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The Slippery Slope of Parental Exhaustion: A Process Model of Parental Burnout

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Declaration of Interest

Moïra Mikolajczak and Isabelle Roskam founded the Training Institute for Parental Burnout (TIPB) which delivers training on PB to professionals. The TIPB was founded after the completion of the study. The institute did not participate in the funding of this study nor did it influence the process or the results in any manner.

Highlights

Emotional exhaustion is a key symptom in parental burnout.

Emotional exhaustion is the first phase of the course of parental burnout.

Emotional exhaustion predicts increases in emotional distancing.

Emotional distancing and feelings of inefficacy mutually reinforce over time.

The Slippery Slope of Parental Exhaustion: A Process Model of Parental Burnout

Abstract

The goal of this research was to investigate the developmental process of parental burnout by testing whether there were systematic prospective relations between the dimensions of parental burnout as measured with the Parental Burnout Inventory (PBI). We investigated this question in two cross-lagged three-wave longitudinal studies with French- and English-speaking parents ($N_1=918$, 78.8% mothers, $M_{\text{age_mothers}} = 39.38$, $M_{\text{age_fathers}} = 43.02$; $N_2=822$, 59.2% mothers, $M_{\text{age_mothers}} = 38.68$, $M_{\text{age_fathers}} = 38.02$). High levels of exhaustion were found to predict increases in emotional distancing and feelings of inefficacy, which then mutually reinforce. Since emotional distancing elicits the most damaging consequences of parental burnout for children (i.e., parental neglect and violence), the current study suggests that prevention efforts will be most beneficial in the exhaustion phase of parental burnout.

Keywords: Parenting, burnout, stress, efficacy, detachment

The Slippery Slope of Parental Exhaustion: A Process Model of Parental Burnout

Over the past few decades, several major sociological changes (in particular the International Child Convention, 1989, and increased state regulation: see Daly, 2007) have drawn attention to the needs and rights of the child on the one hand, and to the corresponding parental duties and positive parenting attitudes on the other hand. As a consequence, parenting has profoundly changed, leading to increased parental involvement, and culminating in intensive parenting and overprotection of children (Bristow, 2014; Craig et al., 2014). As long ago as the early 1980s, two researchers working in the field of job burnout published a book entitled *Parent Burnout*, arguing that parenting can sometimes lead to exhaustion to such a degree that it could be called burnout (Procaccini & Kieffer, 1983). This insight has been confirmed over the last few decades, with a concerning number of Western parents reporting parental burnout (Roskam et al., 2018). According to the results of the International Investigation of Parental Burnout (IIPB), a survey of thousands of parents in 42 countries all over the world, 5 to 8% of parents are currently suffering from parental burnout in western countries (Roskam et al., 2021). The goal of this research was to investigate the developmental process of parental burnout by testing whether there were systematic prospective relations between the dimensions of parental burnout.

Parental burnout occurs in response to chronic and overwhelming parenting stress. Parental burnout is defined as a multidimensional syndrome encompassing feelings of exhaustion in parenting, emotional distancing from one's children, and loss of pleasure and efficacy in one's parental role. Parents feel so overwhelmed that the mere thought of having to care for their children and perform parenting tasks seems physically and/or emotionally unbearable. This intense exhaustion leads them to distance themselves emotionally from their

children. Their emotional investment in parenting diminishes and they report that they are acting on autopilot or like robots (Mikolajczak et al., 2019; Roskam et al., 2017). They progressively lose their pleasure in parenting, become overwhelmed and feel that they are no longer the good parents they used to be (Hubert & Aujoulat, 2018; Roskam et al., 2018).

The above definition of parental burnout conveys the idea that the various core dimensions of parental burnout do not appear all together at once, but that they have systematic relations with each other over time. As attractive as it may be, this assumption has never actually been tested. Yet the relations between these dimensions are an important question, not only theoretically but also practically. It has recently been shown that, among the various dimensions of parental burnout, emotional distancing is the most predictive of parental neglect and parental violence (Blanchard et al., 2021; Hansotte et al., 2021; Mikolajczak et al., 2018). If increases in emotional distancing is itself predicted by other dimensions of parental burnout, this means that children could be protected from the most deleterious consequences of parental burnout by identifying and treating the parents at an earlier stage of parental burnout.

A Process Model of Parental Burnout

At present, there is not much research on which to base hypotheses about the course of parental burnout. In order to generate hypotheses, we can however draw on both the etiological model of parental burnout and the literature on the developmental process of burnout in other domains, i.e. job and school burnout. According to the Balance between Risks and Resources theory of parental burnout (Mikolajczak & Roskam, 2018), exhaustion is likely to be the first phase of parental burnout, given that weariness is the primary response to chronic stress (McEwen, 2005). Once exhaustion occurs, exhausted parents try to preserve

what little energy they have left (Conservation of Resource theory; Hobfoll, 1989) by detaching themselves from their children and acting on autopilot. If this is true, exhaustion should be prospectively associated with emotional distancing. Once distancing occurs, parents should feel less efficient and fulfilled in their parental role. If this is the case, emotional distancing should be prospectively associated with feelings of inefficacy.

