

**Parental Burnout:  
What Is It and Why Does It Matter?**

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Abstract

Parenting can be wonderful. However, it also can be stressful, and when parents lack the resources needed to handle stressors related to parenting, they may develop *parental burnout*. This condition is characterized by an overwhelming exhaustion related to one's parental role, an emotional distancing from one's children, and a sense of parental ineffectiveness. Researchers have begun to document the antecedents of parental burnout, but little is known about its consequences. Here we investigated the impact of parental burnout on escape ideation, parental neglect, and parental violence through two cross-lagged longitudinal studies (N1=918, N2=822) that involved the completion of online surveys three times over a year. Results indicated that parental burnout strongly increases escape ideation, as well as neglectful and violent behaviors towards one's children (aggregated Cohen's  $d = 1.31, 1.25$  and  $1.25$  respectively). These findings show that parental burnout is a serious condition that urgently requires more attention.

*Keywords:* Parent, exhaustion, child, neglect, violence, maltreatment.

## **Parental Burnout: What Is It and Why Does It Matter?**

*“The fact is that child rearing is a long, hard job, the rewards are not always immediately obvious, the work is undervalued, and parents are just as human and almost as vulnerable as their children.”* Benjamin Spock (1945, pp. 5)

People usually expect parenting to be a wonderful experience (Feldman & Nash 1984). This is hardly surprising given the emphasis placed on the rewards of parenthood (Eibach & Mock 2012; Hansen, 2012), including increases in meaning in life (Nelson, Kushlev, English, Dunn, & Lyubomirsky, 2013), positive emotions (Nelson et al., 2013), and social integration (Nomaguchi & Milkie, 2003). However, for many, parenting is no cake walk (Hansen, 2012; Kahneman, Krueger, Schkade, Schwarz & Stone, 2004). Indeed, it can be one of the most taxing jobs one undertakes. From birth on, children can put their parents under considerable stress (for reviews, see Crnic & Low, 2002; Deater-Deckard, 2008). The mere fact of being a parent confronts one with a wide range of daily hassles (e.g., homework, driving), acute stressors (e.g., outbursts, sibling conflicts), and even chronic stressors (e.g., behavioral problems, health issues). When parents chronically lack the resources needed to handle child stressors, they are at risk of parental burnout (Mikolajczak & Roskam, 2018).

### **What Is Parental Burnout?**

Parental burnout results from a chronic imbalance of risks over resources in the parenting domain (Mikolajczak & Roskam, 2018). It is defined as a state of intense exhaustion related to one’s parental role, in which one becomes emotionally detached from one’s children and doubtful of one’s capacity to be a good parent (Roskam, Raes & Mikolajczak, 2017). Parents feel so drained by parenting that merely thinking about their role as parents makes them feel they have reached the end of their tether. As a result, they become emotionally distant from their children: they become less and less involved in the relationship

with them, and interactions are limited to functional/instrumental aspects at the expense of emotional aspects. Accordingly, they do not feel they are good parents anymore and lose the pleasure of being with their children (Hubert & Aujoulat, 2018; Roskam, Brianda & Mikolajczak, 2018). According to the most conservative point prevalence estimates (5%; Roskam et al., 2018), at least 3.5 million US parents are currently suffering from parental burnout.

Crucially, parental burnout is not ordinary parental stress (Lebert-Charron, Dorard, Boujut & Wenland, 2018; Kawamoto, Furutani, Alimardani, 2018; Roskam et al., 2017; Van Bakkell, Van Engen & Peters, 2018). It is a prolonged response to chronic and overwhelming parental stress (Mikolajczak & Roskam, 2018). It is not job burnout either: correlations between the two are small to moderate (Kawamoto et al. 2018; Roskam et al., 2017; Van Bakkell et al., 2018); one can be exhausted by one's job and not by one's children, and vice versa.

To date, research on parental burnout has focused on understanding what makes parents vulnerable to this condition. Researchers have found that parents are at greatest risk when they (1) aim to be perfect parents (Kawamoto et al., 2018), (2) are neurotic or lack emotion and stress management abilities (Lebert-Charron et al., 2018; LeVigouroux-Nicolas, Scola, Raes, Mikolajczak & Roskam, 2017; Mikolajczak, Raes, Avalosse & Roskam, 2018), (3) lack emotional or practical support from the co-parent (Lindström, Aman & Lindahl Norberg, 2011; Mikolajczak, Raes et al., 2018) or from the social network more broadly (Séjourné, Sanchez-Rodriguez, Leboullenger, & Callahan, 2018), (4) have poor child-rearing practices (Mikolajczak, Raes et al., 2018), (5) have children with special needs that interfere with family life (Gérain & Zech, 2018; Lindahl Norberg, 2007; Lindström, Aman, Lindahl Norberg, 2010), or (6) work part-time or are stay-at-home parents (Lebert-Charron et al.,

2018; Mehauden & Piraux, 2018) (see Mikolajczak & Roskam, 2018 for a review of risk and protective factors for parental burnout and their respective weights).

### **What Are the Consequences of Parental Burnout?**

Far less is known about the consequences of parental burnout than its antecedents. In the work domain, the related construct of job burnout is associated with a host of negative consequences for both the employee and the company. Job burnout impairs employees' mental and physical health (see Shirom, Melamed, Toker, Berliner, & Shapira, 2005 for a review), decreases most aspects of job performance (see Taris, 2006 for a meta-analysis), and drastically increases job turnover intention (see Alarcon, 2011 for a meta-analysis).

In the parenting domain, we might expect consequences for both the parent and the family. Cross-sectional findings suggest that parental burnout is, like job burnout, associated with depressive symptoms, addictive behaviors, sleep disorders, and couple conflicts (Kawamoto et al., 2018; Mikolajczak, Brianda et al., 2018, Van Bakkel et al., 2018). Importantly, parental burnout has been found to be more strongly associated than job burnout with three variables: escape ideation (ideas of running away or committing suicide), child neglect, and parental violence. Parental burnout explained 4 times, 10 times, and 25 times more variance in these variables, respectively, than job burnout (Mikolajczak, Brianda et al., 2018). It is tempting to conclude that escape ideation, child neglect, and parental violence are therefore consequences of parental burnout—but the direction of causation is unknown. Reverse relations are also possible, as are third variables (i.e. parental burnout and outcomes could all be the product of a common cause, such as neuroticism). In the absence of experimental or cross-lagged longitudinal studies, it is impossible to determine if parental burnout increases the outcomes more than the opposite. The goal of the present research was to address this question.

