Profiles and age-related differences in the expression of the three parental burnout dimensions

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Abstract

Parental burnout is a syndrome that can be defined along three dimensions: emotional exhaustion, emotional distancing from children, and lack of parental accomplishment. The aim of the present study was to highlight the contribution of children’s mean age to profiles of parental burnout. To this end, the Parental Burnout Inventory was administered via an online questionnaire to 2160 French-speaking parents. Results revealed five profiles corresponding to different levels of intensity of each parental burnout dimension: not in parental burnout, low risk of parental burnout, inefficient, exhausted, and burned out. Parents with young children were more likely to be exhausted. A network model highlighted the central role of emotional distancing in the emergence of parental burnout in exhausted parents. These results underscore the importance of conducting campaigns to prevent parental burnout by highlighting the different profiles and especially targeting young parents of young children.

Keywords: parent, children, age-related differences, exhaustion, burnout
Introduction

Parental burnout is a syndrome related to parenting that affects 2-11% of parents, depending on the study and the population (Roskam et al., 2017; Sánchez-Rodríguez et al., 2019). It was first described in the 1980s (e.g., Procaccini & Kiefaber, 1983), but has only recently been clearly defined as having three (Roskam et al., 2017) or four (Roskam et al., 2018) dimensions. In the present study, we adopted the three-dimensional conception of parental burnout (Roskam et al., 2017). Emotional exhaustion refers to intense fatigue, both physical and psychological, and a drop in energy that impairs parents’ ability to carry out everyday actions. Emotional distancing from children corresponds to a reduction in emotional interactions (e.g., hugs, games), whilst maintaining instrumental interactions (e.g., meal management, hygiene, school learning). Lack of parental accomplishment refers to parents’ sense of efficiency and/or fulfillment in their role as parents.

Although these three dimensions coexist, they can also be expressed independently. Indeed, according to Mikolajczak and Roskam (2017), parents do not need to simultaneously have high levels of emotional exhaustion and emotional distancing, and low levels of parental accomplishment to be identified as being in or at high risk of burnout. In support of this idea, studies have found weak correlations between lack of parental accomplishment and the other two dimensions (Kawamoto et al., 2018; Le Vigouroux & Scola, 2018), and even independence between emotional exhaustion and lack of parental accomplishment (Blanchard et al., 2021). Similarly a study of Japanese parents found that the more emotionally exhausted parents were, the higher their levels of emotional distancing, but these two dimensions were not associated with lack of parental accomplishment (Kawamoto et al., 2018). Hansotte and colleagues (2021) identified two profiles of parents: an ineffective profile characterized by a high level of lack of parental accomplishment and a low level of emotional exhaustion, and an exhausted profile illustrated by a high level of exhaustion and a low level of lack of parental
accomplishment. This suggests that for a similar overall level of parental burnout, levels of individual dimensions may vary. These differences in the expression of parental burnout could be accounted for by particular risk and/or protective factors.

A number of studies (e.g., Kawamoto et al., 2018; Le Vigouroux et al., 2017; Le Vigouroux & Scola, 2018; Lebert-Charron et al., 2018; Lindström et al., 2011; Mikolajczak et al., 2017; Sorkkila & Aunola, 2020) have examined risk and/or protective factors of parental burnout. These studies have highlighted the importance of dispositional factors (e.g., personality, perfectionism), and also noted the more modest influence of sociodemographic factors in the balance between risks and resources (Mikolajczak & Roskam, 2018). Among the sociodemographic factors, several studies have found that the age of both the parent and the children influences parental burnout more than other sociodemographic variables. The older the parent and/or children, the lower the risk of parental burnout (Le Vigouroux & Scola, 2018; Mikolajczak et al., 2017; Stânculescu et al., 2020; Szczygiel et al., 2020). In addition, Stanculescu et al. (2020) and Le Vigouroux and Scola (2018) found that children’s age had a stronger influence than parent’s age on parental burnout and its dimensions.

