Basic Personal Values and Parental Burnout: A Brief Report

Gao-Xian Lin a* and Dorota Szczygieł b

a Psychological Sciences Research Institute, Department of Psychology, Catholic University of Louvain, Ottignies-Louvain-la-Neuve, Belgium

b SWPS University of Humanities and Social Sciences, Warszawa, Poland

* Correspondence regarding this article should be addressed to Gao-Xian Lin, Psychological Sciences Research Institute, Department of Psychology, Catholic University of Louvain, Place Cardinal Mercier, 10, Louvain-la-Neuve, 1348, Belgium. E-mail: gao-xian.lin@uclouvain.be

Short Title: PERSONAL VALUES AND PARENTAL BURNOUT

Author Note

This paper has been accepted for publication in Affective Science.

ORCID IDs

Gao-Xian Lin: 0000-0001-9394-1202; Dorota Szczygieł: 0000-0001-9746-1505

Declarations

Funding

Gao-Xian Lin (G.-X.L.) was supported by a Coordinated Research Grant from the French Community of Belgium (ARC Grant n°19/24-100). This fund did not exert any influence or censorship of any kind on the present work.
Conflicts of Interest/Competing Interests

There are no conflicts of interest.

Ethics Approval

The study was carried out in accordance with the provisions of the World Medical Association Declaration of Helsinki. All study procedures were approved by the Ethics Committee of the SWPS University of Social Sciences and Humanities Poland (WKE/S 2021/4/VI/103), by which human subjects’ protection is ensured.

Availability of Data and Material

The study reported in this article was not formally preregistered. However, the database of study variables and the supplementary material have been made available on a permanent third-party archive, Open Science Framework: https://osf.io/ufmdv/?view_only=bcdb5518e86d7b987a94eb36e5aac

Informed Consent

Informed consent to participate the study was obtained from all individual participants.

Code Availability

Not applicable.

Author’s Contributions

Both authors contributed equally to the paper; their names are in alphabetic order. Both authors also approved the final version of the manuscript for submission.
Abstract

Recent evidence has shown that Western parents are five times more vulnerable to developing parental burnout than parents in other parts of the world. It has also been found that this augmented susceptibility is explained by the group tendency of individualism cultural value that prevails in Western societies. Still, whether this relation observed at the group mean level across countries can be generalised to the association of personal value with parental burnout across individuals has not yet been explored. In order to address this question, the current study collected a sample of 643 Polish parents and assessed their report of value priorities and parental burnout. The results demonstrated that individual-level values indeed predict susceptibility to parental burnout. Specifically, parents are more susceptible to parental burnout when prioritising values that emphasise power and achievement, whereas prioritising benevolence protects parents from parental burnout. Associations between parents' gender, personal values, and parental burnout were also examined. Consistent with previous studies, fathers reported fewer parental burnout symptoms compared to mothers. However, gender differences in parental burnout were not mediated by personal values, nor did parents' gender moderate the effect of personal values on burnout. In sum, together with previous results obtained at the society level, our finding points out the role of values in predicting parental burnout. A possible future direction of research was discussed: examining the affective mechanism (e.g., parental regulation of emotions) underlying the relationship between personal values and parental burnout.

Keywords: culture, individualism, parental adjustment, parenting stress, perfectionism
Basic Personal Values and Parental Burnout: A Brief Report

