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Parent's and Children's Emotion Regulation and the Work–Family Interface

Objective: *This study investigates the mediating role of parent–child relationship quality on the association between parents' work-related exhaustion and children's emotion regulation and lability. The moderating role of parent's emotion suppression is also considered.*
Background: *Work-related exhaustion has a significant impact in family life. However, few studies have investigated its relationship with both parent–child relationships and children's outcomes.*
Method: *Structural equation modeling and path analysis were used on a sample of 120 dual-earner couples living in Portugal with children aged 2 to 6 years.*
Results: *Analysis revealed that (a) the quality of the father–child relationship mediates the link between father's work-related exhaustion and child's emotion regulation and lability and (b) the quality of mother–child relationship mediates the link between mother's work-related exhaustion and children's lability; (c) mother's work-related exhaustion and emotion suppression negatively relate to mother–child as well as father–child relationship quality; (d) father's work-related exhaustion and emotion suppression were only negatively associated with father–child (but not mother–child) relationship quality. Moreover, the indirect effect of mother's work-related exhaustion on children's emotion regulation and lability through father–child relationship quality was only significant when mother's emotion suppression was low.*
Conclusion: *Not only is parental work-related exhaustion associated with children's emotion regulation through parent–child relationship quality but also emotion suppression may have a moderating role on family relationships.*

In today's postindustrialized society, men and women face the difficult task of trying to conciliate the increasingly demanding professional roles with parenting and child rearing. Conflict resulting from the overload in one or both domains constitutes one of the five main psychosocial risk factors in modern European societies (European Agency of Safety and Health at Work, 2010), particularly for Portuguese people, who hold the highest level of family stress and work–family stress (Guerreiro & Carvalho, 2007), and one of the highest percentages of dual-earner couples (with both parents working full-time) in the European Union (European Commission, 2014). Worker's exhaustion may then be carried home from the workplace, affecting the employees' family life (Liang, 2015), resulting in difficulties in family functioning (e.g., Liang, 2015; Roberts & Levenson, 2001; Thompson, Kirk, & Brown, 2005). The

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present study expands the existing literature on work–family life dynamics by focusing the relationship between parental work-related exhaustion (WE) and emotional regulation in young children. We propose that the contagion effect of exhaustion occurs not only between the work and home domains but also between spouses through parent–child relationships. In addition, the use of emotion suppression (ES) within the married couple is analyzed as a possible moderator of the previously mentioned relation.

Parental WE

When there is a perception of professional overload, there is a cumulative process of personal burnout that may ultimately lead to a state of exhaustion (Sluiter, 1999). Demerouti, Bakker, Vardakou, and Kantas (2003)) define WE as a "consequence of intensive physical, affective and cognitive strain" or, in other words, as a long-term consequence of the exposure to overwhelming job demands (p. 14). Several authors have found evidence of a negative association between WE and variables such as work and life satisfaction (Demerouti, Bakker, & Schaufeli, 2005) and family functioning (e.g., lower levels of marital satisfaction and positive affect, decreased family cohesion, higher levels of work-to-family conflict; and a "disconnected" pattern of affect reciprocity of both positive and negative affects; Liang, 2015; Roberts & Levenson, 2001; Thompson et al., 2005). Moreover, some studies have focused the association between parental unavailability due to work demands and parent's work–family conflict with children's emotion regulation (ER) and problem behaviors (e.g., Matias et al., 2017; Vieira, Matias, Ferreira, Lopez, & Matos, 2016). The duration and quality of parent–child relationships also seemed to be affected (e.g., Vieira, Matias, Ferreira et al., 2016; Crouter, Bumpus, Head, & McHale, 2001).

These findings are congruent with Bronfenbrenner's (1994) ecological theory, according to which the interactions among members of a same social group (e.g., family) should not be considered separately from the extrafamilial environment in which that group is included. Complementarily, Hobföll (1989, 2002), proposes a "conservation of resources" model wherein human experience is based on the willingness to fight, protect, and create personal resources that maintain a satisfying quality of life. Given the potential or effective loss of those resources, the individual suffers.

The experience of professional overload (and specifically WE) entails a sense of insufficiency of personal resources that could signify that the individual is less available to match the demands of other roles, namely, in the family setting (Edwards & Rothbard, 2000). Subsequently, exhaustion will not just be confined to the professional domain but, rather, be transferred to the home domain and even between spouses. Previous studies have proposed the occurrence of the following two different types of stress transmission: the intraindividual transmission across domains (i.e., spillover) and the dyadic, interindividual transmission within the same domain (i.e., crossover; Demerouti et al., 2005). In their seminal publication, Bolger, DeLongis, Kessler, and Wethington (1989) noted that, in terms of coping with the spillover and crossover effects of demand overload, the most appropriate unit of analysis is the marital dyad. In that study, the authors report statistically reliable links between the professional stresses of one spouse and reports of home stress from their partner (Bolger et al., 1989). The previous results further underline the importance of considering a family systems and crossover perspective when analyzing the implications of professional exhaustion for family life.

Parent–Child Relationship Quality and Children's ER

To monitor, interpret, and regulate emotional activation, young children depend first on the efforts of parents and caregivers (Cole, Martin, & Dennis, 2004). According to Morris, Silk, Steinberg, Myers, and Robison (2007), children learn to manage their emotional experience (i.e., according to what it is accepted in the family environment) directly through the observation of parents' emotional profiles and interactions and indirectly through specific parenting practices and behaviors related to the socialization of emotion. Consistent with a family systems perspective, it is argued that children's ER and familial influences are bidirectional processes, with children and families mutually influencing one another and reciprocally contributing to the climate of the emotion socialization process (Morelen & Suveg, 2012; Morris et al., 2007).

