivalence, diet, physical activity, social relationships and emotions. All interviewers were psychologists. Change in talk, resources, stages of change were rated by discourse analyses and questionnaires.

Findings: The five sessions of MI gradually show a significant evolution in the stages of change, with a majority of teenagers who belonged to the action phase or maintenance. Moreover, during the sessions, the speech was significantly less focused on desires, needs and reasons to change, but more about the ability, commitment and the first steps. Finally, autonomy, self-efficacy and self-esteem were significantly higher at the end of the sessions.

Discussion: MI is an effective strategy to help adolescents with low internal resources to consider change in their eating behaviors and physical activity.

15:30 - 17:00

Applying the intervention mapping protocol to a multimodal physical activity intervention for trauma-afflicted refugees

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Background: Refugees with prolonged and repeated experiences of trauma, often in combination with postmigration living difficulties, are subjected to very high levels of perceived stress and stress-related ill health. Posttraumatic stress disorder (PTSD) constitutes a frequently diagnosed disorder in this context. Inactivity/avoidance has been examined as reciprocal maintenance factors of PTSD and associated mental and physical distress, suggesting that Physical Activity (PA) interventions may alleviate symptoms of PTSD and improve general health and well-being. The objective of the current study is to apply Intervention Mapping (IM) to a multimodal PA intervention, and to examine the efficacy of the intervention among trauma-afflicted refugees.

Methods: Step 1, needs assessment, is conducted on basis of a structured literature review and clinical observations. Methods for application of steps 2-4 are currently being examined based on clinical experience, literature review, and planned focus group discussions (n=24). Steps 5-6 are preliminary designed to be carried on on basis of a single subject design (AB) with repeated measures (n=38).

Preliminary results: Progress of step 1-4 has resulted in a preliminary intervention program, comprising practical strategies based on multiple theory-based treatment modalities and intervention methods, e.g. psychoeducation, semi-structured program of exercises and physical activity, guided by experienced physiotherapists.

Currents stage of work: Step 5-6, implementation and evaluation plans, are currently in progress. Continuous elaboration of program materials and protocols, reviewing determinants and change objectives.

Discussion: Increasing need of theory and evidence-based interventions in the study population. Possible further reaching implications beyond clinical settings, e.g. psycho-social adjustment and integration.

15:30 - 17:00

Interpersonal problems of alcohol patients undergoing an exercise intervention – the influence of social aspects

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Background and aim: Alcohol use disorder is a widespread problem in Denmark with a severe impact on the quality of life of individuals and their relatives. Exercise based treatments for alcohol use disorders have an effect on psychological and alcohol related outcomes (e.g. abstinence), but we lack information on interpersonal aspects of participation. The aim of this presentation is to investigate the interpersonal problems of a patient population undergoing an exercise intervention. Understanding aspects such as dominance or affiliation is considered significant for relieving symptoms, and it is necessary to examine social problems of patients with substance abuse in order to support relevant behavioural changes.

Methods: The study is a randomized controlled trial with three arms: (A) Standard treatment alone, (B) Standard treatment and physical exercise in groups, or (C) Standard treatment and physical exercise on an individual basis. The patients fill in the Inventory of Interpersonal Problems (IIP)(Horowitz et al., 1988) at baseline, and after 6 and 12 months. In addition, qualitative interviews are accomplished with patients, who quit the group exercise before having completed the six months of intervention.

Results: Here, the interpersonal problems of 120 patients are presented and discussed in combination with qualitative interviews of patients.

Perspectives: If this study detects a positive relationship between exercise as a supplement to alcohol treatment and **patients' well-being** and interpersonal problems, it will be recommended to implement exercise as an offer to users of the outpatient clinic in the future.

15:30 - 17:00

Charismatic and non-charismatic physician counselling and its effects on the patient's motivation

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Background: It is relatively difficult to motivate patients to change their lifestyle - whether preventative or as a part of a treatment. We examined whether a physician who uses Charismatic Leadership Tactics (CLTs, which are stories, moral conviction, sentiments of the collective, lists, rhetorical questions and metaphors) could be more motivating than a physician who doesn't.

Methods: 42 pregnant women rated two audio records with the physician's recommendations for water intake during pregnancy. Records contained the same facts, approx. the same tempo of speech and intonation, but one contained the CLTs and the second not. Women rated the extent to which the physician aroused their interest; would persuade them to live healthier; motivated them to take action; inspired them to do more than before; increased their willingness to achieve the goal and increase their belief that the goal is achievable.

Findings: Pregnant women consider recommendations with CLTs as more positive in all questions than recommendations without CLTs ($t(41)=3.432$; $p=0.001$).

Discussion: Women were more willing to follow physician's recommendations if they contained CLTs. Most women would be more motivated, if the physician share her/his own experiences with them, especially if it is a physician whom they already trust.

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15:30 - 17:00

Somatic complaints in a healthy population: effectiveness and working mechanisms of a worry reduction intervention

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Background. Somatic Complaints (SCs; e.g. headaches) are extremely common in primary healthcare. If there is no clear pathology, medical professionals cannot always adequately help people presenting with these complaints. Former research has established a link between worry and SCs. Brosschot and van der Doef found a prospective relation between worry and SCs and yielded promising results for a Worry Reduction Intervention (WRI) in adolescents and children with SCs. The WRI consists of a simple postponement instruction for worries during the day, to a self-chosen 30-minute 'worry-window' at night. **The current study** replicates the former study with minor refinements in young adults with SCs and additionally assesses body awareness as a working mechanism and alexithymia as a moderator of the WRI.

Methods. 120 young adults (aged 18-26) with health worries and SCs are randomly assigned to the intervention (worry registration + WRI) or control group (worry registration). Both groups fill out pre-, betweenand post-measures on body awareness, alexithymia, repetitive negative thinking and SCs. The study period lasts 6 days. Worries are registered using an experience sampling-application. Mixed-model analysis will be used to analyze the data.

Expected results. (1) A reduction of worry duration and SCs because of the WRI, (2) body awareness to be a working mechanism of this relation and (3) alexithymia to be a moderator of this relation.

Current stage. Halfway through data-collection phase, planning to finish May, 2016.

Discussion. The WRI is a short-term intervention, which can possibly be an acceptable, feasible option for people with SCs.

Public health insights 1

15:30 - 17:00

15:30 - 17:00

Exploring vets' and farmers' beliefs about prudent antibiotic use

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Background: Rates of antimicrobial resistance (AMR) in bacteria are increasing, partly due to inappropriate antibiotic use in human and animal medicine, including in farming. To reduce the public health threat from rising rates of AMR, 'prudent prescribing' needs to be encouraged amongst both doctors and veterinarians (vets). Research already exists to understand and improve prescribing behaviours by doctors, but corresponding research into vets' behaviour is lacking. It is therefore important to explore the beliefs that vets, and their farmer clients, hold about antibiotic use in farming.

Research questions:

- What beliefs do vets and farmers hold about the risks of AMR to human and animal health?
- What do vets and farmers perceive to be their responsibilities for prudent antibiotic use in their livestock?

Methods: A qualitative approach will be used. Semi-structured interviews will be conducted, via the telephone, to enable UK-wide recruitment. Participants will be 20 farm vets and 20 commercial livestock farmers. Interviews will be audio-recorded and transcribed verbatim. Data will be analysed using thematic analysis.

Expected results: This study will provide insight into whether vets and farmers perceive similar motivations and barriers to prudent antibiotic prescribing, and whether they make incorrect assumptions about each others' beliefs.

Current stage of work: A study protocol is currently under review with the University's Ethics Committee. Recruitment is anticipated to commence Spring 2016.

Discussion: Future behaviour change interventions targeting vets and farmers should consider the views of individuals from both professions; findings from this study will contribute to informing such interventions.

15:30 - 17:00

Susceptibility to medicine advertising is associated with poorer health behaviours

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Background: Direct to consumer advertising of prescription medicines (DTCA), a health communication strategy that is legal only in New Zealand and the United States, has changed healthcare-seeking behaviours by encouraging patients to search for or request advertised medicines. DTCA raises debates regarding patient autonomy and individuals' ability to make informed decisions. Past research suggests insufficient educational information in DTCA as well as the inability of individuals to make safe choices. DTCA may stimulate taking medicines rather than making behavioural changes and might target at-risk individuals. We thus sought to explore the links between being influenced by DTCA and other health-related behaviours.

Methods: Data was collected through an online survey of a nationally representative sample of 2057 adults in New Zealand. Logistic regression was used to explore the associations between behavioural outcomes triggered by DTCA (asking a doctor for a prescription and/or for more information, searching the Internet, and asking a pharmacist for more information) and physical activity, diet, and illegal drug use.

Findings: The outcomes revealed that at-risk individuals, characterised by more unhealthy behaviours and fewer healthy behaviours, were more likely than individuals with healthy behaviours to be influenced by DTCA.

Discussion: This study is the first to identify the links between individuals' healthy/unhealthy behaviours and their responses to DTCA. We recommend that DTCA should encourage lifestyle changes as potential substitutes for the advertised medicines, where applicable, to help high-risk subjects make informed decisions.

15:30 - 17:00

Which conceptualisations of autonomy are addressed in the ethical discussion on nudging?

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Background: One of the strongest ethical concerns about nudges is that they threaten personal autonomy. Autonomy can be understood in various ways. The aim of this study was to identify different conceptualisations of autonomy as used in the literature on the ethics of nudging.

Methods: Scopus, PubMed and Google Scholar databases were searched for articles on the ethics of nudging. From the 101 search results, 33 articles were included in a literature review in Atlas.ti. The analysis consisted of three steps: First, autonomy arguments were identified in the text and labelled with autonomy-codes. Next, a more limited set of super-codes was developed and applied in a deliberation round. Finally three conceptualisations of autonomy were identified that connect to the super-codes and to the philosophical literature on freedom and autonomy.

Findings: Three conceptualisations of autonomy were identified: 1) autonomy as freedom of choice involves the availability of options that are accessible and between which persons can choose; 2) autonomy as agency involves **being able to lead one's life and act on the basis of reasons and intention**; 3) autonomy as selfconstitution emphasizes a person's individuality and authenticity.

Discussion: Three conceptualisations of autonomy were identified in the literature on the ethics of nudging. Autonomy as self-constitution was less frequently used than the other conceptualisations. These conceptualisations of autonomy will eventually be operationalized and used in a series of empirical studies in various health related contexts. The aim of these experiments will be to investigate the impact of nudges on personal autonomy.

15:30 - 17:00

Mission accomplished? Oral hygiene skills at the end of oral health group prevention programs

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Background: In Germany, oral health group prevention programs are provided until 12 years of age and afterwards individual prophylaxis until the age of 18. Regardless of these measures, 18-year-olds proved to be unable to remove most of their plaque deposits: about 80% of their gingival margins show persistent plaque immediately after tooth brushing. The present study aimed to assess plaque removal in 12-year-olds, comparing two similarly structured provincial towns (Giessen, Marburg) with different concepts of group prevention programs in this respect.

Method: 189 (N=99 Giessen; N=90 Marburg) 12-year-olds of random samples within each town volunteered and were eligible for the study (inclusion criteria: no fixed orthodontic appliances, habitual use of manual toothbrushes). Plaque levels were assessed prior to and immediately after thorough tooth brushing.

Findings: No differences between Giessen and Marburg were found with respect to plaque prior to or after brushing ($p > 0.171$). Nearly 50% of gingival margins showed persistent plaque immediately after thorough tooth brushing (N=189).

Discussion: In this study 12-year-olds showed remarkably less plaque deposits immediately after thorough tooth brushing than previously found in 18-year-olds. This indicates that some positive effects of oral hygiene education in childhood fade off during adolescence. The comparison between the two towns suggests that the results are not specific for one or another prophylaxis concept. Results also indicate that at the end of group prevention programs plaque removal skills are still deficient. Video analyses of the brushing behaviour are currently performed in order to better understand the nature of these findings.

15:30 - 17:00

Effect of health literacy on oral health and oral health behaviour

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Background: Oral health is an important part of overall health and it concerns more than healthy teeth and the **absence of disease**. **Health literacy (HL)** defined as “the personal, cognitive and social skills which determine the ability of individuals to gain access to, understand, and use information to promote and maintain good health” is consistently associated with a wide range of health related outcomes including health status, use of preventative health care, mortality and hospitalizations. Associations of HL with oral health is not well studied.

The aim of our study is to examine the associations of health literacy and oral health of Slovak population sample.

Method: Cross-sectional study on 360 participants (RR=72%; 47.8 % of males, mean age=39, SD=14) recruited in dental offices was conducted. Data on demographics, 9 domains of health literacy and oral health status indicators were collected by questionnaire. The effect of health literacy on oral health behaviour status (OHBS) indicators were analysed using U-test and logistic and linear regression.

Findings: Women reported better OHBS compared to men ($\chi^2=9.82$; $p<0.01$) and better HL in 3 domains (Domains: 1, 5, 9, Betas range 0.11-0.18, $p<0.05$). Most of HL domains were positively associated with OHBS (Betas range 0.27-0.41, $p<0.05$) except domains 6.Ability to actively cooperate with healthcare providers and 7.Navigating the healthcare system.

Discussion: Better health literacy relates to better oral health behaviour indicators. Concept of multidimensional HL proved to be perspective predictor of oral health. Health literacy should be considered when planning oral health interventions.

Patient experience of healthcare

15:30 - 17:00

15:30 - 17:00

Being in safe hands: what's important to patients attending a regional cancer centre?

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Background: The quality of cancer services and care is central to the experiences of patients and those who accompany them to treatment. This study explored what was important to patients when receiving care, services and treatment at the cancer centre and whether their physical, emotional and social needs were supported by professionals.

Methods: Semi-structured interviews were used to explore patients' views. A purposive, maximum variation sample of 30 patients with colorectal, head and neck or lung cancer were recruited prior to, during or on completion of their treatment. Thematic analysis was used to analyse interview transcripts.

Findings: The core theme 'being in safe hands' was embedded in the nature of patient-professional interactions. Professionals were instrumental in promoting a positive approach to treatment through their demeanour and expert knowledge, which patients believed contributed to their treatment response. Central to this process was being knowledgeable about staff roles and functions and feeling supported to approach them and ask questions. Staff occupying technical roles were considered less likely to deal with emotional concerns, while professionals who appeared too busy to talk could cause patients to feel they were a burden on the system.

Discussion: Findings stress the importance of professionals being visible and accessible to patients, where regular opportunities are created for the expression of emotions and disclosure of needs. Positive patient-professional interactions are enabled through an understanding of staff roles and the promotion of humanistic caring encounters, which assists patients to approach their treatment in an optimum state of mind.

15:30 - 17:00

Adherence to exercise after joint replacement surgery: patients' and health professionals' perceptions

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Background: Following joint replacement surgery exercise rehabilitation is recommended for both the prevention of complications and the facilitation of functional recovery. Medical and psychosocial research however finds that adherence to exercise can be poor in patients with musculoskeletal conditions. The aim of this study was to explore patients' and physiotherapists' perceptions about factors they considered to influence rehabilitation adherence after total hip and total knee replacement surgery.