The association between children’s age and parental burnout may be due in part to an age-related reduction in children's needs and demands on their parents (e.g., Le Vigouroux & Scola, 2018). Put another way, the fact that young children are more dependent (under 5 years old), less regulated and require more care may make their parents more vulnerable to parental stress (Ostberga et al., 2007). The association between parents’ age and parental burnout can be explained by the fact that with advancing age, individuals experience less and less negative affect and more and more positive affect, such as serenity (e.g., Carstensen et al., 2011; Le Vigouroux et al., 2020). This improvement in affective experience can mainly be explained by better emotion regulation (e.g., Charles, 2010; Urry & Gross, 2010).
Although many studies have focused on the overall parental burnout score, it is important to note that the influence of age on parental burnout seems to vary across the three dimensions (e.g., Le Vigouroux & Scola, 2018; Stănculescu et al., 2020). For example, the older the children (more than about 5-6 years), the less emotionally exhausted their parents are (Le Vigouroux & Scola, 2018; Stănculescu et al., 2020; Szczygiel et al., 2020), but the greater their lack of parental accomplishment (Le Vigouroux & Scola, 2018). It should be noted that children’s age appears to be only weakly related to emotional distancing (Le Vigouroux & Scola, 2018). In addition, the older the parents, the less they report emotional exhaustion (Le Vigouroux & Scola, 2018; Stănculescu et al., 2020; Szczygiel et al., 2020) and the more they report a lack of parental accomplishment (Le Vigouroux & Scola, 2018). In other words, young age can be both a risk factor for emotional exhaustion and a protective factor for lack of parental accomplishment.

The objective of the present study was to highlight interindividual differences in the expression of parental burnout by identifying profiles based on levels of the three dimensions, and more particularly by examining the influence of parent’s age and children’s mean age. Parents do not need to have high scores on all three dimensions to be identified as being in parental burnout, and we would therefore expect parents in or at risk of parental burnout to differ on their expression of these dimensions. First, based on the evidence set out below, namely the profiles of parental burnout identified by Hansotte et al. (2021) and the independence between emotional exhaustion and lack of parental accomplishment demonstrated by Blanchard et al. (2021), we expected to find different profiles of parental burnout, determined mainly by the levels of emotional exhaustion and lack of parental accomplishment. Second, we hypothesized that interindividual differences in levels of parental burnout dimensions are correlated with parent’s age and, more especially, with children’s mean age.
Method

Participants

There were two inclusion criteria: parent aged over 18 years, and all children aged under 18 years, with at least one living at home. The sample consisted of 2160 French-speaking parents (including 278 fathers), aged 20-59 years ($M = 38.29$ years, $SD = 7.41$ years).

Participants had between 1 and 7 children ($M = 2.16$ children), aged 0-17 years ($M = 3.48$ years, $SD = 2.51$ years), with 1.63 children living at home on average ($SD = .85$). Regarding marital status, most of the parents in our sample were in a couple (81.90%).

Measure

Parents provided sociodemographic information about their sex, age, the number of children they had, their family type (i.e., single or couple), the number of children living at home, and the age and sex of their children.

Parental burnout was probed with the Parental Burnout Inventory (PBI; Roskam et al., 2017). The PBI contains 22 items: eight assessing emotional exhaustion (e.g., “When I think about my parental role, I feel like I’m at the end of my rope”); eight emotional distancing (e.g., “I can no longer show my children how much I love them”), and six parental accomplishment and efficacy (e.g., “I accomplish many worthwhile things as a parent” (reversed)). All items are rated on the same 7-point scale: 0 (Never), 1 (A few times a year or less), 2 (Once a month or less), 3 (A few times a month), 4 (Once a week), 5 (A few times a week), and 6 (Every day). Total and factor scores are obtained by summing the appropriate item scores, with higher scores indicating greater burnout (parental accomplishment items are therefore reverse-scored). In our sample, the internal consistency indices for the three parental burnout dimensions were satisfactory (emotional exhaustion: $\alpha = .93$; emotional distancing: $\alpha = .82$; and lack of parental accomplishment: $\alpha = .87$).
Procedure

Participants responded to an online questionnaire posted by the investigators on various social media platforms (e.g., Facebook), as well as on their personal social media accounts. Informed consent was obtained from each participant prior to participation. Following completion of the questionnaires, a contact person was made available to participants via a psychologist involved in conducting the study.

Statistics

First, we calculated the mean age (and standard deviation) of each parent’s children. Next, we conducted mean comparisons (with Mann-Whitney test) of parent’s sex and marital status and calculated these variables’ effect sizes (rank biserial correlation) for parental burnout and its dimensions.

Second, in order to identify profiles of parental burnout, we performed cluster analyses using the mclust R package (Scrucca et al., 2016) on raw and standardized data. The choice of cluster number was based on the Bayesian information criterion (BIC). We then ran an analysis of variance to relate the profiles to children’s mean age. Finally, we calculated parents’ relative levels of the three parental burnout dimensions to explore the idea of individual differences in these relative levels and their correlations with children’s mean age.