Parental and job burnout are distinct constructs and entities (Mikolajczak et al., 2020), notably in the sense that one does not necessarily entail the other: correlations between the two forms of burnout are small to moderate (Kawamoto et al., 2018; Roskam et al., 2017; Szczygiel et al., 2020; Van Bakel et al., 2018). One can be exhausted in one's work but not in one's parenting, and the reverse is also possible. Even though the origin and expression of the two differ (e.g., parental and job burnout are both characterized by exhaustion, but the source of exhaustion is different; they are both characterized by detachment, but the target of detachment is different), parental and job burnout do share the same definitional features (i.e., exhaustion, detachment, loss of efficacy and accomplishment). It may therefore be relevant to look at the literature on job burnout to see if burnout can be conceptualized as a developmental process and, if so, whether there are systematic prospective relations between the three core dimensions which would suggest a consistent order in which they usually appear.

There is now a relative consensus in the field of job burnout that burnout is a developmental process in which each dimension represents a key phase in the process. Although it was initially suggested that exhaustion is the *last* phase of burnout (Golembiewski et al., 1986), most empirical research relying on cross-lagged models encompassing two to four waves of assessment has shown that emotional exhaustion, triggered by prolonged stress at work, is actually the first phase of job burnout (Lee & Ashforth, 1996; Leiter, 1993, 2017;

Leiter & Maslach, 1988; Taris et al., 2005). This phase is usually followed by depersonalization (or detachment), largely seen as a defense or "coping" mechanism against exhaustion (Williams et al., 2009). Depersonalization then leads to the impoverishment of relationships with customers or other recipients of service or care, which has the effect of reducing feelings of efficiency and fulfillment at work (Leiter & Maslach, 1988; Taris et al., 2005). Feedback loops then maintain the syndrome (Taris et al., 2005). The available findings on the development of school burnout support this process model (Parker & Salmela-Aro, 2011).

The Current Study

Relying on two cross-lagged longitudinal studies with three waves of data collection, this study aimed to examine the developmental process of parental burnout. It specifically aimed to determine whether there are systematic prospective relations between the three dimensions of parental burnout and, if so, in which order they manifest. Based on the research described above, we expected that high levels of exhaustion would predict high levels of emotional distancing, which elicit feelings of inefficacy. In line with Taris et al. (2005) and Parker and Salmela-Aro (2011), we further expected that dimensions mutually reinforce over time through feedback loops.

The data used in this paper come from a longitudinal research program encompassing two longitudinal studies. The use of these two independent longitudinal datasets was motivated by the recent replication crisis in psychology and the related need to draw robust conclusions to inform clinical practice (Tackett, et al., 2019). Study 1 consisted of three measurement times 5.5 months apart. It was conducted with French-speaking parents. Study 2 had three measurement times 4.5 months apart. It was conducted with English-speaking

parents. This longitudinal research program aimed to investigate three research questions: the consequences of parental burnout (Mikolajczak et al., 2019), its distinctiveness from job burnout and depression (Mikolajczak et al., 2020), and finally its developmental process (the subject of this paper). In the current study, in order to study the relations between the dimensions of parental burnout over time, we utilized data relating to the dimension scores of the Parental Burnout Inventory in each wave. These dimensional scores have not been previously used.

Study 1:

The Process Model of Parental Burnout in French-Speaking Cultural Contexts

Method

Participants

Information about the study was given to parents through schools, pediatricians, social networks, websites, or word of mouth. We did not mention that the study focused on parental burnout in order to avoid self-selection bias. Instead, the study was entitled “Parental well-being and exhaustion.” The inclusion criterion for participation in the study was that participants must still have at least one child living in the family home. Participants had to give their informed consent first, and then the data was collected online on Qualtrics. Participants had the right to withdraw at any time without having to give a reason. They were informed that their data would remain anonymous. This anonymity was ensured by the use of an identification code that made it possible to link the participants' data to the three measurement times without revealing their identity. All participants in the study were given the opportunity to participate in a lottery to win tickets for an amusement park or wellness

center, a stay for two people in a hotel, or €300. Participants wishing to participate in the lottery and/or the next measurement time were invited to leave us their e-mail address.

However, an automated electronic procedure was used to dissociate the information given by the participants in the questionnaire from their e-mail address. The data relating to the study and the e-mail addresses were encoded in separate files. Study 1 received the approval of the Institutional Review Board, and was implemented in accordance with the Code of Ethics of the World Medical Association (Declaration of Helsinki).

In Wave 1, 2,608 parents (78.8% women) completed the survey. The women's ages ranged from 22 to 64 years ($M = 39.38$; $SD = 7.13$); the men's ages ranged from 27 to 69 years ($M = 43.02$; $SD = 9.49$). The parents came from Belgium (96.9%), from other French-speaking European countries (2.3%), and from non-European French-speaking countries (0.8%). They had from 1 to 7 children living at home aged from 0 to 35 years ($M = 8.96$; $SD = 6.81$). The sample was fairly representative of the population: 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 €3,999, 25.1% between €4,000 and €5,499, and 10.1% of €5,500 or higher.

In Wave 2 (5.5 months later), 921 parents (78.9% women) completed the survey under consideration in the current study (i.e. sociodemographic characteristics and PBI). In Wave 3 (another 5.5 months later, i.e., 11 months after Wave 1), 571 parents (80.4% women) completed the survey. Drop-out was examined by means of missingness analyses (see Analyses and Results sections).

Measures

We included the following measures in the three waves. The “forced choice option” in Qualtrics was used to ensure a dataset with no missing values.

Insert Table 1 here

Socio-Demographics. Parents provided data about their age, sex, number of children (plus the age of each child and whether they were still living at home), marital status, educational level, net household income, and work.