Methods: A purposive sample of 8 joint replacement patients and 5 physiotherapists participated in separate semi-structured focus groups. A topic guide was developed in order to explore participants' perceptions about facilitators and barriers of exercise adherence after surgery; and interviews were audio-taped and transcribed verbatim. In order to identify patterns and themes within the data thematic analyses was used. Once themes were formulated within each group (patients and physiotherapists separately) overarching themes were identified between groups.

Findings: Six themes emerged: 'fragility of the system' (inconsistencies in the delivery of the health care service); 'tailoring exercise' (needs and limited capacity to tailor); 'incongruent approach to rehab' (views regarding participants' role to rehabilitation adherence); 'expectations' (the importance of education and the impact of expectations); 'barriers to rehab' (physical, experiential and social); 'what matters?' (incongruence in what the successful outcome is considered to be).

Conclusion: Inconsistencies in therapy service delivery, incongruent approaches to rehabilitation and personal barriers influence patient adherence. Current findings highlight factors for consideration by care providers in order to facilitate adherence to exercise after joint replacement surgery.

15:30 - 17:00

How do couples undergoing IVF treatment experience a preconception dietary intervention?

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Background: Couples were randomised to a dietary intervention to increase their chance of conception, delaying their fertility treatment by six weeks. They were given fruit-based drinks and replacement oil and spread. Delay in receiving treatment is known to be a concern for couples seeking IVF. This study sought to explore how couples experienced this intervention.

Methods: Dyadic interviews were conducted with ten couples who had completed the dietary intervention and knew the treatment outcome. Dyadic interviews reflect involvement of both partners in the intervention and the importance of partner support. Interviews were audio-recorded, transcribed verbatim and analysed thematically using a constant comparative method.

Findings: Couples experienced no major difficulties in following the dietary regime; establishing daily routines helped couples comply with the trial protocol. Other study practicalities were not perceived as onerous. Most had not reflected on the fact that treatment was delayed by their participation, but did not express any negative views on this. They would however need to weigh-up the pros and cons of extending the delay. Many indicated that to increase the likelihood of having a baby, they would follow the dietary regime for longer and were in fact prepared to do almost anything.

Discussion: There are significant ethical issues in conducting research with participants willing to undertake almost anything. Health psychologists have an important role in designing trials of interventions to improve fertility to ensure that psychological consequences for patients are fully considered. Our profession's expertise in motivation and behaviour lends itself to advocating on behalf of these vulnerable couples.

15:30 - 17:00

Understanding the lived experience of Russell-Silver syndrome - recommendations for health care professionals

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Background: Russell-Silver syndrome (RSS) is a rare genetic condition and is characterised by slow pre and post-natal growth, short stature (SS) in adulthood, triangular facial appearance and body and facial asymmetry. Very little is known about what it is like to live with this rare condition beyond what is reported in the clinical literature and a need for clear guidance for health care professionals (HCPs) in how to communicate and support these patients has been identified. Our research aim was to understand the lived experience of RSS.

Methods: In this phenomenological study, thematic analysis was conducted on data from in-depth, semistructured interviews with 15 participants from the UK (7 female) aged between 17 and 55.

Findings: The analysis identified key themes common among many participants; experience of the healthcare system, transition from child to adult services, biggest impact RSS characteristics and appearance/body image issues.

Discussion: The focus for HCPs involved in the care of children with growth problems is often on height, for which there is a clear treatment pathway using growth hormone therapy, but no robust evidence to support its effectiveness in children with RSS. No psychological support is offered to these patients, however our research suggests patients struggle with varied appearance and body image related concerns which often overshadow a concern about height. These findings will inform an educational package for HCPs working with RSS patients and their parents, and help inform psychosocial support for this overlooked patient group.

15:30 - 17:00

Patients' experiences of melanoma from diagnosis to post-treatment using illness grids

R. Healey¹¹Teesside University, United Kingdom

Background: Melanoma has become a significant concern due to the rise in incidence rates. Receiving a melanoma diagnosis can be a life altering event, resulting in multiple biopsychosocial issues which can negatively affect the adjustment to diagnosis, treatment decision making and overall quality of life. Due to the **paucity of research into melanoma very little is known about what patient's experience across the clinical pathway. This study aims to examine patient's experiences of melanoma across the healthcare trajectory from diagnosis to post-treatment.**

Methods: A qualitative, longitudinal approach has been adopted for this study in order to obtain in-depth **information of patient's experiences of melanoma across the cancer trajectory. A minimum of 20 patients diagnosed with melanoma in the past month will participate in three interviews over approximately 12 months, with completion of an illness grid at each of these time points. The data will be analysed through content analysis and hermeneutic phenomenology.**

Expected results: It is expected that patients will experience varying degrees of distress following melanoma diagnosis and surgical interventions resulting in scarring, which would have multiple adverse impacts upon individual.

Current stage of work: Awaiting NHS ethical approval in order to commence data collection

Discussion: The accounts obtained will help inform clinicians involved in melanoma care about the experiences of being diagnosed with melanoma and the impact upon an individual, therefore providing the opportunity to **deliver the required care and improve patient's experiences of melanoma in the healthcare system.**

15:30 - 17:00

Promoting personal autonomy in the context of awake surgery: from fear and apprehension to acceptance

T. Vandrevalla¹¹Kingston University, United Kingdom

Background: Regional anaesthesia (or awake surgery) has been promoted as an excellent post-operative analgesia, encouraging earlier discharge from hospital, increased cost effectiveness and reduced perioperative morbidity. It has been advocated within the NHS as a 'lower risk' technique for specific patient groups. There is some evidence suggesting that patients regard it with apprehension and fear. The aim of the current study is to ascertain the experiences and decision-making process of patients' being offered a regional anaesthetic for upper limb surgery

Method: 20 patients enrolled for upper limb surgery in a hospital in South-East England were interviewed preoperatively and 6 weeks post-surgery. Transcripts were analysed using Thematic Analysis.

Findings: Patients viewed general anaesthesia a norm for surgery. Surgery was viewed as a semi-mystical event. The choice of anaesthesia symbolised the severity of the event and adopting for a general anaesthetic allowed patients to adopt a sick role. For some patients regional anaesthesia was viewed as way to retain autonomy during surgery. Patients who defer the decision making to medical experts were apprehensive and fearful of regional anaesthetic. Patients were keen to make informed decisions and valued personalised advice on the risks and benefits of the anaesthetic. Being presented with the option the day of the surgery was not conducive to meaningful involvement and patients felt unprepared to make an informed decision.

Discussion: Challenging social norms of "being asleep" during surgery requires timely, psychological preparation during perioperative assessments to ensure meaningful involvement of patients.

Social factors, media and health

15:30 - 17:00

15:30 - 17:00

The importance of social trust for prediction of well-being of Lithuanians and Lithuanian emigrants

K. Žardeckaitė-Matulaitienė¹, A. Endriulaitienė¹, R. Markšaitytė¹, L. Šeibokaitė¹

¹Vytautas Magnus University, Lithuania

It is known that person's well-being is related to various micro and macro social factors that can influence individual's decision to move or stay in his/her place of residence. General social trust and trust in social system might be important predictors of differences in well-being of emigrants and residents of the origin country.

The aim of the study was to evaluate the importance of several social trust indicators for well-being of Lithuanians and Lithuanian emigrants. 1209 (20 % male) Lithuanians participated in the cross-sectional online survey. 52.2 % of them were Lithuanian emigrants, 47.8 % – were residents of Lithuania. Mental health continuum questionnaire was used for the evaluation of well-being; 12 questions based on European Social Survey were used to measure general social trust and trust in particular elements of the social system (e.g. trust in medical services, police).

The results have shown that controlling various demographical variables Lithuanian emigrants have higher level of psychological, social and emotional well-being, as though as higher trust in various social institutions, but general trust in people is higher in the group of Lithuanian residents. Higher general well-being as though as higher psychological, social and emotional well-being of the participants is related to higher trust in social institutions, but not general trust in people, taking in control various demographical variables and the fact of emigration.

Study confirms the importance of trust in various social institutions for the evaluation of well-being of the residents and highlights the importance of credibility of state agencies.

15:30 - 17:00

A qualitative investigation of advertisement portrayals of acne in British women's magazines 1972-2008

K. Adkins¹, A. Thompson¹, J. Moses¹¹University of Sheffield, United Kingdom

Background: Acne can be associated with a range of psychosocial impacts including stigmatisation. Media representations of acne are likely to play an important contextual role in the nature of such impacts. This study sought to: (1) examine themes contained with acne-related advertisements, in women's magazines; (2) to investigate how portrayals of acne have changed over time, situated in historical context.

Methods: A novel interdisciplinary methodological approach was adopted that incorporated ethnographic content analysis and thematic analysis. A total of 637 advertisements were collected from three UK women's magazines (Cosmopolitan, Woman, Spare Rib), covering the past 40 years, at 5 year intercepts.

Findings: Acne was primarily framed as a cosmetic concern. Four key themes were identified: i) 'Spot-free'/'perfect' skin as the ideal; ii) myths surrounding acne; iii) psychosocial impact of acne; iv) normalising acne. There were differences in the frequency and content of advertisements over time and between magazines, which suggested a movement away from myths surrounding acne, yet increased pressures to meet unrealistic ideals.

Discussion: Acne was portrayed consistently as a threat to 'perfect' skin, and typically associated with distress. Over time, the focus of advertisements subtly changed, linking acne treatments with the pursuit of the body beautiful via self-improvement. Acne was frequently depicted as a barrier to being attractive and to forming romantic relationships. Advertisements also perpetuated myths regarding hygiene, age, and accountability. The results add evidence to the media's role in maintaining hegemonic accounts of female 'beauty' that may increase the risk of stigmatisation associated with acne.

15:30 - 17:00

Identification of psychosocial factors affecting job retention of women with breast cancer. A pilot study

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³Institut regional de Cancerologie de Montpellier, France

Background: Absenteeism from work following a breast cancer diagnosis constitutes an important adverse consequence. The purpose of this study was to identify psychosocial factors that can improve job retention of women with breast cancer the year after the beginning of the treatments.

Method: This longitudinal study was conducted with 68 women diagnosed with breast cancer. The first time measurement has been made at the beginning of treatments. The follow-up was respectively set by phone at 3, 6 and 12 months after the first interview. Psychosocial variables were: the social precariousness, anxiety and depression as personality traits, quality of life, posttraumatic growth, fatigue, social difficulties and social support. Job retention was measured using a ratio score taking into account the number of days worked and the hourly quota between each study time. Hierarchical regression analyzes were used.

Expected results: We expect that a low social precariousness, a little anxious and not depressive personality, a good quality of life, a strong posttraumatic growth, few felt fatigue and social difficulties, and a good social support will be decisive for the job retention of women with breast cancer.

Current stage of work: The three first times are already complete. Twenty patients remain in contact for the last study time. The last follow-up time is scheduled for June 2016.

Discussion: Our study will consider including a personalized program to help the most vulnerable and to promote the rehabilitation of patients suffering from breast cancer, by offering social and psychological custom accompaniments populations.

15:30 - 17:00

Organ donation in Romanian media: a content analysis

O. Petre¹, A. Baban²¹Babes -Boyai University, Romania²Babes-Bolyai University, Romania

Background: In 2010, Romania had one of the lowest organ donation rates from Europe. Despite the several legislative measures taken in the past five years, Romania still ranks near the bottom of the European hierarchy, especially for the deceased donors. In absence of personal experience, the mass media is the main source of information about donation and transplantation for the public. This study aims to explore the content and quality of Romanian media reports related to the organ donation.

Methods: We searched using "organ donation" term for media reports published online between May 2010 and January 2016 in Romanian language. The following materials were considered eligible: newspapers, magazines, informational websites and videos. We will conduct a content analysis of 234 media reports selected.

Expected results: A subsample of 60 materials was examined in order to create the coding instrument. The preliminary results indicated that the materials are predominantly neutral (for example, factual information about organ procurement and transplantation system, statistics) and positive (e.g., "a miracle", "the greatest gift", "donors as heroes, good people", stories about successful transplantation). Although fewer media reports are negative or extremely negative (e.g., "doctors as butchers", "organ procurement from brain dead donors is a murder", "organ market"), these influence more the public opinion.

Current stage of work: Creating the coding protocol.

Discussion: The mass media plays a central role in creating the social representation of organ donation, therefore educational interventions that address changing the negative framing of organ donation are needed.

15:30 - 17:00

Comparing organ donor attitudes between immigrant and native population: implication for Spanish donation promotion policies

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¹UAM, Spain

²UNIR, Spain

BACKGROUND. Organ transplantation depends currently of the availability of human donations. In consequence, the study of population attitudes towards donation represents an important basis for organ procurement and transplantation policies. Considering the relevance of the migratory processes in western societies, this study aims to compare attitudes towards organ donation after death between immigrant population and native population in Spain.

MATERIALS AND METHODS. Correlational study. Study integrated both stratified random sample of resident immigrant population in Spain (n=1202 subjects, estimated error= +/- 2.88%, p=q, p<.05) and stratified random sample of Spanish population (N = 1206, estimated error = 2.87%, p=q, p < .05). C.A.P.D. Questionnaire was applied (validated by Martin et al., 1995). Considered variables were disposition towards own organ donation, disposition toward deceased relatives' donation in different situations, arguments against donation, socio-demographic indicators, religious beliefs, social integration, and information about organ donation and transplantation. Analysis: descriptive, bivariate and logistic analysis regression (LRA) were performed, using origin (Spanish/immigrant) as grouping variable.

FINDINGS: Both samples yield different psychosocial patterns. Most relevant variables emerging from LRA evidenced that immigrant population has lower donors ratio (st β =2,13; p>0,001), give higher influence to family on donation consent (st β =1,53, p<0,05), has a higher percent of undecided and opposed subjects in relation to donation (st β =1,70, p<0,01) and tend to decide more negatively in different situations of potential organ donation (st β =1,62, p<0,01).

DISCUSSION: Evidence suggest that specific actions targeting organ donation promotion within immigrant population should be designed.

Study design and conduct

15:30 - 17:00

15:30 - 17:00

What impact do monetary incentives and questionnaire length have on mailed health psychology survey response?

L. Gatting¹, K. Robb¹¹University of Glasgow, United Kingdom

Background: Response rates to health-related surveys are declining. This study tested two strategies to improve the response rate to a health psychology survey mailed through general practices: 1) sending a shortened questionnaire; and 2) offering a monetary incentive to return a completed questionnaire.

Methods: Adults (n=4,241) aged 45-59 years, from four general practices in south-east England were mailed a survey on attitudes towards bowel cancer screening. Using a 2x4 factorial design, participants were **randomised to receive:** (1) a 'short' (4 A4 pages) or 'long' (7 A4 pages) questionnaire; and (2) one of four monetary incentives to return a completed questionnaire - i) no monetary incentive, ii) £2.50 shop voucher, iii) £5.00 shop voucher, iv) inclusion in a £250 shop voucher prize draw. Age, gender and area-level deprivation were obtained from the general practices.