Third, we ran a series of analyses to study the relationships between the dimensions of parental burnout and the age of parents and children. Spearman correlation analyses on the whole sample were used to highlight links between parent’s and children’s mean ages, parental burnout, and each of the three dimensions. We then carried out an EBICglasso network estimation on standardized data, which simultaneously considered all the relationships between our studied variables. Building a network model allowed us to generate more parsimonious results than with simple correlations. To quantify the importance of each
node in the network, we calculated three centrality measures (betweenness, closeness, and
strength) per variable. Higher influence values would indicate greater centrality and therefore
greater importance in the network. These analyses were performed using JASP software.

Using the bnlearn R package (Scutari, 2010), we computed a directed acyclic graph (DAG), in
order to estimate a directed model of the relationship between children’s mean age and
parental burnout dimensions. Finally, to estimate the nonlinear influence of parent’s age and
children’s mean age (and the interaction between the two), we calculated generalized additive
models (GAMs; Wood, 2016) with the tensor function.

Results

Prevalence of parental burnout and demographic analysis

According to Mikolajczak and Roskam (2017)’s classification, 1092 participants (47.75% of our sample) were not in parental burnout (score equal to or below 27), 520 parents (22.73%) had a low risk of parental burnout (score between 28 and 40), 351 parents (15.43%) had a moderate risk of parental burnout (score between 41 and 54), 195 parents (8.53%) had a high risk of parental burnout (score between 55 and 67), and 125 parents (5.47%) were in parental burnout (score above 67).

Results of the descriptive analyses are set out in Table 1. These highlighted several
differences in demographic variables. Regarding parent’s sex, fathers were slightly older on
average than mothers, and their children were on average very slightly older than the mothers’
children. Sex did not significantly explain any difference in parental burnout, but mothers had
a slightly higher level of parental burnout (in particular emotional exhaustion) than fathers.

Concerning marital status, single parents were slightly older than parents in couples, and their
children were slightly older on average. They also had slightly fewer children with slightly
smaller age gaps between siblings. In addition, parents in couples experience very slightly more emotional exhaustion than single parents.

As expected, analysis of the correlations between sociodemographic variables and parental burnout and its dimensions revealed several weak associations between demographic variables and parental burnout. However, as expected, children’s mean age was more closely related than other sociodemographic variables to dimensions of parental burnout (Table 2). It should be noted that the total burnout score was independent of children’s mean age, but was negatively and weakly correlated with emotional exhaustion, and positively correlated with lack of parental accomplishment. Number of children, parent’s age, and standard deviation of children’s age did not seem to be associated (or only very weakly so) with parental burnout and its dimensions, even though parent’s age was very strongly correlated with children’s mean age ($r = .70, p < .001$).

Cluster analysis

Based on the BIC, we created a five-cluster model (see Fig. 1). The first cluster contained parents who were not in parental burnout (7.69% of our sample). The second cluster (29.39% of our sample) contained parents who were at low risk of parental burnout, with slightly higher emotional exhaustion, emotional distancing, and lack of parental accomplishment scores than parents in the previous cluster. The third cluster (6.90% of our sample) contained parents who could be defined as inefficient, with a relatively high lack of parental accomplishment score, a moderate emotional distancing score, and a relatively low emotional exhaustion score (i.e., like that of the second cluster). The fourth and largest cluster (25.04% of the sample) contained parents who could be identified as emotionally exhausted, with
moderate emotional distancing and lack of parental accomplishment scores, and quite high emotional exhaustion scores. Finally, the fifth cluster (10.97% of our sample, so slightly less than the parents identified as being at a high risk of burnout in the previous section) contained parents in parental burnout, with high scores on all three parental burnout dimensions.

**Insert Figure 1 about here**

Following the identification of these clusters, we calculated the children’s mean age for each cluster (Fig. 4). Results showed that children’s mean age varied between 3 and 4 years, with relatively large standard deviations in each cluster. Exhausted parents had slightly younger children than inefficient parents.