## The Present Research

Relying on two cross-lagged longitudinal studies, the current research aimed to determine whether and to what extent parental burnout predicts increases in escape ideation, parental neglect, and parental violence. We expected parental burnout to increase **escape ideation** because the tendency to flee or withdraw from stressful situations is one of the basic responses to stress: the higher the threat, the higher the motivation to flee (Blanchard, Hynd, Minke, Minemoto, & Blanchard, 2001). However, and contrary to burned out employees, burned out parents cannot resign or be put on sick leave from their children. This could prompt them to think of more extreme solutions to escape from their parenthood, such as running away or committing suicide. We expected parental burnout to increase **parental neglect** because exhausted parents may strive to save the little energy they have left (Conservation of Resource theory; Hobfoll, 1989), and taking care of the child involves more energy expenditure than they can afford. Because of their exhaustion and emotional detachment, it is also likely that burned out parents lack empathy (Wilkinson, Whittington, Perry & Eames, 2017), thereby not perceiving accurately their children's needs. Finally, we expected that parental burnout would increase **parental violence** because biologically, stress facilitates and fuels anger (Moons, Eisenberger & Taylor, 2010), and emotional and physical exhaustion may limit executive resources available to inhibit violent behaviors (Krabbe, Ellbin, Nilsson, Jonsdottir & Samuelsson, 2017).

The two studies presented in this paper are cross-lagged longitudinal studies. Study 1 was conducted on a French-speaking sample with three waves 5.5 months apart. It was specifically designed to examine the consequences of parental burnout. Study 2 was conducted on an English-speaking sample with three waves 4.5 months apart. It was launched at the same time as Study 1 and designed to examine the common and specific effects of

parental and job burnout. In the context of the current project, we used the data from Study 2 pertaining to the consequences of parental burnout in order to test the robustness of Study 1's findings. Both studies were approved by the Institutional Review Board. All data are available on Open Science Framework (<https://osf.io/bvjny/>).

### **Study 1:**

#### **Parental Burnout in French-Speaking Cultural Contexts**

##### **Participants**

Participants were informed about the survey through social networks, websites, schools, pediatricians, or word of mouth. In order to avoid (self-)selection bias, participants were not informed that the study was about parental burnout. Instead, it was presented as a study of “parental well-being and exhaustion.” Parents were eligible to participate only if they had (at least) one child still living at home. They were invited to complete the survey online on Qualtrics after giving informed consent, and told that they could withdraw at any point. They were also assured that data would remain anonymous (participants identified themselves via a code). Participants who completed the questionnaire (see section “Measures” below) had the opportunity to enter a lottery with a chance of winning €300, a stay for two persons in a hotel, or amusement park or wellness center tickets. Participants who wished to participate in the lottery had to provide their email address. At each wave, participants could also leave their email address if they agreed to be contacted to participate in the next wave. An electronic procedure ensured that the email addresses were automatically disconnected from the questionnaires and directly encoded in separated data files (one for the lottery and one for the next wave).

At Time 1, a sample of 2,608 parents (78.8% women) completed the study. The women's ages ranged from 22 to 64 years (mean = 39.38; SD = 7.13); the men's ages ranged from 27 to 69 years (mean = 43.02; SD = 9.49). The majority came from Belgium (96.9%), a

minority from other French-speaking European countries (2.3%), and the remaining 0.8% from non-European French-speaking countries. Overall, the participants had from 1 to 7 children living at home, aged from 0 to 35 years (mean age = 8.96; SD = 6.81). The sample was relatively representative: 14.1% of the participants were educated to secondary level, 37.6% had a first degree from university or college, 36.5% had a master's degree, and 11.8% had a PhD or MBA degree; 20.4% had a net monthly household income lower than €2 500, 44.4% between €2 500 and €4 000, 25.1% between €4 000 and €5 500, and 10.1% higher than €5 500.

At Time 2 (5.5 months later), 908 parents (80.6% women) completed all questionnaires. At Time 3 (5.5 months later), 557 parents (82.8% women) completed all questionnaires. Missingness analyses were carried out to examine the nature of drop-out (see Analyses and Results section).

## Measures

The following questionnaires were included at all measurement times. Questionnaires were completed with “forced choice option” in Qualtrics, ensuring a dataset with no missing values. Means, standard deviations, and reliabilities in the current sample are reported in Table 1. Except for parental violence at Times 2 and 3, which reliability was slightly below .70, all measures had good to excellent reliability.

**Socio-demographics.** Participants were asked about their age, sex, number of children (plus the age of each child and whether s/he was still living at home), marital status, level of education, net household income, and work arrangement.

**Parental burnout.** This construct was assessed with the Parental Burnout Inventory (PBI<sup>1</sup>; Roskam, Raes & Mikolajczak, 2017), a 22-item questionnaire consisting of three

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subscales: Emotional Exhaustion (8 items) (e.g., *I feel emotionally drained by my parental role*), Emotional Distancing (8 items) (e.g., *I sometimes feel as though I am taking care of my children on autopilot; I can no longer show my children how much I love them*), and Feelings of Inefficacy (6 items) (e.g., *I accomplish many worthwhile things as a parent*; reverse-scored). PBI items were rated on the same 7-point Likert scale as in the original MBI (never, a few times a year or less, once a month or less, a few times a month, once a week, a few times a week, every day). The global score is computed by summing the item scores after reversing the personal accomplishment factor so that higher scores indicate greater burnout.

**Escape ideation.** This construct was assessed with a questionnaire created for this purpose based on the testimonies of burned-out parents (Mikolajczak, Brianda et al., 2018). The questionnaire comprises six items (*I want to change my life, to experience something different from being a parent; I have thoughts about leaving my family; I threaten my family with leaving; I sometimes want to leave everything and start a new life; Sometimes I want to go away without leaving any address; I think that my family would be happier if I were to leave or disappear*) rated on an 8-point scale (never, less than once a month, about once a month, a few times a month, once a week, several times a week, every day, several times a day). A global score was obtained by summing the item scores.