Findings: The overall response rate was 44.0%. The 'long' questionnaire (43.5%) had no effect on response rate when compared to the 'short' questionnaire (44.4%; OR= 0.97 [0.85, 1.09]). The £5.00 (45.2%) and £250 prize draw (43.2%) incentives had no significant impact on response rates compared to no incentive (41.5%). The £2.50 incentive (45.9%) significantly improved response rates in univariate analyses (OR= 1.20 [1.01, 1.42]), however this did not remain significant after controlling for age, gender, area-level deprivation and questionnaire length.

Discussion: Prize draws are frequently used to incentivise participation in surveys but in this study they had no impact on response rate. Interestingly, a 'long' questionnaire did not decrease response relative to a 'short' questionnaire.

15:30 - 17:00

How to improve recruitment to pregnancy trials: learning from the experiences of participants and refusers

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¹MRC Lifecourse Epidemiology Unit, University of Southampton, United Kingdom

Background: Diet in pregnancy has health implications for both mothers and babies, and pregnancy is a time when women may be open to making lifestyle changes to improve their health. Yet only a third of eligible pregnant women agreed to participate in a dietary intervention trial. This study aims to understand why.

Methods: Pregnant women were invited to participate in a trial of vitamin D supplementation. 194 of those who refused to participate completed a questionnaire identifying their reason for declining. Of those, 30 agreed to a telephone interview. Of the 169 women who have completed the trial to date, 30 have been interviewed face-to-face. All interviews were tape-recorded and analysed thematically.

Findings: Questionnaire data identified the most common reasons for refusing to participate: being too busy (n=57); and study requirements including taking tablets (n=57), bone scans (n=46), or blood tests (n=45). Analysis of the interview data showed that personal factors and beliefs about medical research influenced **women's perceptions of the study requirements and shifted the decisional balance** towards or away from participating. Refusers tended to express a mistrust of medical research.

Discussion: Adequate trial sample size is essential for generating a strong evidence base for health recommendations and services. Health psychologists have a key role in maximising recruitment, by identifying and addressing factors that influence non-participation, and by designing study materials and publicity that emphasise reasons to trust medical research. More data should be collected from those who refuse to participate in trials to supplement this almost unique data-set.

15:30 - 17:00

N-of-1 methods in health behaviour research: a systematic review

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Background: Conclusions from between-participant studies often misrepresent variability between individuals and variability within individuals over time. N-of-1 methods involve the repeated measurement of an individual over time to make conclusions about that individual. This study synthesised evidence about using N-of-1 methods to study and change health behaviours, using examples from a systematic review of the literature, with the aim to describe the state of the art, unmet challenges and future opportunities for health behaviour research.

Methods: Articles included were those describing observational or interventional N-of-1 studies assessing health behavioural outcomes in any population and reported data analysis and conclusions at the individual level. A comprehensive search strategy was used to search databases for articles published 2000-2013 meeting inclusion criteria.

Findings: 3973 potentially relevant records were identified of which 31 full-text articles met inclusion criteria. The included studies used observational designs (n=2) and interventional designs including AB (n=14), ABAB (n=1), alternating treatments (n=3), N-of-1 randomised controlled trial (n=3), multiple baseline (n=7) and changing-criterion (n=1) designs. Studies assessed medication/treatment adherence (n=14), physical activity (n=11), recreational drug use (n=3), sleep (n=2), alcohol use (n=2), and smoking (n=1). In most of the studies, the data were evaluated using visual analysis (n=24) and some used statistical techniques (n=7),

Conclusions: The systematic review highlighted a number of opportunities and open questions for applying Nof- 1 methods in future health behaviour research. There is scope for using N-of-1 methods in a wider context to answer key questions in health behaviour research.

15:30 - 17:00

The role of sequence analysis in understanding health and post-injury Behaviours

D. Keatley¹, K. Caudwell²¹University of Lincoln, United Kingdom²Curtin University, Australia

Background: Sequence analysis is a useful technique to understand the pattern of actions related to many health behaviours. The method is largely used in behavioural psychology; however, has the potential to increase understanding and awareness of behavioural patterns in health psychology. The current poster focuses on the role of sequence analysis in relation to post-injury behaviours, for individuals who regularly work-out.

Methods: The method involves taking individuals' self-reported statements about the sequence of behaviours they performed to recover from an injury. The sample consisted of individuals who exercise regularly, and had suffered an injury that prevented their normal routine. The list of behavioural events was mutually exclusive and exhaustive. Behaviours were agreed on by experts in the field. Frequently occurring behaviours were then analysed for significant transitions.

Findings: Results showed clear patterns in individuals' choices regarding post-injury behaviours. A lag one sequential analysis was used (i.e., a-b, b-c, c-d). This analysis involves transitions from only one preceding behaviour (antecedent), to give a chain/sequence of events. Transition maps showing the sequence of events were developed to clearly show the patterns of actions that individuals performed in their attempts to recover from an injury.

Discussion: The present research highlights the importance of understanding individuals' patterns of actions relating to injury treatment. Medical practitioners and trainers should be aware of these patterns, especially those which are not conducive to fast and effective recovery. The poster also highlights the effectiveness of sequence analysis. The method has implications for other areas of health psychology.

15:30 - 17:00

Recruiting of and in general practices

A.L. Brutt¹, A. Bartsch¹, J. Magaard¹, A. Buchholz¹

¹University Medical Center Hamburg-Eppendorf, Germany

Background: The general practice is an appropriate setting for timely recognising risk factors as well as associated diseases. Regular appointments and personal relationships between general practitioners and their patients facilitate delivering behaviour change counselling. To investigate routine care as well as evaluating new approaches of behaviour change counselling, research in primary care is essential. Nonetheless, recruitment of and in general practices in Germany can be challenging.

Methods: A cluster-randomised controlled trial and a cross-sectional study in general practices will be described. Recruitment targets were n=700 and n=50 patients, respectively. Besides recruitment, study-related tasks in the general practices were offering smoking advice and implementing screening for depression.

What went wrong: There have been two challenges: 1) to recruit practices willing to participate in research projects, e.g., more than 1500 general practices had to be contacted to gain 40 for study participation. 2) to recruit patients to be included in the study.

Possible solutions: From the general practitioners perspective, lack of time, too much effort and insufficient remuneration are main reasons for not participating in research projects. These aspects should be taken into account when trying to initiate collaboration with general practices. Furthermore, an approach to use clinical electives for recruiting in general practices resulted in achieved recruitment targets and adequate documentation.

Conclusions: Involving general practices as early as possible in the research process and modifying procedures to allow for manageable implementation may help to successfully recruit in general practices.

15:30 - 17:00

Chemotherapy-related cognitive changes in colorectal cancer patients: a feasibility trial

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¹City University London, United Kingdom

Background: Research suggests that chemotherapy can cause decline in patients' cognitive functions.

Objective: To assess the feasibility and acceptability of a multi-site study designed to examine the nature and extent of chemotherapy-related cognitive changes in colorectal cancer (CRC) patients ("Protocol").

Method: Data was collected over 9 months using objective and self-reported measures of cognitive functioning and self-reported quality of life, fatigue and mood questionnaires (the "battery"). The battery was administered pre- and mid-chemotherapy to a consecutive sample of CRC patients across three London-based NHS Trusts.

All participants included patients who had undergone colorectal surgery and were scheduled to have adjuvant chemotherapy, or no further cancer treatment.

Main outcome measures: Recruitment procedures, rate of recruitment, suitability of exclusion/inclusion criteria, acceptability of data collection procedures and the battery, and attrition rates.

Results: From April 2014 to December 2014, 54 eligible participants were invited to take part in the trial. Of the 20 that completed pre-chemotherapy assessments, only 1 withdrew at follow-up due to reasons of ill health from disease recurrence. All participants completed the entire battery and indicated that they found the trial acceptable.

What went wrong: Strained researcher resources; loss of eligible participants to competing studies; restrictive upper age limit.

Possible solutions: Removal of upper age limit, an increased dedicated research team to increase rate of recruitment.

Conclusions: The Protocol is feasible with suggested amendments and is acceptable to patients and medical teams. Acceptability of trial to medical teams is further evidenced by requests of collaboration from two additional NHS Trusts.

15:30 - 17:00

Article retractions in health related fields of psychology: are there reasons for concern?

A. Gunther¹¹Leibniz Institute for Psychology Information, Germany

Some severe cases of research misconduct accompanied by an increase in the number of retracted articles from scholarly journals have attracted considerable attention over the last years and triggered efforts to achieve more transparency within research. Across scientific disciplines Life and Health Sciences appear to have been especially affected.

Against this background, results from an analysis of article retractions in psychology are presented, focusing on fields having strong overlap with Life Sciences and/or Health Research. Based on data from PsycINFO retracted articles published between 1982 and 2014 were identified. For retractions attributable to research misconduct the distribution across psychological research fields was analyzed. Number of retracted articles as well as number of retracted authors were considered.

Generally, the prevalence rate of retractions is very low. However, in terms of authors blamed for research misconduct, the highest numbers were found in the fields of "Physiological Psychology and Neuroscience", "Health and Mental Health Treatment and Prevention" and "Psychological and Physical Disorders". While for the last two this can be explained by the equally high numbers of articles assigned to these fields, for "Physiological Psychology and Neuroscience" the number of retracted authors is considerable higher than would be expected.

The data allow no clear-cut conclusions with regard to differences in the prevalence of research misconduct in different fields of psychology. However, in the light of a relatively high number of retracted authors, a specially careful look into efforts to ensure research quality in "Physiological Psychology and Neuroscience" seems warranted.

Public health insights 2

15:30 - 17:00

15:30 - 17:00

A randomised controlled trial of a reminder intervention to promote bowel scope screening uptake

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¹University College London, United Kingdom

²St Marks' Bowel Cancer Screening Centre, United Kingdom

³Resonant Behaviour Change and Social Marketing, United Kingdom

Background: This randomised controlled trial aimed to test whether a mailed reminder of the opportunity to self-refer into the English Bowel Scope Screening (BSS) programme, sent one year post initial invitation, could facilitate uptake. We additionally aimed to compare the impact of the national information leaflet with a locallytailored social marketing leaflet.

Methods: 1,383 previous non-participants in London were randomly assigned to receive no reminder (Usual Care, UC), a reminder & 'standard facts' booklet (Intervention-A), or a reminder & locally-tailored leaflet designed to address barriers to screening (Intervention-B). The reminder included information on how-to-book an appointment, and provided options for the gender of the endoscopist and the day/time of the appointment.

Participants not responding within four weeks were sent a follow-up reminder. The primary outcome was the proportion attending within each group eight weeks after the follow-up reminder.

Findings: 461 participants were randomised to each group and 0.2%, 10.4%, and 15.2% of individuals attended an appointment in the UC, Intervention-A and Intervention-B groups respectively. Individuals receiving UC were less likely to attend an appointment than individuals in the Intervention-A ($X^2=47.61$; $p<0.01$) and Intervention-B groups ($X^2=72.65$; $p<0.01$), and individuals in Intervention-A less likely than individuals in Intervention-B ($X^2=4.7$; $p=0.04$). Adenomas were detected in 24.6% of the intervention participants, which is comparable to the current programme in London.

Discussion: Sending non-participants a self-referral reminder facilitated uptake and led to the detection of adenomas. The reminder was most effective when accompanied by a leaflet designed to address barriers to the test.

15:30 - 17:00

Why do people who agreed to participate in lung screening change their mind?

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Background: If people make an appointment for cancer screening, it suggests they are motivated to attend the appointment. As with other health behaviours, this intention does not always translate into action and 'did not attend' (DNA) and cancellations are frequent outcomes at screening clinics. Orbell & Sheeran (1998) used the term inclined abstainer to describe people with positive intentions who fail to act. The aim of this study is to explore the decision making process and barriers to attendance among people who initially arranged a lung screening appointment, but who later cancelled or did not attend.

Methods: This study will use semi-structured interviews with inclined abstainers from the Early Cancer detection test - Lung cancer Scotland (ECLS) Trial (n=20). The data will be analysed using a framework approach. The demographic characteristics of the participants including age, gender and area-level deprivation will be assessed.

Expected Results: We anticipate potential themes explaining why people change their mind may include: i) increasing fear of what the test may find as the appointment date approaches, and ii) unanticipated events arising at the time of the appointment.

Current Stage of Work: Recruitment and data collection is currently underway.

Discussion: Cancer screening rates remain suboptimal, and cancellations and DNAs are costly to the NHS. Inclined abstainers are of particular interest because they show some motivation to participate in screening but fail to act. Understanding the barriers to action may identify intervention opportunities to support screening attendance.

15:30 - 17:00

Interventions to reduce the negative effects of alcohol consumption in older adults: a systematic review

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¹University of Sunderland, United Kingdom

²Newcastle University, United Kingdom

Background – Alcohol consumption in older adults is rising, with little being done to intervene. Ageing involves many lifestyle changes such as deterioration in health, retirement and general social differences, which could be important factors in the rise of problematic and risky drinking and therefore need to be investigated. The primary objective of this research was to conduct a systematic review of interventions to reduce alcohol consumption aimed specifically at older individuals (aged 55+). The factors, conditions and motivations that could lead to a higher risk of problematic alcohol consumption in older individuals were also explored through critical appraisal and narrative reviewing.

Methods - A systematic review was carried out on interventions among older adults (aged 55+) on databases including CINAHL, socINDEX and Medline. Papers meeting the inclusion criteria were appraised using the Critical Appraisal Skills Programme (CASP) checklist, which assessed the validity of included trials.

Findings - Out of 2,552 publications identified, 6 papers were included in the final review. A small number of interventions have been carried out and they vary in effectiveness. All studies included used a limited range of demographics and relatively small samples when investigating older people.

Discussion – Whilst research is being conducted in this area, there is still minimal evidence regarding what works in reducing alcohol consumption in older adults. This review is important in the field of health promotion and can help inform the development of an effective intervention to reduce drinking in later life.

15:30 - 17:00

RISK factors for physical health of university students from Romania: preliminary results

R. Tomsa¹, D.P. Dudău¹, C. Rio Jenaro², N. Flores Robaina²

¹University of Bucharest, Romania

²Universidad de Salamanca, Spain

Background. Our objectives were (1) Assess physical activity patterns and biological and behavioural risk factors in undergraduate students in Romania. (2) Design and test a nudge-based intervention for health promotion.

Methods. The convenience sample for the first objective is currently made up of 595 students (Mage = 21.63; SD = 5.79) that have attended the University of Bucharest between 2014-2016. In this descriptive-correlational phase, we use a questionnaire to assess the risk factors identified by the WHO. The second objective would be attained in an experimental study, based on small samples of at least 30 students each.

Expected results. The results of this research would be relevant for their descriptive and practical use in reducing health risk factors, by raising awareness about issues such as lack of physical activity and also by proposing a simple, cost-effective method for increasing students' health behaviors.

Preliminary results: 58.3% of students are not practicing any sports; 31.3% are not practicing any moderate physical activity in their spare time; many students don't have information regarding their blood pressure (45.7%) or blood sugar (38.5%).

Current stage of work: We are currently in the phase of collecting descriptive data. In the next stage we intend to test the effectiveness of a nudge-based intervention delivered via text messages that would primarily target physical activity. The study would include pre-post assessments of health habits and well-being.

