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Effects of the covid-Pandemic: The Role of Family Culture and Effects on well-Being

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ABSTRACT

During the COVID-pandemic, governments across the globe put restrictions in place to curb the spread of the virus. The present study aimed to investigate links between family models and subjective well-being in light of these restrictions. A total of $N = 244$ participants completed our online questionnaire during the strict lockdown in April-May 2020 in Luxembourg. Using cluster analysis, we identified three family models: psychologically interdependent families (focus: cohesion and social support), independent families (focus: autonomy), and interdependent families (focus: enmeshment, cohesion, social support). The independent family cluster showed lower well-being before and during the pandemic compared to psychologically interdependent families. Results are discussed regarding the question of whether different relations between family models and subjective well-being were an effect of the pandemic or if they were merely made visible through the pandemic, and implications of these findings are discussed in the family model framework.

KEYWORDS

Family models;
enmeshment; cohesion;
social support; autonomy

Introduction

Family is an organization of primary relationships that unites its members and is essential for healthy development, social understanding, and well-being (Scabini & Manzi, 2011). The COVID-pandemic has had a profound effect on how family relations could be lived. Intergenerational personal contact between adult children and their parents who do not share the same household was restricted because of social distancing measures while nuclear families sharing a household spent more time together due to lockdown and exit restrictions. Within the present study we investigated possible effects of the COVID-pandemic on well-being according to different family models. We took Kağıtçıbaşı's (2005, 2013, 2017) family models theory as a basis. To capture the different family models and possible effects of the pandemic on well-being, an online survey was conducted between April and May 2020 in Luxembourg and the Greater Region during the lockdown.

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Participants were asked about their perceptions of family culture and well-being before and during the crisis to investigate whether the different family models were related distinctly to well-being as perceived during the pandemic and before. A further aim of the study was to examine to what extent participants' subjective evaluations of their well-being indicate a change within different family models during the pandemic, to identify possible protective factors within the family.

Theoretical framework

Family culture

The family is considered the primary factor in socialization. Social learning can take place when members of different generations interact within their family (Trommsdorff, 2006). In this way, children are, from the very beginning, in contact with specific practices, routines, and paradigms of their families, which together form a specific family culture (Albert & Barros Coimbra, 2017). Family culture thus describes how family relationships are expressed and how different family members interact with each other. This interaction can be further explained by the concept of *relationship regulation*, which describes how individuals regulate their relationships with others. It includes both, the effort of self-regulation and the regulation of the behavior of others (Lang et al., 2009). Especially in the parent-child relationship, this regulation takes place through a negotiation of autonomy and relatedness (Greenfield et al., 2003). According to Ryan and Deci (2000) autonomy and relatedness are two particularly important basic needs. Relatedness includes “love, attachment, intimacy, caring, loyalty, mutual obligations, and belongingness,” while autonomy can be described as “a constellation of phenomena, centering on personal choice, self-agency, and psychological independence . . .” (Rothbaum & Trommsdorff, 2007, p. 462).

A central aspect of family functioning is *family differentiation*, which focuses on the degree of distinctiveness and relatedness between different family members (Sabatelli & Mazor, 1985) and can be further specified by the two dimensions of cohesion and enmeshment (Manzi et al., 2006). Highly cohesive relationships involve connectedness and closeness, whereas enmeshment is characterized by a “lack of tolerance for individuality, lack of separateness, intrusiveness, psychological control and dependence” (Manzi et al., 2006, p. 674). According to Cigoli and Scabini (2006) cohesion describes the strength of family ties as it includes emotional relatedness and social support. In contrast, enmeshment portrays whether the boundaries of individual family members are respected or tend to blend.

Autonomy and relatedness seem mutually exclusive at first glance, but since both are basic needs, they should be able to coexist (Beisenkamp et al., 2004;

Kağıtçıbaşı, 2013). Kağıtçıbaşı (1996, 2005, 2013, 2017) developed the Family Change Theory (FCT) and Theory of Self – exploring the links between self, family, and culture. As she explained, “these theories have the *autonomous-related self* at their point of intersection” (Kağıtçıbaşı, 2013, p. 223). Kağıtçıbaşı thus integrated both basic needs, and according to her, autonomy includes two aspects: *agency* and *interpersonal distance*. Agency describes the capacity to act autonomously and ranges from autonomy to heteronomy. The dimension of interpersonal distance deals with relationships with others and ranges from relatedness to separation. From the combination of the two dimensions, four types of self can be distinguished. Furthermore, within the resulting four fields, Kağıtçıbaşı describes four family models, which differ in their dependence and independence in material (financial and material advantages) and psychological (relatedness and family relationships) aspects. *Families with (total) interdependence* are characterized by close family relationships, little autonomy, and intergenerational dependence in both material and psychological aspects. In *independent families*, however, there are clear, non-overlapping boundaries between the individual members so that individual, material, and psychological independence can be maintained. *Psychologically interdependent families* can be seen as a synthesis of the other two and are characterized by a high degree of relatedness (dependence in psychological aspects) and less material dependence. The fourth model describes *neglecting families*, which are characterized by obedience and rejection. For a summary of the different family models, see Mayer (2013) and Albert et al. (2022).