**Parental neglect.** This construct was assessed with the Parental Neglect Scale (Mikolajczak, Brianda, Avalosse & Roskam, 2018), a 17-item questionnaire measuring physical neglect (e.g., *I don't care about my children when I know I should (meals, hygiene, etc.)*), educational neglect (e.g., *I don't help my children when they really need it (for their homework, to make a decision, to resolve a conflict, etc.)*), and emotional neglect (e.g., *I don't comfort my children when they are sad, frightened, or distraught*). Items are rated on an 8-point scale (never, less than once a month, about once a month, a few times a month, once a

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week, several times a week, every day, several times a day). A global score was obtained by averaging the item scores.

**Parental violence.** Parental violence was assessed with the Parental Violence Scale (Mikolajczak, Brianda et al., 2018), a 15-item questionnaire measuring verbal violence (e.g., *I say things to my children that I then regret (threats, insults, ridiculous nicknames, etc.)*), physical violence (e.g., *I spank or slap my children*), and psychological violence (e.g., *I tell my children that I will abandon them if they are not good*). Items are rated on an 8-point scale (never, less than once a month, about once a month, a few times a month, once a week, several times a week, every day, several times a day). A global score was obtained by averaging the item scores.

**Social desirability.** Given the variables investigated in this study, the short form of the Marlowe-Crowne social desirability scale (Reynolds, 1982) was used to control for socially desirable responding. This is composed of 12 items rated on a true-false response scale. The items are in the form of *I'm always willing to admit when I make a mistake*. Over the 12 items, seven are reversed so that the true response corresponds to high desirability. For example, the item *I sometimes feel resentful when I don't get my way* is reversed. The 0 (undesirability) – 1 (desirability) scores are summed across the 12 items.

## Statistical Analyses

**Preliminary analyses.** We first analyzed missingness. As in most longitudinal studies, attrition occurred due to participant dropout, inability to locate participants, or interruption of the survey completion before the end. We examined the missing values in each measurement occasion through logistic regression. Potential predictors of missingness at Time 1 (i.e., gender, age, number of children, educational level, parental burnout, escape ideation, parental neglect, and parental violence) were entered in logistic regressions with the binary dropout in Time 2 or in Time 3 as the dependent variable.

**Main analyses.** In order to examine the relations between parental burnout, on the one hand, and escape ideation, parental neglect, and parental violence on the other hand, we performed cross-lagged panel analyses (using Stata 15) to examine the stability and the relations between variables over time. We tested a transactional model involving bidirectional and recursive relations among observed parental burnout, escape ideation, parental neglect, and parental violence at the three measurement occasions, as well as autoregressive paths and cross-sectional correlations. In order to maintain as much statistical power as possible, we used the maximum likelihood with missing data as the method of estimation, which uses the available data to compute the parameter estimates of a model (Acock, 2013). Skewness and kurtosis indicated that parental burnout, escape ideation, parental neglect, and parental violence displayed some deviations from normality. Conceptually, these deviations made sense: observed variables were not expected to be normally distributed in the population. The maximum-likelihood estimation used in the current study is however fairly robust even with some violation of normality (Acock, 2013). Evaluation of the fit of the models was carried out on the basis of inferential goodness-of-fit statistics ( $\chi^2$ ) and three other indices: the comparative fit index (CFI), the Tucker-Lewis Index (TLI), and the rootmean-square error of approximation (RMSEA). Values close to or greater than .90 are desirable on the CFI and TLI, while the RMSEA should preferably be less than or equal to .08.

Nested-model comparison was conducted in two steps. Step 1 tested the baseline model in which parental burnout and the three possible consequences were allowed to correlate, the autoregressive paths were drawn providing information about the relative stability of the constructs across the three time points, and the disturbances of the measures were allowed to correlate to provide better estimates of the autoregressive paths by controlling for their time-specific variance (Cole & Maxwell, 2003). In Step 2, the cross-lagged path coefficients, i.e. relating parental burnout to its possible consequences and those

variables to parental burnout, were added to the baseline model and tested. The comparison between the two models was made using the difference in the  $\chi^2$  statistics. Lastly, the model was rerun including social desirability in order to see if the conclusions would hold when social desirability was partialled out. Specifically, social desirability at Times 1, 2, and 3 were entered in the SEM model; we controlled for autoregressive paths (i.e. social\_desirability\_T1 to social\_desirability\_T2 to social\_desirability\_T3), and covariations between social desirability on the one hand and parental burnout, escape ideation, parental neglect, and parental violence on the other hand at each of three waves.

In order to quantify the effect size of parental burnout on each outcome at each time point, we computed bivariate correlations. Indeed, cross-lagged coefficients are not the best indicators of effect size because they control for stability and other variables in the model. Therefore, simple bivariate correlations give a more reliable estimate of the effect size of parental burnout on each consequence taken individually (Hunter & Schmidt, 2004).

## Results

**Preliminary analyses.** We found differential attrition among subgroups within the study. In particular, participants who dropped out from Time 1 to Time 2 were slightly older ( $B(1) = -.08, p < .001$ ) and they scored slightly higher on escape ideation ( $B(1) = -.05, p < .05$ ). Also, more women (38.6%) than men (33.7%) dropped out from Time 1 to Time 2 ( $B(1) = .91, p < .01$ ). Participants who dropped out from Time 2 to Time 3 were slightly older ( $B(1) = -.02, p < .05$ ), and less educated ( $B(1) = .26, p < .05$ ) (see Supplementary Table 1 for the means and SDs of these variables separately for people who dropped out and who did not). Differences in parental burnout between those who did and did not drop out were not found. However, the pattern of missingness was not random. The main risk was that this would reduce the likelihood of finding significant effect on some of the consequences, since

participants who dropped out were those who scored higher. But, if some effects are found, the pattern of missingness does not alter the interpretation of the results.

**Main analyses.** The two steps of nested-model comparison are detailed below. As described below, the findings are consistent with the notion that parental burnout increases escape ideation, parental neglect, and parental violence, more than the opposite.