There is a robust body of literature emphasizing the important socializing role of parental

responses to children's emotional expressions (Denham, 1998; Fabes, Leonard, Kupanoff, & Martin, 2001; Morris et al., 2007) and parent's emotion representations (i.e., beliefs about emotion; Meyer, Raikes, Virmani, Waters, & Thompson, 2014). Skinner, Johnson, and Snyder (2005) underline the importance of socialization behaviors such as high levels of warmth and autonomy support and low rejection, chaos, and coercion to promote children's self-regulatory process. Simply stated, when the parent–child relationship enables the child to experience himself or herself as related, competent, and autonomous, children seem to engage more constructively with parents, thus facilitating socialization (i.e., children are more cooperating and willing to internalize the behaviors and values passed on by their parents; Skinner et al., 2005). This process becomes even more significant when considering the possible damaging long-term consequences of inadequate caregiving during childhood (Felitti et al., 1998).

Parents' gender may also influence the style of parent–child interactions and, thus, children's ER and adjustment. In their revision of literature, Lamb and Lewis (2010) proposed that, because men and women engage with their children in different ways, mothers and fathers take up distinct roles in the socialization of children's emotion. According to various studies cited in the aforementioned article, fathers have a tendency to adopt more playful and distal interactions styles, thus promoting autonomy, whereas mothers engage in more proximal interactions from the very first years of children's lives.

In cases in which parents' emotional resources are drained due to overtaxing professional demands, children may hold less opportunities to comprehend the emotional world and to practice an appropriate expression of emotions, for example, through a decrease in the quality of parent–child relationship. Early childhood constitutes a critical period for the development of ER, which is why it is essential for dual-earner parents of preschool-age children to reestablish their resources after work (Matias et al., 2017). Previous studies also tell us that there may be a crossover effect from one parent's work-related emotional experience to their partner's parental behaviors; however, evidence regarding the direction of such effect is discordant (Westman, 2001). Although some studies indicate that women are more susceptible than men to the impact of stressors affecting their partners (i.e., because of their greater involvement in family matters; Kessler & McLeod, 1984), other research reports a unidirectional impact of women's work experience on their husbands' parenting role (e.g., Costigan, Cox, & Cauce, 2003; Vieira, Matias, Lopez, & Matos, 2016). A possible explanation for the previous effect is that paternal behaviors may be rather susceptible to contextual influences, such as a partner's experience of WE (Belsky, Youngblade, Rovine, & Volling, 1991), whereas the maternal role is more clearly defined by social conventions (Lamb & Lewis, 2010). Moreover, women continue to be mainly responsible for child care and household labor (Perista et al., 2016), possibly feeling higher levels of exhaustion. This may lead women to disclose their feelings to their husbands or to demand more male involvement in household activities, thus enhancing men's exhaustion (Bolger et al., 1989) and further depleting the personal resources necessary for warm, responsive, father–child interactions. Although the need for adequate parental responses has been well recognized, few studies have, to the best of our knowledge, specifically addressed the spillover of parental WE to parent–child interactions at home and even less so considering the possible crossover effects between mothers and fathers.

Parental ES

According to Westman (2001), crossover within the marital dyad may occur through an indirect process, either mediated or moderated by certain patterns of coping strategies (i.e., strategies employed as a means to prevent or reduce the negative effects of a negative emotional experience). Previous studies have demonstrated the impact of coping on partner's well-being (e.g., Monnier & Hobfoll, 1997) as well as the effect of stress and strain on a partner's selection of coping strategies (e.g., Burke, Weir, & DuWors, 1980). In the present study, we focus on ES as a coping and ER strategy within the married couple. ES is an avoidance strategy through which the externalization of emotional signals is continuously inhibited (Gross & John, 2003). ES focuses on the behavioral component of the emotional response (Catterson, Eldesouky, & John, 2016), without any modification of the events and dispositions that led to the internal experience of emotion (Gross & John, 2003).

In the context of interpersonal relationships in which the strategies and goals of ER are given a considerable emphasis (Campos, Walle, Dahl, & Main, 2011; Martini & Busseri, 2010), suppression acts upon the component of emotion that informs the social partner of the individual's internal state. Although the strategies for ER are not universally effective or adaptive, depending on individual characteristics and situational components, several studies have proposed that suppression may lead to a variety of negative outcomes (e.g., decreased positive emotion experience and less liking from social interaction partners; for a review, see Gross, 2014). Gross and John (2003) remarked that higher levels of ES are often associated with an avoidant attachment pattern in which the individuals are involved in relationships portrayed by emotional distance and relatively low expectations of their social partner's availability and supportiveness. This conclusion is congruent with empirical findings (e.g., Ávila, Cabral, & Matos, 2011; Brenning & Braet, 2013).

However, the association between higher levels of ES and negative social outcomes is not linear. Some authors have found contradictory evidence to this prediction (e.g., Catterson et al., 2016; van't Wout, Chang, & Sanfey, 2010), for instance Catterson and collaborators (2016) proposed that the strategic use of ES in specific situations may serve important functions that are compatible with one's goals. The problem seems to reside where there are cases of chronic utilization.

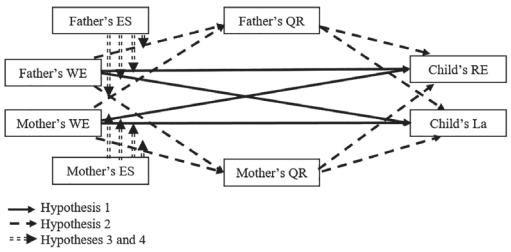
Moreover, the strategic use of ES may vary across gender. According to Flynn, Hollenstein, and Mackey (2010), different patterns of ER seem to be associated with healthy psychological outcomes (i.e., lower levels of depressive symptoms), especially for women who accepted and strategically suppressed their emotions and for men who accepted and do not suppress their emotions. Given the possibility to strategically regulate emotion (i.e., as a means to cope with negative emotions and achieve social goals), one wonders about the moderating role of ES in the relationship between parent's WE and the quality of the parent–child relationship, either their own or their partner's. The exploration of this relations is, to our knowledge, a novel proposal in the study of ER and work–family dynamics.

On one side, it could be expected that the suppression of emotions in the family relationships context (e.g., husband–wife and parent–child) would amplify the impact of individual exhaustion due to a decrease in the expression of the emotional experience and a possible lack of understanding of it by the spouse. On the other side, one can also expect that the suppression of negative emotions in a situation where one feels exhausted may buffer the adverse impact of negative affect on family relationships. Fosco and Grych (2012) and Lamb and Lewis (2010) propose that conflicts in the interparental relationship are associated with less warm, emotionally sensitive responses to children's emotions and a poorer family emotional climate (i.e., greater family hostility and tension and less positivity among family members). If this is correct, ES, when used in the context of marital relationships, might help maintain the quality of family interactions and the overall emotional climate, buffering the negative impact of conflict on the development of ER.