Discussion: The study will help us design a community plan for health promotion, based on insights from behavioural economics.

Saturday, 27 August

11:00 - 12:00 | GORDON SUITE

Ways to increase the impact of behaviour change interventions in a real-world setting

Professor Aleksandra Luszczynska, University of Social Sciences and Humanities, Wroclaw, Poland

Sound formation and reporting of behaviour change interventions may focus on theories explaining underlying mechanisms, evidence-based underpinnings, behaviour change techniques, main outcomes' changes, and basic aspects of delivery and fidelity. However, interventions' development and applications in real-world settings assume multiple implementation conditions and strategies. These implementation strategies may determine if interventions affect main outcomes, but they also determine interventions' reach, efficacy, adoption, maintenance, and sustainability. Investigating implementation conditions and strategies may improve interventions' effectiveness, increase the impact of research on policies, and enhance interventions' uptake by participants, professionals, and stakeholders. Theories, research, and taxonomies of implementation conditions will be discussed.

Implicit and controlled processes in health behaviour change

9:00 - 10:30 | FLEMING AUDITORIUM

9:00 - 9:15

Implicit processes, autonomous motivation and controlled motivation influence on levels of daily activity

S. Oliver¹, E. Kemps¹¹Flinders University, Australia

Background: Persistent levels of physical inactivity contribute to the current obesity epidemic, and even a slight increase in daily activity can benefit health. This study investigated potential influences of physical activity behaviour. Specifically, we investigated whether motivational properties, implicit attitudes and approach-avoid biases interact to influence daily activity levels.

Method: Participants (n = 103, 17-68 years) initially recorded a seven-day step count. Approach-avoid biases and implicit attitudes were then measured by the manikin task and SC-IAT, respectively. Autonomous and controlled motivation for daily activities were measured by the Perceived Locus of Causality Questionnaire.

Findings: Hierarchical regression analyses showed that both autonomous and controlled motivation interacted with implicit attitudes and approach biases in predicting daily activity levels. Specifically, autonomous and controlled motivation were positively associated with step count in participants with low approach bias scores, and in those with positive implicit attitudes.

Discussion: Findings support Self-Determination Theory, which suggests that autonomous motivation is an important contributor to activity engagement. Interestingly, controlled motivation was found to also be an important contributor. Results also support Dual Process theories, which propose that implicit and reflective processes independently influence behaviour. The findings suggest that motivation influences daily activity levels beyond that of implicit processes. More specifically, individuals who are motivated to do incidental physical activity may do so, even though they are not implicitly inclined to. Therefore, increasing autonomous and controlled motivation towards daily activities may increase incidental physical activity and its accompanying health benefits.

9:15 - 9:30

Examining relationships between behaviour change technique enactment, self-determined motivation and objectively measured physical activity

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Background: Although use of Behaviour Change Techniques (BCTs) is assumed to be key to changing behavior, surprisingly few studies have assessed participants' actual use of BCTs in and outside of interventions. Individuals can use BCTs to manage their motivation (e.g. think about benefits) and self-regulate their behaviour (e.g. self-monitoring). Furthermore, self-determined motivation and other factors potentially predicting uptake of BCTs should be identified. This study aimed to assess the associations between motivational variables from self-determination theory, enactment of motivational and self-regulatory BCTs, and objectively measured physical activity (PA).

Methods: During the baseline measurements of a randomized trial (Let's Move It), among students in vocational schools (n=442, 30% female, Md age=17), self-determined motivation and BCT use were assessed in an electronic survey. PA was measured objectively over the following 7-day period. In addition to frequentist methods, correlations and regression analyses were examined using Bayes Factors to quantify their evidential value.

Results: Autonomous motivation was associated with use of both self-regulatory and motivational BCTs (CI95 for $r=.40-.73$, $\text{Log}(\text{BF}_{10})=27.61-88.23$). Correlations between BCT use and controlled motivation were also positive but smaller (CI95 for $r=.05-.26$, $\text{BF}_{10}=5.62-41.59$). Motivational BCT use correlated with selfregulatory BCT use (CI95 for $r=0.40-.68$, $\text{Log}(\text{BF}_{10})=27.57-116.59$). BCT use predicted objectively measured PA (CI95 for $r=0.17-0.76$, $\text{Log}(\text{BF}_{10})=4.28-6.58$).

Discussion: Our results suggest that enhancing self-determined motivation may be important in promoting BCT use. These preliminary results imply that assessing participants' use of BCTs is feasible and may aid researchers in understanding how interventions work.

9:30 - 9:45

Testing the process model of self-control: real time inhibitory control, fatigue and high-calorie snacking

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Background: Self-control has long been viewed as a limited resource that becomes depleted with use. However, resource models of self-control (e.g. ego depletion) have notable limitations and a recent model of self-control, the Process Model) suggests failures of willpower should be considered shifts in motivational state from effortful to more gratifying pursuits. In the Process Model, fatigue is considered an emotion signalling the opportunity cost of continuing to exert self-control and triggering a motivational shift to more rewarding behaviours. If this is the case, fatigue should be associated with cognitive control and should predict lapses in effortful self-control. The present study tests these predictions.

Methods: 65 adults (15M, 50F, M age=38.9 years) completed real-time self-report ratings of fatigue and consumption of high-calorie snack foods, and completed a GoNoGo task (to measure cognitive control) every waking hour over 7 consecutive days using a wrist-mounted electronic diary (ProDiary). Data were analysed using multi-level modelling (observations nested within individuals).

Results: GoNoGo performance and fatigue were strongly negatively related ($p < .001$) but showed different patterns over time. While slow reaction times on the GoNoGo task (indicative of weak cognitive control) were associated with increases in self-reported intake of high calorie snack foods ($p < .05$), increases in fatigue were not (ns).

Conclusions: The results of the present study do not support the assertion of the Process Model that fatigue triggers a motivational shift towards more gratifying behaviour. Fatigue was however, strongly related to cognitive control, an important predictor of health relevant behaviour.

9:45 - 10:00

Embodied perception of locomotor challenge in overweight individuals

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Background: Dual-process models of embodied perception contrast explicit perception of stimulus properties with implicit perception that sub-serves action. Explicit perception of stairs is exaggerated, with greater exaggeration when climbing resources are depleted. This perception of steepness promotes avoidance by pedestrians when an alternative is available. Overweight pedestrians avoid stairs more than those who are healthy weight (Eves, 2014). Data from three studies test whether stairs appear steeper in explicit awareness to overweight individuals.

Methods: For explicit estimates, participants verbally reported stair angle in degrees and performed a visual matching task for the perceived cross-sectional angle of the stairs. In addition, participants adjusted an unseen plate to parallel the slope of the stairs with their hand. In study one, participants self-reported their BMI (n=269) whereas in study two clearly overweight and healthy weight individuals were recruited using BMI silhouettes (n=171). In study three (n=52), BMI was measured objectively and DXA scans used to estimate fat and fat free mass (FFM).

Findings: In all three studies, increased BMI was associated with greater explicit estimates of stair steepness. Further, this exaggeration was related to the fat mass that would be carried up stairs rather than the FFM that would do the carrying. Changes in fat mass, rather than FFM, were related to changes in perceived steepness.

Discussion: Increased stair climbing is one public health approach to increase daily energy expenditure in the population. Embodied perception of locomotor challenge may run counter to public health attempts to encourage lifestyle physical activity in the overweight.

10:00 - 10:15

Intention - behaviour gap: self-efficacy, explicit motives and implicit associations in the initiation of exercise

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Objective: This research examined differences between those who intended to participate in an exercise program and subsequently exercised (inclined actors) and those who intended to but did not participate (inclined abstainers) in task, coping, and scheduling self-efficacy (SE), implicit automatic associations with exercise and appearance/body shape and health and explicit motives of appearance, weight management, and positive health. SE, automatic associations and explicit motives were assessed as predictors of being an inclined actor or abstainer. Gender differences were assessed.

Methods: A total of 361 participants (271 inclined actors and 90 inclined abstainers) aged 35-65 completed two Go/No Go tasks to measure automatically activated associations of exercise, the Exercise Motivations Inventory and the Multidimensional Self-Efficacy for Exercise Scale. Analysis of variance and logistic regression models were used to examine hypotheses.

Results: Inclined actors had higher task, coping and scheduling SE than abstainers. Female inclined actors had stronger explicit appearance motives than female abstainers, whereas male inclined actors had weaker appearance motives than male abstainers. For implicit automatic associations male inclined actors had higher associations with positive appearance/body shape than male inclined **abstainers. Coping SE ($\beta = 1.023$) was a significant predictor of being an inclined actor.**

Conclusions: This research aids in understanding the intention-behavior relationship by showing that levels of SE, implicit associations with appearance/body shape, and explicit appearance motives contributes to the enactment of intentions and engagement in exercise behavior.

10:15 - 10:30

Physical activity and the theory of planned behaviour: a scoping review, 2001-2015

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Background. The theory of planned behaviour (TPB) has proven useful to predict physical activity (PA), but recent research points to the relevance of additional PA predictors such as planning, yet these developments have not been systematically reviewed. Thus, the aim of this scoping review was to provide an overview of trends in this field. A special focus was whether researchers have objectively measured PA and conducted longitudinal designs.

Methods. Inclusion criteria were that at least one TPB construct and PA (the latter as either self-report or objective) were assessed without active interventions. We searched several databases (e.g. PubMed, PsycINFO) for studies between 2001 and 2015. Overall, 3884 abstracts were screened, of those 486 were reviewed in full text, and 243 studies qualified for the final sample.

Results. In 37 studies (15.2%), planning was assessed. Objective PA measures were used in 17 studies (7.0%) and in 136 studies (56%) at least two measurement time points (MTP) were assessed. Of these 136 studies, only 10 (4.1%) included intensive longitudinal designs (with at least 5 MTP). Eligible studies appeared with greater regularity more recently ($r = .70$). Most studies were conducted in the USA (55%) or the EU (33%).

Discussion. Surprisingly, measures of planning were relatively rare, although scholars have increasingly studied PA with longitudinal designs, as more than half of the studies used two or more MTP. In contrast, there have been very few studies with an intensive longitudinal design or assessing PA with objective measures.

Models and interventions in implementation research

9:00 - 10:30 | CROMBIE A SUITE

9:00 - 9:15

Long-term effects of healthcare professional behaviour change interventions: a systematic review of Cochrane reviews

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Background: Health professional behaviour needs to change long-term to implement evidence-based interventions and treatments, but failure to successfully implement and sustain change over the long term continues to be a major problem in health and social care. Various systematic reviews have synthesised the evidence for health professional behaviour change interventions. We aim to appraise and synthesise the systematic review evidence relating to sustained health and social care professional behaviour change.

Methods: A systematic review of Cochrane reviews. We systematically searched the Cochrane Database for systematic reviews of RCTs, comparing health professional targeted behaviour change interventions to a usual care or no intervention control group. Systematic reviews were included if they reported change in health professional behaviour or behaviour-related outcomes for >12 months.

Findings: We identified 6198 possible records and obtained full texts of 92 reviews; 18 reviews met the inclusion criteria. We identified 40 RCTs within the systematic reviews with reported outcomes >12months (median=2 per systematic review). Most reviews (n=12) did not consider or comment on long-term intervention effects. Of reviews commenting on the long-term effects of interventions, four drew inconclusive conclusions and two made neutral and general statements about sustainability.

Discussion: Cochrane reviews of health professional behaviour change interventions typically do not examine or comment on long-term intervention effects. Consequently, there is a lack of knowledge about the long-term effects and sustainability of healthcare professional behaviour change interventions. More long-term trials are required and systematic reviews should focus on consistently highlighting long-term outcomes where present.

9:15 - 9:30

Identifying behaviour change techniques reported in trials of implementation interventions to improve diabetes healthcare

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Background: Interventions to improve healthcare quality often describe intervention strategies at a level of abstraction that sometimes lacks clarity on what specifically is involved. New taxonomies of behaviour change techniques (BCTs) may provide a novel approach to characterizing the detailed content of such interventions.

Aim: identify which BCTs are reported in interventions within an existing systematic review of 142 trials of quality improvement (QI) interventions.

Methods: Two psychologists independently coded 142 interventions in trials included in Tricco et al's (2012) review of diabetes QI interventions, using the BCT taxonomy version 1 (BCTTv1), separately coding BCTs targeting healthcare professional or patient behaviour.

Findings: 26/93 healthcare professional-focused BCTs were identified. The five most frequently identified BCTs were: Adding objects to the environment [66 trials], Social support (practical) [57], Instruction on how to perform the behaviour [55], Restructuring the social environment [55], and Prompts and cues [35]. 38/93 patient-focused BCTs were identified. The five most frequently identified BCTs were: Instruction on how to perform the behaviour [94], Information on health consequences [84], Restructuring the social environment [84], Prompts/cues [73], and Adding objects to the environment [57].

Discussion: The BCTTv1 was applicable to both health professional and patient behaviour and provided a feasible approach for characterizing implementation intervention content. The pattern of BCTs highlights a reliance on a subset of possible BCTs in this literature, suggesting opportunities for novel intervention design. Describing implementation interventions at the behaviour change technique level may help to promote better fidelity and replication of interventions designed to improve healthcare.

9:30 - 9:45

Implementation of sexuality education: a process model

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¹Maastricht University, Netherlands

Background: Dissemination, adoption, and implementation of interventions is slowly receiving more attention. This is also shown by the new EHPS conference track implementation research. Previously, Paulussen (1994) designed a model for the adoption of aids curricula, and Wiefferink (2005) modelled the implementation of Long Live love. The current work aims to build upon this prior knowledge through a literature review and two qualitative studies.

Methods: as part of a PhD dissertation, process evaluations were carried out for two Dutch sexuality education programmes. Long Live Love – upper classes is implemented in secondary schools, and Make a Move in residential youth care. School teachers (16) were interviewed and students (60) participated in focus group discussions. Make a Move trainers (7) kept a diary (10) on implementation and were interviewed after ending programme implementation. Data collecting was followed by thematic analysis.

Results: the findings show that the implementers were highly affected by the response of the audience. Positive **assessment of exercises was largely shaped by students' engagement and enthusiasm**, whereas negative valuations often stemmed from **students' inability and insecurity to perform certain exercises**, such as role plays. Other determinants that shaped curriculum-related beliefs included barriers, values and priorities, and to what extent Long Live Love contributed to require exam knowledge. Discussion: the results from Make a Move and Long Live Love showed similarities and differences. Combined, it has allowed for a new model on implementation, showing the importance of student response and how this determinant contributes to implementation in a feedback loop.

9:45 - 10:00

Making an impact on health: developing a synthetic framework

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Background: To maximise societal benefits from research into health and wellbeing, it is crucial to achieve and measure impact. Currently, there is a plurality of views about what constitutes impact and how to achieve it, as demonstrated by the guidelines published by major international funding bodies. This review aims to 1) identify key frameworks for measuring impact, 2) extract key dimensions and characteristics, 3) develop a synthesised framework, and 4) illustrate its application in a case study.