The baseline model displayed barely acceptable fit to the data:  $\chi^2(40) = 393.35$ ,  $p < .001$ ; CFI = .94; TLI = .91; RMSEA = .10 [.09-.11]. The high and significant autoregressive coefficients ( $\beta$  between .69 and .75,  $p < .001$ ) showed that parental burnout, escape ideation, parental neglect, and parental violence were relatively stable across time. The cross-sectional covariances showed a coherent pattern of positive associations between parental burnout on the one hand, and the three consequences at each of the three time points on the other. The pattern of cross-sectional relations among the three possible consequences was also coherent.

The cross-lagged panel model (Figure 1) fitted the data better than the baseline model,  $\Delta\chi^2(12) = 162.85$ ,  $p < .001$ ;  $\chi^2(28) = 230.50$ ,  $p < .001$ ; CFI = .96; TLI = .92; RMSEA = .09 [.08-.10]. All 6 cross-lagged path coefficients from parental burnout to its consequences were significant ( $\beta$  between .11,  $p < .05$ , and .20,  $p < .001$ ). In the reverse direction, i.e. from the consequences to parental burnout, 3 cross-lagged path coefficients were significant (although smaller). They concerned parental neglect ( $\beta = .08$ ,  $p < .01$ ) and escape ideation ( $\beta = .09$ ,  $p < .001$ ) at Time 1, and parental neglect ( $\beta = .07$ ,  $p < .05$ ) at Time 2.

The conclusions hold when including social desirability in the model. Social desirability was quite stable across time (.69,  $p < .001$ , from Time 1 to Time 2; .71,  $p < .001$ , from Time 2 to Time 3). Social desirability covaried with parental burnout at Times 1 (-.26,  $p < .001$ ), 2 (-.08,  $p < .05$ ), and 3 (-.10,  $p < .05$ ), with escape ideation at Time 1 (-.18,  $p < .001$ ),

with parental neglect at Times 1 (-.25,  $p < .001$ ) and 2 (-.09,  $p < .01$ ), and with parental violence at Times 1 (-.30,  $p < .001$ ), 2 (-.12,  $p < .001$ ), and 3 (-.12,  $p < .01$ ). As expected, higher social desirability was associated with lower scores of parental burnout, escape ideation, parental neglect, and parental violence.

To refine our analysis, we tested the equality of standardized coefficients using post-estimation  $\chi^2$  to check if bidirectional paths were significantly different from one another. For example, if the path coefficient relating parental neglect at Time 1 to parental burnout at Time 2 was significantly weaker than the path coefficient relating parental burnout at Time 1 to parental neglect at Time 2, then we could assume that parental neglect was more a consequence of parental burnout than the reverse. We used the post-estimation tools for SEM in Stata to test standardized path coefficients. By comparing two paths with a chi-squared test, this approach made it possible to assert that the effect of one variable on another was significantly stronger or weaker than the effect between two other variables or between the same variables at different timepoints. Post-estimation tests showed that parental violence was clearly a consequence of parental burnout rather an antecedent,  $\chi^2(1) = 5.82, p < .05$ . The difference did not reach significance for escape ideation. Finally, parental burnout and parental neglect had circular effects (parental burnout increases parental neglect, which in turn increases parental burnout, and so forth).

We also examined the overall effect size of parental burnout on escape ideation, parental neglect, and parental violence. As shown in Table 2, parental burnout had large-size associations with escape ideation as well as with parental neglect and parental violence at all times.

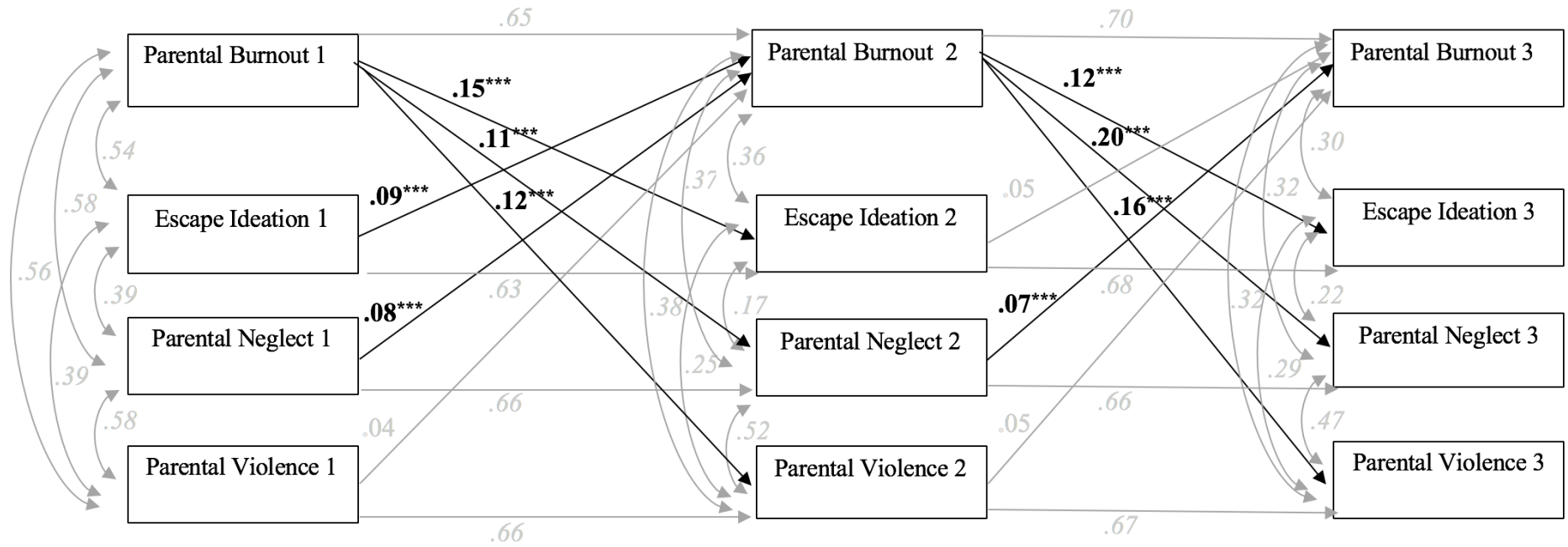


Figure 1. Study 1: Full cross-lagged panel model. Model fit indices:  $\chi^2(29) = 271.29, p < .001$ ; CFI = .96; TLI = .91; RMSEA = .09 [.08-.10]. Autoregressive paths and covariances are in gray italics; all coefficients are significant at  $p < .001$ . Significant cross-lagged paths are in bold. Non-significant cross-lagged paths are in gray.