Objectives and Hypotheses

Although some authors have studied the effects of work–family conflict between the married couple (e.g., Cinamon, Weisel, & Tzuk, 2007; Demerouti et al., 2005) as well as in parent–child relationships (e.g., Cho & Allen, 2012; Cinamon et al., 2007; Matias et al., 2017; Milkie, Kendig, Nomaguchi, & Denny, 2010; Vieira, Matias, Ferreira, et al., 2016; Vieira, Matias, Lopez et al., 2016), there is still a lack of investigation about the specific association between work-related parental exhaustion and children's development of ER competence, particularly through parent–children interactions. Furthermore, the consideration of possible moderators (e.g., ES) in the crossover process of WE between spouses is frequently absent. In the present study, we examined the relation between parental WE and emotional regulation in children aged 2 to 6 years through the quality of the parent–child relationship. In addition, we test whether parent's ES in the marital relationship moderates this association. Given that WE has been associated with less positive emotional environments in the family context (Liang, 2015; Roberts & Levenson, 2001; Thompson et al., 2005), we expect that this variable will be associated with lower child ER skills and higher levels of children's lability (La). This association may happen either directly (Hypothesis 1) or indirectly through a decrease in the parent–child quality

Figure 1. Conceptual Model of the Proposed Direct and Indirect Relations Between Parental Work-Related Exhaustion (WE), Parent–Child Quality of Relationship (QR), Children's Lability (La), Children's Emotion Regulation (ER), and Parental Emotion Suppression (ES).



of relationship (QR; Hypothesis 2). In addition, we are interested in the moderating effect of parental ES within the context of marital (i.e., husband–wife) relationship in the association between parental WE and children's ER and La either through that same parent's parent–child QR (Hypothesis 3) or through their partner's parent–child QR (Hypothesis 4). The direction of the last two hypotheses remains exploratory due to the lack of studies conducted in the field. Also, we do not set a hypothesis regarding a differential pattern of crossover effects as a function of parental gender (see Figure 1).

Method

Participants and Procedure

A total of 261 dual-earner couples living in Portugal participated in this study. Couples were recruited from 25 public and private preschools in the North of Portugal in 2014. The study's objectives were explained to the preschool coordinators and teachers. After signing a written informed consent, each parent was provided with an envelope containing a questionnaire. The questionnaires were returned in the sealed envelopes to the children's preschool teachers. A total of 39 couples did not return the questionnaires, although they had expressed interest in participating. Of the couples, 89 were excluded because they were not married, and 25 did not respond to one or more subscales. The final sample, after the exclusion of outliers, was composed of 120 heterosexual couples with fathers aged 25 to 49 years (M = 36.67, SD = 4.56) and mothers aged 23 to 44 years (M = 35.16, SD = 3.91). In terms of educational levels, 36.6% of fathers and 57.4% of mothers had higher educations (bachelor, master, or doctorate degrees), 36.7% of fathers and 28.3% of mothers had completed secondary education (high school), and 25.8% of fathers and 12.5% of mothers had less than 12 years of education. The majority of fathers (86.5%) and mothers (75.2%) worked full-time jobs (≥36 hours per week). The number of children per family varied between one child (55.0%), two children (41.7%), three children (1.7%), and four children (0.8%). Our study focused on children (54.5% boys) aged 2 to 6 years (M = 4.35, SD = 0.92). Our sample has similar sociodemographic characteristics to the Portuguese dual-earner family population with similarly aged children as reported in the last national census (Instituto Nacional de Estatística, 2011). Of the Portuguese population, 55% is aged from 25 to 64 years, and 88% of the population work more than 35 hours per week. Among Portuguese couples with children, 55% are employed, and 50% of dual-earner couples have at least one child aged younger than 6 years. Most preschool aged children (about 91%) are enrolled in formal preschool facilities. Our sample differs slightly from the national census in the percentage of couples who hold a higher education degree (27%).

Measures

WE was measured using the exhaustion subscale of the Oldendurg's Inventory (Campos, Zucoloto, Bonafé, Jordani, & Maroco, 2011 [Portuguese version]; Demerouti et al., 2003). This subscale has eight items rated on a seven-point Likert scale (0 = *never* to 6 = *always*; e.g., "During work, I often feel emotionally drained"; "When I work, I usually feel energized" [reverse coded]). A confirmatory factor analysis (CFA) was conducted, and model fit was evaluated considering χ^2 to degrees of freedom ratio (χ^2/df), the comparative fit index (CFI), the root mean square approximation (RMSEA), and the standardized root mean square residual (SRMR).

According to Schweizer (2010), the model is acceptably fitted if χ^2/df is less than 3, CFI values are between .90 and 1.00, RMSEA values are less than 0.08, and SRMR values are below .08 (Hu & Bentler, 1999). The CFA of the scale showed good model fit,

$\chi^2(87) = 108.768$, $p = .057$, $\chi^2/df = 1.250$, RMSEA = 0.046, 90% CI [0.000, 0.071], CFI = .969, SRMR = .074. Metric invariance of factor loadings was achieved, allowing us to ascertain that the items' loadings were the same for mothers and fathers, $\Delta\chi^2(8) = 11.755$, $p = .162$. Cronbach's α was .794 for fathers and .878 for mothers.

ES was measured using the Expressive Suppression subscale of the Emotion Regulation Questionnaire (Gross & John, 2003; Vaz, Martins, & Martins, 2008 [Portuguese version]). In the present study, the participants were specifically asked to "Think about the way they feel in the relationship with their spouse." The Expressive Suppression subscale is composed of 4 items (e.g., "I keep my emotions to myself") rated on a seven-point Likert scale (1 = *completely disagree* to 7 = *completely agree*). A CFA showed good model fit, $\chi^2(15) = 17.658$, $p = .281$, $\chi^2/df = 1.177$, RMSEA = 0.039, 90% CI [0.000, 0.099], CFI = .987, SRMR = .055. Full metric invariance for item loadings for both parents was once again achieved, $\Delta\chi^2(4) = 5.885$, $p = .208$. Cronbach's α for the four items of ES was .687 for fathers and .757 for mothers.