Parental Burnout. Parental burnout was assessed with the Parental Burnout Inventory (PBI ; Roskam et al., 2017)¹. The scale consists of 22 items related to three 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 Maslach Burnout Inventory (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 scores on each of the three subscales are calculated as the sum of the items. Thus, a high score means a high level of Emotional Exhaustion,

¹ As Items 1 to 8 and 17 to 22 were adapted from the Maslach Burnout Inventory (MBI), the copyright holder of the MBI holds the rights for these items: copyright © 1981 Christina Maslach & Susan E. Jackson. All rights reserved in all media. Published by Mind Garden, Inc., www.mindgarden.com. Altered with permission of the publisher.

Emotional Distancing or Feelings of Inefficacy. Means, standard deviations, and reliabilities of the three subscores of parental burnout are displayed in Table 1.

Statistical Analyses

Preliminary Analyses. We first analyzed missingness. As in most longitudinal studies, attrition occurred between waves on account of participant dropout, erroneous e-mail address, or logging out of the online survey before reaching the end of the questionnaire. Potential predictors of missingness (i.e., gender, age, number of children, educational level, and parental burnout at Time 1) were entered in logistic regressions with the binary dropout in Wave 2 or in Wave 3 as the dependent variable. We also checked the reliability estimates (Cronbach's alphas) of the three PBI subscales at each measurement time.

Main Analyses. To test stability and the prospective relations between Emotional Exhaustion, Emotional Distancing and Feelings of Inefficacy over time, we computed cross-lagged panel analyses in Stata 16 (StataCorp, 2019). We first tested a transactional model with bidirectional and recursive relations between observed variables at the three waves, as well as autoregressive paths and cross-sectional correlations. Second, in order to test the hypothesis of an indirect effect of Emotional Exhaustion (Time 1) on Feelings of Inefficacy (Time 3) via Emotional Distancing (Time 2), we then tested a model which formally estimated these effects. We added a path from Emotional Exhaustion (Time 1) to Feelings of Inefficacy (Time 3) and estimated direct, indirect and total effects with the "estat teffects" command in Stata. Where we found evidence for feedback loops between dimensions, we also tested for indirect effects in this second model. In particular, we tested the feedback loops among Emotional Distancing and Feelings of Inefficacy in Study 1. Skewness and kurtosis indicated that Emotional Exhaustion, Emotional Distancing and Feelings of Inefficacy

displayed some deviations from normality. In Study 1, skewness coefficients ranged from .82 (Emotional Exhaustion at Time 1) to 1.61 (Emotional Distancing at Time 2); kurtosis coefficients ranged from 2.78 (Emotional Exhaustion at Time 1) to 5.57 (Emotional Distancing at Time 2). These deviations from normality were expected since in the general population, parental burnout has an asymmetrical distribution (i.e., it is positively skewed). In order to use all the available data and thus retain as much statistical power as possible, we applied maximum likelihood with missing values (mlmv) as the method of estimation to compute the parameter estimates of a model combined with the “vce(robust)” option. This option does not assume normality (Acock, 2013), an assumption that we could not make since some skewness and kurtosis values lay beyond the threshold values of $|2|$ and $|7|$ suggested by Finney and DiStefano (2006). Equation-level goodness of fit, i.e. the Bentler-Raykov squared multiple correlation coefficient (R^2) for each dependent variable in Wave 2 and Wave 3, and the Coefficient of Determination (CD), i.e. the percentage of variance explained by an equation of a model, are reported. The coefficient of determination is like R^2 in linear regression (overall R^2). All data and syntaxes are available on OSF (https://osf.io/bvjny/?view_only=f7aea47b16e74338a1a2e41603cc73e0).

Results

Preliminary Analyses

Dropout analyses (i.e., binary logistic regressions) showed that participants who dropped out between Time 1 and Time 2 did not differ from those who completed the survey at both times. However, participants who dropped out between Time 2 and Time 3 were slightly more highly educated ($B(1) = .16, p < .05$), Nagelkerke $R^2 = .01$. As shown in Table 1, reliability estimates were good to excellent at all three waves.

Main Analyses

The results of the full cross-lagged panel model, in particular standardized coefficients and confidence intervals, are presented in Figure 1². Unstandardized and standardized estimates for all parameters, robust standard errors and 95% confidence intervals are displayed in Table 2. The high and significant autoregressive standardized coefficients (β between .52 and .69, $p < .001$) showed that Emotional Exhaustion, Emotional Distancing and Feelings of Inefficacy were relatively stable at 5.5-month intervals. The cross-sectional covariances showed that the highest covariance was found between Emotional Exhaustion and Emotional Distancing, and the lowest between Emotional Exhaustion and Feelings of Inefficacy. Among the 12 cross-lagged path coefficients, 6 were significant. Emotional Exhaustion at Time 1 predicted increases in Emotional Distancing at Time 2 ($\beta = .10$, $p = .003$), and Emotional Exhaustion at Time 2 predicted increases in Emotional Distancing at Time 3 ($\beta = .11$, $p = .002$). Emotional Distancing at Time 1 predicted increases in Feelings of Inefficacy at Time 2 ($\beta = .20$, $p < .001$), which predicted increases in Emotional Distancing at Time 3 ($\beta = .15$, $p < .001$). Conversely, Feelings of Inefficacy at Time 1 predicted increases in Emotional Distancing at Time 2 ($\beta = .07$, $p = .005$), which predicted increases in Feelings of Inefficacy at Time 3 ($\beta = .16$, $p = .001$). R^2 for the dependent variables was .56 for Emotional Exhaustion, .53 for Emotional Distancing, and .41 for Feelings of Inefficacy in

² Note that Stata does not deliver the fit indices when the `mlmv` and `vce(robust)` options are used. We changed the estimation method and used the `ml` and the `vce(sbentler)` options. The fit indices are corrected for non-normality but estimated on complete data because of listwise deletion. The fit indices are good in Study 1 ($n = 569$) for Model 1 (CFI = 0.950 ; SRMR = 0.040) and Model 2 (CFI = 0.975 ; SRMR = 0.025).

