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Difficulties in Emotion Regulation, Work–Family Conflict, and Perceived Parental Self-Efficacy

Madalena Silva [1], Eva Diniz [2], Carlos Vara-García [3], Vasco Costa [2] and Tânia Brandão [2,*]

[1] School of Psychology, Ispa—Instituto Universitário, 1149-041 Lisbon, Portugal
[2] William James Center for Research, Ispa—Instituto Universitário, 1149-041 Lisbon, Portugal
[3] Department of Psychology, Universidad Rey Juan Carlos, 28922 Madrid, Spain
* Correspondence: tbrandao@ispa.pt

Abstract

This study examined the role of work–family conflict as a linking mechanism between difficulties in emotion regulation (ER) and perceived parental self-efficacy (PPSE). Participants were 228 working parents (74.6% women; mean age = 45.24, SD = 7.16), who completed self-report measures of ER difficulties, work–family conflict, and PPSE. Lack of emotional awareness and non-acceptance of emotions were positively related to PPSE, but these associations were not significant when work–family conflict dimensions were considered. Difficulties in goal-directed behavior and limited access to ER strategies were associated with lower PSSE, with strain-based conflict emerging as a relevant pathway for difficulties in goal-directed behavior (95% CI [0.04, 2.67]). Difficulties controlling impulsive behaviors and lack of emotional clarity were linked to lower perceived PPSE through behavior-based conflict (95% CI [−2.04, −0.15]; [−2.01, −0.09], respectively). Overall, the findings suggest that specific ER difficulties may reduce parents' confidence by increasing strain and behavioral interference between work and family roles. Promoting ER skills may help parents manage these demands more effectively and maintain a stronger sense of parental efficacy.

Keywords: difficulties in emotion regulation; work–family conflict; perceived parental self-efficacy

1. Introduction

Parents' ability to regulate their emotions constitutes one of the key aspects of parenting quality. A growing body of research has focused on emotion regulation (ER) as a key psychological process influencing parenting. ER is not only central to everyday functioning but also plays a pivotal role in parenting, as effective parenting requires managing one's own emotions to respond sensitively to children's needs and to foster their emerging capacity for self-regulation [1–3]. When parents experience difficulties in emotion regulation (DER), in terms of non-acceptance of emotional responses, difficulties engaging in goal-directed behavior, impulse control difficulties, lack of emotional awareness, limited access to effective ER strategies, and lack of emotional clarity [4], their ability to engage in positive parenting may be compromised.

Reviews indicate that elevated DER are linked to lower warmth and higher hostility in parent–child interactions. Parents with greater DER more often use harsh or inconsistent discipline and respond to children's negative emotions with dismissive or punitive reactions, whereas parents with stronger ER skills are more likely to display supportive

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and positive parenting behaviors [1,5,6]. Moreover, individuals with stronger emotional appraisal skills (i.e., higher ER) are more likely to regulate their responses adaptively, reducing the likelihood of becoming overwhelmed by stress [7].

Specifically, ER strategies may influence "parental beliefs or confidence in their ability to successfully carry out parenting tasks" (p. 76) [8], i.e., perceived parental self-efficacy (PPSE). Because PPSE represents a central dimension of parenting, to better understand the links related to it is critical. Previous literature has detailed how PPSE is influenced by parental (e.g., age, gender, parents' attitudes and expectations), child (e.g., age, gender, personality), sociocultural and relational factors (e.g., socioeconomic status, coparenting, family conflict) (see [8] for details). However, how aspects related to parental (lack of) abilities to manage demanding emotions and situations related to parenting interfere with PPSE have been much less explored. These are significant gaps since contemporary parenting is often described as a stress-inducing experience, despite the pleasure and joy it may bring [9]. Particularly, due to the increased prevalence of dual-earner families, particularly in Western countries, such as Portugal, where both parents are typically employed full-time [10].

A potential source of parental stress is the frequent struggles parents face to balance their parenting responsibilities with other life domains, among which most common is work–family conflict (WFC), defined as "a form of interrole conflict with incompatible pressures from work and family roles" (p. 80) [11]. Traditionally, WFC has been operationalized through three forms of interference: time-based conflict, which reflects situations in which the time required by one role limits participation in the other; strain-based conflict, which captures the spillover of stress or fatigue across domains; and behavior-based conflict, which refers to incompatibilities between the behavioral expectations of work and family roles [12]. Therefore, the role of WFC in parenting has emerged as a relevant trend in research. WFC is particularly relevant for parenting due to its energy-depleting effects [13], association with poorer parent–child interactions [14,15] as well as poor parenting practices and competencies [16,17], and worse mental health, such as higher levels of depression and anxiety [18]. However, how WFC impacts parents' and children's well-being is still unclear in the literature.

However, parents that are more capable of regulating their emotions can secure resources to avoid WFC [19], while those who have more DER tend to experience more WFC [20]. ER can be a key resource for balancing the demands of work and family life [21] potentially influencing work–family conflict perceptions. Indeed, considering the Job Demands–Resources Model [22], emotion regulation can be conceptualized as a key personal resource that supports individuals' capacity to cope with job and family demands and to prevent the accumulation of strain across roles. When such resources are limited, demands are more likely to translate into emotional exhaustion, reduced behavioral flexibility, and difficulties maintaining functional boundaries between work and family, thereby increasing vulnerability to work–family conflict.