## **Study 2:**

### **Parental Burnout in English-Speaking Cultural Contexts**

#### **Participants**

Participants were recruited via Prolific (<https://www.prolific.ac>), a subject-recruitment platform created in Cambridge, UK. Prolific connects researchers with people around the world and is now used by most top-ranked universities because it enables fast, reliable, and high-quality data collection. Researchers can enter their study proposal and select screening criteria that ensure that only people with certain characteristics can participate (e.g., only people whose mother tongue is English, who hold a job, and who have children). In order to avoid (self-)selection bias, participants were not informed that the study was about burnout. Instead, the study was presented as being about “fulfillment and exhaustion in professional and family life.” Participants were eligible to participate only if they had a job and at least one child. Participants who met the pre-screening criteria were invited via Prolific to complete the survey online on Qualtrics anonymously (matching across times was done using prolific ID). Participants who completed the questionnaire were paid £3 for their participation. The same amount was paid at each wave. Because payment on Prolific depends on study length, shortened (3-item) measures of the consequences were used. Since participants were paid for their participation, we introduced three attentional check items. Only participants who correctly answered all three items were considered for the analyses.

At Time 1, a sample of 822 English-speaking parents (59.2% women) completed the study. The women’s ages ranged from 20 to 63 years (mean age = 38.68; SD = 8.44), and the men’s ages ranged from 21 to 62 years (mean age = 38.02; SD = 7.20). The majority came from the UK (55.7%), a minority from other English-speaking countries (31.8%) and the remaining 12.5% from other countries. Overall, the participants had from 1 to 6 children. The



sample was relatively representative: 38.3% of the participants were educated to secondary level, 43.6% had a first degree from university or college, 15.2% had a master's degree, and 2.9% had a PhD or MBA degree. At Time 2 (4.5 months later), 530 parents (57.4% women) completed all questionnaires. At Time 3 (another 4.5 months later, i.e., 9 months after Time 1), 494 parents (56% women) completed all questionnaires. Missingness analyses were carried out to examine the nature of drop-out (see Analyses and Results section).

**Measures.** The following were included at all measurement times, in addition to socio-demographic questions. Questionnaires were completed with “forced choice option” in Qualtrics, ensuring a dataset with no missing values. Means, standard deviations, and reliabilities are reported in Table 1. All measures had good to excellent reliability.

**Parental burnout** was assessed with the Parental Burnout Inventory (PBI<sup>2</sup>; Roskam, Raes & Mikolajczak, 2017) described in Study 1.

**Escape ideation** was assessed with the following three items: *I want to give up everything and leave without leaving any address; I want to leave everything and start a new life; I have suicidal thoughts*). A global score was obtained by summing the items.

**Parental neglect** was measured using a shortened 3-item version of the Parental Neglect Scale (Mikolajczak, Brianda et al., 2018) used in Study 1. The items cover physical neglect (*I don't care about my children when I know I should (meals, hygiene, etc.)*), educational neglect (*I don't help my children when they really need it (for their homework, to make a decision, to resolve a conflict, etc.)*) and emotional neglect (*I don't comfort my children when they are sad, frightened, or distraught*). A global score was obtained by summing the items.

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**Parental violence** was assessed with a shortened 3-item version of the Parental Violence Scale (Mikolajczak, Brianda et al., 2018) used in Study 1. The items cover verbal violence (*I say things to my children that I then regret (threats, insults, ridiculous nicknames, etc.)*), physical violence (*I spank or slap my children*), and psychological violence (*I tell my children that I will abandon them if they are not good*). A global score was obtained by summing the items.

### **Statistical Analyses**

Preliminary and main statistical analyses were conducted as in Study 1.

### **Results**

**Preliminary analyses.** We found differential attrition among subgroups within the study. In particular, participants who dropped out from Time 1 to Time 2 were slightly younger ( $B(1) = .05, p < .001$ ) and they scored higher on parental neglect ( $B(1) = -.35, p < .001$ ). Also, the participants who dropped from Time 2 to Time 3 were slightly younger ( $B(1) = .04, p < .001$ ), and had more children ( $B(1) = -.15, p < .05$ ) (see Supplementary Table 1 for the means and SDs of these variables separately for people who dropped out and who did not). In addition, more women (23.5%) than men (16.7%) dropped out from Time 1 to Time 2 ( $B(1) = .33, p < .05$ ). Differences in parental burnout between those who did and did not drop out were not found. The pattern of missingness was not random. The main risk was that this would reduce the likelihood of finding significant effect on some of the consequences, since participants who dropped out were those who scored higher. But, if significant effects were found, the pattern of missingness would not alter the interpretation of the results.

**Main analyses.** The two steps of nested-model comparison are detailed below. As in Study 1, the findings are consistent with the notion that parental burnout increases escape ideation, parental neglect, and parental violence, more than the opposite.

The baseline model displayed barely acceptable fit to the data:  $\chi^2(40) = 317.77$ ,  $p < .001$ ; CFI = .91; TLI = .87; RMSEA = .09 [.08-.10]. The cross-lagged panel model (Figure 2) fitted the data better than the baseline model,  $\Delta\chi^2(12) = 128.31$ ,  $p < .001$ ;  $\chi^2(78) = 189.46$ ,  $p < .001$ ; CFI = .95; TLI = .89; RMSEA = .08 [.07-.09].

We also examined the overall effect-size of parental burnout on escape ideation, parental neglect, and parental violence. As shown in Table 2, parental burnout had large associations with escape ideation as well as with parental neglect and parental violence at all times.