In the present study, we integrated the model of Manzi et al. (2006) into that of Kağıtçıbaşı (2005, 2013; see Figure 1). We define independent families as

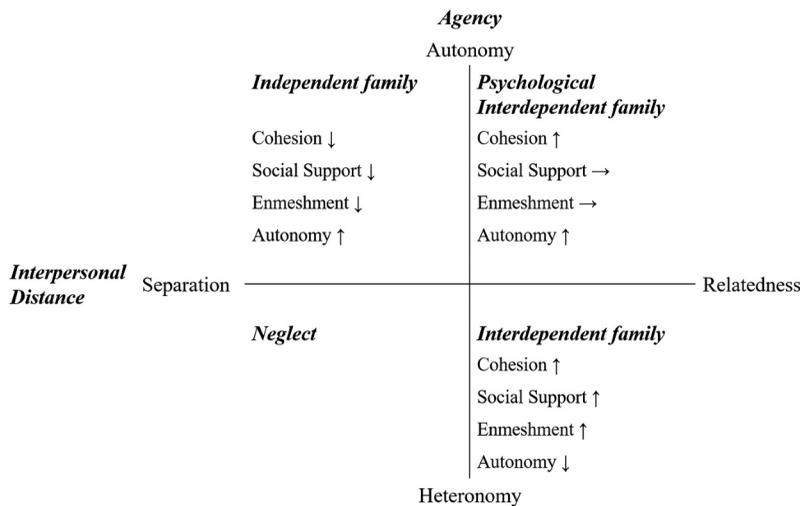


Figure 1. Three family models: ↓: low expression, →: medium expression, ↑: high expression, adapted from Kağıtçıbaşı (2005, 2013).

families that place great importance on autonomy, both at the material and emotional level. Less importance is placed on relatedness expressed as lower cohesion, social support, and enmeshment. In psychological interdependent families, relatedness expressed as cohesion is important, but family members are also granted autonomy. There is some level of social support and enmeshment. In contrast, cohesion, social support, and enmeshment are highly prominent in interdependent families, whilst autonomy is not emphasized. The fourth theoretically possible family model, namely neglect, is characterized by obedience and rejection.

Kağıtçıbaşı's FCT was developed as a global model, comparing different cultures. According to the FCT, the independent family model predominates in Western cultures. However, the difference in terms of (more or less) emotional closeness arises compared to non-Western cultures. As Mayer (2013), for example, pointed out Western families are not distant, but rather show a high degree of intergenerational solidarity. In their comparative study, Mayer et al. (2012) showed that the three family models can also be found within the same cultural context, although differing in prevalence. For example, in the German sample, nearly 60% of the adolescents were clustered in an independent family model and 35.3% in the emotional (here psychological) interdependent model. Among mothers, both independence and psychological interdependence models were equally distributed. The family model of (total) interdependence was rare for both groups, suggesting a dominance of the independent and psychologically interdependent model within this cultural context. Manzi et al. (2006) found cultural differences between two Western countries, namely the UK and Italy. The dimensions of cohesion and enmeshment were intercorrelated differently and related differently to well-being in each country. Thus, looking at family cultures within different cultural contexts highlights the need for a more differentiated approach. We, therefore, integrated Kağıtçıbaşı's FCT with Manzi and colleagues' family differentiation to contribute to a more differentiated way of describing family models within a selected cultural context.

Family models, family aspects, and their influence on well-being

The family is an important point of reference and orientation, especially for children (Beisenkamp et al., 2004). In the presence of a stable and positive relationship with their primary caregivers, young people can feel secure (Kreppner & Klöckner, 2002) and develop both autonomy and relatedness (Allen et al., 2003). Thus, children's general well-being is directly affected by the relationship quality with their parents (Klöckner et al., 2002). The question that follows is to what extent and how autonomy and relatedness in family relationships are related to well-being at later stages in the lifespan.

As mentioned above, autonomy and relatedness are basic needs, and their fulfillment will contribute to individual well-being (Ryan & Deci, 2000). Although there are different ways of exercising autonomy, the *perception* of autonomy is of particular importance for the well-being (Bridges, 2003) and cultural contexts affect family culture, the importance placed on high or low autonomy, and the shaping of relatedness.

The relationship between autonomy, relatedness, and well-being has been investigated by Manzi et al. (2006) among adolescents aged between 17–21 years from Italy and the United Kingdom. These two countries were assumed to have different family cultures. In both countries, cohesion predicted better well-being. A lack of autonomy, as in families with a high level of enmeshment, was associated with high levels of distress and low life satisfaction in the UK. In Italy, however, this connection could not be established. This finding suggests possible cultural differences concerning cultural interpretations of autonomy and relatedness. If personal expectations regarding autonomy and relatedness are met, and one's own needs for autonomy and relatedness are in line with the family model experienced, this will be beneficial for the experience of well-being. However, if one's own needs are not in line with the family model, this can be perceived as very stressful, and well-being can decline.