Wave 2, and .56 for Emotional Exhaustion, .54 for Emotional Distancing, and .50 for Feelings of Inefficacy in Wave 3. Overall R^2 was .83.

The examination of the indirect effect of Emotional Exhaustion (Time 1) on Feelings of Inefficacy (Time 3) via Emotional Distancing (Time 2) revealed an absence of both direct effect of Emotional Exhaustion (Time 1) on Feelings of Inefficacy (Time 3) ($\beta = -.07, p = .137$), and indirect effect ($\beta = .05, p = .230$). The examination of the indirect effect of Feelings of Inefficacy (Time 1) on Feelings of Inefficacy (Time 3) via Emotional Distancing (Time 2) revealed the presence of direct effect of Feelings of Inefficacy (Time 1) on Feelings of Inefficacy (Time 3) ($\beta = .30, p < .001$), and indirect effect ($\beta = .26, p < .001$), supporting the potential for feedback loop among Feelings of Inefficacy and Emotional Distancing. The examination of the indirect effect of Emotional Distancing (Time 1) on Emotional Distancing (Time 3) via Feelings of Inefficacy (Time 2) revealed the presence of direct effect of Emotional Distancing (Time 1) on Emotional Distancing (Time 3) ($\beta = .24, p < .001$), and indirect effect ($\beta = .31, p < .001$), supporting the potential for feedback loop among Emotional Distancing and Feelings of Inefficacy.

In summary, the findings suggest that Emotional Exhaustion predicted increases Emotional Distancing over time, and that Emotional Distancing and Feelings of Inefficacy are mutually reinforcing, each predicting increases in the other over time supporting the potential for feedback loops among Emotional Distancing and Feelings of Inefficacy.

Study 2:

The Process Model of Parental Burnout in English-Speaking Cultural Contexts

Method

Participants

Participants were recruited via Prolific (Cambridge, UK; <https://www.prolific.ac>). As for Study 1, we did not mention that the study focused on parental burnout in order to avoid self-selection bias. Instead, the study was entitled “Fulfillment and exhaustion in professional and family life.” Participants completed the survey online on Qualtrics. The data were anonymous. Prolific ID was used to match participants across measurement times. Participants who completed the questionnaire received £3 in each wave. Since participants were paid for their participation, three attentional check items were introduced at various places in the survey. Only participants who answered all three items correctly were included in the analyses. Study 2 received the approval of the Institutional Review Board, and was implemented in accordance with the Code of Ethics of the World Medical Association (Declaration of Helsinki).

In Wave 1, 822 English-speaking parents (59.2% women) completed the survey. The women’s ages ranged from 20 to 63 years ($M = 38.68$; $SD = 8.44$), and the men’s ages ranged from 21 to 62 years ($M = 38.02$; $SD = 7.20$). Parents came from the UK (55.7%), from other English-speaking countries (31.8%) and from other countries (12.5%). The participants had from 1 to 6 children. The sample was fairly 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. In Wave 2 (4.5 months later), 530 parents (57.4% women) completed the survey. In Wave 3 (another 4.5 months later, i.e., 9 months after Time 1), 494 parents (56% women) completed the survey. Dropout was examined by means of missingness analyses (see Analyses and Results sections).

Measures and Statistical Analyses

The measures and statistical analyses were the same as in Study 1 (except that all questionnaires were in English). The same models were tested in the two studies successively for replication purposes. Means, standard deviations, and reliabilities of the three sub scores of parental burnout are displayed in Table 1. In Study 2, skewness coefficients ranged from .83 (Emotional Exhaustion at Time 1) to 2.33 (Emotional Distancing at Time 3); kurtosis coefficients ranged from 2.92 (Emotional Exhaustion at Time 1) to 9.30 (Emotional Distancing at Time 3).

Results

Preliminary Analyses

Dropout analyses (i.e., binary logistic regressions) showed that participants who dropped between Time 1 and Time 2 were slightly younger ($B(1) = .05, p < .001$), Nagelkerke $R^2 = .05$, and that participants who dropped between Time 2 and Time 3 were again slightly younger ($B(1) = .04, p < .001$) and had more children ($B(1) = -.19, p < .05$), Nagelkerke $R^2 = .05$, than participants who did not drop out. As shown in Table 1, reliability estimates were good to excellent at all times.