Parent–child QR was measured using the Revised Parents as a Social Context Questionnaire (Lemos & Cadima, n.d. [Portuguese version]; Skinner et al., 2005). This measure is based on a solid theoretical foundation and captures six core dimensions of parenting, namely, warmth, structure, autonomy support, rejection, chaos, and coercion. The authors proposed that these six features of parenting are not opposite poles of three dimensions (e.g., warmth vs. rejection), but instead are single dimensions in their own right and that different combinations may reflect different parenting styles. This means that parents may score high on warmth and rejection, for example. Skinner et al. (2005) reported satisfactory internal consistency reliabilities (≥0.70) for maternal rejection, chaos, and coercion and for paternal coercion and warmth, moderate internal consistency reliabilities (between 0.65–0.69) for maternal warmth and for paternal chaos and rejection, and low reliabilities (between 0.61 and 0.64) for maternal and paternal structure and autonomy support. Other authors (e.g., Egeli, Rogers, Rinaldi, & Cui, 2015) have tested the validity and reliability of the Revised Parents as a Social Context Questionnaire, providing support for its use with parents of children aged 2 to 18 years. In this study, the overall six-model factor showed a satisfactory model fit for mothers and for fathers (e.g., Egeli et al., 2015). In the present study and after CFA and measurement invariant procedures, we only used four dimensions of the Revised Parents as a Social Context Questionnaire, namely, Warmth (e.g., "I set aside times to talk to my child about what is important to him/her"; four items), Rejection (e.g., "At times, the demands that my child makes feel like a burden"; five items), Chaos (e.g., "I let my child get away with things I really shouldn't allow"; five items), and Coercion (e.g., "To get my child to do something, I have to yell at him/her"; five items). The Structure subscale was not included due to low factor loadings ($\lambda < 0.500$), and the Autonomy Support subscale was excluded to ensure metric invariance for both parents, $\Delta\chi^2(5) = 15.168$, $p = .010$. In addition, one item from the Warmth subscale was also excluded due to low factor loading ($\lambda < 0.280$).

Separate CFAs for each dimension showed good model fit: Warmth, $\chi^2(13) = 11.299$, $p = .586$, $\chi^2/df = 0.869$, RMSEA <0.001, 90% CI [0.000, 0.080], CFI = 1.000, SRMR = .039; Rejection, $\chi^2(26) = 25.399$, $p = .496$, $\chi^2/df = 0.977$, RMSEA <0.001, 90% CI [0.000, 0.070], CFI = 1.000, SRMR = .068; Chaos, $\chi^2(28) = 39.648$, $p = .071$, $\chi^2/df = 1.416$, RMSEA = 0.059, 90% CI [0.000, 0.099], CFI = .920, SRMR = .068; and Coercion, $\chi^2(27) = 25.705$, $p = .535$, $\chi^2/df = 0.952$, RMSEA = <0.001, 90% CI [0.000, 0.067], CFI = 1.000, SRMR = .045. Metric invariance was also achieved for each dimension: Warmth, $\Delta\chi^2(4) = 4.753$, $p = .314$; Rejection, $\Delta\chi^2(5) = 3.749$, $p = .586$; Chaos, $\Delta\chi^2(5) = 7.519$, $p = .185$; and Coercion, $\Delta\chi^2(5) = 7.259$, $p = .202$. Cronbach's αs were as follows: Warmth, $\alpha = .659$ for fathers and α .774 for mothers; Rejection, $\alpha = .694$ for fathers and $\alpha = .705$ for mothers; Chaos, $\alpha = .567$ for fathers and $\alpha = .604$ for mothers; and Coercion, $\alpha = .661$ for fathers and $\alpha = .737$ for mothers. A second model was then created using these dimensions as indicators of the latent construct quality of parent–child relationship. This model showed good model fit, $\chi^2(16) = 31.967$, $p = .010$ $\chi^2/df = 1.998$, RMSEA = 0.092, 90% CI [0.030, 0.303], CFI = .932, SRMR = .057; partial metric invariance for both parents was achieved once constraint for coercion was released, $\Delta\chi^2(4) = 4.753$, $p = .314$.

Child ER was measured using the Emotion Regulation Checklist (Alves & Cruz, 2013, June [Portuguese version]; Shields & Cicchetti, 1997). Seven items from the ER subscale were used to measure parents' perspectives on children's ability to control and express emotions in an adaptive way (e.g., "Displays negative emotions (anger, fear, frustration, distress) in an appropriate manner"). A total of 11 items from the La subscale were used to measure parents' perspectives on children's mood swings, angry reactivity, and intensity of positive and negative emotions (e.g., "Exhibits wide mood swings [child's emotional state is difficult to anticipate because s/he moves quickly from positive to negative moods]"). One item was dropped in each subscale due to low factor loadings ($\lambda < 0.650$). Parents were asked to report on a four-point scale (1 = *never* to 4 = *almost always*). A CFA showed a good model fit for ER, $\chi^2(68) = 74.314$, $p = .280$, $\chi^2/df = 1.093$, RMSEA = 0.028, 90% CI [0.000, 0.062], CFI = .965, SRMR = .064, and La, $\chi^2(196) = 233.991$, $p = .033$, $\chi^2/df = 1.194$, RMSEA = 0.040, 90% CI [0.013, 0.059], CFI = .923, SRMR = 0.076. Metric invariance of factor items for both parents was achieved for both ER, $\Delta\chi^2(7) = 11.361$, $p = .124$, and La, $\Delta\chi^2(11) = 6.228$, $p = .858$. In this sample, Cronbach's α for ER was .619 for fathers and .535 for mothers and for La was .729 for fathers and .755 for mothers. The weighted scores for both mother's and father's perceptions of child's ER and La were calculated. Given that fathers' and mothers' reports were significantly correlated (ER, $r = .575$, $p < .001$; La, $r = .500$, $p < .001$), the total scores on each dimension were obtained through the unweighted mean of each parents reports.