COVID-19, family culture and effects on well-being

In early March 2020, the first case of COVID-19 occurred in Luxembourg. In mid-March, the Luxembourg government decided on a lockdown in response to the novel virus, to contain its spread. Schools were closed, events involving gathering of people were banned, non-essential services and shops (e.g. clothing shops, hairdressers, cafés and restaurants) were closed, and a curfew was imposed on the general population. This meant that people were only allowed to leave their houses for necessary errands (food shopping, work, visits to the doctor, etc.) and leisure activities had to be carried out alone. Furthermore, people who did not live together in the same household were no longer allowed to have direct contact with each other. This also applied to family members who did not live together (The Luxembourg Government, 2020).

These social distancing measures were necessary to contain the spread of the virus and to prevent overburdening of medical care structures (OECD, 2020). Uncertainty, social isolation, and even fear of the virus itself can be perceived as threatening and lead to an increase in stress levels. In fact, one in three inhabitants of Luxembourg experienced a decrease in their mental health (Peroni & O'Connor, 2020) – with younger adults being most affected. In the 18–44-year-old age group, 37% reported a decrease in their mental health, compared to 22% of those over 65.

Social relatedness and trust in others are important factors for subjective well-being and were potentially threatened during the COVID-pandemic (OECD, 2020). During this period, social support and the maintenance of social relationships with people outside the household were only possible via social media or telephone. Studies show that social support, especially from loved ones such as the family, is an essential aspect of coping with traumatic events (e.g. Hawkins & Manne, 2004). Horesh and Brown (2020) have described the COVID-pandemic as a new form of traumatic event, which has consequences in many different aspects of our society and can lead to anxiety and stress. Thus, relatedness expressed in terms of social support and cohesion is an important aspect of crisis coping. Cohesion within the family has also been associated with resilience to crises and appears to moderate the psychological impact of traumatic events (Hawkins & Manne, 2004).

Due to contact restrictions, it was more difficult to provide direct social support for people outside the same household. However, support could also be provided indirectly (e.g. by helping with errands or phone calls etc.) with potentially positive effects on well-being. Since social support is considered a protective factor in crisis situations, the pandemic may have had less impact on well-being in families who were able to provide direct or indirect forms of social support.

The measures imposed to contain the virus limited autonomy and freedom. As mentioned above, autonomy has been associated with greater well-being in previous studies. By externally limiting autonomy, well-being may have decreased during the crisis. Due to the curfew, social distance measures, closed schools, and working from home, family members living together spent more time together than usual. On the one hand, this could have a positive effect on family relatedness. However, since this increased togetherness was determined from the outside, existing conflicts may also have intensified (OECD, 2020). Social distance measures also restricted voluntary contact with friends and family members outside the household – also with possible adverse effects on well-being. Interestingly, the duration of the crisis was undetermined – although lockdown measures were announced to last until a certain date, prolongation, and repetition were possible and enacted several times. This added a level of uncertainty to the situation and forced people to live in the present while limiting their sense of control and opportunities to make concrete plans for the (near) future. In fact, as Brescó de Luna and van Alphen (2022) note, people were captured in “a feeling of being stranded in the present – something vividly experienced during the COVID-19 crisis, especially during lockdown – and characterized by the impossibility of planning ahead,” making it at the same time hard to connect current experiences to a very different past.

Research questions

Using a quantitative, person-oriented approach, the aim of the present study was to investigate the impact of the imposed COVID-related restrictions on different family models and subjective well-being. As explained above, we brought together the approaches by Kağıtçıbaşı (2013) and Manzi et al. (2006), creating a combined family model (see Figure 1).

During the COVID-induced lockdown, direct social interactions were curtailed, and autonomy was restricted, making it difficult to live out the preferred family model. We hypothesized that being prevented from living the preferred family model – either by being separated from family members living in other households or the contrary – being forced to spend much time with those in the same household, coupled with not knowing the duration of these restrictions, would lead to increased stress and lower well-being.

Method

Sample and procedure

A total of $N = 251$ participants completed an online questionnaire. Seven participants did not live in Luxembourg and the Greater Region and were therefore excluded. The average age was $M = 35$ years ($SD = 12.2$) ranging from 18 to 80 years. There were 178 (73.0 %) female and 65 (26.6 %) male participants. One person did not want to be assigned to either gender. The majority of participants, 197 (80.7 %) were living in Luxembourg at the time of the survey, 42 (17.2 %) in Germany, the remainder in France ($n = 3$, 1.2 %) or Belgium ($n = 2$, 0.8 %). Most of the participants were Luxembourgers ($n = 205$, 84.0 %), of which 21 participants had a second nationality.

Participants completed an online questionnaire either in French or German. They were informed that participation was voluntary and no remuneration was offered for participation. We recruited via social media (i.e. Association of Luxembourg Psychology Students), professional networks and through the University of Luxembourg network. Inclusion criteria were age, - participants had to be at least 18 years old – and place of residence (Luxembourg or Greater Region at the time of the survey). Participants simply opened the link to the survey and completed the online questionnaire autonomously. The survey was conducted between mid-April and mid-May 2020, when strict curfew rules due to the COVID-19-pandemic were imposed. This means that meeting people not living in the same household were not allowed. People were only allowed to leave their homes for absolutely necessary activities (food shopping, work and visits to the doctor). The schools were also closed for most of the time.