Main Analyses

The results of the full cross-lagged panel model, in particular standardized coefficients and confidence intervals, are presented in Figure 2³. Unstandardized and standardized

³ Note that Stata does not deliver the fit indices when the `mlmv` and `vce(robust)` options are used. We changed the estimation method and used the `ml` and the `vce(sbentler)` options. The fit indices are corrected for

estimates for all parameters, robust standard errors and 95% confidence intervals, are displayed in Table 3. The high and significant autoregressive standardized coefficients (β between .55 and .74, $p < .001$) showed that Emotional Exhaustion, Emotional Distancing and Feelings of Inefficacy were relatively stable at 4.5-month intervals. The cross-sectional covariances showed a coherent pattern of positive associations between the three core dimensions of parental burnout. Again, the highest covariance was found between Emotional Exhaustion and Emotional Distancing, and the lowest between Emotional Exhaustion and Feelings of Inefficacy. Among the 12 cross-lagged path coefficients, 5 were significant. Emotional Exhaustion at Time 1 predicted increases in Emotional Distancing at Time 2 ($\beta = .13, p = .015$). Also, Emotional Exhaustion at Time 2 predicted increases in Emotional Distancing at Time 3 ($\beta = .22, p = .001$) and Emotional Distancing at Time 2 predicted increases in Emotional Exhaustion at Time 3 ($\beta = .13, p = .031$). Emotional Distancing at Time 2 predicted increases in Feelings of Inefficacy at Time 3 ($\beta = .11, p = .058$) and Feelings of Inefficacy at Time 2 predicted increases in Emotional Distancing at Time 3 ($\beta = .15, p = .013$). R^2 for the dependent variables was .58 for Emotional Exhaustion, .49 for Emotional Distancing, and .42 for Feelings of Inefficacy in Wave 2, and .66 for Emotional Exhaustion, .53 for Emotional Distancing, and .50 for Feelings of Inefficacy in Wave 3. Overall R^2 was .84.

The examination of the indirect effects of Emotional Exhaustion (Time 1) on Feelings of Inefficacy (Time 3) via Emotional Distancing (Time 2) revealed an absence of both direct

non-normality but estimated on complete data because of listwise deletion. The fit indices are good in Study 2 ($n = 400$) for Model 1 (CFI = 0.938 ; SRMR = 0.040) and Model 2 (CFI = 0.962 ; SRMR = 0.024).

effect of Emotional Exhaustion (Time 1) on Feelings of Inefficacy (Time 3) ($\beta = .10, p = .15$), and indirect effect ($\beta = -.02, p = .70$).

In summary, consistent with Study 1, the findings suggest that Emotional Exhaustion predicted increases in Emotional Distancing from Time 1 to Time 2 as well as from Time 2 to Time 3. They also suggest that from Time 2 to Time 3 (but not from Time 1 to Time 2), Emotional Distancing and Feelings of Inefficacy are mutually reinforcing, each predicting increases in the other over time. The absence of an indirect effect of Emotional Exhaustion (Time 1) on Feelings of Inefficacy (Time 3) through Emotional Distancing (Time 2) evidenced in Study 1, was also replicated in Study 2. In contrast to Study 1, the findings of Study 2 show that Emotional Distancing (Time 2) predicted increases in Emotional Exhaustion (Time 3).

General Discussion

While the interest in parental burnout has increased greatly among the public, professionals, the media and researchers alike in recent years (for a brief review, see Mikolajczak, et al., 2021), many issues still need to be addressed in this young field of research. One of these issues concerns the course of parental burnout: is it a developmental process, or do all dimensions of parental burnout appear at once? The current study aimed to answer this question using the data of two longitudinal studies previously conducted to answer other research questions (Mikolajczak et al., 2019; Mikolajczak et al., 2020). Although differences between findings were observed, the results suggest a quite consistent model of the progression of parental burnout. Parental burnout starts with Emotional Exhaustion; Emotional Exhaustion then contributes to Emotional Distancing; and Emotional Distancing and Feelings of Inefficacy are mutually reinforcing by means of feedback loops

found from Time 1 to Time 2 in Study 1 and from Time 2 to Time 3 in both Study 1 and Study 2. The course of parental burnout found here seems very consistent with the progression of both job burnout and school burnout (e.g., Parker & Salmela-Aro, 2011; Taris et al., 2005). Our results therefore provide evidence that burnout, in whatever sphere it appears, is a developmental process. People do not suddenly burn out: they become exhausted and progressively burn out.

Implications for Science and Practice

The current findings are instructive for both theory and practice. At the theoretical level, our findings complement and reinforce the developmental models in the field of job burnout. They complement them in the sense that (1) they are consistent with the view that detachment is a response (probably a defensive/coping response) to emotional exhaustion (Leiter & Maslach, 1988; Williams et al., 2009), (2) they suggest that detachment may also protect parents from negative affect and cognitions about parenting by preventing them from feeling incompetent in their parenting role, and (3) they show that as burnout progresses, dimensions begin to loop and mutually reinforce (Taris et al., 2005). These loops may explain why depersonalization and loss of professional accomplishment appeared together in studies with longer intervals between measures (e.g., 8 months; Lee & Ashforth, 1996). Our findings also reinforce those obtained in the work domain. The course of job burnout has mostly been investigated in studies with two time points, usually relying on small sample sizes, and sometimes with very long intervals (up to 8 *years*), making it difficult to draw solid conclusions about the course of burnout (see Taris et al., 2005 for a review). Taris et al. (2005) circumvented these limitations, and our findings largely confirm their model (Emotional Exhaustion → Depersonalization → Loss of Professional Accomplishment + feedback effects), additionally showing that feedback loops over time involve not only

emotional exhaustion and loss of professional accomplishment, but also depersonalization (Emotional Distancing in our model).