More specifically, WFC has been suggested to be related to lower levels of perceived parental self-efficacy [11,23]. Additionally, previous studies and reviews consistently show that PPSE influences parent outcomes (e.g., postpartum depression, psychological distress, parental satisfaction), affects child outcomes (e.g., behavior problems, self-control, social competence, academic performance) indirectly through its impact on parenting practices, and shapes the quality of the parent–child relationship [8,24,25].

Few studies, however, have explored the link between DER and PPSE. Available evidence examining the role of specific ER strategies shows that cognitive reappraisal is associated with more PPSE while expressive suppression is associated with less PPSE [26]. Yet, the most existing research has instead focused on related but distinct constructs, such as general ER tendencies or specific ER strategies, and their associations with parenting

stress, parenting practices, or parent–child interaction quality [27–29]. Other work suggests that poorer ER is linked to greater parenting stress and less adaptive parenting behaviors, which are in turn associated with lower parental self-efficacy [8,24,25], but parental self-efficacy has rarely been examined as an outcome in studies of parental ER. As a result, it remains unclear whether and how specific emotion regulation difficulties are related to parents' confidence in their caregiving role, and whether contextual stress processes (such as work–family conflict) help explain these associations. Addressing this gap is important for identifying which aspects of emotional functioning may represent meaningful targets for interventions aimed at supporting parents facing multiple role demands.

Parenting ecological models further specify how stressors originating in one context, such as the workplace, can spill over into the family system and affect parenting-related cognitions and behaviors [30,31]. Within this framework, work–family conflict represents a proximal contextual mechanism through which individual vulnerabilities, including difficulties in emotion regulation, may influence parenting processes. Rather than affecting parental self-efficacy only through intrapersonal pathways, ER difficulties may increase parents' exposure to emotional strain and behavioral incompatibilities between work and family roles, which in turn undermine parents' confidence in their ability to function effectively in the parenting role.

The Present Study

The current study aimed to examine the role of WFC as a linking process between parents' DER and PPSE. Although prior research has demonstrated that ER is central to effective parenting [1–3], and that WFC can undermine parents' sense of competence [11,17,23], few studies have integrated these two domains. Building on the Job Demands–Resources Model [22] and parenting ecological models [30,31], we conceptualize difficulties in ER as limitations in personal resources that reduce parents' capacity to cope with role demands and emotional spillover across contexts. In line with ecological perspectives, stress and behavioral patterns generated in the work domain are expected to transfer to the family system through work–family conflict. Work–family conflict is expected to function as an intervening contextual process linking individual emotion regulation difficulties to perceived parental self-efficacy, rather than as a stable contextual condition that alters the strength of this association. We therefore tested work–family conflict as a mediator, reflecting a theoretically driven assumption that ER difficulties precede and contribute to the experience of interrole conflict, which in turn shapes parents' appraisals of competence in the parenting role.

Each emotion regulation dimension was examined separately to explore whether distinct regulatory difficulties might be linked to different forms of work–family conflict and, in turn, to PPSE. These analyses are exploratory but guided by theoretical distinctions (e.g., internal/experiential processes; behavior or executive regulation processes) within the DERS framework [4] since there is a lack of empirical evidence linking the specific dimensions simultaneously in relation to the study outcomes. Yet, with this, we aim therefore to identify potentially meaningful patterns for future hypothesis-driven research. Thus, it was expected that difficulties in maintaining goal-directed behavior and accessing regulation strategies could be particularly related to emotional overload and strain, whereas difficulties in impulse control and emotional clarity would be more closely linked to behavioral dysregulation and spillover across roles.

Based on the theoretical frameworks outlined above, we formulated the following hypotheses.

H1: *Greater difficulties in ER will be associated with lower PPSE.*

H2: *Greater difficulties in ER will be associated with higher levels of WFC.*

H3: *WFC will be associated with lower PPSE.*

H4: *WFC will mediate the association between difficulties in ER and PPSE, such that higher ER difficulties will be associated with lower PPSE indirectly through higher WFC.*

Given the limited prior empirical evidence linking specific dimensions of ER difficulties to PSE, analyses of the six DERS dimensions were considered theory-informed but exploratory, aimed at identifying potentially distinct indirect pathways rather than testing strongly differentiated dimension-specific hypotheses.

2. Materials and Methods

2.1. Participants

The inclusion criteria required participants to be fathers or mothers of at least one child under the age of 18. A total of 234 individuals initially took part in this study. Six participants were excluded from the database because they did not meet the inclusion criteria, specifically having children over 18 years of age. After these exclusions, the final sample comprised 228 participants, including 170 women (74.6%) and 58 men (25.4%), aged between 29 and 61 years (M = 45.24, SD = 7.16). Regarding educational attainment, most participants had completed higher education—bachelor's degree (n = 113; 49.6%), master's degree (n = 46; 20.2%), doctoral degree (n = 5; 2.2%), while 64 participants (28.1%) had completed secondary education. Table 1 presents the detailed sociodemographic characteristics of the sample.

Table 1. Sociodemographic characteristics of the sample.