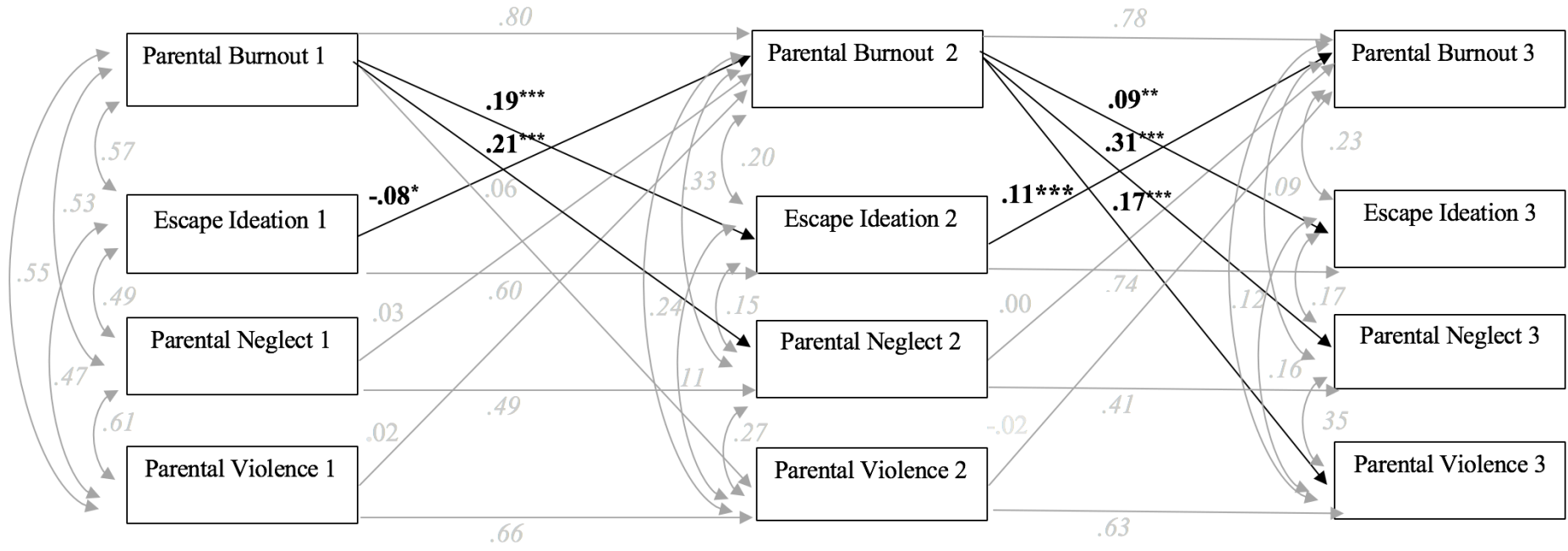


Figure 2. Study 2: Full cross-lagged panel model. Model fit indices:  $\chi^2(78) = 189.46, p < .001$ ; CFI = .95; TLI = .89; RMSEA = .08 [.07-.09]. Autoregressive paths and covariances are in gray italics; all coefficients are significant at  $p < .001$  (except Parental violence2\*Escape Ideation2 and Parental Burnout3\*Parental Violence3, which are significant at  $p < .05$ , and Parental Burnout3\*Parental Neglect3, which is not significant). Significant cross-lagged paths are in bold. Non-significant cross-lagged paths are in gray.

## General Discussion

When Dickens wrote that “It was the best of times, it was the worst of times” (1859, p. 1), he could have been describing parenting. Parenting can be a wonderful, meaningful, rewarding experience when parents have enough resources to deal with parenting stress (Nelson et al., 2013). But, as shown in the current studies, when stressors outstrip resources, there can be very damaging consequences, not only for the parent (in terms of escape ideation, involving thoughts of running away or committing suicide), but also for the children (in terms of neglect and violence). Consequences for the children are especially worrying, not only because parental burnout is a highly prevalent condition that appears to have a large effect on these important outcomes (which is not so surprising, considering that parenting is the *source* of the parent’s suffering), but also because both neglect and violence have long-term harmful effects for the affected children (for a meta-analysis, see Norman, Byambaa, De, Butchart, Scott & Vos, 2012).

### Implications for Science and Practice

The present findings are of both scientific and practical relevance. At the scientific level, our results emphasize the importance of conceptually distinguishing between parental and job burnout: while job burnout has a trivial impact on child neglect and violence (see Mikolajczak, Brianda et al., 2018), parental burnout has a large impact on these outcomes. Our findings also constitute a call to action for researchers in clinical psychology: parental burnout needs urgent attention. Research is in its infancy and more studies are needed about the etiological processes of parental burnout at the micro, meso, and macro-levels (and the relations between these) in order to develop efficient interventions to prevent and treat parental burnout. Beyond their contribution to clinical psychological science, our results are of scientific interest for several related fields: (i) developmental psychopathology, as this research suggests that parental burnout is most likely an important mediator (and perhaps

moderator) of the effect of identified risk factors on child neglect and violence (Stith et al., 2009), (ii) clinical neuroscience, as our findings emphasize the need and relevance of studies that seek to uncover the brain changes that tie exhaustion to violence (e.g., Heatherton & Wagner 2011), (iii) social work, which will have to study the most appropriate way to support families when child abuse comes from parental exhaustion, and which should also examine more deeply the issue of missing parents, as the current result suggest that some parents may abandon their legal obligations towards their children due to extreme exhaustion, and finally (iv) public health, which should study how some campaigns in the parenting domain contribute to the exhaustion of today's parents, creating a cascade of downstream negative consequences for parents and their children (e.g., Coyne, McDaniel & Stockdale, 2017).

At the practical level, our findings show that although folk theories of parenthood render severe parenting-related distress taboo (Hansen, 2012), the veil must be lifted on parental burnout. Sensitization campaigns would allow burned out parents to seek help (and be taken care of) earlier on, thereby reducing the risk or frequency of deleterious consequences for both parents and children. Besides parents, professionals of health and child services should be informed as well. This is essential to allow them to accurately diagnose parental burnout and to provide parents with the most appropriate care. Beyond intervention, prevention of parental burnout must be intensified too. This can be done by reinforcing the use of existing “parenting hotlines” but also by providing parents with more resources to do their parenting job. On a more general note, our findings suggest that clinicians working with suffering children might want to consider more systematically the suffering parent behind the suffering child. The former can impact the latter, so by reducing parents’ suffering, clinicians can help reduce that of their children.

### **Limitations and Directions for Future Research**

The current findings are robust (large effect-sizes, large sample sizes, replicated in two samples from different cultural contexts), but several limitations bear mention.