1. Introduction

Parental burnout (PB) is a chronic stress-related disorder experienced in the parental role, which encompasses experiences of exhaustion in the parenting role, emotional distancing from children, loss of parental fulfilment, and contrast between the previous and current parental self (Roskam et al., 2018). Due to its global prevalence and alarmingly harmful consequences, PB has been identified as one of the most worrying conditions and growing public health issues (Gruber et al., 2020; Mikolajczak et al., 2021). Specifically, recent studies showed that PB would induce a dysregulation in the hypothalamic-pituitary-adrenal axis (Brianda et al., 2020), leading to enhanced cortisol levels that might eventually harm parents’ both physical (e.g., diabetes, hypertension, fractures; Chiodini et al., 2019) and mental health (Holsboer & Ising, 2010; e.g., suicidal and escape ideations; Mikolajczak et al., 2019). Although PB has been observed worldwide, it mainly affects Western parents. In Roskam et al.’s (2021) study that examined the relationship between the mean levels of PB and group tendency of individualism-collectivism cultural value (Hofstede, 2001) across countries, Western parents are five times more likely to develop this syndrome compared to non-Western parents. This enhanced susceptibility of Western parents to PB is related to higher group tendency of individualism (lower tendency of collectivism) cultural value in the West, even with economic inequalities across countries and individual and family characteristics controlled for.
Despite Roskam et al. (2021) providing essential insights into the cultural values as determinants of PB at the group mean level, we cannot ascertain whether the relationships can be directly generalised to the association of PB with personal cultural values across individuals. The present study was thus designed to fill this gap by exploring whether and how personal cultural values (i.e., individualistic and collectivistic cultural values) contribute to PB. In order to assess those, we followed Schwartz’s (1992) Theory of Basic Human Values (Sagiv et al., 2017; Sortheix & Schwartz, 2017), which postulates that personal values are cognitive representations of motivational goals, reflecting what individuals consider crucial and worthy (Schwartz, 1992). According to their subjective importance, ten basic universal values are ordered in hierarchies (i.e., priorities), which further influences an individual’s thoughts, behaviours, and well-being (Bojanowska & Kaczmarek, 2021). Researchers further suggest that personal cultural values may be manifested by these ten personal value priorities (Schwartz, 1994; Suizzo, 2007). Specifically, individualism will be manifested in attaching more importance to five personal values: power, achievement, hedonism, stimulation, self-direction. In contrast, collectivism will be manifested in prioritising the other five personal values: universalism, benevolence, tradition, conformity, and security (also see Oishi et al., 1998).

Built on both Schwartz’s model and Roskam et al.’s (2021) findings, it is reasonable to expect that personal values related to individualism positively predict PB, whereas personal values related to collectivism negatively predict PB; such effects are beyond and over sociodemographic factors. Nevertheless, as indicated in previous studies (see Kağıtçibaşı, 1996, 2005; Tamis-LeMonda et al.,
2008 for a related discussion), individuals may prioritise different components (e.g., nuanced personal cultural values) of individualistic-collectivistic cultural value and thus have different personal adjustment. We, therefore, assume that differentiating individualistic-collectivistic cultural values into finer personal cultural values, as we will do (five personal values for individualistic and collectivistic cultural values, respectively), might uncover subtle effects of values on parental burnout. However, given a dearth of research examining the relationship between personal cultural values and well-being in the parenting context to formulate nuanced hypotheses, we chose to explore our research question in an exploratory manner.

2. Method

2.1 Participants

Data were collected from a sample of 643 Polish parents (60.2% mothers) who live with at least one child in the same household. They were, on average, around 38 years old ($M = 37.65$ years, $SD = 7.08$). Of all the parents participating in the study, 81.2% raised their child/children with the father/mother of the child(ren), 10.1% were single parents, 5.8% raised their child(ren) with a partner who was not the father/mother of their child(ren) (i.e., step-family), and 2.6% lived in a multi-generation family. Two parents (0.3%) answered “other” in relation to their family type.

Overall, the participants had from 1 to 10 children living with them ($M = 1.79; SD = 0.91$) and 0 to 8 biological children ($M = 1.77; SD = 0.84$). Of all the families, 43.7% raised one child, 40% two children, 12% three children, 3.1% four children, and 1.3% more than four children. Among them,
3.6% reported having a child with disabilities. The age of the oldest (or only) child ranged from 0 to 36 years ($M = 10.08, SD = 6.35$), and the age of the youngest child ranged from 0 to 28 years ($M = 6.63, SD = 5.27$). The participants ticked “0” if the child was younger than one year. The participants declared spending on average five hours per day ($M = 5.47, SD = 3.14$) in direct contact with their child(ren), excluding bedtime and simply sharing the same household.

Of all the respondents, 5.4% reported that they had completed elementary school, 20.4% were high school graduates, 23.4% had a bachelor’s degree, 17.1% had a university degree, and 33.4% had completed postgraduate studies. Two parents (0.3%) did not report their education level. Most study participants (88%) reported being professionally active (full-time or part-time employment). Most of the study participants lived in a city (44.5%) or town (38.7%), while a minority lived in a rural area (16.8%). The participants also defined the profile of their neighbourhood: 72.9% reported that they lived in an average neighbourhood, 22.9% in an affluent one, and 4.2% in a disadvantaged neighbourhood. All participants lived in Poland and were native Polish.