		M (SD)/n	%
Age		45.24 (7.16)	–
Gender	Women	170	74.6%
	Men	58	25.4%
Nationality	Portuguese	225	98.7%
	Brazilian	2	0.9%
	Mozambican	1	0.4%
Number of children	1 child	83	36.4%
	2 children	119	52.2%
	3 children	20	8.8%
	4 children	6	2.6%
Children's age	1st child	9.78 (4.87)	–
	2nd child	10.95 (5.08)	–
	3rd child	11.61 (4.80)	–
	4th child	9.80 (5.56)	–
Marital status	Married/union	166	72.8%
	Divorced	36	15.8%
	Single	25	11%
	Widow	1	0.4%
Romantic relationship	Yes	156	68.4%
	No	72	31.6%
Relationship length (in months)		158.51 (108.98)	–
Health problem	Yes	24	10.5%
	No	204	89.5%
Education	Secondary	64	28.1%
	Bachelor's degree	113	49.6%
	Master's degree	46	20.2%
	Doctoral degree	5	2.2%
Professional status	Employed	220	96.5%
	Unemployed	8	3.5%
Type of work	Part-time	16	7%
	Full-time work	212	93%
Weekly working hours		36.35 (11.64)	–

2.2. Measures

2.2.1. Emotion Regulation Difficulties

To assess difficulties in emotion regulation, we used the short version of the Difficulties in Emotion Regulation Scale, originally developed by Kaufman et al. [32] and later adapted for the Portuguese population by Moreira et al. [33]. This is a self-report instrument that measures individuals' perceived difficulties in regulating their emotions. The short version (DERS-SF) consists of 18 items distributed across six dimensions, each comprising three items. The first dimension refers to non-acceptance of emotional responses (e.g., "*When I am upset, I feel ashamed of myself for feeling that way*"). The second concerns difficulties engaging in goal-directed behavior (e.g., "*When I am upset, I have difficulty focusing my attention on other things*"). The third relates to difficulties controlling impulsive behaviors when experiencing strong emotions (e.g., "*When I am upset, I become out of control*"). The fourth addresses lack of emotional awareness (e.g., "*I pay attention to how I feel*"). The fifth assesses limited access to emotion regulation strategies (e.g., "*When I am upset, it takes me a long time to feel better*"). The sixth concerns a lack of emotional clarity (e.g., "*I am confused about how I feel*").

Participants responded using a 5-point Likert scale ranging from (1) "almost never" to (5) "almost always." Higher scores in these dimensions indicate greater difficulties in emotion regulation. In the present study, the instrument demonstrated good psychometric properties (McDonald's omegas (ω) = 0.83 for lack of emotional awareness, ω = 0.71 for non-acceptance of emotions, ω = 0.81 for difficulties engaging in goal-directed behavior, ω = 0.75 for limited access to emotion regulation strategies, ω = 0.84 for difficulties controlling impulsive behaviors, and ω = 0.77 for lack of emotional clarity; ω = 0.86 for the total scale).

2.2.2. Work–Family Conflict

Work–family conflict was assessed using the Work–Family Conflict Scale (WFCS) developed by Carlson et al. [12] and adapted for the Portuguese population by Vieira et al. [34]. This multidimensional self-report instrument evaluates conflict between the demands of professional and family domains. The scale comprises 18 items grouped into six specific dimensions, capturing both work-to-family conflict and family-to-work conflict. Each direction of conflict is assessed in three forms: Time-based conflict, which refers to difficulties in reconciling schedules between work and family (e.g., "My work keeps me from spending the amount of time I would like with my family"); strain-based conflict, which focuses on the effects of stress (e.g., "I am often so emotionally drained when I get home from work that it prevents me from contributing to my family"); behavior-based conflict, which concerns differences in attitudes and behaviors across contexts (e.g., "The behaviors that are effective and necessary for me at work do not work as well at home"). Each of the six dimensions is assessed by three items, rated on a 5-point Likert scale ranging from (1) "strongly disagree" to (5) "strongly agree." In this study, we focused exclusively on the work–family conflict dimension, as previous research indicates that work demands more often and more strongly interfere with family life than family demands interfere with work. Accordingly, prevalence rates of work–family conflict are typically higher than those of family–work conflict [35]. Also, although work–family conflict is conceptually bidirectional, the present study focused specifically on work-to-family conflict because this direction is most consistent with our theoretical model and study aims, of examining how aspects related to work may interfere on parental performance. Drawing on the Job Demands–Resources Framework [22], ER difficulties were conceptualized as personal vulnerabilities that increase susceptibility to work-related strain and behavioral spillover, which are then expected to affect functioning in the family domain. Ecological models of parenting [30,31] further suggest that stressors originating in external systems, such as the workplace, influence parenting processes indirectly by shaping parents' emotional

availability and behavioral functioning at home. Within this conceptualization, work-to-family conflict represents the most proximal mechanism through which individual emotional functioning is expected to affect parenting-related cognitions, including parental self-efficacy.

In the present study, the instrument demonstrated good psychometric properties (ω = 0.85 for time-based conflict, ω = 0.86 for strain-based conflict, and ω = 0.88 for behavior-based conflict).