Data Analysis Procedure

None of the items had more than 5% of missing values, and these were missing completely at random, $\chi^2(5033) = 4{,}233.788$, $p = 1.000$; thus we chose to estimate and impute them using expectation maximization (Tabachnick & Fidell, 2007). Scores for every variable in the model were obtained from the factor weights resulting from the previously conducted CFA. We used a regression-based path analysis using computational tools for estimating and probing interactions and conditional indirect effects in moderated mediation models as described in Preacher and Hayes (2004), Preacher, Rucker, and Hayes (2007), and Hayes and Matthes (2009). First, we assessed the effects of parent's WE on child's ER and La, both directly and indirectly, through father–child and mother–child QR using ordinary least squares regression (Hayes, 2009; MacKinnon, 2008; Preacher & Hayes, 2004), and relying on a bootstrap method for inference (Hayes, 2009; Shrout & Bolger, 2002). For this, we computed Hayes' (2013) procedure for assessing and comparing indirect effects in mediation models using their macro for SPSS version 24.0 (IBM Corp, Armonk, NY). A bootstrapping approach was used with 5,000 resamples for inferring the significance of the indirect effects. Bootstrapping allows one to generate a sampling distribution for the indirect effect through the repeated estimation of the model in each resample. Confidence intervals (CIs) are then generated through the estimates of the indirect effects in the repeated bootstrap samples (Preacher & Hayes, 2004). The indirect effect was quantified as the product of the direct effect of fathers' and mothers' WE on father–child and mother–child QR and the direct effect of father–child and mother–child QR on children's ER and La while controlling for parents' WE. Then, the extent to which the relationship between parent's WE and parent–child QR was moderated by that same parent's or other parent's ES was assessed, again using moderated ordinary least squares regression analysis (Hayes & Matthes, 2009). Finally, we combined the moderation and mediation results by estimating the conditional indirect effects of parents' WE on child's ER and La through parent–child QR as a function of parent's ES using a moderated mediation approach (Preacher et al., 2007). For this, we again used ordinary least squares regression to estimate all effects and a bootstrapping method of inference for the conditional indirect effects. In subsequent analysis, "child's age" was included as a covariate; however, because this did not significantly change our results, we decided not to include it in the final model: child's age was not correlated with children's ER, $r(109) = .084$, $p = .383$; La, $r(109) = -.120$, $p = .210$; father–child QR, $r(117) = .007$, $p = .941$; or mother–child QR, $r(117) = -.007$, $p = .941$. Although we did not control for nonindependence of mothers and father's data, Pearson correlations between fathers' and mothers' WE was not significant (Kenny, 1996), furthermore, in the database used

Table 1. *Zero-Order Pearson Bivariate Intercorrelations Between Father's and Mother's Work-Related Exhaustion (WE), Father's and Mother's Emotion Suppression (ES), Father–Child and Mother–Child Quality of Relationship (QR), Children's Emotion Regulation (ER) and Lability (La), and Paired-Sample t Test Between Parent's Variables*

Variable	1	2	3	4	5	6	7	8
1. Children's La	1							
2. Children's ER	−0.15	1						
3.Father's WE	0.20*	−0.12	1					
4. Mother's WE	0.12	−0.20*	0.18	1				
5. Father's ES	0.10	−0.17	0.25**	0.14	1			
6. Mother's ES	0.33**	−0.12	0.21*	0.23*	0.26**	1		
7. Father–child QR	−0.50**	0.29**	−0.52**	−0.24**	−0.28**	−0.40**	1	
8.Mother–child QR	−0.46**	0.20*	−0.15	−0.44**	−0.111	−0.40**	0.55**	1
M	1.02	1.64	2.10	2.35	1.90	2.36	−0.22	0.12
SD	0.18	0.10	0.41	0.48	0.87	1.29	−0.21	0.09
t test	6.34***[a]	−105.62***[b]		−5.16***[c]		−3.72***[d]		−0.71[e]

[a]The paired-sample *t* test was calculated between fathers' and mothers' scores of La. [b]The paired-sample *t* test was calculated between fathers' and mothers' scores of ER. [c]The paired-sample t test between fathers' and mothers' scores of parents' WE. [d]paired-sample t test between fathers' and mothers' scores of parents' ES. [e]paired-sample t test between fathers' and mothers' scores of parents' QR.

*$p = .005$. **$p = .001$. ***$p < .001$.

for the present study, each case corresponds to a child, and children are independent from one another.

Results

Descriptive Analyses

Table 1 presents the means, standard deviations, and Pearson bivariate correlations of all variables for both mothers and fathers.

Fathers' WE was correlated with their own and their partner's ES and with father–child QR, whereas mother's WE was correlated with their own ES and both parents' QR.

In addition, children's La was associated with fathers' exhaustion, mothers' ES, and with both parents' QR. As for children's ER, correlations were found for mother's WE, and both parents' QR with their child, but not for ES variables. The results of the paired-samples *t* test showed a difference between mother's and father's perception of children's La and ER (fathers tended to give higher ratings of children's La, and mothers tended to give higher ratings of children's ER). Moreover, the mothers expressed higher levels of both WE and ES when compared with fathers.