2.2 Procedure

The study was posted online on Qualtrics. The participants were recruited through advertising on social media (Facebook, parenting websites), the SONA research pool (an online research pool consisting of students who wish to participate in research studies as part of their educational experience) and word of mouth. Only those who had (at least) one child living at home were eligible to participate in the study.
Participants were asked to complete an online questionnaire upon giving informed consent, which allowed them to withdraw at any stage without having to justify their withdrawal. They were also assured that the data collected would be kept confidential and used for research purposes. The participants were volunteers, and no remuneration was offered for participation. Data were collected from mid-October 2020 to mid-February 2021.

2.3 Measures

Below we have provided basic information about the measures used in the study. A comprehensive description of the instruments (for assessing personal values and parental burnout) can be found in the Online Supplemental Material (OSM).

2.3.1 Sociodemographic Factors

Participants reported on gender, age, educational level, number of children in the household, number of biological children, age of the oldest child, age of the youngest child, family type (two parents, single parent, step-family, multi-generational family, other), employment status (paid professional activity: yes/no), having a child with disabilities (yes/no), hours spent with the child(ren) per day, profile of the neighbourhood (disadvantaged, average, prosperous), place of residence (village, town, city).

2.3.2 Personal Values

To measure what participants valued in their lives according to Schwartz's ten values model, we used the Polish version of the Twenty Item Values Inventory questionnaire (TwIVI). The original
version of TwIVI was developed by Sandy et al. (2017), who, based on rigorous psychometric methods, selected 20 items from the Portrait of Values Questionnaire (PVQ; Schwartz & Bardi, 2001). Following Sandy et al.’s (2017) item selection, we derived the corresponding items from the well-validated Polish version of PVQ (Cieciuch, 2013). Using the current dataset, we applied both network analysis and multidimensional scaling to test the validity of the Polish version of TwIVI, and the results corroborated its sound structural and constructed validity (see S1. Psychometric Performances of Measures in the Online Supplemental Material for more detail).

TwIVI is a brief measure of values composed of 20 short verbal portraits of individuals, two portraits for each of the ten values. Each description portrays the person’s goals and aspirations, beginning or ending with the words: ‘He/she thinks’, ‘He/she believes’, or ‘This is important to him/her’. The descriptions for each value are as follows: conformity (‘S/he believes s/he should always show respect to his/her parents and to older people. It is important to him/her to be obedient’), tradition (‘Religious belief is important to him/her. S/he tries hard to do what his/her religion requires’), benevolence (‘It is very important to him/her to help the people around him/her. S/he wants to care for their well-being’), universalism (‘S/he thinks it is important that every person in the world be treated equally. S/he believes everyone should have equal opportunities in life’), self-direction (‘S/he thinks it is important to be interested in things. S/he likes to be curious and to try to understand all sorts of things’), stimulation (‘S/he likes to take risks. S/he is always looking for adventures’), hedonism (‘S/he seeks every chance s/he can to have fun. It is important to him/her to do things that
give him/her pleasure’), achievement (‘Getting ahead in life is important to him/her. S/he strives to do better than others’), power (‘S/he always wants to be the one who makes the decisions. S/he likes to be the leader’), and security (‘It is important to him/her that things are organised and clean. S/he really does not like things to be a mess’). Participants were asked to rate on a scale from 1 (‘not at all like me’) to 6 (‘very much like me’) how similar or dissimilar they are to the portrayed person.

To demonstrate the reliability of the measurement, we applied two approaches. First, as only two items represented each value dimension, we analysed the correlations between the items. The results showed that items within the same dimension were all significantly correlated ($p < .05$), with most correlation coefficients being around .30–.60 (with security, whose correlation coefficient was .10, forming an exception). Second, we analysed Cronbach’s alpha and Spearman-Brown statistics for each value score. Most Cronbach’s alpha and Spearman-Brown statistics for each value score were around .52–.81 (with security, whose Cronbach’s alpha and Spearman-Brown statistic was both .17, forming another exception).

### 2.3.3 Parental Burnout

Parental burnout was assessed with the Parental Burnout Assessment (PBA, Roskam et al., 2018; Polish version by Szczygiel et al., 2020). The PBA is a 23-item questionnaire (e.g., ‘I feel completely run down by my role as a parent’). Items are rated on 7-point Likert scales: from 0 (never) to 6 (every day). Items were summed to form a global score. The Cronbach’s $\alpha$ of the global score in the current sample was .97.
2.4 Analysis Strategy

Following Schwartz’s (1992) suggestion, we centred each value score by subtracting the mean of all twenty value items for each individual before our analyses. A two-step hierarchical regression was conducted to examine the unique effects of personal values on PB, as well as to test whether such effects extend beyond sociodemographic factors. In the first step, sociodemographic factors were simultaneously entered for predicting PB. In a second step, personal values were introduced into the model. As mentioned earlier, all ten personal values can be related to PB, and therefore, they should all be included in the model to examine their unique effects. However, due to the centring procedure performed for each value, a linear dependence between them was likely, preventing us from entering all centred values simultaneously into the same regression model (see Schwartz, 1992 for detailed explanation). To address this issue, we would conduct bivariate correlation analyses of personal values and PB to include only those values found to be significantly associated with PB in the second step of the regression model. All analyses were performed using SPSS 25.