2.2.3. Perceived Parental Self-Efficacy

Perceived parental self-efficacy was assessed using the Parental Self-Efficacy Scale, originally developed by Caprara et al. [36] and later validated for the Portuguese population by Costa and Faria [37]. This instrument evaluates parents' beliefs regarding their ability to successfully carry out their parenting roles. The original scale consists of 12 items that assess a single global dimension, covering different aspects of parenting skills such as open communication with children, stimulation of self-control and problem-solving, and the management of children's responsibilities.

Parents responded on a 6-point Likert scale ranging from (1) "incapable" to (6) "completely capable." The Portuguese version includes 19 items, as 7 were added to the original 12 to capture parenting tasks related mainly to children's academic context (considering the specificity of their study). However, for the purposes of the present study, only the original 12 items were considered [36] to preserve conceptual alignment with the original construct definition and to ensure comparability with the broader international literature. All parents completed the PPSE questionnaire; however, several items of the original scale refer to parenting tasks that are not developmentally appropriate for younger children (e.g., guiding the child without invading privacy, discussing personal or intimate issues). Therefore, parents whose child was younger than 10 years responded only to the six items that were considered age-appropriate, whereas parents with a child aged 10 years or older completed the full set of 12 original items. For all participants, PPSE scores were computed as the mean of the items completed, resulting in scores based on either 6 (n = 82) or 12 items (n = 146), depending on child age. This approach allowed inclusion of all parents in the analyses while ensuring developmental appropriateness of item content. In the current study, the scale demonstrated excellent internal consistency, with ω = 0.91 (for the 12 items) and ω = 0.86 (for the 6 items).

2.3. Procedure

The present study was designed and conducted in line with the ethical principles of the Declaration of Helsinki. Prior to data collection, ethical approval was obtained from the Ethics Committee of ISPA—Instituto Universitário. In addition, formal authorization was requested for the use of the assessment instruments, with the original authors contacted.

Data were collected through an online questionnaire created in Google Forms. The survey required approximately 10 min to complete and was available between February and May 2025. Recruitment was conducted using non-probabilistic convenience and snowball sampling strategies. The initial link was shared with family members and close contacts of the research team and subsequently disseminated through participants' voluntary sharing on social networks, including informal WhatsApp groups. This strategy allowed the research team to reach the target population in line with the inclusion criteria.

Participation was voluntary. On the first page of the questionnaire, participants were presented with the informed consent form, which explained the objectives of the study, the expected duration, the voluntary nature of participation, and the guarantee of confidentiality and data protection. Participants confirmed their agreement before proceeding. In

addition, participants were informed that they could withdraw at any time without penalty. To increase participation rates, a lottery was organized, in which three vouchers of €30 each were randomly awarded among those who completed the questionnaire. The second section of the survey included the sociodemographic questionnaire followed by the three assessment instruments.

2.4. Data Analysis

Data collected through the online questionnaire were exported to the Statistical Package for the Social Sciences (SPSS, version 30) for statistical analyses. First, descriptive analyses were conducted to calculate means and standard deviations of the study variables, with the aim of characterizing the sample. Next, independent sample *t*-tests were performed to examine potential gender differences between mothers and fathers across the study variables. Additionally, bivariate correlational analyses were performed using Pearson's correlation coefficient (r) to examine associations between all study variables.

Finally, mediation analyses were carried out using Hayes' PROCESS macro (version 4.3) [38]. Direct, indirect, and total effects were tested separately across six mediation models. In all models, the dependent variable was PPSE, while the mediators were the three dimensions of the work–family conflict scale: time, strain, and behavior conflict. The models differed only in the independent variable, which included each of the six dimensions of emotion regulation difficulties: lack of emotional awareness, non-acceptance of emotions, difficulties engaging in goal-directed behavior, limited access to emotion regulation strategies, difficulties controlling impulsive behaviors, and lack of emotional clarity.

All mediation analyses were conducted using bootstrapping with 5000 resamples to generate bias-corrected 95% confidence intervals. Indirect effects were considered statistically significant when the confidence interval did not include zero. A significance threshold of $p < 0.05$ (two-tailed) was adopted for all tests. Unstandardized values were reported.

3. Results

3.1. Differential Analyses

Independent sample *t*-tests showed differences according to gender only in the strain conflict subscale of the WFC scale ($F(226) = 2.28$, $p < 0.05$, d = 0.96, 95%CI [0.05, 0.65]), with mothers reporting more strain conflict (M = 3.12; SD = 0.95) in comparison to fathers (M = 2.79; SD = 1.02). No differences were found for the remaining variables. Because no differences were found for the outcome variable, we did not include any sociodemographic variable in the models tested.

3.2. Correlational Analyses

Correlational analyses indicated that overall DERs were associated with lower PPSE, with two exceptions: non-acceptance and difficulties in controlling impulsive behaviors showed no significant associations. DERs were also positively related to higher levels of work–family conflict, except for lack of emotional awareness and difficulties controlling impulsive behaviors, which were not significantly associated with any dimension of conflict, and for time-based conflict, which was unrelated to emotion regulation difficulties. Finally, behavior-based conflict was negatively associated with PPSE, whereas the other dimensions of work–family conflict were not significantly related to PPSE (see Table 2).