Method: We searched for impact frameworks from major UK, European, and US health research funding agencies by searching their web-based content for the term 'impact'. From each, we extracted and thematically analysed definitions and guidelines in terms of commonalities and differences. We applied the synthetic framework to a case study: A UK University-based Centre for Behaviour Change tasked with translating multidisciplinary research evidence into policy and practice.

Results: The five frameworks identified (3 UK, 2 US) showed some clear differences in focus and themes. However, we were able to generate a synthetic framework based on themes present across all or most frameworks, including end-user engagement, dissemination to the public, and societal benefits. Our case study highlights difficulties arising from these differences and the benefits of a common framework.

Discussion: A common framework of research impact provides a tool for researchers when planning and demonstrating impact. Future evaluation should (i) search for further frameworks to achieve further refinement, (ii) evaluate its practicality compared to single frameworks and (iii) seek views of research funding agencies.

10:00 - 10:15

Changing physiotherapy behaviour to optimise outcome: feasibility of a knowledge translation intervention

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Background: Adherence is associated with outcome following musculoskeletal physiotherapy, but rates of nonadherence are as high as 70%. Research indicates adherence may be improved through a person-centred approach combined with targeted behaviour change techniques. However, integration into routine physiotherapy practice has proven complex. We aimed to test the feasibility of an active, multi-component knowledge translation intervention to support adoption of these techniques into practice.

Methods: A mixed methods feasibility trial involving n=14 physiotherapists. N=9 attended a one-day workshop, followed by a three-month knowledge broker period and access to an online discussion forum. The remainder attended the workshop but received no additional support. Semi-structured interviews were used to explore perspectives regarding what helped or hindered uptake. Data were analysed using conventional content analysis.

Findings: The workshop provided important foundational knowledge, but alone was not sufficient to change practice. Knowledge brokers played a critical role in supporting knowledge translation, particularly when they adopted a structured approach, created a safe space for reflection, and were **perceived as having 'expert' knowledge**. Techniques were more easily integrated into practice when perceived as simple and as having an intuitive fit with existing practice. Ongoing use was contingent upon seeing results.

Discussion: Knowledge brokers may be effective at supporting integration of new techniques into physiotherapy practice so long as certain other conditions are met. These findings provide an in-depth view of the implementation process as perceived by clinicians. Health psychologists could play a leading role in implementation activities given it is inherently a behaviour change process.

10:15 - 10:30

Answering the call for evidence-based telephone support: an intervention development study

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Background: Behaviour change strategies may fall at the first hurdle if recipients fail to engage with intervention materials. One approach to increasing engagement is to incorporate telephone support as a cointervention. We developed a theory-based online toolkit intervention to support hospital transfusion teams responding to feedback about their transfusion practice, delivered within a cluster-randomised controlled trial.

To encourage engagement with the online toolkit, a telephone support co-intervention was developed to prompt staff to login and to facilitate toolkit usage. This study describes the development, content and delivery of the telephone support co-intervention.

Method: A Behaviour Change Technique (BCT) taxonomy was used to specify intervention components. BCT coding of a) face-to-face demonstrations to support toolkit usage; b) descriptions of existing telephone-based co-interventions, identified via scoping searches, were used to shortlist BCTs. A consensus approach was used to select BCTs for the co-intervention. A co-intervention flowchart and manual were developed to maximise fidelity of delivery and prompt BCT delivery. The manual, including if-then scenarios, was used for training intervention facilitators. Telephone support was intended to be delivered to all hospitals receiving the toolkit intervention (N=71).

Findings: Selected BCTs were 'prompts/cues,' 'credible-source,' 'social-support (practical),' 'information on social and environmental consequences,' 'instruction on how to perform the behaviour,' 'action-planning,' 'problem-solving,' 'social-support (unspecified)'. Telephone support was successfully delivered to 63 hospital contacts (89%), with 51 (72%) logging into the toolkit during the call.

Conclusions: We describe methods for developing evidence-based telephone support co-interventions with potential to be replicated beyond this context to enhance intervention engagement.

Health in the family and parental health behaviour

9:00 - 10:30 | CROMBIE B SUITE

9:00 - 9:15

Illness intrusiveness in parents and glycaemic control in youth with type 1 diabetes: intergenerational processes

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Background. Type 1 Diabetes (T1D) is a chronic condition accompanied by strict treatment guidelines impacting both the patient and the surrounding family. Although previous literature has examined specific associations linking parental and youth functioning, studies examining encompassing intergenerational models are scarce. The present multi-informant study investigated an intergenerational path-model linking illness intrusiveness in parents to patient glycaemic control. More specifically, parental functioning (illness intrusiveness and depressive symptoms) was expected to predict patient functioning (depressive symptoms, treatment adherence, and glycaemic control) through parenting practices (overprotection and psychological control).

Methods. 316 patient-mother dyads and 277 patient-father dyads participated at the first wave of an ongoing longitudinal study (patients with T1D, aged 14-25, living at home). Parents reported on their experience of illness-intrusiveness, their depressive symptoms, and patient's treatment adherence. Patients indicated their depressive symptoms and treatment adherence. Medical records provided HbA1c-values. Parenting practices, as operationalized by the dimensions of overprotection and psychological control, were assessed in both parents and patients.

Findings. Structural equation modelling favoured our hypothesized path model to an alternative, child-driven model. An adequate fit was found for both patient-mother and patientfather dyads. Parental functioning predicted patient functioning with parenting practices as intervening mechanisms. Parental illness intrusiveness was associated with parental depressive symptoms, both predicting overprotection and psychological control. Psychological control in particular predicted patient depressive symptoms, treatment adherence, and glycaemic control.

Discussion. These findings underscore the importance of the context when considering the functioning of youth with T1D. Longitudinal analyses are warranted to further investigate bidirectional or transactional pathways.

9:15 - 9:30

“It feels like wearing a giant sandbag.” Understanding fatigue in paediatric multiple sclerosis

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Background: Fatigue is one of the most common and disabling symptoms of multiple sclerosis (MS), associated with depressed mood, impaired school performance and lower quality of life in children and adolescents with MS (caMS). Fatigue in caMS is poorly understood, and effective treatments for fatigue are currently lacking. This is the first qualitative study to explore experiences of fatigue in paediatric MS. The aim was to gain insight into how caMS and their parents respond to and manage fatigue.

Methods: In-depth semi-structured qualitative interviews were conducted with 15 caMS and 13 parents, either face-to-face or via telephone. Inductive thematic analysis was primarily used, incorporating elements of grounded theory.

Findings: Five key themes were identified in the data. The Lived Experience of Fatigue & Impact on Daily Activities, Uncertainty and Uncontrollability of Fatigue and Balancing Activities were themes common to caMS and parents, whilst parents uniquely expressed Concern about children's well-being and future, and caMS solely discussed their experiences of Social Support and Disclosure. An additional overarching theme addressed participants' Emotional Responses to Fatigue & its Impact.

Discussion: This study provides a unique insight into the experience and management of fatigue in paediatric MS from the perspective of both caMS and parents. Although some findings echoed experiences of fatigue in other populations, such as perceiving fatigue to be uncontrollable, this study also highlighted new factors in paediatric MS, such as issues about disclosure. These factors should be addressed in clinical practice by developing interventions for fatigue involving caMS, parents and teachers.

9:30 - 9:45

A 'photo-phenomenological' investigation of caregiving burden amongst British mothers of daughters with Rett syndrome

I. Williamson¹, Y. Akhtar¹¹De Montfort University, United Kingdom

Background: Rett Syndrome is a rare, neurodevelopmental disorder causing severe physical and cognitive impairment which is found almost exclusively in girls. Caring for a child with Rett Syndrome is highly demanding yet relatively little research has been undertaken, especially in an European context, to explore caregivers' accounts of their experiences.

Method: Eight mothers of a daughter with Rett Syndrome from various parts of the United Kingdom agreed to participate in a mixed methods study which combined two forms of qualitative data collection. Participants were asked to capture elements of their experience through taking and titling a series of photographs. These photographs were subsequently discussed in extended semi-structured interviews. Verbal and visual data were analysed together using interpretative phenomenological analysis.

Findings: Three themes are presented and illustrated with a series of images and extracts. In 'catastrophic loss of identity' we outline how the women felt fused to their daughters and experienced an existential crisis. In 'insufficient time and inadequate support' we discuss some of the main day-to-day challenges of caregiving with a focus on challenges in both accessing and accepting help. Finally in 'managing stigma' we look at the strategies women use to protect themselves and their daughters from the disablist discrimination they encounter.

Discussion: We discuss some of the challenges and opportunities of combining photographic and verbal data when exploring caregiving and disability. We offer some suggestions for how psychosocial support interventions might be developed to help parents of children with highly disabling conditions like Rett Syndrome.

9:45 - 10:00

Illness perceptions and parental predictors of adherence to treatment in young people with haemophilia

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Background: Hemophilia can be managed with a lifelong treatment (prophylaxis/on-demand) and appropriate physical activity. Throughout adolescence, adherence reduces remarkably. According to the self-regulation model of Leventhal and colleagues, illness perceptions greatly influence health behaviours and adaptation to illness. Assessing illness perceptions while young patients gain more autonomy and how parent characteristics can affect their child's adaptation is necessary to build interventions.

Objectives: (1) Identify illness perceptions of children (2) Determine the accuracy of the parental estimate of those perceptions (3) Investigate if parental characteristics: parental distress and parenting sense of competence may predict accuracy of parental estimates and adherence

Methods: The Illness Perception Questionnaire and Veritas-Pro/PRN assessing adherence were completed by 24 hemophilia patients, aged 6-18, receiving care at Sainte-Justine UHC in Montreal, Canada. Parents completed the same questionnaires in addition to the Parenting Sense of Competence scale and The Parenting Stress Index-short form. Proximity between children-parent answers was assessed with correlations, t-tests and ICCs. Parental characteristics were correlated to measures of adherence and proximity.

Findings: Preliminary analyses suggest that consequences of illness, timeline, concerns and emotional response are more threatening perceptions of illness. Parent-child responses were minimally correlated overall, except for treatment control and identity ($r > .42$, $p < .05$). Adherence was higher when parental distress and parental satisfaction were high ($r = 0.616$, $p < .01$; $r = .433$, $p < .05$).

Discussion: Adherence behaviours can be stressful to parents. Interventions could focus on this and on promoting better communication between parents and their child on illness perceptions in order to foster a more adapted view of illness.

10:00 - 10:15

Immunisation for children in Indonesia: it is the father's decision

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Background: In Indonesia, free of charge basic immunisation programmes can be accessed through various health facilities, including community-based integrated child and maternal care post (Posyandu), village maternity clinics (Polindes), primary health centres (Puskesmas), and government hospitals. However, in 2012, only about 37% of children aged 12-34 months completed basic immunisation, and 8% did not received any immunisation at all. **We examine mothers' perception and experiences in immunising their children.**

Methods: Exploratory qualitative study with six focus group discussions involving 51 mothers with child(ren) under 5 years old in East Nusa Tenggara and West Sumatera Provinces. Focus groups were conducted in Bahasa Indonesia, or a combination of Bahasa Indonesia and local language. They were recorded, then transcribed in the original language, translated into English, and thematically analysed.

Findings: The success of the immunisation programme depended on community-based health post cadres or village midwives to personally approach mothers and their family. Three main problems related to unwillingness to immunise the children were: lack of understanding about immunisation and disease prevention, religious belief, and unsupportive fathers. Within a family, the decision whether or not to immunise lay mostly with the fathers.

Discussion: Interventions to increase immunisation coverage in Indonesia should target fathers, not just mothers. Further, structural changes were identified, including government policy to fully support and empower community-based integrated child and maternal care post (Posyandu).

10:15 - 10:30

Antenatal physical activity: a qualitative study exploring women's experiences and acceptability of a walking group

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Background. Regular physical activity (PA) can be beneficial to pregnant women, however, many women do not adhere to current PA guidelines when pregnant. In order to identify important and essential characteristics for future health behaviour change interventions, the aim of this research was to explore women's experiences of PA during a recent pregnancy, understand the barriers and determinants of antenatal PA and explore the acceptability of an antenatal walking group.

Methods. Seven focus groups were undertaken with a total of 24 women who gave birth within the past five years. Focus groups were transcribed and analysed using thematic analysis.

Findings. Women's experiences of PA during pregnancy were categorised into biological/physical, psychological and social issues. These included tiredness, morning sickness, fear of harm to baby, selfconfidence and access to facilities. Women gave a range of views towards an antenatal walking group including both positive aspects such as social support and negative aspects such as walking being boring. Exploration of themes indicated that the Health Action Process Model, specifically risk perceptions, outcome expectancies, and self-efficacy, may be appropriate as a foundation for a future behaviour change intervention.

Discussion. Many of the barriers to PA during pregnancy can be addressed through intervention. Adaptions need to be made to traditional walking groups in order to maximise participation and engagement. The findings of this study present the foundation to building a theory based antenatal PA intervention addressing constructs such as risk perceptions and self-efficacy.

Psychosocial functioning and well-being in patient populations and the Community

9:00 - 10:30 | BALMORAL SUITE

9:00 - 9:15

A comparison of adolescents with/without type 1 diabetes on peer support and psychosocial functioning

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Background: Whether or not living with type 1 diabetes (T1D) impacts on the psychosocial profiles of adolescents with T1D is a contested issue. Research both supports and refutes the assertion that T1D impacts on peer support, QoL and resilience, and evidence of how any relationship identified may operate is lacking. With this in mind, the aim of this study was to explore the impact of T1D on the psychosocial profiles of adolescents in comparison with a healthy peer group.

Methods: Clinical participants (n=80) were identified at two paediatric outpatient clinics in England, whilst the comparison group (n=69) were recruited from local schools and colleges. Participants completed measures of global peer support, resilience and QoL to enable comparison of general life experience.

Findings: Three-way ANOVA were utilised in order to assess variance in the psychosocial variables of interest dependent on health status, gender and age, as indicated by previous literature. A significant three-way interaction of health status, gender and age on global peer support was identified ($\eta^2=.03$). Significant main effects of age and gender are additionally recognised in both QoL ($\eta^2=.08$, $\eta^2=.04$) and resilience ($\eta^2=.05$, $\eta^2=.09$).

Discussion: These findings suggests that adolescents with T1D and their healthy peers do not greatly differ in their psychosocial profile. These findings minimise the impact of T1D on the life of the adolescent, and suggest that the desire for normality highlighted in previous literature is a successful endeavour. Understanding this perception of normality should help clinicians refocus attention from T1D and on to person-centred care.

9:15 - 9:30

Relationship of posttraumatic growth and adjustment to spinal cord injury: moderated by posttraumatic depreciation?

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Background: The objective of this study is to investigate the associations between posttraumatic growth (PTG) and depreciation (PTD) on one side and life satisfaction and indicators of mental and physical health on the other side in individuals with spinal cord injury (SCI). Its primary aim is to test whether PTD moderates the relationships of PTG and different adjustment indicators.

Methods: A total of 141 newly injured patients of one of the four Swiss SCI rehabilitation centres participated in a national cohort study (Swiss Spinal Cord Injury Cohort Study, SwiSCI) and completed questionnaires assessing PTG and PTD, different indicators of mental and physical health as well as life satisfaction at discharge from their first rehabilitation. Correlational and regression methods were used to examine the research questions.