Beyond their theoretical implications, our findings have crucial practical implications. They suggest that the most deleterious consequences of parental burnout on children (i.e., parental neglect and violence) could be prevented by identifying parents in the earliest phase of the burnout process. Previous results (e.g., Blanchard et al., 2021; Hansotte et al., 2021) have highlighted that it is emotional distancing that triggers the sharp increase in parental neglect and violence associated with parental burnout. Because the current results show that emotional exhaustion predicts increases in emotional distancing over time, particular attention should be paid to exhausted parents. Professionals in contact with parents (i.e., family doctors, psychologists, general practitioners, pediatricians, midwives) should be informed about parental burnout and its etiology, and encouraged to examine with the parent what can be done to alleviate parenting stressors and/or increase resources, thereby restoring the parent's balance (Mikolajczak & Roskam, 2018). Prevention efforts can be expected to be most beneficial in the exhaustion phase.

Furthermore, the results found in support of feedback loops between feelings of inefficacy and emotional distancing, suggest that an intervention that would aim to increase the parental self-efficacy beliefs, could also be effective in preventing parental neglect and violence. This type of intervention could overcome the effects of parental perfectionistic concerns and the pressure to be a perfect parent that were found to play a role in parental burnout (Kawamoto, et al., 2018; Lin, et al., in press; Sorkkila & Aunola, 2020). Parental self-efficacy was also a component of an intervention program tested by Brianda, et al., 2020). Although it is impossible to isolate effects specifically related to parental self-efficacy, this

treatment not only reduced parental burnout symptoms but also parental neglect and violence towards children.

Limitations and Directions for Future Research

In spite of the strengths of the studies from which the data used in the current study were drawn (two independent samples from different countries, large sample sizes, three measurement points), several limitations should be mentioned. A first limitation concerns the dropout rate between measurement times in the two studies. As is regularly the case in longitudinal studies, the proportion of subjects participating in all measurement times was relatively low: 21% of parents completed the questionnaires at the three measurement times in Study 1 and 60% did so for the three measurement times in Study 2. A second limitation concerns the participation of fathers, which was limited: only 17% of the participants in Wave 3 of Study 1 were fathers. Their participation in Study 2 was greater: 44% of participants in Wave 3 were fathers. The difference in father participation in the two studies can probably be explained by the inclusion criteria and the title of the study. Study 2 recruited participants who had both a job and children, and was entitled "Fulfillment and exhaustion in professional and family life", whereas Study 1 was entitled "Parental well-being and exhaustion". A third limitation is that the studies relied on self-reported measures. Even though burnout is essentially a subjective condition, studies that operationalize the three phases using external indicators would provide further evidence for the developmental process found here. Fourth, although online data collection has advantages such as facilitating participant recruitment, avoiding coding errors based on paper-and-pencil questionnaires, limiting missing data in the questionnaire, or being more environmentally friendly, this procedure can also be considered a limitation. In particular, it reinforces the snowball effect and does not guarantee the representativeness of the sample, excluding from the sample participants who do not have

access to social networks or an internet connection. We cannot rule out the possibility that this type of procedure influenced the data. Fifth, we opted in this study for cross-lagged analyses to test for systematic relationships between dimensions over time. This choice was partly guided by the fact that empirical studies investigating the developmental process of burnout in the job or school domains have been based on this type of model. For comparative purposes and insofar as our hypotheses were built on this literature, it was logical to analyze our longitudinal data in this way. However, although our results do suggest the existence of a developmental process and phases, we cannot affirm that these are stages in the strict sense of the term. Longitudinal studies involving person-centered analyses are needed to complement our findings. They would allow us to examine whether parents with particular dimensions of burnout tend to move on to other dimensions or to add others over time, in a specific order. Finally, although we based our conclusions on the results we replicated in both studies, some effects were found in Study 1 but not in Study 2 and vice versa. At this point, it is very difficult to determine why the reciprocal effect between Emotional Distancing and Feelings of Inefficacy was not found from Time 1 to Time 2 in Study 2, and why the path from Emotional Distancing (Time 2) to Emotional Exhaustion (Time 3) was significant in Study 2 while not in Study 1. The differences observed in the results of the two studies could be related to socio-demographic differences between the two samples. They could also reflect cultural differences in the way parental burnout develops and progresses. Alternatively, they could be due to the greater participation of fathers in Study 2. These differences could suggest gender specificities in the process of parental burnout that would be interesting to examine in future research.

In spite of these limitations, the current findings already have important practical implications and open interesting avenues for future research. One important question to be

answered is the timing of burnout: how long do parents typically stay in each phase? How much does that vary across parents? What are the determinants of the progression across phases? Three questions appear of particular interest here. First, is there a linear association between the imbalance between parenting stressors and parenting resources and the progression across phases (i.e., the greater the imbalance between stressors and resources, the quicker the transition from one phase to another)? Second, how do parents' personal characteristics, including for instance neuroticism or emotional intelligence, influence the progression? And third, how do environmental factors, including for instance child temperament or marital problems, affect the progression? It is our hope that this paper will stimulate research to find answers to these questions.