3. Result

3.1 Preliminary Analyses

Table 1 shows descriptive statistics and correlations between study variables. Benevolence ($r(641) = -0.21, p = .000$), universalism ($r(641) = -0.13, p = .001$), conformity ($r(641) = -0.09, p = .023$) and tradition ($r(641) = -0.10, p = .015$) correlated negatively with PB, whereas achievement ($r(641) = 0.29, p = .000$) and power ($r(641) = 0.30, p = .000$) correlated positively. These results allow sole focus on
examining unique effects of these six values in the following regression analyses and further check whether these effects are still significant after sociodemographic factors are controlled for.

3.2 Hierarchical Regression Analyses

As depicted in Table 2, the full model explains 23% of the variance in PB. Among the variables entered in the first step, being a mother emerged as the strongest predictor of PB, beyond the effects of all other sociodemographic factors. The model with all sociodemographic factors as predictors explained 12.2% of PB altogether ($p = .000$). In the second step, when six values were introduced into the regression equation, only benevolence, achievement, and power were significant in predicting PB (see step 2 in Table 2). The additional explanatory power of values for PB beyond sociodemographic factors was 13.0% (see Supplementary Analysis in the OSM for more discussion).

4. Discussion

Does the way parents prioritise their values put them at risk for PB, as the results of Roskam et al. (2021) suggest? Indeed, our findings demonstrated that personal values contribute to PB. Nevertheless, our results further clarified the findings of Roskam et al. (2021) by showing which particular dimensions of personal cultural values measured at the individual level contribute to PB (Oishi et al., 1998; Schwartz, 1994; Suizzo, 2007). Specifically, parents experienced more PB symptoms when they prioritised power (emphasising social status or dominance over people and resources) and achievement (emphasising personal success by demonstrating competence according to prevailing cultural standards) values of individualism. In contrast, parents had fewer symptoms of PB when they
prioritised benevolence (emphasising preservation and enhancement of the welfare of people with whom parents are in frequent contact) of the collectivism.

Besides, our findings are consistent with prior research (e.g., Roskam et al., 2021; Szczygieł et al., 2020) on whether and how sociodemographic factors, including parents' gender and age, employment status, neighbourhood profile, family type, and time spent with children predicted PB. As in previous studies, parents' gender appeared to be the most salient of these factors (i.e., the highest standardized beta in predicting PB), with mothers reporting more PB symptoms compared to fathers. Such a powerful predictive effect suggests that more attention should be paid to gender differences while examining the nature and antecedents of PB (for discussion, see Roskam & Mikolajczak, 2020). We conducted two sets of supplementary analyses to contribute to this endeavour. First, given that previous studies consistently demonstrate gender differences in value priorities (Schwartz & Rubel, 2005), we examined whether gender differences in personal value priorities explain gender differences in PB. Second, considering findings indicating that fathers tend to be more susceptible to PB antecedents than mothers (Roskam & Mikolajczak, 2020), we examined whether parents' gender moderates the predictive effects of personal values on PB. The results showed neither a mediating role of personal values in the relationship between parents' gender and PB, nor a moderating role of parents' gender in the relationship between personal values and PB (for a detailed discussion, see S2.2 Gender, Personal Values, and Parental Burnout of Supplementary Analysis in the OSM).
Despite the cross-sectional and solely self-report research design limiting the causality interpretation, our finding provides important directions for future research. One fruitful research direction may be examining the underlying mechanism between personal values and PB. The affective mechanism, or specifically parental emotion regulation, seems to be a prominent candidate. The rationale for such reasoning could base on recent studies demonstrating that perfectionism in the parenting domain (associated with a greater emphasis on one’s performance and achievements and more minor on concern for others; Zacharopoulos et al., 2021) intensifies the use of expressive suppression (a highly resource-consuming emotion regulation strategy), which ultimately exacerbates PB (Lin et al., 2021; Lin & Szczygieł, 2022). Second, our findings further provide implications for personal values research. Sortheix & Schwartz (2017) imply no direct relationship (or weaker, compared to other values) between subjective well-being and values that emphasise social growth (e.g., benevolence) and personal self-protection (e.g., achievement and power). Our results proved contrary to Sortheix and Schwartz’s (2017) by showing that only these values are significant in predicting PB, which suggests that the effects of personal values on well-being may depend on the context (e.g., parenting) in which they are examined.
5. Reference