A first limitation is related to the drop-out rate across time. As in most longitudinal studies, only a fraction of participants (21% in Study 1, 60% in Study 2) completed the study at all times. Additional studies with higher levels of participant retention are needed.

A second limitation is the very small proportion of fathers in Study 1 (only 17% at Time 3). The gender distribution was more balanced in Study 2 (44% fathers at Time 3) and the results were consistent with those of Study 1. However, the sample size was not sufficient to test the invariance of the model across genders. Future studies that delve more deeply into possible gender differences in parental burnout outcomes are therefore needed.

A third limitation is that these studies relied on self-reported outcomes. Three factors lead us to feel confident in our findings: (1) the relation between parental burnout and consequences hold when controlling for social desirability; (2) qualitative interviews of burned out parents confirm suicidal and family evasion ideation (Hubert & Aujoulat, 2018), and (3) qualitative interviews of children of burned out parents confirm parents' reports of child neglect and violence (du Pouget de Nadaillac, 2018). However, one research direction is to extend the present research by using objectively assessed outcome measures. It is difficult for the variables investigated here (because only a fraction of neglectful and violent behaviors is reported to the police) but other consequences are more suitable for objective study.

A fourth limitation is that these studies did not cover the whole range of possible consequences of parental burnout. Parental burnout likely has many other consequences besides those investigated here. We focused here on the ones that appear to differ most from job burnout. Future studies will be needed to examine other possible consequences of parental burnout for the parent (e.g., health deterioration), for the couple (e.g., divorce), and for the

children (e.g., educational difficulties). However, based on the present findings, it is already clear that parental burnout is a serious condition that deserves increased attention.



### **Author Contributions**

M.M. and I.R. developed the study concept and the study design. M.M. collected the data. I.R. performed the data analysis and interpretation. J.G outlined the article, M.M and I.R. drafted the manuscript, and J.G. provided critical revisions. All authors approved the final version of the manuscript for submission.

### **Open Practices Statement**

Neither of the experiments reported in this article was formally preregistered. However, the data have been made available on a permanent third-party archive: Open Science Framework. The two databases are available at <https://osf.io/bvjny/>

### **Declaration of Conflicting Interests**

The author(s) declared no conflicts of interest with respect to the authorship or the publication of this article.

### **Protection of Research Participants**

The two studies reported here were approved by the Institutional Review Board and were carried out in accordance with the provisions of the World Medical Association Declaration of Helsinki.

## References

- Acock, A.C. (2013). *Discovering structural equation modeling using Stata*. College Station, Texas: StatCorp LP.
- Alarcon, G. M. (2011). A meta-analysis of burnout with job demands, resources, and attitudes. *Journal of Vocational Behavior, 79*, 549-562.
- Blanchard, D. C., Hynd, A. L., Minke, K. A., Minemoto, T., & Blanchard, R. J. (2001). Human defensive behaviors to threat scenarios show parallels to fear-and anxiety-related defense patterns of non-human mammals. *Neuroscience & Biobehavioral Reviews, 25*, 761-770.
- Cole, D. A., & Maxwell, S. E. (2003). Testing mediational models with longitudinal data: Questions and tips in the use of structural equation modeling. *Journal of Abnormal Psychology, 112*, 558-577.
- Coyne, S. M., McDaniel, B. T., & Stockdale, L. A. (2017). “Do you dare to compare?” Associations between maternal social comparisons on social networking sites and parenting, mental health, and romantic relationship outcomes. *Computers in Human Behavior, 70*, 335-340.
- Crnic, K., & Low, C. (2002). Everyday stresses and parenting. In M.H. Bornstein. *Handbook of Parenting Volume 5 Practical Issues in Parenting* (pp. 243-268). Mahwah: Lawrence Erlbaum Associates.
- Deater-Deckard, K. (2008). *Parenting stress*. New Haven, CT: Yale University Press.
- Du Pouget de Nadaillac, L. (2018). *Les effets du burn-out parental sur les enfants, recherche qualitative auprès d'enfants de 6-12 ans* [Impact of parental burnout on children : qualitative study on 6-12 year-old children]. Unpublished master thesis, UCLouvain, Louvain-la-Neuve, Belgium.

- Eibach, R.P. & Mock, S.E. (2012). System justifying functions of myths that exaggerate the emotional rewards of parenthood. *Journal of Experimental Social Psychology, 48*, 1310-1315.
- Feldman, S.S., Nash, S. (1984). The transition from expectancy to parenthood: Impact of the firstborn child on men and women. *Sex Roles, 11*, 61-78.
- Gérain, P., & Zech, E. (2018). Does informal caregiving lead to parental burnout? Comparing parents having (or not) children with mental and physical issues. *Frontiers in Psychology, 9*.
- Hansen, T. (2012). Parenthood and happiness: A review of folk theories versus empirical evidence. *Social Indicators Research, 108*, 29-64.
- Heatheron, T. F., & Wagner, D. D. (2011). Cognitive neuroscience of self-regulation failure. *Trends in Cognitive Sciences, 15*, 132-139.
- Hubert, S., & Aujoulat, I. (2018). Parental burnout: When exhausted mothers open up. *Frontiers in Psychology, 9*, 1021.
- Kawamoto, T. K., Furutani, K., & Alimardani, M. (2018). Preliminary validation of Japanese version of the Parental Burnout Inventory and its relationship with perfectionism. *Frontiers in Psychology, 9*, 970.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*, 513-524.
- Hunter, J.E., Schmidt, F.L. (2004). Technical questions in meta-analysis of correlations. In F.L Schmidt & J.E. Hunter. *Methods of Meta-Analysis: Correcting Error and Bias in Research Findings* (pp 213-242). Thousand Oaks, CA: Sage Publications.
- Kahneman, D., Krueger, A. B., Schkade, D. A., Schwarz, N., & Stone, A. A. (2004). A survey method for characterizing daily life experience: The day reconstruction method. *Science, 306*, 1776-1780.