Quality of Parent–Child Relationships as Mediator Between WE and Children's ER

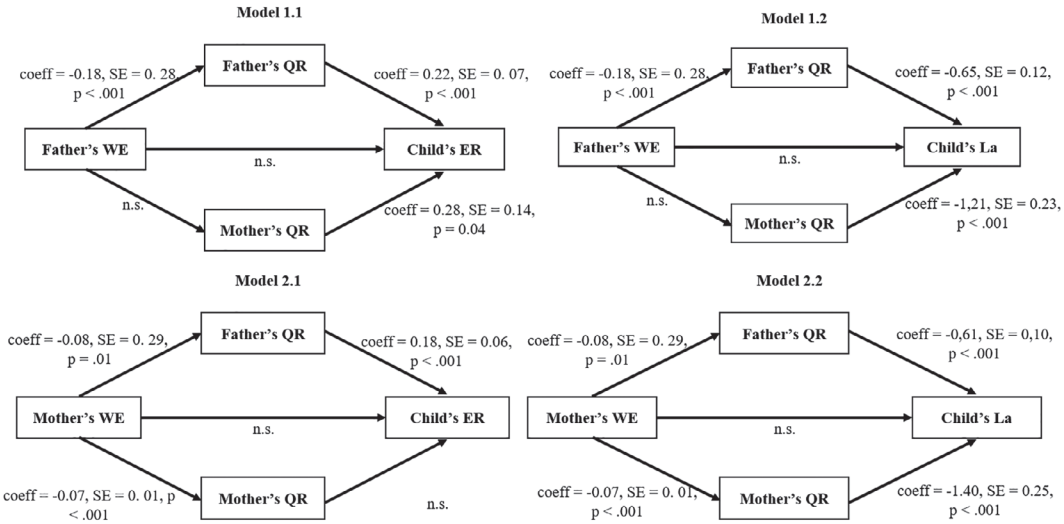
Our hypothesis proposed that parent's WE affects children's ER and La directly (Hypothesis 1) and indirectly (Hypothesis 2) through the quality of the parent–child relationship. There was no significant direct association between fathers' or mothers' work-related emotion exhaustion and children's outcomes. Nevertheless, Hypothesis 2 was supported in that the father–child QRmediated the relationship between father's exhaustion and children's ER as well as the relationship between father's exhaustion and children's La. In addition, the father–child QR seemed to mediate the relationship between mother's WE and child's ER and La. This means that when father's or mother's exhaustion was higher, there was a decrease in the quality of the father–child relationship, which resulted in lower child's ER and higher La. Also, we found that mother–child QR mediated the relationship between both mother's and father's WE and children's La, suggesting that higher levels of mother's exhaustion were associated with higher La levels in children through a decrease in the quality of mother and father–child relationships.

Higher levels of mother's exhaustion only seemed to be related with lower children's ER through a decrease in the father–child (and not mother–child) QR (see indirect-effect estimates in Table 2 and direct-effect estimates in Figure 2).

Table 2. *Bootstrap Test for Indirect Effects From WE to Child's ER and La*

		Bootstrapping		
		Bias-corrected 95% CI for mean indirect effect		
Effect	*B*	*SE*	Lower	Upper
Father's WE → Father–Child QR → Child's ER	−0.04	0.01	−0.07	−0.01
Father's WE → Father–Child QR → Child's La	0.13	0.03	0.07	0.19
Mother's WE → Mother–Child QR → Child's La	0.09	0.03	0.04	0.16
Mother's WE → Father–Child QR → Child's ER	−0.01	0.01	−0.03	−0.00
Mother's WE → Father–Child QR → Child's La	0.05	0.02	0.01	0.09

Figure 2. Unstandardized Regression Coefficients for the Relationship Between Parent WE, Parent–Child QR, and Children's ER and La



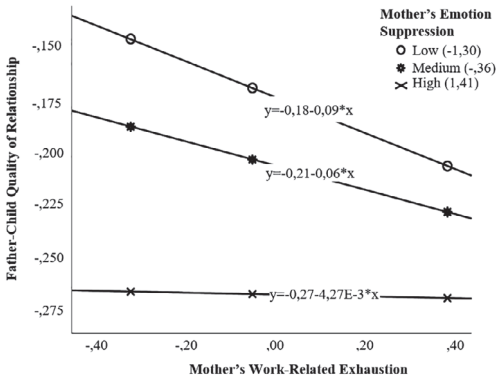
Note: $N = 120$; 5,000 bootstrap sample. Bootstrap bias corrected p values. Only significant indirect effects were reported. coeff = nonstandardized estimate; ER = emotion regulation; La = lability; QR = quality of relationship; *SE* = standard error; WE = work-related exhaustion.

Parental ES as Moderator of the Effect of WE on the Quality of the Parent–Child Relationship

We conducted a moderated multiple regression analysis estimating the relationship quality of parents' WE, parents' ES, and their product (i.e., Father and Mother Exhaustion × Father and Mother ES), thus allowing for the effect of WE on QR to vary with ES. To be able to interpret the regression coefficients for these variables, parents' WE and ES were mean centered prior to the computation of the product. Mother's ES was found to significantly moderate the relationship between mother's WE and father–child QR, $b = 0.0300$, $t(116) = 2.0252$, $p = .0451$, 95% CI [0.0007, 0.0593]. This indicates that the effect of mother's WE on father–child QR was related to mother's ES. We further probed this interaction, defining the 16th, 50th, and 84th percentiles as low, moderate, and relatively high values of the distribution of the moderator, respectively. Figure 3 plots the conditional effects of mother's WE on father–child QR as a function of ES.

The simple mediation analysis provided evidence of an indirect effect of mother's WE on children's ER and children's La through father–child QR. We hypothesized (Hypotheses 3 and 4) this indirect effect to be conditioned on ES (moderator; Preacher et al., 2007).

Figure 3. Simple Slopes of the Relationship Between Mother's Work-Related Exhaustion and Father–Child Quality of Relationship for 16th (Low), 50th (Medium), and 84th (High) Percentiles of Mother's Emotion Suppression.



This conditional indirect effect was estimated as the product of the effect of mothers' WE on parent–child QR and the effect of parent–child QR on child's ER and La.

We used bootstrapping to generate CIs by resampling the distribution of these functions of parameter estimates for specific values of mother's ES. Again, we used the 16th, 50th, and 84th percentiles as low, moderate, and relatively high values of the distribution of the moderator, respectively, as well the Johnson-Neyman technique (Hayes & Matthes, 2009).

In Table 3 we report the indirect effects and 95% CIs for the conditional indirect effects. The indirect effect of mother's WE on children's ER through father–child QR was negative and significant among those mothers presenting relatively low and moderate levels of ES. As for the indirect effect of mother's WE on children's La, again through father–child QR, a similar pattern arose, indicating that this effect was only significant and positive among mothers who presented relatively low and moderate levels of ES (see Table 3 and Figure 4).