Findings: PTG and PTD were significantly positively correlated ($r_s = .47$). PTD was significantly associated with lower mental and physical health and lower life satisfaction, with small to large effect sizes. PTD moderated the associations of PTG with symptoms of depression and life satisfaction (β of interaction term = $-.18$ and $.24$, respectively): PTG was significantly related to lower symptoms of depression and higher life satisfaction in individuals experiencing moderate to high levels of PTD. In contrast, PTG was unrelated to these outcomes in individuals with low PTD levels.

Discussion: The results partially explain mixed findings on the association of PTG and adjustment to potentially traumatic events indicating that PTG may only be associated with better adjustment when individuals concurrently experience PTD.

9:30 - 9:45

Perceived cognitive deficits during adjuvant chemotherapy: exploring the experiences of colorectal cancer patients

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Background: Chemotherapy-related cognitive impairment – known anecdotally as ‘chemobrain’ – is often reported by cancer patients. This condition has primarily been investigated in breast cancer populations, where perceived cognitive impairment (PCI) has been linked to fatigue, anxiety, and mood. This study explores whether colorectal cancer (CRC) patients report similar experiences of PCI during chemotherapy.

Methods: Post-surgery CRC patients due to receive adjuvant chemotherapy (n=24) completed the FACTCognitive Scale, FACIT-Fatigue Scale, and the Hospital Anxiety and Depression Scale prior to starting treatment (T1) and again 12 weeks later (T2). Assessments were also completed by a surgery-only control group (n=10) at comparative time-points. Analysis explored between-group comparisons, changes over time, and relationships between variables.

Findings: At T1 there were no significant differences in PCI between chemotherapy (M=50.67, SD=15.69) and surgery-only patients (M=58.60, SD=12.62; $t[32]=1.42$, $p=0.19$); however, at T2, PCI was significantly higher in chemotherapy (M=47.14, SD=15.23) compared to surgery-only patients (M=59.90, SD=7.3; $t[28]=2.19$, $p=0.016$). At T2, there were significant correlations between PCI and fatigue ($r=0.724$, $p<0.001$), anxiety ($r=-0.681$, $p=0.001$), and mood ($r=-0.574$, $p=0.005$) in chemotherapy patients; whilst anxiety alone was significantly correlated with PCI in surgery-only patients ($r=-0.759$, $p=0.029$). There were no significant changes in PCI between T1 and T2 in either group; however, surgery-only patients did experience significantly reduced fatigue.

Discussion: Chemotherapy-related PCI occurs in CRC, with links to experiences of fatigue, anxiety, and mood. Although causality remains unclear, it is possible that PCI is part of a wider psychological response to treatment, presenting opportunities for cognitive-behavioural interventions to improve outcomes.

9:45 - 10:00

The impact of surgical complications on patient wellbeing: a longitudinal study

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Background: Adverse events in the hospital setting have a significant impact on patients' health, time and finances. However, little is known about the impact of surgical complications on patients' psychosocial outcomes. The objective of this study was to better understand the impact of surgical complications on patients' physical and mental wellbeing.

Methods: Data was collected from 785 patients undergoing major surgery in 29 hospitals in the UK. Patients were surveyed pre-surgery, on discharge and at 1 month, 4 months and 12 months post discharge. Demographic and clinical information was collected alongside measures of wellbeing (SF12), anxiety and depression (HADS), social support (MDSS), and coping (Brief COPE). Regression analysis explored the relationship between complications and wellbeing, with social support and patient coping styles tested as moderators.

Findings: Of the 785 participants, 379 had a surgical complication; 72 were rated as being 'severe'. At 1 month, complications had a significant impact on mental and physical wellbeing. Significantly reduced physical and mental wellbeing was still evident at 4 months. At 12 months the difference in wellbeing between patients with and without complications was not significant except for mental wellbeing in patients with 'severe' complications. Social support was shown to have a significant positive impact on wellbeing at various time points. Coping strategies were also found to moderate the impact on wellbeing.

Discussion: Complications significantly reduce physical and mental wellbeing over an extended period of time. Social support from family members and health professionals can be instrumental for reducing the impact on wellbeing.

10:00 - 10:15

Shame as a predictor of psychological morbidity in patients after bariatric surgery

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Background: Bariatric surgery is increasingly indicated to achieve significant weight loss and help reduce physical and co-morbidities in those who are morbidly obese. However its psychological impact is less well explored. Shame and self-conscious emotions have been increasingly identified and targeted in those with other eating disorders, yet this construct has been little explored in those receiving bariatric surgery. The aim of this study was to examine reported shame and its relationship to psychological morbidity in post-bariatric surgery patients.

Method: A cross-sectional, questionnaire survey was responded to by eighty volunteers, all at least one year post-bariatric surgery. Measures assessed internalized, externalized and body shame; anxiety and depression; self-esteem; quality of life; and body image disturbance.

Findings: Internalized and externalized shame, psychological morbidity, low self-esteem, impaired quality of life, and body image disturbance were significantly higher in participants than published community norms. Body shame was significantly elevated with participants reporting 'problematic' levels of body image disturbance. Regression analyses indicated that shame (externalized, internalized and body) accounted for around half of the variance in scores for psychological morbidity, body image disturbance, self-esteem, and a third of the variance for quality of life. Strong relationships were found between the parameters, with internalized shame accounting for most variance in anxiety and depression.

Discussion: Greater focus on shame in those who are morbidly obese, even after bariatric surgery appears warranted and interventions targeting shame may alleviate other psychological difficulties, such as low self-esteem, impaired quality of life, anxiety and depression and body image disturbance.

10:15 - 10:30

Outcomes from the city of Ballarat employee health and wellbeing program

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²Victoria University, Australia

³City of Ballarat, Australia

Background: This study encompassed the development and evaluation of a health and wellbeing program for employees that was based on Self-Determination Theory.

Method: A total of 69 employees indicated interest in participating in a 10-week holistic wellbeing program, with 47 commencing and 30 completing the program. Individual health coaching sessions were held pre-, mid-, and post-program. Participants were provided with a Fitbit, an online diet program subscription, and a wellbeing journal. Pre- and post-program assessments included biomedical markers (e.g., cortisol, cholesterol, blood sugar, weight), fitness (e.g., VO2max), cognitive function (e.g., memory, cognitive flexibility), as well as a range of demographic, lifestyle (e.g., diet, exercise, alcohol & other drug use) and psychosocial variables (e.g., personality, self-esteem, time perspective, health locus of control). Six-month follow-up assessments are planned for June 2016.

Findings: Program completers lost an average of 4.88 kg (SD=4.44; $F(1,26) = 32.59, p<.001$) and 1.5% of body fat (SD = 3.58; $F(1,25) = 4.62, p<.05$) and reported high levels of satisfaction with the program. They differed significantly from non-completers on agreeableness ($F(1,46) = 6.33, p<.05$), conscientiousness ($F(1,46) = 6.49, p<.05$), future time perspective ($F(1,46) = 6.77, p<.05$), reflective coping style ($F(1,46) = 4.96, p<.05$) and goal setting beliefs and behaviours ($F(1,46) = 4.27, p<.05$).

Discussion: With a range a significant health and wellbeing outcomes, and a 64% completion rate, this program can be considered successful. Key strengths included the health coaching model, that program activities were designed to facilitate basic psychological need satisfaction, and the employer's commitment to the process.

Health promotion and addictive behaviour

9:00 - 10:30 | GORDON A SUITE

9:00 - 9:15

Testimonial of a recovered drugs-addict in the class room: wise or foolish?

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Background: The main aim of this study is to examine whether a testimonial by a recovered drugs-addict (RDA) who visits a classroom has effect on drug use determinants. Some consider RDA-testimonials to be wise because via vicarious experiential learning, adolescents might learn that they should not experiment with drugs. Others consider this to be foolish, because RDA-testimonials might romanticize drug use and the RDA is living proof that it is possible to recover.

Methods: Four conditions were compared in a two-wave 2*2 design (RDA-testimonial no/yes * informative lesson no/yes), N=948 (average age: 14.5 years). Separately for cannabis and hard drugs, eight effect variables were measured: positive and negative use consequences, attitude, use intention, use intention when friends use, refusal self-efficacy, curiosity, and awareness of addiction risk.

Findings: Regarding determinants of cannabis use, repeated measures manova shows that overall the informative lesson has no significant effects ($F(8,931)=1.46$, $\eta^2=.01$, $p=.17$), whereas the RDA-testimonial has small effects in a healthy direction ($F(8,931)=7.82$, $\eta^2=.06$, $p<.001$). For hard drugs determinants, both the informative lesson ($F(8,937)=2.86$, $\eta^2=.02$, $p=.004$) and the RDA-testimonial ($F(8,937)=2.81$, $\eta^2=.02$, $p=.004$) have small healthy effects. There are no interaction effects. Healthy effects are especially found for students who have more positive views on drug use before the intervention. For four (of sixteen) variables, the RDA-testimonial has a stronger healthy effect at the higher educational levels.

Discussion: Overall, the combination of informative lessons and a RDA-testimonial is most powerful to achieve short-term effects. It is wise to bring a RDA into the class room.

9:15 - 9:30

Brief classroom-based tobacco denormalisation intervention reduces willingness to smoke in French adolescents

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Background : The present research tests the effectiveness of a tobacco industry denormalisation intervention to reduce smoking in French adolescents.

Methods : Participants (N = 2522) were French adolescents (M age = 16.06 years at baseline). Allocation to intervention group (intervention vs. control) was randomised at the school-level. The intervention group received one hour-long intervention in a classroom setting, in which the tactics used by the tobacco industry to recruit young smokers were discussed by a trained interventionist. Willingness to smoke (dichotomous) was assessed before and after the intervention, approximately 6 months apart.

Findings : Multi-level modelling indicated that there was a significant interaction effect between intervention group and willingness to smoke over time, $b = -1.53$, $SE = 0.19$, $p < .001$. Separate models for each intervention group revealed that participants were 2.82 more likely to be willing to smoke at the end of testing period in the intervention group, and 12.56 times more likely in the control group, suggesting a buffering effect of the intervention.

Discussion : The present research presents promising evidence for the effectiveness of tobacco denormalisation interventions for adolescents. Mediating factors and boundary conditions are discussed.

9:30 - 9:45

Real-world uptake of a tailored, text message, pregnancy smoking cessation programme (MiQuit) when offered online

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Background: Prenatal smoking is a major public health concern and uptake of NHS cessation support is low in this group. Text message-based self-help is a promising intervention for this population but little is known about its likely real-world uptake, an essential parameter for estimating public health impact. Aims were to explore uptake (including cost) of a tailored, theory-guided, text message intervention for pregnant smokers (**'MiQuit'**) when offered online.

Methods: Links to a website providing MiQuit activation information (texting a shortcode) were advertised online on a cost-per-click basis for two commercial websites (Google AdWords, Facebook Ads) and free of charge for two smoking-in-pregnancy webpages (National Childbirth Trust, NHS Choices). Activations per advert click, per advert exposure and cost per activation were calculated.

Findings: Low-visibility links on free-of-charge webpages generated few activations. For the commercial websites, cost per click was lower with Facebook but a higher proportion of Google advert clickers activated support (5.2% of 812 Google, 2.2% of 1889 Facebook), making their cost per activation very similar (£23.86 Google, £23.81 Facebook). Compared to participants of a prior MiQuit trial, those activating support online appeared more motivated (intended to quit smoking sooner) and those activating support via Google were earlier in pregnancy, with a sharp peak at 4-5 weeks gestation. Incremental costs per quitter were £746.19 (95% CI - £1,886.654 to £4,595.08) at the end of pregnancy and -£76.22 (-£2,790.33 to £3,844.02) when extended to mother's lifetime. **Discussion:** Online advertisements are a feasible, potentially cost-saving method for engaging pregnant smokers in cessation support.

9:45 - 10:00

Understanding Foetal Alcohol Spectrum Disorders (FASD) and maternal alcohol consumption during pregnancy

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Background: Fetal Alcohol Spectrum Disorders (FASD) refers to a spectrum of disorders caused by prenatal alcohol consumption. Alcohol consumption during pregnancy and its interference with the development of the fetus and child is complex and highly variable. However, little is known regarding which alcohol consumption patterns most strongly predict FASD. The current study aims to provide the required evidence to estimate the FASD prevalence and identify which alcohol consumption patterns are most in need of intervention.

Methods: A systematic literature search on global FASD prevalence and related alcohol consumption was conducted in multiple databases up to August 2015, including PubMed, PsychINFO, PsychARTICLES, ERIC, CINAHL, EMBASE and MEDLINE. A query was generated and resulting hits were exported and screened by two independent screeners, after which results were extracted and (meta-) analyzed.

Findings: Global FASD prevalence estimates from included studies ranged from 0 to 176.77 per 1,000 live births. Substantial heterogeneity prompted meta-regressions, revealing geography as important moderator, and suggested cautious interpretation. Furthermore, studies lacked information to indicate when drinking during pregnancy becomes harmful for the unborn child. Also, a substantial variation in alcohol consumption measures was found, ranging from 'any consumption' to fine-grained specification of intensity and frequency. While precluded meta-analysis, this variation did enable development of guidelines for measuring alcohol consumption.

Discussion: FASD prevalence implies an urgent need for health promotion interventions addressing maternal alcohol consumption. To identify the most expedient target behaviors for such interventions, we propose guidelines for studies examining maternal alcohol consumption patterns in relation to FASD.

10:00 - 10:15

Systematically informing the development of alcohol warning messages for health promotion

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Background: Harm from alcohol is a serious public health issue and governments are calling for alcohol warning labels. However, research informed label development is limited. Alcohol Expectancy Theory offers a framework for informing label development; however the reliance on a narrow range of survey dependent expectancies has limited findings. This study aims to extend alcohol expectancy theory and inform the development of warning labels, by identifying negative expectancies that are participant derived and salient to drinkers from specific segments.

Method: Drinkers' negative alcohol-related expectancies were identified through a qualitative study of a nationally representative sample of the New Zealand population (1168 drinkers). Thematic analysis resulted in 13 salient negative alcohol expectancies and the percentage of drinkers from each segment (age, gender, heavier drinkers versus lighter drinkers) who mentioned each expectancy, was examined.

Findings: Chi-square analysis revealed expectancies varied between segments: Heavy drinkers and emerging adults were characterised by concerns for self (e.g., blacking out, being hungover); lighter drinkers and older adults by consequences of harm to others (e.g., drunk driving, violence.); females reported greater concern than males with the majority of expectancies.

Discussion: This study is the first to identify participant derived negative alcohol expectancies pertinent to drinkers, from different segments, using a representative sample. The results demonstrate that warnings based on a 'one size fits all' approach will not be salient to all drinkers, and is unlikely to be a successful intervention. The value of analysing expectancies pertinent to individual segments is discussed, using specific examples of warning labels.

10:15 - 10:30

“Go hard or go home”: moderate drinking is “a waste of money and calories”

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Background: At-risk individuals, such as emerging adults, continue to drink to excess despite knowledge of recommended safe drinking limits. Such harm reduction initiatives might be ineffective because heavy drinking is normative and inescapable. This study aims to inform interventions by identifying motives, benefits, and barriers to moderating consumption amongst a high-risk sample.