https://doi.org/10.1037/amp0000707
Hofstede, G. (2001). *Culture’s consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). SAGE.


https://doi.org/10.1146/annurev.psych.093008.100321


https://doi.org/10.1027/1016-9040.1.3.180


Table 1

Descriptive Statistics and Correlation Among Parental Burnout and Personal Values

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental Burnout</td>
<td>31.34</td>
<td>26.47</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conformity</td>
<td>0.21</td>
<td>1.00</td>
<td>-0.09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tradition</td>
<td>-0.60</td>
<td>1.06</td>
<td>-0.10</td>
<td>0.38</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benevolence</td>
<td>0.78</td>
<td>0.90</td>
<td>-0.21</td>
<td>0.04</td>
<td>0.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Universalism</td>
<td>0.69</td>
<td>0.94</td>
<td>-0.13</td>
<td>-0.03</td>
<td>-0.03</td>
<td>0.40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Direction</td>
<td>0.54</td>
<td>0.82</td>
<td>-0.06</td>
<td>-0.40</td>
<td>-0.33</td>
<td>0.01</td>
<td>0.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simulation</td>
<td>-0.14</td>
<td>0.87</td>
<td>-0.04</td>
<td>-0.48</td>
<td>-0.37</td>
<td>-0.27</td>
<td>-0.24</td>
<td>0.33</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hedonism</td>
<td>-0.59</td>
<td>0.96</td>
<td>0.05</td>
<td>-0.33</td>
<td>-0.31</td>
<td>-0.33</td>
<td>-0.32</td>
<td>-0.02</td>
<td>0.36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement</td>
<td>-0.23</td>
<td>0.95</td>
<td>0.29</td>
<td>-0.26</td>
<td>-0.32</td>
<td>-0.38</td>
<td>-0.35</td>
<td>-0.06</td>
<td>0.11</td>
<td>0.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td>-0.65</td>
<td>1.00</td>
<td>0.30</td>
<td>-0.26</td>
<td>-0.26</td>
<td>-0.32</td>
<td>-0.37</td>
<td>-0.13</td>
<td>0.01</td>
<td>0.05</td>
<td>0.33</td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>-0.01</td>
<td>0.90</td>
<td>-0.03</td>
<td>0.18</td>
<td>-0.14</td>
<td>-0.05</td>
<td>-0.20</td>
<td>-0.29</td>
<td>-0.22</td>
<td>-0.23</td>
<td>-0.10</td>
<td></td>
</tr>
</tbody>
</table>

Note. Each value score was centred, as suggested by Schwartz (1992). Correlations among variables are shown below the diagonal. *p ≤ .05. **p ≤ .01.
### Table 2