In order to capture the impact of the pandemic, the questionnaire was divided into two parts. First, the participants answered questions about their

well-being, family culture and closeness to their parents *in general*, i.e. pre-COVID. Before answering the second part, participants were instructed to put themselves in the current situation with COVID lockdown measures in place (social distancing, visiting restrictions, curfew etc.). They were then presented with the same questions again, but this time taking into consideration the *current* situation with Corona-related restrictions.

Measures

Sociodemographic information

Participants were asked to provide sociodemographic information (gender, age, nationality, country of birth, school education, and current employment), and family characteristics (marital status of parents, country of birth of parents, number of siblings).

Well-being

The items used to assess general and domain-specific subjective well-being are based on the PWI-A (International Wellbeing Group, 2013), which were supplemented by specific items already used in the Luxembourg context (Albert & Barros Coimbra, 2017). Each of the nine items is rated using a five-point rating scale ranging from (1) “very dissatisfied” to (5) “very satisfied.” In the present study, a Cronbach’s alpha of $\alpha = .82$ was found for the composite score referring to the time before and $\alpha = .79$ with regard to the time since the pandemic.

Family culture

Family culture was measured by four dimensions, which refer to different practices, routines, and paradigms as perceived in the family (see e.g. Albert & Barros Coimbra, 2017). The dimensions enmeshment and cohesion were partly adapted from Manzi et al. (2006).

Enmeshment was assessed by five items (e.g. “In our family, everyone expects to know about each other’s affairs.”). The scale has a Cronbach’s alpha of $\alpha = .62$ referring to the time before and $\alpha = .55$ referring to the time during the crisis in the present study. In the study by Manzi et al. (2006), the Cronbach’s alpha was $\alpha = .73$ (Italy) and $\alpha = .65$ (U.K.).

Cohesion was measured by four items (e.g. “There is a strong sense of togetherness in our family”). An $\alpha = .87$ referring to the time before the pandemic and $\alpha = .70$ during the pandemic was found for this scale. In another study (Manzi et al., 2006), the scale had a Cronbach’s alpha of $\alpha = .78$ (Italy) and $\alpha = .88$ (UK).

Table 1. Mean values of the total sample in the different aspects on family culture and well-being before and at the time of the pandemic.

	before the pandemic			at the time of the pandemic		
	<i>M (SD)</i>	<i>Min</i>	<i>Max</i>	<i>M (SD)</i>	<i>Min</i>	<i>Max</i>
Enmeshment	3.2 (0.8)	1.4	5.4	3.2 (0.8)	1.0	5.2
Cohesion	4.4 (1.0)	1.0	6.0	4.2 (0.9)	1.0	6.0
Autonomy ¹	3.7 (0.9)	1.0	6.0	3.6 (1.0)	1.0	6.0
Social Support	4.4 (0.8) ²	2.2	6.0	4.3 (0.8) ³	1.0	6.0
Well-being	4.1 (0.6)	1.7	5.0	4.0 (0.6)	1.8	5.0

Note: ¹ $n = 243$; ² $n = 240$; ³ $n = 241$.

Expectations for intergenerational social support was measured by two items referring to support from parents (e.g. example “In our family, it is taken for granted that grandparents help take care of grandchildren.”) and 4 items concerning support from children (e.g. “In our family, it is expected that support is offered to older parents.”). The entire social support scale has a Cronbach’s alpha of $\alpha = .74$ for the time before and $\alpha = .70$ for the time since the crisis.

Autonomy was measured by three items (e.g. “In our family, everyone deals with their own problems.”; $\alpha = .59$ before and $\alpha = .69$ since the pandemic).

The individual items were rated using a six-point rating scale from (1) “strongly disagree” to (6) “strongly agree.” Descriptive statistics for the different elements of family culture and well-being before and during the pandemic are provided in [Table 1](#).

Data analysis

As in other family model studies (Mayer, 2013), we first performed a cluster analysis to identify family models prevalent in our study. Subsequently, we examined the influence of the family models on well-being before and during the pandemic, as well as the change of the well-being before and during the crisis. In particular, we explored the relationship of individual aspects of family culture (autonomy, cohesion, enmeshment, and social support) and the change of reports on well-being when referring to the time before and during the pandemic. To investigate the role of different aspects of family culture as possible protective or risk factors for subjective well-being during the crisis, we compared participants whose well-being decreased, remained the same or increased at the time of the pandemic. More precisely, we explored if they differ in terms of their expression of the four aspects of family culture.

Results

Family models in the Luxembourg context

We first examined whether the theoretically postulated family models (see Figure 1) can be found in the sample studied. The z-standardized scales for cohesion, autonomy, social support, and enmeshment (ratings *before* the pandemic) were entered in hierarchical cluster analysis using squared Euclidean distances and Ward's algorithm.

A three clusters solution was retained (see Figure 2), being the best compromise between parsimony and low error. To improve the cluster membership, a nonhierarchical K-means cluster analysis was also carried out. These three clusters mirror Kağıtçıbaşı's model and we also termed them psychological interdependence (Cluster 1), interdependence (Cluster 2) and independence (Cluster 3).