Discussion

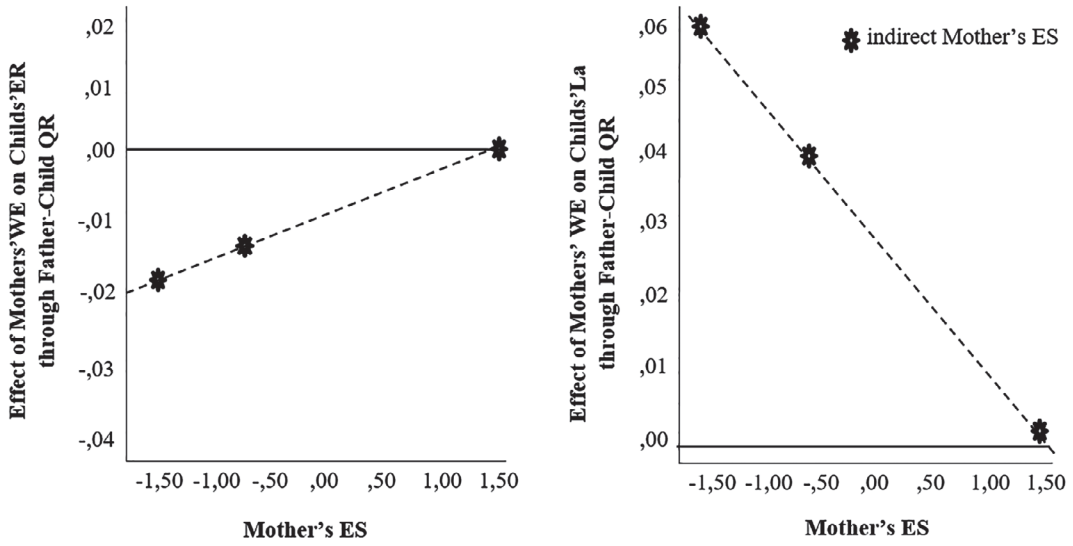
The present study examined the extent to which mothers' and fathers' WE is associated with children's ER, both directly and through parent–child QR. In addition, we were interested on the moderating effect of mothers' and fathers' ES on the aforementioned relationship. In this analysis, we also wanted to analyze the crossover effects between mothers' and fathers' experiences.

The results indicate that parents' WE is in fact related to children's ER and La through the mediating role of parent–child QR. Consistent with this, Eisenberg and colleagues (1998) suggested that parents' reactions to children's emotions and the discussion of such emotional experiences in the context of parent–child interactions (i.e., reactions based on high levels of warmth and autonomy support and low rejection, chaos, and coercion; Skinner et al., 2005) are key socialization behaviors that promote children's self-regulatory development. Furthermore, our findings support an ecological systems framework (Bronfenbrenner, 1994), according to which parental variables, such as parental exhaustion, even when associated with parents' work settings (i.e., extrafamilial dimension), can affect children's characteristics and development, although only indirectly, through parent–child relationships. Although there was no significant direct association between fathers' or mothers' WE and children's outcomes (Hypothesis 1), we found an indirect effect of parental exhaustion on children's ER

Table 3. *Conditional Indirect Effects of Mother's Work-Related Exhaustion (WE) on Children's Emotion Regulation (ER) Through Father–Child Quality of Relationship (QR) at Low, Moderate, and High Levels of Mother's Emotion Suppression (ES)*

	Emotion regulation		Lability	
Mother's suppression	Indirect effect	95% bias-corrected bootstrap CI	Indirect effect	95% bias-corrected bootstrap CI
Low (−1.296; centered)	−0.02	−0.04 to −0.00	0.06	0.02 to 0.11
Moderate (−0.356; centered)	−0.01	−0.03 to −0.00	0.04	0.01 to 0.08
High (1.414; centered)	0.00	−0.01 to 0.02	0.00	−0.05 to 0.05

Figure 4. Association Between Mother's Work-Related Emotional Exhaustion (WE), Children's Emotion Regulation (ER), and Lability (La) through Father–Child Quality of Relationship (QR) as a Function of Mother's Emotion Suppression (ES).



Note; The *y*-axis corresponds to the estimated difference in children's outcomes due to mother's WE. The slopes refer to the indirect effect of mother's WE on child's RE and La through father–child QR. In the graph to the left, child's ER is below zero, indicating that higher levels of mother's WE are associated with lower child's ER and that this effect is more significant (i.e., farther from zero) the lower mother's ES. In the right graph, La values above zero indicate that higher levels of mother's WE are associated with higher children's La; this effect is more significant for lower mother's ES.

and La via quality of the parent–child relationship (Hypothesis 2*)*. This indirect effect was significant independent of parent's gender in that higher levels of mother's and father's exhaustion were associated with higher La and, for fathers, lower ER through lower levels of parent–child QR. We believe these findings extend the relevant literature in that they conceptualize children's development of ER (a) in relation to a variable of parental WE and (b) in the context of family dynamics (i.e., considering the mediating role of the parent–child relationship, the crossover of exhaustion between spouses, and the moderating role of marital ES).

It is interesting that, although a decrease of the father's QR was associated not only with increased child's La but also with a decrease in children's ER, the mother's QR was only significantly related with children's La. A similar pattern was found by Matias et al. (2017) when accounting for the associations between children's La and ER and parents' work–family conflict. On one hand, the intensive negative affective states associated with child's La may be more prominent to mothers who, when compared with fathers, report higher levels of exhaustion. On the other hand, according to Rogers, Halberstadt, Castro, MacCormack, and Garrett-Peters (2016), La is more affected by parental socialization than ER, which is characterized by behaviors that are more neutral in affect. Consistent with previous investigations (for a revision, see Lamb & Lewis, 2010), this may also indicate that the different interaction styles adopted by mothers and fathers are linked with distinct developmental outcomes. However, it is also worth noting that, comparing to La, our measure of ER had lower internal consistency, which may also account for the lack of associations.