Method: Student Drinkers' in New Zealand (n=100) completed an open ended interview examining their perceptions and experiences of moderate and non-drinking amongst their social groups. Interviews were transcribed verbatim and thematically analysed.

Findings: Findings revealed binge drinking was seen as normal and participants had to have a “good reason” such as work or sports to abstain from bingeing. Although participants saw benefits to drinking less, the ridicule for “wasting calories and money” by moderating drinking outweighed the benefits. Limiting drinking was rare or absent amongst peer groups and moderate drinkers were perceived more negatively than non-drinkers with participants stating, “Why would you?”

Discussion: This study identified barriers to drinking responsibly. In fact, non-drinking was seen more favourably than moderate drinking because non-drinkers were perceived to have a good reason such as religion, whereas participants struggled to find good reasons for 'limiting drinking'. However, the finding that drinkers perceived serious and competitive involvement in sporting and cultural events as an adequate excuse for responsible consumption is informative for future interventions. It may also explain the relative popularity of periodic abstinence (e.g. Dry July/January) over moderate drinking.

User perspective in eHealth and mHealth

9:00 - 10:30 | GORDON B SUITE

9:00 - 9:15

The virtual care climate questionnaire: development and validation

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Background: E-health interventions are more effective if they offer autonomy-supportive communication facilitating the internalization of health behaviour change motivation. As no validated measures yet exist to measure autonomy-support offered by e-health interventions, our aim was to develop and validate the Virtual Climate Care Questionnaire (VCCQ); a questionnaire measuring perceived autonomy-support in a virtual care setting.

Methods: Items were developed based on existing questionnaires and expert consultation, and pre-tested among experts and target populations. The VCCQ was administered concerning e-health interventions aimed at alcohol (Study 1; N=230) and cannabis (Study 2; N=228). Item properties, structural validity, and reliability were examined with item-response and classical test theory methods, **as were the questionnaire's convergent and divergent validity.**

Findings: In study 1, 20 of 23 items formed a one-dimensional scale ($\alpha=.97$; $H=.66$; $\omega=.97$; mean(SD)=4.9(1.0); range 1-7) that met the assumptions of monotonicity and invariant item ordering; in study 2, 16 items fit these criteria ($\alpha=.92$; $H=.45$; $\omega=.93$; mean (SD)=4.2(1.1); range 1-7). Convergent validity was confirmed by positive associations with autonomous motivation and integrated and identified regulation subscales (study 1: $r=.65, .47, .67, p<.001$; study 2: $r=.35; .35; .34, p <.001$), and perceived competence for reducing alcohol intake (study 1: $r=.53, p<.001$). Divergent validity could only be confirmed by the nonsignificant association with perceived competence for studying behaviour (study 2: $r=-.01, p=.83$).

Discussion: VCCQ items accurately assessed participants' perceived autonomy-support offered by two ehealth interventions. The scale showed the expected properties and relationships with relevant constructs, though its divergent validity requires attention in further research.

9:15 - 9:30

Exploring the impact of social media use on psychological and physical health

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Background: Social networking activity is growing and yet little is known about how this affects our health perceptions. This study sought to determine in what way people who use Face Book (FB) interpret the information they read and whether this was associated with their psychological and physical health.

Methods: Using a cross-sectional design, an electronic questionnaire measured FB use, FB social comparison, self-esteem, depression, anxiety, reported physical symptoms, and life satisfaction. Members of the public (n = 162; age M=31 years; 67% female) were recruited using snowballing via FB. The data was analysed using Hierarchical Multiple Regression.

Findings: More upward positive comparison (M=9.09; SD=2.44) was experienced, followed closely by downward positive (M=8.92; SD=2.35), and upward negative (M=8.28; SD=3.14), with downward negative perceived least (M=6.29; SD=2.35). Regression analysis showed life satisfaction (R²=.51) was associated with: downward positive FB information ($\beta=.161^*$), upward negative ($\beta=-.350^{***}$), and downward negative ($\beta=-.296^{***}$). Self-esteem (R²=.62) was associated with upward positive ($\beta=.137^*$) and downward negative ($\beta=-.130^*$). Anxiety (R²=.57) was associated with upward negative ($\beta=-.314^{***}$), depression (R²=.53) with downward negative ($\beta=.188^{**}$), and symptoms (R²=.45) were associated with upward positive ($\beta=.227^*$).

Discussion: Negative interpretations were associated with poorer psychological health and positive interpretations with better psychological health. Physical health was positively associated with positive interpretations indicating that upward comparison may be a coping strategy for people with more symptoms. These results have implications for perceptions of well-being for general users of FB and for vulnerable populations, such as those living with chronic illness, where more social comparison may occur.

9:30 - 9:45

SoaSeksCheck; An intelligent e-counsellor to estimate STI risk and ease access to test facilities

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Background. STI testing and treatment strategies need to be optimized to maximize the effect of control efforts and reach those most in need. An intelligent, automated chat agent (SoaSeksCheck (SSC) web app) was built to improve the reach of young people at-risk, optimize the assessment of risk, and to facilitate access to STI test centers for those at-risk. Key questions were: (1) does it reach those at risk for STIs, and (2) does it improve the positive test/number of test rate?

Method. SSC was launched regionally (Rotterdam area) as of June 2015-December 2015. SSC was introduced via a Facebook campaign. A continuous mixed method evaluation design was used. Data was derived from Google Analytics (number of people reached, number of visits), SSC use was objectively tracked through server registrations and STD center data.

Results. Over the period of 7 months, 155.000 people were reached by the campaign, of which 15.121 visited SSC, 39% of those started a chat. In total 510 people visited the appointment page (after having received a test advice), of which 156 people made an appointment via SSC. Of those, 45% got tested (94% lower educated, 65% ethnic minority. 29% got tested positive.

Discussion. The results thus far suggest that SSC can improve the reach of those at-risk for STI, and does improve the positive test/total test ratio (29% SSC vs. 17% on average, $X^2(1) = 6.5$, $p < .01$). The study shows the potential of e-counseling.

9:45 - 10:00

Self-monitoring creatinine after kidney transplantation: adherence to measurement protocol and reliability of patient reported data

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Background: Through self-monitoring creatinine after kidney transplantation, the high number of outpatient visits could be reduced. The current study used data from a self-management RCT to investigate whether it is **safe to rely on patients' reported self-measurements**.

Methods: During one year after transplantation 54 patients self-measured their creatinine and registered the values in an online Self-Management Support System that provided automatic feedback (e.g. contact hospital). Adherence to the self-monitoring protocol was determined by comparing number of requested with number of performed measurements. Reliability was studied by comparing dates and values that were registered in the SMSS and logged in the creatinine device. To determine adherence to the provided feedback, SMSS logged actions and information from the electronic hospital files were analysed.

Results: Level of adherence was highest during week 5-15 post-transplantation with about three-quarter of patients performing 70% of the requested measurement frequency (3 times a week). Ninety percent of all registered creatinine values was entered correctly, although values were often registered several days later. If more measurements were performed than values were registered (10%), the registered values were significantly lower than the unregistered ($p < .01$) suggesting selection of lower creatinine values. Adherence to SMSS generated feedback ranged from 53-85% depending on the specific feedback.

Discussion: The majority of self-measured creatinine values was registered accurately. However, safety of self-monitoring creatinine seems seriously challenged by a tendency to postpone registration of measurements and select reassuring (i.e. lower) creatinine values for registration and by non-adherence to feedback provided by the SMSS.

10:00 - 10:15

Self-care behaviours of COPD patients over a 12-month period in the WSD Evaluation

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Background: There is considerable heterogeneity in effectiveness of telehealth interventions for COPD patients quality of life, psychological distress and healthcare utilisation. One potential reason for the variations in results is that some telehealth interventions are not effective in changing patient self-care behaviours. This research focuses on the extent to which providing people with tools to monitor their condition can improve self-care behaviours.

Methods: The Chronic Obstructive Pulmonary Disease cohort of the Whole Systems Demonstrator Trial is a pragmatic GP clustered RCT evaluating TH in the UK from three regions in England. All patients at a participating GP practice were deemed eligible for inclusion in the study if they were diagnosed with COPD.

Findings: 447 participants completed baseline and either a short (4 months) or long term (12 months) follow up. There was a trend of improved self-care behaviours, but there were no trial arm differences between telehealth and usual care groups ($p > 0.05$)

Discussion: Although TH showed minimal benefit in COPD patients who were not preselected to be at increased risk of acute exacerbations, in the longer term follow up, not shorter-term, these improvements could not be explained by self-care behaviours or self-efficacy to perform self-care behaviours. TH is a complex intervention and should be embedded in a service that is evidenced based. Future research should monitor the fidelity of telehealth interventions to assess their internal validity, along with the monitoring of process variables that are sensitive enough to detect changes in the target population for the specific telehealth intervention.

10:15 - 10:30

Using the web to encourage help-seeking for symptoms indicative of lung cancer: a feasibility study

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Background: People with lung cancer often delay presentation of symptoms to health services. There is a growing tendency to research symptoms online. We developed a Web-based intervention to encourage helpseeking. This study assesses the feasibility of testing this intervention in a randomised trial.

Methods: The intervention is tailored to individuals' symptoms and risk factors and targets beliefs and attitudes towards help-seeking based on the Theory of Planned Behaviour (TPB). On entry to the website, participants (N = 130) complete a survey about symptoms and risk factors. They are then randomised to one of four conditions: (1) tailored, TPB-based information, (2) TPB-based information, (3) tailored information and (4) a generic lung cancer website. Thereafter participants complete another survey about their intentions to seek help. Differences between conditions are analysed using the Kruskal Wallis test and Dunn-Bonferroni approach.

Findings: Participants in the tailored, TPB-based condition reported significantly higher intention to seek help than those in the tailored condition without TPB-components ($p=0.04$). However, differential dropout occurred, most likely due to differing lengths of the conditions. Participants' comments suggested many had already sought help, with inconclusive outcomes.

Discussion: Websites about lung cancer could increase their impact on help-seeking by incorporating TPBcomponents, but assessment in a full randomised trial is necessary. For the full trial, all conditions will be shortened to the same length to prevent differential dropout. We will emphasise NICE guidelines for urgent referrals, to provide useful information to those who have already sought help and think they need further investigation.

Mechanisms of change and experiences of interventions

9:00 - 10:30 | FORBES SUITE

9:00 - 9:15

Adherence in multimorbidity: mixed methods study of patients with diabetes and end stage renal disease

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Introduction: Patients with coexisting Diabetes Mellitus and End-Stage Renal Disease (DM-ESRD) represent the fastest growing and most frail subgroup of the ESRD population. Multimorbidity can intensify treatment demands and adversely impact behavioural and emotional outcomes. The study aimed to document prevalence and factors associated with psychological distress and adherence outcomes in DM-ESRD.

Methods: A mixed-methods study including interviews (n=61) and a cross-sectional questionnaire survey with DM-ESRD patients (n=221) in Singapore (59.8 years; 60.6% male; 54.8% Chinese). Measures included the Hospital Anxiety and Depression Scale, UCLA Loneliness Scale, Beck Hopelessness Inventory and measures of Health Literacy, Illness/Treatment Perceptions, Nutritional Quality-of-Life and Adherence indicators (self report and clinical markers).

Results: Interpersonal tension and challenges related to appetite and complexity of diet dominated narratives. Survey data indicated high rates of distress (57%; 53.6%; 52.9%; 62.9% for depression, anxiety, loneliness & hopelessness, respectively) and non adherence (ranging between 19% to 62.9% across aspects of renal and diabetes regime components). Multivariate modelling indicated that Health Literacy dimensions (communication, support, obtaining/appraising information and Nutritional QOL were associated with distress indicators (ps <.05). Negative illness perceptions (treatment burden), low health literacy (provided support, obtaining/appraising information) were associated with low adherence indicators (ps <.05).

Conclusion: DM-ESRD patients find diet and health care communication/navigation challenging and experience psychological distress. Carefully tailored interventions are needed to support and empower patients for manage coexisting DM ESRD

9:15 - 9:30

How psychological interventions reduce symptom severity in irritable bowel syndrome: a systematic review of mechanisms

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Irritable Bowel Syndrome (IBS) is a functional gastrointestinal disorder characterised by abdominal pain and altered bowel habits. It is estimated to affect 10-22% of the UK population. The use of psychological interventions in IBS is becoming more commonplace. There is substantial empirical evidence supporting the efficacy of the Cognitive Behavioural approach to IBS in the reduction of symptom severity and enhancement of quality of life (QoL). Nevertheless, psychological approaches are often the last resort, once medical and dietary approaches have been tried. Furthermore, it is often assumed that psychological approaches to IBS predominantly target and alleviate the psychiatric comorbidity, rather than the physical complaints.

The present review included studies conducting mediation analysis in the context of psychosocial interventions for IBS, focusing on the outcomes of symptom severity and/or QoL. The aim of the review was to assess whether changes in outcome relied predominantly on changes in cognitions and behaviours, or changes in anxiety/psychological distress.

Results of the review would indicate that change in cognitions are most likely to be the key mechanism by which psychosocial interventions produce change in both outcomes, rather than anxiety or distress. A theoretical model is proposed to illustrate the process by which cognitions may be able to exert such an effect in IBS. It is proposed that this model may be applicable to other persistent physical symptom conditions.

9:30 - 9:45

“A light bulb moment!” Experiences of delivering Physiotherapy informed by Acceptance and Commitment Therapy (PACT)

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Background: Chronic low back pain (CLBP) is a common cause of pain, disability and time off-work in the UK. It generates considerable suffering and costs the NHS over £1 billion a year. Current physiotherapy treatments are moderately effective. Combining theory-based psychological methods with physiotherapy could improve outcomes for people with CLBP. Physiotherapy informed by Acceptance and Commitment Therapy (PACT) is a novel treatment being evaluated in the PACT trial (www.controlled-trials.com/ISRCTN95392287). This nested longitudinal qualitative study aimed to explore the feasibility and acceptability of PACT training and treatment delivery.

Methods: Individual semi-structured interviews were conducted by independent researchers. Physiotherapists were interviewed three times over 18 months: after training, six months later and at the end of treatment delivery. Interviews were audio recorded, transcribed verbatim and analysed using the framework approach to generate key themes. Respondent validity and independent coding by another researcher were conducted to check the validity of emergent themes.

Findings: Eleven physiotherapists (Band 6-8; mean age 40 years, range 26-52; 8 females) from three NHS hospital trusts in SE England were interviewed. Four themes emerged: 1) Barriers and facilitators to implementing training 2) Value of supervision and support throughout the trial 3) Challenging personal and patient responses 4) Importance of context for translation into routine care.

Discussion: PACT was acceptable and feasible, with positive perceived outcomes regarding the development of competency and facilitation of self-management. Findings suggest PACT could successfully broaden the scope of practice of physiotherapists treating CLBP and inform future research in this area.