Psychological interdependence is the strongest represented cluster (42.9 %) in the sample. Within this cluster, we found low enmeshment, above average cohesion, average social support, and slightly low autonomy. The interdependence cluster (34.6% of the sample) features below average autonomy, but high enmeshment, cohesion, and social support, whereas the independence cluster (with 22.5% of the sample) was characterized by above sample average autonomy and below average enmeshment, cohesion and social support.

Mean values and standard deviations of individual aspects of family culture of the three clusters can be found in Table 2.

The three clusters did not differ in terms of age ($F(2, 237) = 0.69, p = .501$). Participants in the independence cluster had an average age of $M =$

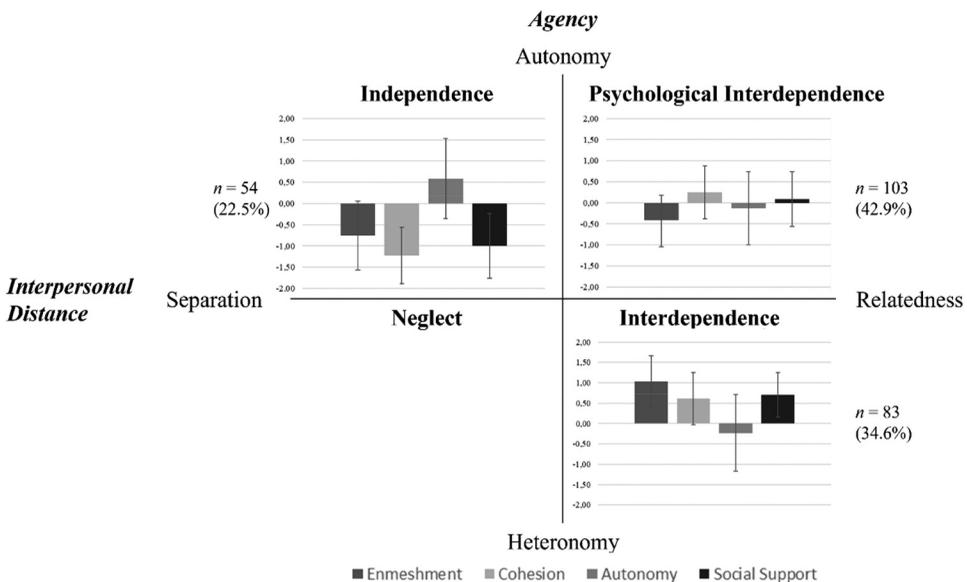


Figure 2. Distribution of the individual aspects of family culture in the three clusters.

Table 2. Mean values of the z-standardized scales of the different aspects on family culture before the pandemic in the three clusters.

	Cluster 1 – psychological interdependence (n = 103)		Cluster 2 - interdependence (n = 83)		Cluster 3 – independence (n = 54)	
	M	SD	M	SD	M	SD
Enmeshment	-0.4	0.6	1.0	0.6	-0.8	0.8
Cohesion	0.2	0.6	0.6	0.6	-1.2	0.7
Autonomy	-0.1	0.9	-0.2	0.9	0.6	0.9
Social Support	0.1	0.7	0.7	0.5	-1.0	0.8

33.4 (*SD* = 12.5), in the psychological interdependence cluster *M* = 35.6 (*SD* = 11.9) and in the interdependence cluster *M* = 35.6 (*SD* = 12.4). Furthermore, there was no difference in terms of completed school years (*F* (2,236) = 1.39, *p* = .251; independence: *M* = 15.5, *SD* = 3.2; psychological interdependence: *M* = 16.5, *SD* = 4.0; interdependence: *M* = 16.3 *SD* = 3.9). But we found a significant link between gender and cluster membership (χ^2 (4, *n* = 240) = 13.09, *p* = .011). In the independent cluster, men were over-represented. Instead of the expected *n* = 14.4, there were *n* = 24 men in this cluster (women, on the other hand, were underrepresented, i.e. *n* = 30, instead of the expected *n* = 39.4). In the two other family models, the number of men was below the expected frequency.

Well-being before and during the pandemic

Next, we examined the relationship between the three clusters, as reported above, and subjective well-being before and during the pandemic with a one-way ANOVA (homogeneity of variance: Levene’s test, *p* > .05).

Before the pandemic, we found a significant difference between the three clusters (*F* (2, 237) = 4.78, *p* = .009, η^2 = .04). The Hochberg’s GT2 post-hoc Test revealed a significant difference between psychological interdependence and independence with psychological interdependence being associated with higher well-being than independence (Table 3).

Referring to the subjective well-being during the time of the pandemic, the three clusters differed again (*F* (2, 237) = 4.50, *p* = .012, η^2 = .04). The Hochberg’s GT2 post-hoc test showed a significant difference between

Table 3. Mean values of the different aspects on family culture before the pandemic in the three clusters.

	Cluster 1 – psychological interdependence		Cluster 2 –interdependence		Cluster 3 – independence	
	M	SD	M	SD	M	SD
WB before COVID	4.2	0.5	4.1	0.6	3.9	0.5
WB during COVID	4.1	0.5	3.9	0.6	3.8	0.6

Note: WB: well-being.

psychological interdependence and independence, with a higher well-being in the psychological interdependent cluster also during the pandemic (see Table 3).