One other noteworthy result is that higher levels of mother's WE were associated with lower levels of father's QR and, thus, higher children's La and lower ER. The contrary is not true, meaning that there was no significant mediating effect of mother's QR in the relationship between father's exhaustion and children's outcomes. This might mean that the father's QR

is more susceptible to contextual influences, such as the partner's state of emotion, as suggest by previous authors (Belsky et al., 1991; Vieira, Matias, Lopez et al., 2016), whereas the mother's relationship with children is more clearly defined by social conventions (Lamb & Lewis, 2010). Also, our results indicate that mothers experience higher levels of WE when compared with fathers. This may also lead women to disclose their feelings of exhaustion to their partners, which might enhance men's exhaustion and further deplete their emotional resources, as hypothesized.

In accordance with this scenario, a moderated mediation analysis indicated that the effect of mother's exhaustion on children's emotional outcomes through father–child QR was negative and significant only among those mothers presenting relatively low and moderate levels of ES (Hypothesis 4). We find this to be consistent with the proposal of Catterson et al. (2016) that stated the use of ES is strategic and in specific situations may be beneficial for the individual and, consequently, for their social partners. In the context of marital relationships, ES may serve as a buffer for the indirect crossover of WE between spouses. Consequently, the lessening of conflicts in the interparental relationship allows for children's adequate emotional development (Fosco & Grych, 2012; Lamb & Lewis, 2010). Thus, although the chronic use of ES as an expression of an avoidant pattern of attachment (Ávila et al., 2011; Brenning & Braet, 2013; Gross & John, 2003) may be negative for familial relationships and child development, this does not mean that ES cannot or should not also be used as part of healthy social interactions. In this regard, we believe that further studies should aim to obtain information about the social context related to the selection of specific ER strategies, ideally through the daily measure of those strategies for a continued time period.

The moderation effect of mother's suppression on the relationship between mother's WE and children's emotional outcomes was only significant through parent–child QR, and not mother–child QR. This may be explained by the very definition of ES. Whereas the suppression of emotion entails an inhibition of the externalization of emotional signals, there is no modification of the internal experience of emotion (Gross & John, 2003). Simply stated, although they may not express it, mothers continue to feel emotionally drained and exhausted, which might transpire in the quality of their responses to their children. Also, in this regard, our sample did not replicate previous research (e.g., Flynn et al., 2010; Gross & John, 2003) in that women reported more suppression than men. The higher levels of suppression reported by women may be related to a social expectation for women to "do it all" and thus being able to conjugate their professional and family demands effectively. Women's feelings of guilt resulting from difficulties balancing these two domains may explain the need to further suppress WE at home and specifically with their partners.

Limitations and Future Directions

The results presented in this article should be interpreted in light of its limitations. First, the data in this study are cross-sectional, thus casual inferences cannot be drawn. Although we hypothesized that parents' self-reported exhaustion impacts parent–child relationship and children outcomes, one should not ignore the reciprocal nature of the emotion socialization process. In fact, whereas our analysis model and resulting inferences were theoretically driven, it is possible that children's ER has some influence in the parental perception of exhaustion and parent–child QR. Also, our sample was composed of mostly highly educated, heterosexual, dual-earner couples. Caution is due when attempting to generalize these results for parents with lower educational levels and same-sex parents, particularly due to a possible gender effect on the presented patterns of crossover. Also, according to the European Commission (2014), Portuguese families hold one of the highest percentages of dual-earner couples in the European Union, meaning that these results may vary in countries where different patterns of family organization are prevalent.

Second, all of the measurements in the present study were self-reported, thus the mean scores may be subjected to social desirability. Besides, despite a CFA that was conducted to assure good model fit, some measures presented low Cronbach's αs. Future research should try to replicate these findings using longitudinal methods, allowing one to analyze the changes in ER development as the child ages as well as the use of ES either as an ER strategy or as a chronic dispositional trait. The fact that the present study uses self-reported data at a single point in time may artificially inflate the associations among

variables and lead to spurious findings. Future studies would also benefit from the utilization of observation methods to further evaluate ER competences and child La, especially when complemented by multiinformant reports (i.e., teachers, and for older children, peers).

Third, ES is a broad concept and one that involves activity in different domains: facial expression, internal experiences, or thoughts (Aldao, 2013). In the present study, ES was measured by a self-report questionnaire focused on the behavioral expression of emotions alone, thus interfering with the ability to make cross-study comparisons. It would be interesting to expand on these findings through a more complex evaluation of ES in relation to other ER strategies. In addition, it would be interesting to have a daily measure (i.e., as opposed to a one-time self-report questionnaire) of ER strategies as a mean to further investigate its contextually specific utilization.

Fourth, the inclusion of variables regarding the couple relationship and coparenting could enhance the comprehension of the dynamics in the family related to the contagion effects of WE on children's development.

Finally, although we did not control for nonindependence of mothers and father's data, in the database used for the present study, each case corresponded to a child and children were independent from one another, aditionally Pearson correlation between fathers' and mothers' WE was not significant (Kenny, 1996) give us confidence of the analyses conducted. Nevertheless, a dyadic analysis of the model using the actor–partner interdependence model would ensure the robustness of the findings. Even so, our findings extend on the previous ER literature by associating children's ER competences with parents' WE, parent–child QR, and parents' ES and by revealing a crossover pattern of such variables within the married couple.

Implications

Both mother–child and father-child interactions are of central importance for the socialization of emotion by children (Morris et al., 2007). Understanding the way children learn and develop ER is the first step to an informed and evidence-based practice whether in the clinical context as in the creation of adequate parent education programs. Specifically, in what concerns the relation between parental work-related ER, we believe the findings in this study further underline the need for initiatives in parents' workplace that support their need of conciliation between work and family demands and thus attenuate the experience of work-related emotion exhaustion. We propose that workplaces that involve both employees and employers when promoting psychoeducation on this matter could allow for a better comprehension of these dynamics by both professionals, managers, and policy makers.

As for the association between parental ES, parent–child QR, and children's ER and La, the conclusions in this study follow a line of thought initiated by other authors pertaining the use of ES as an adequate strategy of ER in some settings (Aldao, 2013; Catterson et al., 2016). Accordingly, this study emphasizes the role of instrumental and social motives in ER, specifically the use of ES in the marital relationship to protect the spouse, and thus the quality of the spouse's relationship with the child, from WE. This is an exciting finding that hopefully will lead to further analysis of work–family emotional transference, ER strategies, and children's development.

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