3.3. Direct, Total, and Indirect Effects

Model 1: lack of emotional awareness was significantly associated with strain- and behavior-based conflict, but not with time-based conflict. The total effect of lack of emotional awareness on PPSE was significant ($p < 0.05$). However, after including the mediators,

the direct effect was no longer significant (p = 0.072). Indirect effects showed that only behavior-based conflict significantly explained the association between lack of emotional awareness and PPSE (95% CI [−1.59, −0.00]). Indirect effects through strain- and time-based conflict were not significant. This model explained 4.8% of the PSSE variance (F(4, 223) = 2.83, p < 0.05) (see Figure 1).

Table 2. Pearson correlations between study variables.

	1	2	3	4	5	6	7	8	9	10
1. Lack of emotional awareness	1									
2. Non-acceptance	0.186 **	1								
3. Difficulties in goal-directed behavior	0.110	0.497 ***	1							
4. Limited access to ER strategies	0.215 **	0.607 ***	0.609 ***	1						
5. Difficulties controlling impulsive behaviors	0.232 ***	0.457 ***	0.474 ***	0.616 ***	1					
6. Lack of emotional clarity	0.305 ***	0.426 ***	0.396 ***	0.420 ***	0.328 ***	1				
7. Time-based conflict	0.104	0.167 *	0.255 ***	0.227 ***	0.104	0.172 **	1			
8. Strain-based conflict	0.174 **	0.353 ***	0.462 ***	0.432 ***	0.304 ***	0.299 ***	0.568 ***	1		
9. Behavior-based conflict	0.251 ***	0.416 ***	0.388 ***	0.412 ***	0.273 ***	0.242 ***	0.447 ***	0.528 ***	1	
10. Perceived parental self-efficacy	−0.151 *	−0.126	−0.185 **	−0.177 **	−0.041	−0.136 *	−0.085	−0.029	−0.166 *	1

Note. * p < 0.05; ** p < 0.01; *** p < 0.001.

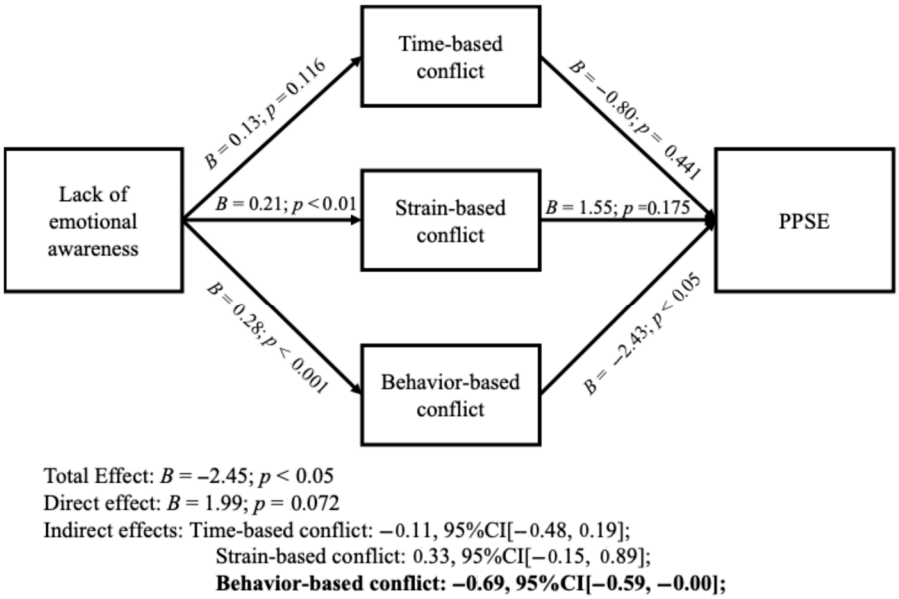


Figure 1. Associations between lack of emotional awareness and PPSE via WFC.

Model 2: Non-acceptance of emotions was significantly associated with time-, strain-, and behavior-based conflict. The total effect of non-acceptance of emotions on PPSE approached significance (p = 0.058). However, when the mediators were included in the model, the direct effect was no longer significant (p = 0.217). Indirect effects through time-, strain-, and behavior-based conflict were not significant. This model explained 4.1% of the variance in PPSE (F(4, 223) = 2.39, p = 0.052) (see Figure 2).

Model 3: Difficulties in goal-directed behavior were significantly associated with time-, strain-, and behavior-based conflict. The total effect of difficulties in goal-directed behavior on PPSE was significant (p < 0.01). After including the mediators, the direct effect remained significant (p < 0.05), indicating a partial explanation pattern. Indirect effects showed that strain-based conflict significantly explained the association between difficulties in goal-directed behavior and PPSE (95% CI [0.04, 2.67]). The indirect effects through time- and behavior-based conflict were not significant. This model explained 6.2% of the variance in PPSE (F(4, 223) = 3.66, p < 0.01) (see Figure 3).