- Krabbe, D., Ellbin, S., Nilsson, M., Jonsdottir, I. H., & Samuelsson, H. (2017). Executive function and attention in patients with stress-related exhaustion: Perceived fatigue and effect of distraction. *Stress, 20*, 333-340.
- Lebert, A., Dorard, G., Boujut, E., & Wendland, J. (2018). Maternal burnout syndrome: Contextual and psychological associated factors. *Frontiers in Psychology, 9*, 885.
- Le Vigouroux, S., Scola, C., Raes, M. E., Mikolajczak, M., & Roskam, I. (2017). The big five personality traits and parental burnout: Protective and risk factors. *Personality and Individual Differences, 119*, 216-219.
- Lindahl Norberg, A. (2007). Burnout in mothers and fathers of children surviving brain tumour. *Journal of Clinical Psychology in Medical Settings, 14*, 130-137.
- Lindström, C., Åman, J., & Lindahl Norberg, A. (2010). Increased prevalence of burnout symptoms in parents of chronically ill children. *Acta Paediatrica, 99*, 427-432.
- Mehauden, F. & Piraux, V. (2018). Un trouble qui touche tous les profils sociodémographiques. In I. Roskam & M. Mikolajczak. *Le Burnout Parental : Comprendre, diagnostiquer et prendre en charge* (pp 141-158). Bruxelles : De Boeck Supérieur.
- Mikolajczak, M., Brianda, M. E., Avalosse, H., & Roskam, I. (2018). Consequences of parental burnout: Its specific effect on child neglect and violence. *Child Abuse & Neglect, 80*, 134-145.
- Mikolajczak, M., Raes, M. E., Avalosse, H., & Roskam, I. (2018). Exhausted parents: Sociodemographic, child-related, parent-related, parenting and family-functioning correlates of parental burnout. *Journal of Child and Family Studies, 27*, 602-614.
- Mikolajczak, M., & Roskam, I. (2018). A theoretical and clinical framework for parental burnout: The Balance between Risks and Resources. *Frontiers in Psychology, 9*, 886.

- Moons, W. G., Eisenberger, N. I., & Taylor, S. E. (2010). Anger and fear responses to stress have different biological profiles. *Brain, Behavior, and Immunity, 24*, 215-219.
- Nelson, S. K., Kushlev, K., English, T., Dunn, E. W., & Lyubomirsky, S. (2013). In defense of parenthood: Children are associated with more joy than misery. *Psychological Science, 24*, 3-10.
- Nomaguchi, K. M., & Milkie, M. A. (2003). Costs and rewards of children: The effects of becoming a parent on adults' lives. *Journal of Marriage and Family, 65*, 356-374.
- Norman, R. E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: A systematic review and meta-analysis. *PLoS Medicine, 9*, e1001349.
- Reynolds, W. M. (1982). Development of reliable and valid short forms of the Marlowe-Crowne Social Desirability Scale. *Journal of Clinical Psychology, 38*, 119-125.
- Roskam, I., Raes, M. E., & Mikolajczak, M. (2017). Exhausted parents: Development and preliminary validation of the Parental Burnout Inventory. *Frontiers in Psychology, 8*, 163.
- Roskam, I., Brianda, M. E., & Mikolajczak, M. (2018). A step forward in the conceptualization and measurement of parental burnout: The Parental Burnout Assessment (PBA). *Frontiers in Psychology, 9*.
- Séjourné, N., Sanchez-Rodriguez, R., Leboullenger, A., & Callahan, S. (2018). Maternal burn-out: An exploratory study. *Journal of Reproductive and Infant Psychology, 36*, 276-288.
- Shirom, A., Melamed, S., Toker, S., Berliner, S., & Shapira, I. (2005). Burnout and health review: Current knowledge and future research directions. *International Review of Industrial and Organizational Psychology, 20*, 269-308.

Stith, S. M., Liu, T., Davies, L. C., Boykin, E. L., Alder, M. C., Harris, J. M., ... & Dees, J. E.

(2009). Risk factors in child maltreatment: A meta-analytic review of the literature. *Aggression and Violent Behavior, 14*, 13-29.

Taris, T. W. (2006). Is there a relationship between burnout and objective performance? A critical review of 16 studies. *Work & Stress, 20*, 316-334.

Van Bakel, H. J., Van Engen, M. L., & Peters, P. (2018). Validity of the Parental Burnout Inventory among Dutch employees. *Frontiers in Psychology, 9*.

Wilkinson, H., Whittington, R., Perry, L., & Eames, C. (2017). Examining the relationship between burnout and empathy in healthcare professionals: A systematic review. *Burnout Research, 6*, 18-29.

Table 1.

Means, Standard Deviations, and Reliabilities (Cronbach's alpha) of the Variables

	Time 1			Time 2			Time 3		
	<i>M</i>	<i>SD</i>	<i>α</i>	<i>M</i>	<i>SD</i>	<i>α</i>	<i>M</i>	<i>SD</i>	<i>α</i>
Study 1									
Parental burnout	33.58	22.26	.94	32.94	22.34	.94	31.63	22.23	.95
Escape ideation	9.72	4.34	.82	8.47	4.17	.84	8.50	3.88	.84
Parental neglect	1.63	.51	.79	1.60	.52	.81	1.64	.57	.83
Parental violence	1.50	.44	.78	1.49	.44	.79	1.50	.45	.80
Study 2									
Parental burnout	29.43	21.78	.93	27.15	19.80	.92	29.96	20.44	.93
Escape ideation	1.55	1.09	.82	1.56	1.02	.79	1.54	1.09	.85
Parental neglect	1.43	.98	.82	1.28	.64	.70	1.30	.77	.83
Parental violence	1.46	.88	.74	1.34	.62	.61	1.32	.67	.68

Table 2.

## Bivariate Correlations between Parental Burnout and its Consequences at Each Time Point

Parental burnout with...	Study	Time 1	Time 2	Time 3	Aggregated effect size <sup>a</sup>
Escape ideation	Study 1	.54***	.55***	.55***	.55
	Study 2	.57***	.48***	.51***	
Parental neglect	Study 1	.57***	.58***	.63***	.53
	Study 2	.53***	.49***	.49***	
Parental violence	Study 1	.56***	.57***	.60***	.53
	Study 2	.55***	.42***	.44***	

*Note.* <sup>a</sup> To take into account the dependence between measures within studies, effect sizes were first aggregated across time points and then across studies. \*\*\* $p < 0.001$