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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									
Emotional Exhaustion	15.57	11.71	.95	14.92	11.43	.95	14.22	11.20	.96
Emotional Distancing	9.79	8.92	.90	9.72	8.87	.90	9.66	9.15	.93
Feelings of Inefficacy	8.21	6.69	.88	8.30	6.47	.86	7.79	6.16	.87
Study 2									
Emotional Exhaustion	15.54	11.36	.92	14.29	10.70	.91	13.44	10.50	.91
Emotional Distancing	6.17	8.73	.93	5.25	7.22	.91	5.43	7.58	.92
Feelings of Inefficacy	7.72	7.20	.89	7.63	7.33	.90	8.15	7.74	.91

Table 2

*Unstandardized and Standardized Estimates, Robust Standard Errors and 95%**Confidence Intervals for all Parameters in Study 1*

	Standardized				Unstandardized			
	<i>B</i>	<i>SE</i>	<i>p</i>	95% CI	<i>B</i>	<i>SE</i>	<i>p</i>	95% CI
EE1 → EE2	.69	.03	.000	[.63, .75]	.68	.03	.000	[.61, .74]
ED1 → EE2	.07	.04	.067	[-.01, .15]	.10	.05	.069	[-.01, .20]
FI1 → EE2	.02	.03	.513	[-.03, .07]	.03	.04	.513	[-.06, .12]
EE1 → ED2	.10	.03	.003	[.03, .16]	.07	.02	.003	[.03, .12]
ED1 → ED2	.63	.04	.000	. [56, .70]	.63	.05	.000	. [54, .71]
FI1 → ED2	.07	.03	.005	[.02, .13]	.10	.04	.005	[.03, .17]
EE1 → FI2	.01	.04	.720	[-.06, .08]	.01	.02	.720	[-.03, .05]
ED1 → FI2	.20	.04	.000	[.12, .28]	.14	.03	.000	[.08, .20]
FI1 → FI2	.52	.04	.000	[.45, .60]	.50	.04	.000	[.42, .59]
EE2 → EE3	.69	.03	.000	[.63, .76]	.67	.04	.000	[.59, .74]
ED2 → EE3	.07	.05	.132	[-.02, .17]	.09	.06	.128	[-.03, .21]
FI2 → EE3	.07	.04	.072	[-.01, .14]	.12	.06	.072	[-.01, .24]
EE2 → ED3	.11	.04	.003	[.04, .19]	.09	.03	.002	[.03, .15]
ED2 → ED3	.61	.04	.000	[.53, .69]	.62	.05	.000	[.52, .71]
FI2 → ED3	.15	.04	.000	[.07, .22]	.21	.05	.000	[.10, .31]
EE2 → FI3	-.03	.04	.381	[-.11, .04]	-.02	.02	.383	[-.06, .02]
ED2 → FI3	.16	.05	.000	[.06, .26]	.11	.03	.001	[.04, .18]
FI2 → FI3	.65	.03	.000	[.58, .71]	.62	.04	.000	[.54, .71]

Note. EE = Emotional Exhaustion; ED = Emotional Distancing; FI = Feelings of Inefficacy; → =

Direction of effect; The numbers refer to the waves, e.g. EE1 = Emotional Exhaustion in Wave 1

Table 3

*Unstandardized and Standardized Estimates, Robust Standard Errors and 95%**Confidence Intervals for all Parameters in Study 2*

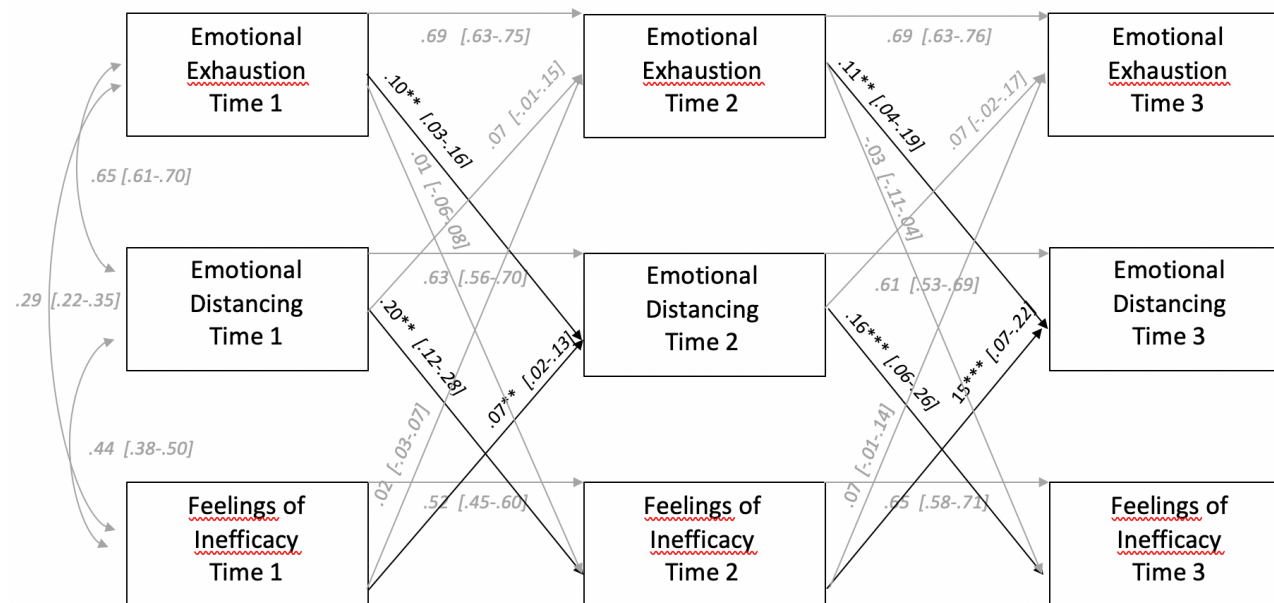
	Standardized				Unstandardized			
	<i>B</i>	<i>SE</i>	<i>p</i>	95% CI	<i>B</i>	<i>SE</i>	<i>p</i>	95% CI
EE1 → EE2	.72	.03	.000	[.66, .79]	.68	.03	.000	[.61, .74]
ED1 → EE2	.06	.05	.197	[-.03, .16]	.08	.06	.201	[-.04, .20]
FI1 → EE2	-.02	.03	.645	[-.08, .05]	-.02	.05	.644	[-.12, .08]
EE1 → ED2	.13	.05	.015	[.03, .23]	.08	.03	.012	[.02, .15]
ED1 → ED2	.60	.06	.000	. [49, .72]	.50	.06	.000	. [38, .63]
FI1 → ED2	.03	.04	.421	[-.04, .10]	.03	.04	.422	[-.04, .10]
EE1 → FI2	.06	.04	.205	[-.03, .14]	.04	.03	.199	[-.02, .09]
ED1 → FI2	.08	.06	.216	[.04, .20]	.06	.05	.219	[-.04, .17]
FI1 → FI2	.59	.05	.000	[.49, .70]	.60	.06	.000	[.48, .72]
EE2 → EE3	.74	.04	.000	[.68, .81]	.73	.04	.000	[.65, .82]
ED2 → EE3	.13	.06	.031	[.01, .25]	.18	.08	.028	[.02, .35]
FI2 → EE3	.01	.04	.745	[-.07, .09]	.02	.06	.745	[-.09, .13]
EE2 → ED3	.22	.07	.001	[.09, .36]	.16	.05	.001	[.07, .25]
ED2 → ED3	.55	.09	.000	[.37, .73]	.57	.09	.000	[.38, .75]
FI2 → ED3	.15	.06	.013	[.03, .27]	.15	.06	.016	[.03, .28]
EE2 → FI3	-.03	.04	.540	[-.11, .06]	-.02	.03	.545	[-.08, .04]
ED2 → FI3	.11	.06	.059	[.00, .22]	.11	.06	.053	[-.00, .23]
FI2 → FI3	.68	.05	.000	[.58, .78]	.73	.05	.000	[.62, .83]