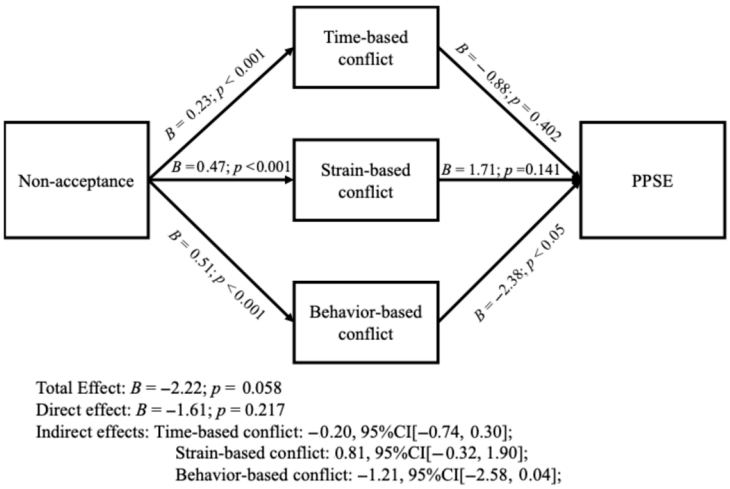


Figure 2. Associations between non-acceptance of emotions and PPSE via WFC.

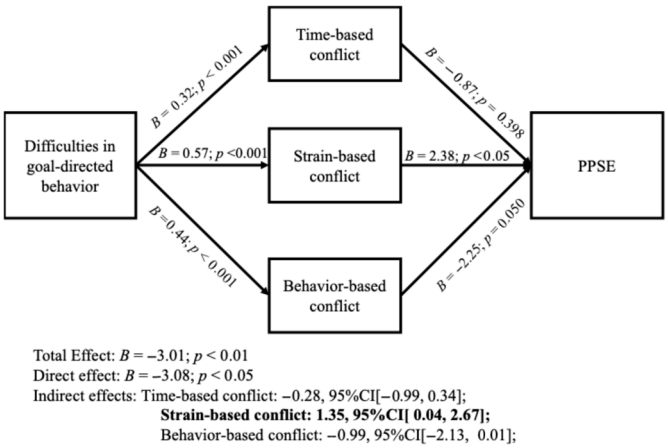
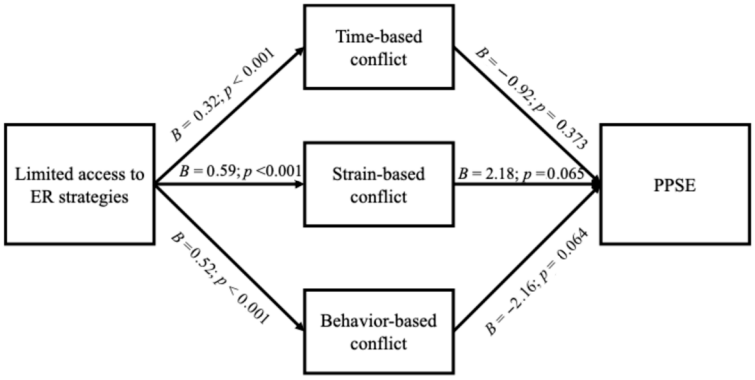


Figure 3. Associations between difficulties in goal-directed behavior and PPSE via WFC.

Model 4: Limited access to ER strategies was significantly associated with time-, strain-, and behavior-based conflict. The total effect of limited access to ER strategies on PPSE was significant ($p < 0.01$). After including the mediators, the direct effect remained significant ($p < 0.05$), indicating a partial explanation pattern. Analyses of the indirect effects showed no significant total indirect effect. This model explained 5.6% of the variance in PPSE ($F(4, 223) = 3.33$, $p < 0.05$) (see Figure 4).

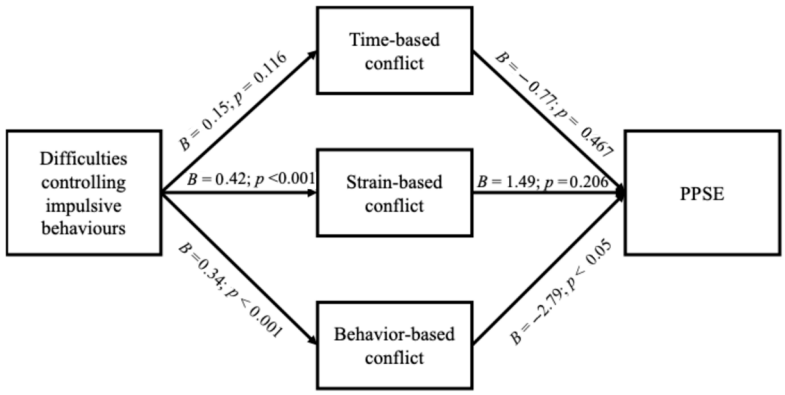
Model 5: Difficulties controlling impulsive behaviors were associated with strain- and behavior-based conflict, but not with time-based conflict. The total effect of impulse-control difficulties on PPSE was not significant ($p = 0.533$). After including the mediators, the direct effect also remained non-significant ($p = 0.816$). Indirect effects showed a significant indirect pathway through behavior-based conflict (95% CI [−2.04, −0.15]). Indirect effects through time- and strain-based conflict were not significant. This model accounted for 3.5% of the variance in PPSE ($F(4, 223) = 2.00$, $p = 0.095$) (see Figure 5).