**Insert Figure 2 about here**

**Relative levels**

The cluster analysis depended on the absolute levels of emotional exhaustion, emotional distancing and lack of parental accomplishment, but we also examined the relative levels for each individual, independently of the overall level of parental burnout, and looked for correlations between these relative levels and children’s mean age. Results revealed that children’s mean age was moderately correlated with the relative level of emotional exhaustion ($r = -.31, p < .001$) and weakly correlated with the relative levels of emotional distancing ($r = .18, p < .001$) and lack of parental accomplishment ($r = .19, p < .001$).

**Correlations between parental burnout dimensions and children’s mean age**

Results showed that the three dimensions of parental burnout were positively and moderately correlated with each other (Table 2). The one exception was for emotional exhaustion and lack of parental accomplishment, which were only weakly correlated, especially in the network analysis (Fig. 3). This may mean that parents may be either exhausted and distant or distant and inefficient. Children’s mean age was correlated with all
three parental burnout dimensions. The higher the children’s mean age, the less emotional
exhaustion reported by their parents, and the greater the parents’ emotional distancing and
feeling of being inefficient. It should be noted that these relationships, albeit significant,
remained weak.

Insert Figure 3 & Table 3 about here

Network analysis revealed strong centrality of emotional distancing relative to emotional
exhaustion and lack of parental accomplishment (Table 3). The centrality of emotional
distancing was also found in the DAG (Fig. 4). Edges present in Figure 2 were retained, as
they were significant. Structurally, emotional exhaustion emerged at the top of the DAG.
Emotional exhaustion and children’s mean age directly influenced emotional distancing,
which then directly influenced lack of parental accomplishment.

Insert Figure 4 about here

Nonlinear relationship

To be more precise and to test the nonlinear effect of age, we estimated GAMs to explain
parental burnout and its three dimensions as a function of parent’s age, children’s mean age
and standard deviation, and the interaction between parent’s age and children’s mean age. The
parameters of each model are set out in Table 4. Like the correlations indicated above, the
GAMs showed that a) the variable that best explained the different dimensions of parental
burnout was children’s mean age, b) children’s mean age explained some of the variance in
the three dimensions, but not the overall level of parental burnout, and c) the interaction
between parent’s age and children’s mean age explained more variance in each dimension.

Insert Table 4 & Figure 2 about here

To more accurately identify the interaction between parent’s age and children’s mean
age, we produced graphical representations of GAMs explaining emotional exhaustion,
emotional distancing, and lack of parental accomplishment (Fig. 2). Results showed that a) young parents of young children (parents aged 20-35 years with children under 5 years) were at greater risk of emotional exhaustion than other parents, b) and younger parents with older children or teenagers (parents aged 25-40 years and with children aged 7-17 years) were more at risk of emotional distancing. Regarding lack of parental accomplishment, older parents (over 45 years) with children (mean age 5 years) or teenagers (mean age over 14 years) were more at risk than younger parents or parents with infants or children aged around 10 years.

Discussion

The present study, carried out among a large sample of French-speaking parents, had two main objectives: The first was to highlight interindividual differences in the expression of parental burnout by studying relative levels of each of its three dimensions (i.e., emotional exhaustion, emotional distancing, and lack of parental accomplishment), and identifying different profiles. The second was to investigate the influence of children’s mean age on differences in parental burnout. To our knowledge, few studies have investigated relative levels of these dimensions, and the one study to have identified parental burnout profiles (Hansotte et al., 2021) did not take an interest to look for age-related differences.

Our results highlighted the centrality of emotional distancing in the structure of parental burnout. This is consistent with Blanchard et al. (2021), who also highlighted the major role of emotional distancing in the network of parental burnout dimensions. However, in contrast to this study, our results showed that it is emotional exhaustion and not emotional distancing that plays the entry role in parental burnout. One possible interpretation is that emotional exhaustion places parents at risk of parental burnout and leads to emotional distance. This in turn leads to lack of parental accomplishment, which places parents in actual parental burnout (see also: Hansotte et al., 2021). This interpretation of our results is consistent with the literature on occupational burnout, but needs to be confirmed by a longitudinal study.
The current study identified five profiles of parents, as did Hansotte et al. (2021), based on scores on the three parental burnout dimensions. The percentage of parents who were in parental burnout (fifth cluster; i.e., 10.97%) is strongly consistent with Roskam et al. (2017) and Sánchez-Rodríguez et al. (2019), as well as with Hansotte et al. (2021)’s emotionally exhausted and distant and burned out profiles, taken together. By contrast, the proportions of inefficient parents (third cluster, characterized by a moderate lack of parental accomplishment, average emotional distancing, and low emotional exhaustion) and exhausted parents (fourth cluster, characterized by moderate emotional exhaustion, and average emotional distancing and lack of parental accomplishment) were higher in our study than in Hansotte et al. (2021) (i.e., 16.9% vs. 9%, and 25.4% vs. 20.06%). Finally, we found two profiles (i.e., not in parental burnout and low risk of parental burnout) that seemed to represent parents who were not in burnout, whereas Hansotte et al (2021) identified only one profile. In addition, parents with the exhausted profile seemed to have younger children than either burned out or inefficient parents.