Not only well-being might be rated differently during the pandemic but also aspects of family culture might be experienced differently. In order to examine the links between different aspects of family culture referring to the time before and since the pandemic with subjective well-being as rated then and now, we further calculated correlations as shown in Tables 4 and 5.

When referring to the time before the pandemic, there was a weak positive correlation between well-being and cohesion as well as social support, whereas a weak negative correlation was found between well-being and enmeshment as well as well-being and autonomy (see Table 4).

When referring to the time during the pandemic, there was a weak positive correlation between well-being and cohesion, and a weak negative correlation between well-being and enmeshment, similar to findings with regard to the time before the crisis; however, in contrast no significant correlations were found between well-being and autonomy or well-being and social support when referring to the time during the crisis (see Table 5).

Change in well-being: before and during the pandemic

We created a new variable for each participant to assess if well-being decreased, remained the same, or increased during the pandemic. We calculated a difference score of the mean value of well-being before and during the pandemic.¹ Based on this score, we divided our participants into three groups. For $n = 70$ (28.7 %) well-being remained the same (SAME), for $n = 49$ (20.1 %)

Table 4. Pearson product-moment correlation with aspects of family culture and well-being before the pandemic.

	Enmeshment	Cohesion	Autonomy	Social Support
Enmeshment	–			
Cohesion	.400**	–		
Autonomy ¹	–.061	–.343**	–	
Social Support ²	.434**	.544**	–.151*	–
Well-being	–.170**	.235**	–.154* ¹	.176** ²

Note: ¹ $n = 243$; ² $n = 240$. * $p < .05$; ** $p < .01$.

Table 5. Pearson product-moment correlation with aspects of family culture and well-being during the pandemic.

	Enmeshment	Cohesion	Autonomy	Social Support
Enmeshment	–			
Cohesion	.466**	–		
Autonomy ¹	–.001	–.328**	–	
Social Support ²	.464**	.520**	–.077	–
Well-being	–.160*	.156*	–.051 ¹	.110 ²

Note: ¹ $n = 243$; ² $n = 241$. * $p < .05$; ** $p < .01$.

well-being increased at the time of the pandemic (INCREASE) and for $n = 125$ (51.2 %) well-being decreased (DECREASE). These three groups were examined for possible differences in their aspects of family culture before and since the pandemic (see Table 6 for an overview of the mean values).

The three groups differed in terms of their average age ($F(2, 241) = 3.05, p = .049, \eta^2 = .02$). The Hochberg’s GT2 post-hoc Test showed a significant difference with SAME having a slightly higher age ($M = 37.9$) than DECREASE ($M = 33.5$). No significant link could be found between gender and group membership ($\chi^2(4, n = 244) = 4.73, p > .315$).

Furthermore, using a one-way ANOVA (homogeneity of variance: Levene’s test, $p > .05$), we found a significant difference between the three groups in cohesion before the pandemic ($F(2, 241) = 3.86, p = .022, \eta^2 = .03$). The Hochberg’s GT2 post-hoc Test showed a significant difference between INCREASE and DECREASE, with a higher cohesion in the DECREASE group (Table 6). For the other aspects as referring to the time before the pandemic, the one-way ANOVA showed no difference between the three groups: enmeshment ($F(2, 241) = 0.02, p = .985$), autonomy ($F(2, 240) = 0.04, p = .965$) and social support ($F(2, 237) = 0.74, p = .478$). For the time since the pandemic, no differences between the three groups were found with regard to aspects of family culture: enmeshment ($F(2, 241) = 0.67, p = .513$), cohesion ($F(2, 241) = 1.74, p = .177$), autonomy ($F(2, 240) = 0.22, p = .807$) and social support ($F(2, 238) = 0.95, p = .387$).

A further inspection (t-tests for dependent measures) of the changes in aspects of family cultures in each of the three groups revealed that in the DECREASE group, enmeshment was rated as significantly higher since the pandemic compared to before with $t(124) = 2.13, p = .035$, whereas cohesion ($t(124) = 4.67, p = .000$), autonomy ($t(124) = 2.05, p = .042$) and social support ($t(124) = 4.54, p = .000$) were rated as significantly lower since the crisis compared to the time before.

In the group that reported SAME well-being now as before the pandemic, only cohesion was rated as significantly lower since the crisis compared to

Table 6. Mean values of the different aspects on family culture before and since the pandemic in the three groups INCREASE, SAME and DECREASE.

	INCREASE (n = 49)		SAME (n = 70)		DECREASE (n = 125)	
	M	SD	M	SD	M	SD
Enmeshment (before)	3.18	0.85	3.15	0.69	3.17	0.77
Cohesion (before)	4.05	1.01	4.41	1.04	4.51	0.93
Autonomy (before)	3.62 ¹	0.67	3.65	0.99	3.66	0.84
Social Support (before)	4.28 ²	0.76	4.45 ³	0.84	4.41	0.71
Enmeshment (since)	3.14	0.83	3.16	0.72	3.27	0.76
Cohesion (since)	3.97	1.03	4.26	0.89	4.22	0.85
Autonomy (since)	3.62 ⁴	0.97	3.61	1.17	3.53	0.86
Social Support (since)	4.22 ⁵	0.85	4.36 ⁶	0.82	4.20	0.71

Note: ¹ $n = 48$; ² $n = 47$; ³ $n = 68$; ⁴ $n = 48$; ⁵ $n = 47$; ⁶ $n = 69$.

before ($t(69) = 2.09, p = .040$), whereas in the group that had an INCREASE in subjective well-being, no change in the four measured family culture aspects was noted.