Model 6: Lack of emotional clarity was associated with time-, strain-, and behavior-based conflict. The total effect of lack of emotional clarity on PPSE was significant ($p < 0.05$). After including the mediators, the direct effect became non-significant ($p = 0.077$), suggesting that the association was partially accounted for by the mediators. Indirect effects showed that behavior-based conflict significantly explained the association between lack of emotional clarity and PPSE (95% CI [−2.01, −0.09]). Indirect effects through time-based conflict and strain-based conflict were not significant. This model explained 4.8% of the variance in PPSE ($F(4, 223) = 2.81$, $p < 0.05$) (see Figure 6).



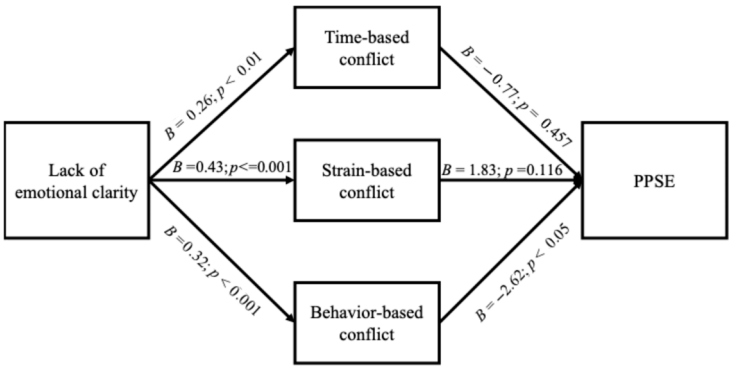
Total Effect: $B = -3.21$; $p < 0.01$
Direct effect: $B = -3.08$; $p < 0.05$
Indirect effects: Time-based conflict: −0.30, 95%CI[−1.08, 0.32];
Strain-based conflict: 1.29, 95%CI[− 0.03, 2.61];
Behavior-based conflict: −1.13, 95%CI[−2.47, 0.09];

Figure 4. Associations between limited access to ER strategies and PPSE via WFC.



Total Effect: $B = -0.75$; $p = 0.533$
Direct effect: $B = -0.30$; $p = 0.816$
Indirect effects: Time-based conflict: −0.11, 95%CI[−0.58, 0.22];
Strain-based conflict: 0.62, 95%CI[−0.36, 1.65];
Behavior-based conflict: −0.96, 95%CI[−2.04, −0.15];

Figure 5. Associations between difficulties controlling impulsive behaviors and PPSE via WFC.



Total Effect: $B = -2.61$; $p < 0.05$
Direct effect: $B = -2.36$; $p = 0.077$
Indirect effects: Time-based conflict: −0.20, 95%CI[− 0.80, 0.33];
Strain-based conflict: 0.79, 95%CI[− 0.17, 1.90];
Behavior-based conflict: −0.85, 95%CI[−2.01, − 0.09];

Figure 6. Associations between lack of emotional clarity and PPSE via WFC.

4. Discussion

The present study examined how different dimensions of ER difficulties relate to PPSE, and whether these associations were explained by work–family conflict dimensions

(time-, strain-, and behavior-based conflict). Overall, the findings partially supported our hypotheses, showing that some ER difficulties were associated with lower PPSE, and that particularly strain- and behavior-based conflict emerged as potential negative pathways for these relationships. The mediation models explained a modest proportion of variance in PPSE, which is not unexpected given that PPSE efficacy is influenced by multiple individual, relational, and contextual factors. ER difficulties and WFC represent only two components within a broader network of determinants, including child characteristics, coparenting quality, social support, and socioeconomic conditions. In this context, small effect sizes should not be interpreted as trivial, but rather as reflecting the contribution of specific psychological processes within a complex and multiply determined outcome. Importantly, even small effects may have practical relevance when they involve modifiable psychological mechanisms that can be targeted in preventive and intervention programs.

Consistent with previous research linking ER deficits to poorer parenting outcomes [26–28], four DERS dimensions (i.e., lack of emotional awareness, difficulties in goal-directed behavior, limited access to ER strategies, and lack of emotional clarity) were associated with reduced PPSE. Indeed, parents' ability to regulate their emotions is crucial for maintaining responsiveness and attentiveness to their children's needs [29].

Impulsivity during emotional activation was not directly associated with PSSE, contrary to our expectations. It is possible that parents recognize impulsive behaviors, but do not necessarily perceive them as problematic or indicative of inefficacy [39]. In contrast, parents with lower emotional clarity (i.e., greater difficulty identifying and labeling their own emotions) reported lower PSSE, which is consistent with the literature [4,32]. Emotional clarity facilitates adaptive behavioral responses to children's needs [40] and its absence may compromise caregiving competence. From a mentalization perspective [41], reduced emotional clarity may hinder parents' ability to interpret both their own and their children's emotional states, leading to less attuned responses and a weaker sense of efficacy. Impulsivity and low emotional clarity were both associated with lower PPSE via behavioral work–family conflict, indicating that these emotional deficits likely manifest in observable, maladaptive behaviors at the interface of work and family life [1].

The analyses further showed that only the strain and behavioral dimensions of work–family conflict significantly explained the relationship between ER difficulties and PPSE. The time dimension did not emerge as significant in any model. While time scarcity is often cited as a central parenting challenge, our findings suggest that emotional strain and behavioral spillover are more psychologically relevant for parents' self-efficacy appraisals [12,42].