Note. EE = Emotional Exhaustion; ED = Emotional Distancing; FI = Feelings of Inefficacy; → =

Direction of effect; The numbers refer to the waves, e.g. EE1 = Emotional Exhaustion in Wave 1

Figure 1

Study 1: Full cross-lagged panel model

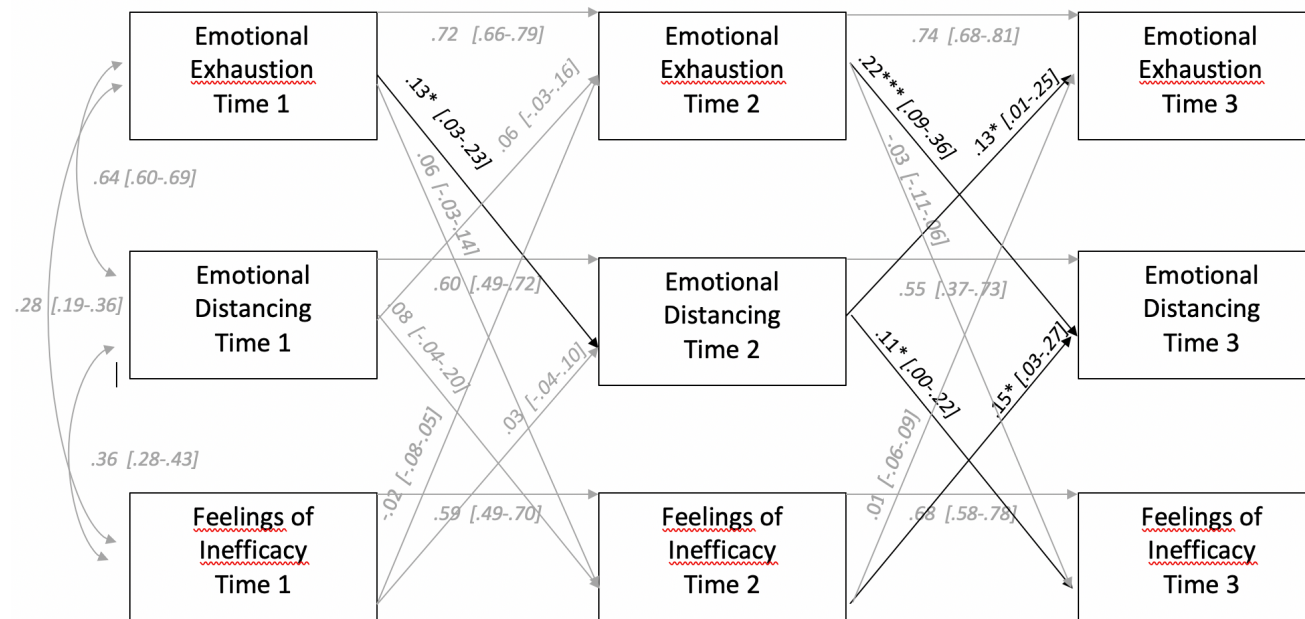


Note. Autoregressive paths and covariances are in gray italics and are significant at $p < .001$. Significant cross-lagged paths are in bold. Non-significant cross-lagged paths are in gray. Coefficients presented are standardized linear regression coefficients and confidence intervals.

** $p < .01$ *** $p < .001$.

Figure 2

Study 2: Full cross-lagged panel model



Note. Autoregressive paths and covariances are in gray italics and are significant at $p < .001$. Significant cross-lagged paths are in bold. Non-significant cross-lagged paths are in gray. Coefficients presented are standardized linear regression coefficients and confidence intervals.

* $p < .05$ ** $p < .01$ *** $p < .001$.