**Hierarchical Regression Coefficients**

<table>
<thead>
<tr>
<th>Variables</th>
<th>b</th>
<th>SE</th>
<th>β</th>
<th>t</th>
<th>p</th>
<th>95% CI of b</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1: Sociodemographic Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender (father)</td>
<td>-9.98</td>
<td>2.22</td>
<td>-19</td>
<td>-4.50</td>
<td>.000</td>
<td>-14.33</td>
</tr>
<tr>
<td>Age</td>
<td>-0.63</td>
<td>0.23</td>
<td>-17</td>
<td>-2.76</td>
<td>.006</td>
<td>-1.07</td>
</tr>
<tr>
<td>Educational level</td>
<td>-0.12</td>
<td>0.27</td>
<td>-12</td>
<td>-0.42</td>
<td>.672</td>
<td>-0.65</td>
</tr>
<tr>
<td>Employment (No Employment)</td>
<td>9.02</td>
<td>3.42</td>
<td>.11</td>
<td>2.64</td>
<td>.009</td>
<td>2.30</td>
</tr>
<tr>
<td>Number of children in household</td>
<td>2.08</td>
<td>1.23</td>
<td>.07</td>
<td>1.70</td>
<td>.091</td>
<td>-0.33</td>
</tr>
<tr>
<td>Age of the oldest child</td>
<td>-0.74</td>
<td>0.34</td>
<td>-0.21</td>
<td>-2.21</td>
<td>.028</td>
<td>-1.39</td>
</tr>
<tr>
<td>Child with disabilities</td>
<td>3.16</td>
<td>5.60</td>
<td>.02</td>
<td>0.57</td>
<td>.566</td>
<td>-13.97</td>
</tr>
<tr>
<td>Hours spent with children</td>
<td>-1.29</td>
<td>0.40</td>
<td>-0.32</td>
<td>-3.35</td>
<td>.001</td>
<td>-2.04</td>
</tr>
<tr>
<td>Residence Place: Village</td>
<td>-1.51</td>
<td>2.96</td>
<td>-0.08</td>
<td>-0.51</td>
<td>.612</td>
<td>-7.32</td>
</tr>
<tr>
<td>Residence Place: City</td>
<td>2.82</td>
<td>2.23</td>
<td>.05</td>
<td>1.27</td>
<td>.206</td>
<td>-1.55</td>
</tr>
<tr>
<td>Neighbourhood: Disadvantaged</td>
<td>12.20</td>
<td>5.14</td>
<td>.09</td>
<td>2.38</td>
<td>.018</td>
<td>2.11</td>
</tr>
<tr>
<td>Neighbourhood: Prosperous</td>
<td>2.64</td>
<td>2.44</td>
<td>.04</td>
<td>1.90</td>
<td>.058</td>
<td>-0.24</td>
</tr>
<tr>
<td>Single parent family</td>
<td>6.51</td>
<td>3.43</td>
<td>.07</td>
<td>1.90</td>
<td>.058</td>
<td>-0.24</td>
</tr>
<tr>
<td>Step-family</td>
<td>2.34</td>
<td>4.39</td>
<td>.02</td>
<td>0.53</td>
<td>.594</td>
<td>-6.28</td>
</tr>
<tr>
<td>Multi-generational family</td>
<td>1.08</td>
<td>6.39</td>
<td>.01</td>
<td>0.17</td>
<td>.866</td>
<td>-11.47</td>
</tr>
<tr>
<td>Other family types</td>
<td>46.24</td>
<td>18.92</td>
<td>.10</td>
<td>2.45</td>
<td>.015</td>
<td>9.10</td>
</tr>
</tbody>
</table>

F (16, 622) = 5.40***; ΔR² = .12; ΔR² adjusted = .10

<table>
<thead>
<tr>
<th>Step 2: Personal Values</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Conformity</td>
<td>1.07</td>
<td>1.04</td>
<td>.04</td>
<td>1.02</td>
<td>.307</td>
<td>-0.98</td>
</tr>
<tr>
<td>Tradition</td>
<td>0.63</td>
<td>1.04</td>
<td>.03</td>
<td>0.60</td>
<td>.546</td>
<td>-1.41</td>
</tr>
<tr>
<td>Benevolence</td>
<td>-1.14</td>
<td>1.20</td>
<td>-.11</td>
<td>-2.62</td>
<td>.009</td>
<td>-5.49</td>
</tr>
<tr>
<td>Universalism</td>
<td>1.17</td>
<td>1.20</td>
<td>.04</td>
<td>0.98</td>
<td>.328</td>
<td>-1.18</td>
</tr>
<tr>
<td>Achievement</td>
<td>5.98</td>
<td>1.21</td>
<td>.21</td>
<td>4.95</td>
<td>.000</td>
<td>3.61</td>
</tr>
<tr>
<td>Power</td>
<td>5.71</td>
<td>1.11</td>
<td>.22</td>
<td>4.54</td>
<td>.000</td>
<td>3.53</td>
</tr>
</tbody>
</table>

F (6, 616) = 17.84***; ΔR² = .13; ΔR² adjusted = .13
a Gender, employment, having a child with disabilities, job, having a child with disabilities are binary variables, whereas the neighbourhood profile, place of residence, and type of family are multi-categorical variables. We thus recorded all levels of these variables by dummy coding before introducing them into the regression model. For binary variables, mother paid professional activity and a child with disabilities were set as reference groups (= 0), and the other groups were recoded into 1. For multi-categorical variables, all levels of these variables were entered into the regression model except for the level with the highest frequency (i.e., average neighbourhood, live in a city, and family type is two-parents) to avoid multi-collinearity.

***p ≤ .001.