Discussion

The overall aim of this study was to explore the links between the COVID-pandemic and well-being in light of different family cultures. First, drawing on a person-centered approach we examined if the theoretically derived family models could be replicated in the context of Luxembourg. We then investigated how different family models, based on different manifestations of aspects of family culture (enmeshment, cohesion, autonomy, and social support), were related to well-being before and during the pandemic. Further, we examined relations between single aspects of family cultures and subjective well-being. The restrictions imposed during the COVID-pandemic made it on the one hand more difficult to live out the preferred family model; on the other hand, the restrictions could render specific family models more visible and pronounced as separation was enforced for those living apart and autonomy was limited for those living in the same household. We expected that this would be reflected in levels of well-being, and we asked if different effects could be observed depending on the family model as described before and during the pandemic.

Family culture models

Using cluster analysis, we identified three family models, replicating those theoretically postulated by Kağıtçıbaşı also within the Luxembourg context. In the present sample, the independent family model, focusing on autonomy, represented the smallest group, whereas we found a clear prevalence of psychologically interdependent families which were characterized by a high degree of cohesion similar to interdependent families but had lower levels of enmeshment and social support compared to the latter. Mayer et al. (2012) reported a preference for both the independent and psychological interdependent family model in a German sample. Our results give an indication that relatedness is particularly important for Luxembourg families. In a similar vein, Albert and Barros Coimbra (2017) found a high cohesion based on trust in Luxembourgish families, standing in for each other in times of need.

Family culture and well-being

Another objective was to investigate how each aspect of family culture and well-being are related, in order to examine possible effects of the pandemic on well-being. The COVID-pandemic not only had medical and economic consequences, but it also changed our social habits. Social distancing with people meant that it was no longer possible to meet friends and even family in person.

Family culture has been defined here as the interaction of different aspects such as autonomy, cohesion, enmeshment, and social support.

Pre-pandemic, all four aspects of family culture correlated significantly with pre-pandemic well-being. There was a weak positive, but highly significant correlation between cohesion and well-being before and during the pandemic. These findings match those of Manzi et al. (2006), who found a positive link between well-being and cohesion in both the UK and Italian samples.

Enmeshment was weakly negatively correlated with well-being both before and during the pandemic. This finding is partly consistent with that of Manzi et al. (2006), who found a correlation between a high level of enmeshment and low life satisfaction in the UK, but not in Italy, indicating that Luxembourg might be in the middle between these two countries as there was a negative correlation but it was only weak.

Contrary to expectations, there was also a weak negative correlation between autonomy and pre-pandemic well-being. When referring to well-being during the pandemic, no correlation could be found. Although it has been claimed that autonomy leads to greater subjective well-being, our results are in line with other studies describing Luxembourg as a rather moderate individualistic country, focusing less on autonomy than other individualistic countries (Hofstede, n.d.).

Also, we have to note here that autonomy was measured by three items referring to a family culture where each person looks first and foremost after themselves. This tendency could be a sign for separation rather than autonomy, contradicting the need to belong in the family context.

Finally, social support showed a significant positive association with subjective well-being before, but not during the pandemic. Thus, it seems that the pandemic with its restrictions for contact and exchange altered the links between specific aspects of family cultures and well-being to a certain extent – when desirable behaviors (such as providing support or not) are not a personal choice but underlie restrictions, individual responsibility might be experienced as less strong and consequently own and others' behavior is evaluated differently.

Change of well-being pre-pandemic and during the pandemic

In the present sample, half of the participants reported a lower well-being during the lockdown, than before. Although well-being decreased for the majority, overall, results show that well-being changed little on average. People who reported a lower well-being at the time of the pandemic compared to their well-being before the pandemic reported also higher cohesion before the pandemic, compared to those who reported an increased well-being during the lockdown. As cohesion within a family was found to be associated with resilience to crises, and social support seems to be an important factor when coping with traumatic events (Hawkins & Manne, 2004), we assumed that families with high cohesion would also support each other during the pandemic, since they are strongly connected. It can be noted here that in the sample studied, cohesion – namely the sense of togetherness – played a decisive role. Whereas social support seems to be rather less in the focus, possibly because social support could be maintained through indirect measures or virtual contact (telephone, video calls) or by external persons or services, cohesion seems to have a quality of its own, which was crucial for pre-pandemic well-being and also for the decline in well-being during the pandemic. The exact nature of these relations could not be determined in the present study though and would invite for further in-depth analyses. On the one hand, families that were high in cohesion before the pandemic could experience a difficulty in living out their sense of togetherness due to the contact restrictions; on the other hand, highly cohesive families that were experiencing an enforced togetherness due to their sharing of the same household could have experienced lower well-being during the pandemic. Certainly, other aspects such as enmeshment might come into play here as was demonstrated by our further analyses. In fact, most changes in family cultures with lower cohesion, autonomy and social support but higher enmeshment were noted in the group that experienced a DECREASE in their well-being.