Children’s mean age did not explain the overall level of parental burnout, but was the main sociodemographic variable explaining the variance of the different dimensions of parental burnout. More specifically, children’s mean age explained about 3% of the variance in each dimension of parental burnout, and contrary to what was expected, parents’ age explained very little variance. Given that parental burnout is broadly explained by parental dispositional variables, this is an interesting percentage for a single demographic variable. It is possible that the developmental demands of parenting play a more important role than the emotional regulation skills developed by parents. The results of correlations and GAMs showed that the younger the children (especially under 5 years), the more likely parents were
to experience emotional exhaustion. This risk was even higher if the parent was also young (under 35 years). This result is consistent with the literature (Le Vigouroux & Scola, 2018; Stănculescu et al., 2020; Szczygieł et al., 2020). Conversely, the older the children (especially those over 7 years), the more likely parents were to become emotionally distanced. The increase of this emotional distance can be explained by the socio-emotional development of children. Indeed, during infancy parents play a fundamental role in the emotional regulation (Kopp, 1982) inducing a strong emotional proximity between them and their children. It is possible that the development of children's self-regulation capacities and identity induce a more or less pronounced reduction in the emotional distance between parents and children. In addition, parents who were most at risk of lack of parental accomplishment were those over 45 years of age who had children aged around 5 years or over 14 years. It is possible that these ages mark important transitions in the relationship between parents and children. As parents adapt their behaviors to developmental transitions (identity building, empowerment), some parents may experience these changes as challenging their parenting role and the accomplishment they derive from it.

**Implications**

These results are particularly interesting, because they support the idea that professionals should adapt their interventions according to the children’s mean age and the profile of parental burnout. Given that our results show that it is young parents with young children who are most at risk of emotional exhaustion, it would be interesting to be able to carry out prevention campaigns among this demographic. Furthermore, our results show that there is a risk of parental burnout if the emotional exhaustion felt by the parent lasts over time and leads to emotional distancing from the children. If the onset of parental burnout does indeed begin with a state of emotional exhaustion, it is important to be able to develop interventions that can deal with this dimension. Wanting to do too much can result in parents using up all their
resources in a vain attempt to achieve their unattainable goals. It is therefore important to
work on parents’ representations and ways of increasing their resources, and to engage in
prevention, in order to avoid these at-risk parents going into full-blown parental burnout. This
is an important social issue, as parental burnout is a syndrome that can have very harmful
consequences for parents, their couple, and their children (e.g., Mikolajczak et al., 2018). It is
therefore important to intervene as soon as the first signs of emotional exhaustion appear.

Limitations and perspectives

This study had two main limitations that lead us to interpret the results with caution. The
first limitation was its cross-sectional design. As indicated above, our results and interpretations
need to be confirmed by a longitudinal study, which would allow us to confirm the order in
which the different dimensions of parental burnout emerge, as well as the changes they undergo
and their interactions (and possible feedback loops) over time. The second limitation was our
failure to consider certain sociodemographic variables (e.g., family’s socioeconomic status,
parent’s education level) and parental dispositions (e.g., personality traits, emotional
competence, attachment).

Conclusion

Our results, based on cross-sectional data, showed that systematically adopting a global
approach to parental burnout may prevent the identification of specific relationships among
dimensions, and even contrasting levels. Concerning the structure and emergence of parental
burnout, emotional exhaustion appeared to trigger the onset of parental burnout, with
emotional distancing playing a central role in the transition from exhausted parent to burned-out parent. Having younger children was found to be a risk factor for emotional exhaustion,
while having older children was a risk factor for emotional distancing and thence lack of
parental accomplishment. Further research is needed to confirm and further clarify these
temporal relations between parental burnout dimensions.
Declaration of Conflicting Interests

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Data Availability Statement

Authors agree to make data and materials supporting the results or analyses presented here available upon reasonable request.
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