9:45 - 10:00

Experiences of breathing training for asthma: qualitative process analysis of participants in the BREATHE trial

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Background: Poor symptom control is common in asthma, and breathing training exercises may be an effective method of self-management. This study aimed to explore the experiences of participants in the intervention arms of the BREATHE trial, which explored the effectiveness of breathing training as a mode of asthma management.

Method: 16 people with asthma (11 women, 8 per group) who had taken part in the intervention arms of the BREATHE trial (breathing training delivered by DVD or face-to-face sessions with a respiratory physiotherapist) took part in semi-structured telephone interviews about their experiences. Interviews were analysed using thematic analysis.

Findings: Breathing training was perceived positively as a method of asthma management. Motivations for taking part included being asked, to enhance progress in research, to feel better/reduce symptoms, and to reduce medication. Participants were positive about the physiotherapist, liked having the materials tailored, found seeing her motivational, and liked the DVD and booklet. The impact of breathing training following regular practice included increased awareness of breathing and development of new habits. Benefits of breathing training included increased control over breathing, reduced need for medication, feeling more relaxed, and improved health and quality of life. Problems included finding time to do it, and difficulty mastering techniques.

Discussion: Breathing training was acceptable and valued by almost all participants, and many reported improved wellbeing. Face to face physiotherapy was well received. However, some participants in the DVD group mentioned being unable to master techniques.

10:00 - 10:15

Acceptability of a workbook intervention to support return-to-work for cancer survivors

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Background: Over 100,000 people of working age receive a diagnosis of cancer annually in the UK and returning to work is recognised as a key aspect of cancer survivorship and returning to normality post-treatment. However, returning to work can present a number of challenges. This study aimed to explore the engagement and experiences of cancer survivors participating in a workbook based intervention (WorkPlan) to support return to work.

Methods: Twenty cancer survivors who were recruited from the intervention arm of the WorkPlan feasibility trial participated in a semi-structured telephone interview exploring engagement with the intervention, factors affecting engagement and perceived usefulness of the intervention. Interviews were audio recorded, transcribed verbatim and analysed using a Framework approach.

Findings: Engagement with the intervention materials was good. Analysis of the interviews identified three super-ordinate themes and these related to the importance of clear communication, the role of the employer in the return to work process and learning to cope in new ways. The study highlighted the diverse support needs of cancer survivors in the return to work process.

Discussion: The present study identified positive engagement with a workbook based intervention to support return to work. Workbook based interventions **that are focussed on making sense of one's illness and on practical planning activities** offer the potential to be both effective and well received by cancer survivors. Future research could consider the support needs of self-employed individuals and the role played by employers in the return to work process.

10:15 - 10:30

Living well with a chronic condition: service users' perspectives of a selfmanagement intervention

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Aim: The outcomes of self-management interventions (SMIs) for people living with chronic conditions, or long-term conditions (LTCs), are commonly assessed using quantitative measures. Few studies ask people with LTCs to explain, in their own words, what aspects of the intervention they valued.

The study aimed to explore the valued features and outcomes of a Health Trainer (HT) service from the perspective of people accessing the service.

Methods: The study used Grounded Theory methods to evaluate a HT service in the North of England. Interviews with eight service users were conducted, transcribed and then analysed using initial, focused and theoretical coding.

Findings: The analysis resulted in the development of a preliminary model, which reflects the findings that the HT service was valued because it contributed to three outcomes: regaining emotional strength and stability; reappraisal of role and identity; and social engagement. Health Trainers performed four related roles that were perceived to contribute to these outcomes: Conceptualizer, Connector, Coach and Champion.

Discussion: The study proposes a nuanced person-centred interpretation of self-management, which extends well beyond symptom-management or a healthy lifestyle. Living well with a LTC encompasses psychological adjustment, social engagement and adjusted self-identity and life goals. These themes, which are prevalent in other qualitative investigations of self-management, offer a framework for developing and reviewing SMI strategies.

Similarly, the roles of the HT identified within this evaluation, suggest a framework for mapping and reviewing the primary functions of SMIs, particularly those that are located within a non-clinical setting.

Roundtables

Wednesday, 24 August
14:00 - 15:30 – GORDON B SUITE

Different perspectives on the conceptualization of motivation for health-related behaviours

Convenors: Prof Robert West and Prof David Williams

Purpose: This roundtable will focus on different approaches to conceptualizing motivation in order to illustrate the current breadth of the concept, with the goal of working toward consensus.

Objectives: (a) Illustrate the breadth of the motivation concept by providing some examples; (b) solicit from the audience additional approaches to conceptualizing motivation; (c) discuss the pros and cons of working toward consensus; (d) solicit from the audience suggestions for working toward a consensus conceptualization of motivation.

Rationale: The contributors for this roundtable are part of a working group on the conceptualization and assessment of motivation (CAM) that grew out of discussions at the 2015 EHPS conference. The concept of motivation is crucial for a more complete understanding of many important health-related behaviours (e.g., smoking, diet, exercise, sex, and drug and alcohol abuse) that, for many people, are within volitional control and are thus largely a function of motivational processes.

Summary: Robert West will begin with a long-standing conceptualization of motivation in psychology as 'All those mental processes that energise and direct behaviour'. Core concepts include impulses, inhibition, desires, evaluations and plans. These can be represented as interacting states at a given moment that are subject to immediate influence from the internal and external environment, interacting with dispositions that are subject to learning and maturation processes. Mark Conner will discuss distinctions between intentions, desires and expectations and their relative overlap with the broader concept of motivation. Marie Johnston will discuss switching between goals as it relates to theories of fatigue and ego depletion, using an electrodynamic analogy. Alex Rothman will focus on the need to better understand if and how motivation operates at different phases of the behaviour change process, with particular attention to possible distinctions between initiation, maintenance, and habits. Susan Michie will present some preliminary data from the Theories and Techniques Project on the definition of motivation as taken from published reports in health psychology journals. Contributors' presentations will be brief thus allowing ample time for input and discussion with the audience.

Wednesday, 24 August

18:00 - 19:15 – GORDON SUITE

Special Roundtable: 'Enhancing the Impact of Health Psychology on Policy and Practice'

Convenors: Dr Daniel Powell, Ms Eleanor Bull and Prof Marijn de Bruin

Many of our research studies evaluate behavioural interventions to improve health, but very few of these change health care policy and services. What are the reasons for this; are health psychology interventions not very effective? Are the primary outcomes in trials not relevant to policymakers, practitioners and the public? Are our research grants too small to run large, influential trials? Are key results not disseminated effectively? Or perhaps there is a strong enough science, but the problem lies elsewhere: the absence of a system of professionals adequately trained in delivering highquality health psychology interventions. Indeed, why are health psychology practitioners still such a scarce resource?

This roundtable will focus on these and related questions, and aims to formulate an agenda for health psychologists, policymakers, patient organisations, and practitioners: what can be done to enhance the impact of health psychology on policy, practice, and people's health and well-being?

Thursday, 25 August

14:00 - 15:30 – CROMBIE A SUITE

Health promotion among musicians: opportunities for health psychology

Convenors: Ms Raluca Matei and Prof Jane Ginsborg

Purpose: To explore future directions for research, and application of health psychology to promotion of musicians' health and well-being.

Objectives:

1. To propose that musicians' health is an under-explored area from the perspective of health psychology and that musical performance provides an exciting context for creative and novel research collaborations
2. To summarize and critically assess existing health promotion interventions among musicians from interdisciplinary (health psychology, physiotherapy and education) and cross-cultural (UK, Sweden and Australia) perspectives

Rationale: The physical and psychological demands of training and practice required for musicians to perform to a high standard can have deleterious effects on health and well-being, arising mostly from musculoskeletal and performance anxiety issues. This has been demonstrated across a range of musical instruments and cultures. Musicians' health remains an under-researched topic. In addition, only a few health promotion courses in music colleges have been evaluated to date. Given the development of relevant models and techniques in health psychology, there is scope for pioneering and interdisciplinary research with respect to health promotion among musicians. Musical Impact, an AHRC-funded research project involving all nine UK conservatoires (2013-2017), seeks to enhance the health and well-being of musicians in Britain. It is currently the largest project of its kind worldwide, representing an ambitious attempt to bring health psychology and behaviour change to the realm of the performing arts.

Summary:

Ann Shoebridge. Rationale for identifying target behaviours. Musicians of all ages are at risk of pain or injury from playing their instruments. Risk factors derived from surveys, and cognitive barriers to healthy playing identified by conservatoire teachers will be discussed.

Naomi Norton. Working with music educators to improve health promotion. Music students tend to approach their music teachers for health-related advice. The results of a large-scale research project reflect teachers' need for health training.

Jill Francis. The need for multilevel implementation research will be investigated. Contextual factors are: (a) target behaviours are likely to conflict and (b) performing musicians exhibit a relatively high capacity for self-regulation.

Agneta Larsson. A multiple behaviour change intervention for healthy playing among music students: A study protocol and rationale for a web-based intervention will be described.

Raluca Matei. Intervention proposals: applying behaviour change techniques to both health- and music practice-related behaviours within the first health course of its kind at the Royal Northern College of Music, investigating the effects of reframing anxiety on performance quality and exploring sitting and standing during practice.

Thursday, 25 August

14:00 - 15:30 – FORBES SUITE

Health psychology practice in Europe: taking stock and moving forward together

Convenors: Dr Molly Byrne and Dr Vivien Swanson

Purpose: To consolidate a health psychology practice network within EHPS and promote collaboration in progressing training and career development in health psychology practice across Europe.

Objectives:

1. To disseminate the findings of a European survey on health psychology practice.
2. To present five different 'case studies' from member countries of the EHPS: representatives from Ireland, Scotland, and three other countries (Austria, Australia and Cyprus) will describe how health psychology practitioners are trained and employed in their country.
3. To generate discussion, share experiences and solutions, and promote collaboration in progressing health psychology practice training and careers in countries represented within the EHPS.

Rationale: Across Europe, there is huge potential for health psychologists to contribute to governments' health improvement agendas, but currently there is much diversity in the way health psychology practitioners are trained and employed. To our knowledge, Scotland is the only country in Europe to have publically funded training positions for practitioner health psychologists. In most European countries there is no clear career pathway for Health Psychology practitioners.

At the EHPS conference 2015, the convenors of this roundtable session (MB and VS), organised an informal meeting to get the views of EHPS delegates about different models of training for health psychology practitioners across Europe. This meeting was well attending (by >70 delegates) and many agreed that it is important that EHPS members work together to enhance opportunities for expanding health psychology practice across Europe.

As a first step, we have conducted a European survey to collate more information on what is happening in the different countries. We administered our survey to all EHPS national delegates, from 40 countries. We have received 24 responses to this survey.

Summary: During this roundtable session, we will present the findings of our European survey on health psychology practice. Five contributors will speak for 10 minutes each, to outline the way in which health psychology practice is organised in their country. We will then facilitate a structured discussion to generate ideas about how EHPS can support delegates from a range of different countries to collaboratively progress health psychology practice training and careers in their countries and across Europe.

Friday, 26 August

09:00 - 10:30 – FLEMING AUDITORIUM

Challenges in assessment in health psychology

Convenors: Prof Yael Benyamini and Dr Evangelos Karademas

Purpose: To identify problems (and possible solutions), raise discussion about the challenges, and examine the potential of recently developed assessment methods in Health Psychology.

Objectives:

I. Identify current problems (e.g., content validity) and possible solutions;

II. Address recognised but often neglected issues (e.g., single items, self-report); try to clarify these problems and consider ways forward;

III. Consider the potential of recently developed technologies/techniques (e.g., digital methods, EMA) and identify possible benefits and pitfalls.

Rationale: Health psychology is reaching a stage of maturity where it is timely to reflect on the basic methods we use in order to answer key theoretical and practical questions, and to ensure that future health psychologists are trained in the best methods. Therefore the aim of this roundtable is to prompt discussion that might address these issues and advance our methods of assessment.

Summary: After an introduction to the overall problematics of assessment in Health Psychology by the co-chairs, Yael Benyamini (Israel) and Evangelos Karademas (Greece), each presenter will briefly discuss an aspect of the topic.

Aleksandra Luszczynska (Poland) will present the potential of applying new techniques and technologies to increase the quality and the reliability of collected data, as well as the several challenges and technical difficulties that their use entails.

Sofía López-Roig and María-Ángeles Pastor (Spain) will outline the challenges of taking an assessment from one culture and using it in another. They will address questions such as, is it possible for our instruments to maintain the concept between languages while also fitting the cultural target context?

Ronan O'Carroll (UK) will reflect on the cases where self-report measures are useful. He will briefly review the strengths and weaknesses of self-report versus objective measures and will argue that a combined approach is best.

Yael Benyamini (Israel) will address the issue of when single item measures are useful. She will ponder the question of the conditions under which a single item could suffice or even surpass the utility of a multi-item scale, and the purpose of using a single item - to integrate information or to capture the essence of a construct.

Finally, Marie Johnston (UK) will query whether the assessments used in Health Psychology have content validity and she will respond to the question: do the measures we use have content validity? Are they representative of the intended theoretical construct? Marie Johnston will also coordinate the discussion with the audience that will follow.

Friday, 26 August

14:00 - 15:30 – GORDON A SUITE

Using Bayesian analysis to get the most out of health psychology data: a practical primer

Convenor: Prof Susan Michie

Purpose: To illustrate how Bayesian data analysis can markedly improve the inferences that can be drawn from health psychology data.

Objectives:

- i) To provide an historical perspective on Bayesian inference;
- ii) To demonstrate the application of Bayes factors and credibility intervals in health psychology,
- iii) To discuss potential barriers to and facilitators of the use of Bayesian methods;
- iv) To provide practical advice for researchers who wish to begin using Bayesian methods themselves or who want to better understand and critique the work of others who use these methods.

Summary: Important changes are sweeping through the world of scientific inference and statistical analysis. The revolution has been made possible by the increased computational power of modern computers, although its core, Bayes' Theorem, has been known for more than 250 years.

This roundtable will explain why the Bayesian movement is gathering pace and how to become part of it. An important message is that with modern tools and scientific thinking, researchers can improve their inferences by supplementing classical hypothesis testing with a Bayesian approach. In addition, reviewers need to become aware of how to assess the use of these increasingly popular methods.

The classical frequentist approach focuses on the probability of observed data, given a null hypothesis. When applied correctly, it provides a decision procedure with controlled long-term error rates. One of the limitations of this approach is faced when a p-value is not "statistically significant"; non-significant p-values give no information about whether the data can be considered evidence for the null hypothesis or whether there is simply not enough data to conclude anything with confidence. Bayesian inference produces the relative likelihood of the experimental hypothesis versus the null (or any other competing hypothesis). This approach allows one to determine when results support a hypothesis, when they count against it, and when more data should be gathered.

RW will introduce an historical perspective and background on Bayesian analyses. Using data on behaviour change, MH will exemplify how Bayes Factors can be used to extract information additional to p-values. NB will introduce how the Bayesian approach can be applied in mixed models of intensive longitudinal data. He will show how Bayesian credibility intervals are much more useful and interpretable than frequentist confidence intervals.

The session will be interactive and have a practical focus, so that attendees can come away with a clearer indication of how to apply Bayesian analyses in their research.

End of Abstracts

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