Also, regarding the three clusters, psychologically interdependent and interdependent families showed high cohesion. In families with high cohesion but low enmeshment (psychological interdependent) we could find a significant difference in subjective well-being compared to independent families, whereas in families with additionally high enmeshment (interdependent) no such difference could be noticed. Here, the interplay of cohesion together with high or low enmeshment seems to be relevant. This indicates that cohesion together with low enmeshment is more likely to lead to higher well-being compared to families with a high expression of both aspects. Families that are close, but respect boundaries seem to do best in terms of well-being.

The increase in well-being among those who reported low cohesion can perhaps be explained by the fact that those who feel little cohesion in the family would feel a kind of relief through the lockdown, since one is supposed

to distance oneself anyway. For these individuals, the pandemic and the related measures may have posed an opportunity to live their family model – with less cohesion and more independence. Interestingly, the pandemic and its restrictions might have nuanced or made visible already existing family cultures – for those who were already low in cohesion, contact limitations might have been rather a confirmation or justification for their already existing practices, making them feel more at ease in light of possibly conflicting tendencies of closeness and distance.

It should also be noted that there is a significant difference in age between the two groups, DECREASE and SAME. The STATEC (Peroni & O'Connor, 2020) study already found that younger people were more likely to experience a decrease in their mental health than the older age group.

Limitations

The present study has some limitations. The partially low Cronbach's alpha in the scales enmeshment and autonomy made the interpretation of these two scales difficult and the results should be interpreted cautiously. Furthermore, the questionnaire was conducted during the first lockdown. Thus, information on the general well-being and the general family culture was asked retrospectively. The situation of social restrictions may have distorted this information to some extent, as the ban on contact has brought cohesion into focus in particular and the answers for the time before the pandemic might already have been affected by the restrictions. Furthermore, fatigue may have set in when answering the same questions, albeit under a different focus.

Conclusions

Overall, the present study showed the dominance of the psychological interdependent cluster and points to the importance of cohesion for subjective well-being. In times of crisis, such as the COVID-pandemic and the associated restrictions, social contacts might be only possible to a limited extent. Although access to digital communication technologies can help mitigate some of the negative effects of social isolation (OECD, 2020), this study was able to show that the lack of real-world contact can still have potential negative consequences for well-being. In the present sample, cohesion was associated with higher well-being in general. On the one hand, the group that experienced a decrease in well-being during the pandemic reported higher cohesion before COVID, but one family model that focused on cohesion (psychological interdependence) still reported higher well-being during the pandemic than independent families. This might also point to ambivalences in family relations, as they have been described, in particular, for close relations (Lüscher & Hoff, 2013). As mentioned, the interplay of cohesion together with enmeshment and

social support may be important. Family models that focus on social support and cohesion may be able to implement them in a lockdown and find ways to still feel connected, whereas additional high enmeshment (interdependence) does not seem to have any benefit in terms of better well-being. Here, the close connection between family members seems to be more of a hindrance in times of pandemic. Missing exit options (see Dykstra et al., 2010) in the case of shared households might play a crucial role as ambivalences cannot be resolved and family members might feel trapped in an uncertain present without a time horizon for change. Overall, however, in the context studied, enmeshment was not linked to well-being. Furthermore, contrary to cohesion, the significant link between social support and well-being did not remain during the pandemic. Cohesion describes a sense of togetherness, while social support represents more practical help. This help is still possible during the lockdown (e.g. shopping for someone, etc.), while the sense of togetherness is missing and is also more difficult to compensate for. Perhaps this strong family bond – which has a positive link to well-being – also has a negative effect if it cannot be lived out.

Interestingly, the present study shows that higher autonomy tends to be related to lower well-being. One possible explanation is that in times of social distancing, it is not so much autonomy that we lack but social contact with other people. Whilst autonomy has been restricted by the lock-down measures, this did not seem to have had a significant impact on well-being, at least at the early stage of the pandemic. Moreover, disproportionately more men were found in the independent Cluster.

Overall, families with a high degree of autonomy (independent) seem to be underrepresented in this sample, which in turn could be related to the fact that Luxembourg is a rather moderately individualistic country.

The present study confirms the presence of different family models with different manifestations also in the Luxembourg context. The COVID restrictions provided a natural laboratory to investigate the consequences of the impossibility to live the naturally preferred model for well-being. The results point to the central role of cohesion in relation to well-being – hopefully inspiring further studies on family cultures and well-being.

Contribution to the field

- Reproducing three family models of independence, psychological interdependence, and interdependence as suggested by Kağıtçıbaşı
- Combining theoretical approaches to family models and family cultures into a new framework
- Providing insight into the complex relations between different family models and well-being in times of pandemic
- Showing how restrictions concerning how family models can be lived out can have an impact on well-being

Note

1. Difference = well-being before pandemic – well-being during pandemic.
DECREASE < 0, SAME = 0, INCREASE > 0

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