The model linking difficulties in goal-directed behavior to PPSE through the strain dimension of work–family conflict, however, showed a surprising result. Parents reporting greater difficulties in goal-directed behavior also reported higher levels of work–family strain (i.e., feelings of overload, fatigue, and anxiety) which, in turn, were associated with higher PPSE. This direction of effect contradicts the theoretical hypothesis that greater emotional difficulties would lead to more strain and, consequently, lower PPSE [23,43]. One possible explanation lies in the Job Demands–Resources Theory [22], which proposes that job and family demands can be experienced as either interferences or motivational challenges. Parents might interpret higher strain as a sign of dedication and responsibility rather than dysfunction. In this sense, strain could be reappraised as a motivational challenge that reinforces their sense of competence as caregivers by being able to manage demands. It is possible that some parents experiencing higher strain might respond by increasing their effort or engagement in the parenting role, which paradoxically increases their sense of efficacy. WFC strain reflects emotional spillover from work into family, which might serve as a cue for parents to reassert themselves in the family role. However, more studies are needed to better understand these processes. Yet it is important to note that

this pattern may reflect inconsistent mediation or suppression effects, whereby indirect and direct associations operate in different directions, resulting in counterintuitive indirect paths despite weak or non-significant total effects. As a result, statistically significant indirect effects may emerge even when total effects are weak or non-significant. This phenomenon has been described in mediation literature as a suppression pattern [44], in which controlling for a mediator reveals or alters the relationship between predictors and outcomes. Therefore, these counterintuitive indirect paths should not be interpreted as strong evidence of causal mechanisms, but rather as indications of complex interrelations among emotion regulation difficulties, intermediate psychological processes, and parental self-efficacy that warrant further investigation using longitudinal designs.

Second, measurement-related factors may have contributed to this result. The strain-based conflict scale captures subjective emotional interference rather than objective workload, and the parental self-efficacy measure reflects general confidence rather than domain-specific competence. It is therefore possible that parents who remain highly engaged and persistent despite emotional strain may report both higher perceived strain and higher confidence in their parenting abilities, inflating positive associations under certain conditions. Finally, given the exploratory nature of the dimension-level analyses and the risk of Type I error associated with multiple testing, this specific indirect effect should be interpreted cautiously and requires replication before substantive conclusions are drawn.

Finally, indirect effects from lack of awareness, strategies, and non-acceptance dimensions of emotion were not significant. Yet, some specific associations emerged, mainly with the behavioral dimension of work–family conflict. These results align with theoretical expectations that difficulties in emotional awareness, regulation strategies, and acceptance relate to higher behavioral and emotional imbalance across work and family domains [20,43]. Only the strategies dimension showed a significant direct effect: greater difficulty in using adaptive emotional strategies was associated with lower PPSE [26,45]. The absence of significant direct or indirect effects for lack of awareness and non-acceptance may be due to their more internal and subjective nature. These processes, recognizing, interpreting, and accepting emotions, are less observable and may not immediately translate into visible work–family conflict or PPSE [4]. Parents may not consciously associate these internal difficulties with their caregiving abilities or may use compensatory mechanisms such as minimization or rationalization [40,46].

Overall, the findings highlight that ER difficulties, particularly impulsivity and lack of emotional clarity, may undermine PPSE primarily through behavioral manifestations of work–family conflict. These results emphasize the role of emotional competence in balancing professional and family demands and suggest that interventions promoting emotional awareness, clarity, and impulse control may help strengthen parents' confidence and effectiveness in their caregiving.

In several models, significant indirect effects were observed in the absence of significant total effects. This pattern is consistent with contemporary mediation theory, which does not require a significant total effect for the presence of meaningful indirect pathways. Indirect effects may emerge when opposing mechanisms operate simultaneously or when effects are transmitted through specific processes that are not captured by the overall association. In this sense, the present findings suggest that certain ER difficulties may influence PPSE primarily through specific forms of WFC, rather than through broad direct associations.

4.1. Limitations and Future Directions

Some limitations should be acknowledged. First, the cross-sectional design precludes causal inferences. Longitudinal or experimental studies are needed to clarify the temporal

dynamics between ER difficulties, work–family conflict, and PPSE. These associations may be bidirectional, and only longitudinal designs can reveal how they influence one another over time. Indeed, although we modeled work–family conflict as a mediator based on theoretical considerations, these processes are likely reciprocal over time. Parenting stress and reduced parental self-efficacy may also increase vulnerability to work–family conflict, creating feedback loops that cannot be captured in cross-sectional designs. Longitudinal studies are needed to test these alternative models.

Second, all measures were based on self-report, which may be affected by social desirability bias. Future research could benefit from incorporating observational data or reports from partners.

Third, the sample may not be representative of all family contexts (e.g., fathers, non-traditional families), limiting generalizability. Subsequent studies should include larger and more heterogeneous samples. The sample was predominantly composed of highly educated, full-time employed mothers, which limits the generalizability of the findings to fathers, families with lower educational attainment, and parents in more precarious or non-standard employment conditions. Work–family dynamics, access to emotional and instrumental resources, and experiences of role conflict may differ substantially across socioeconomic groups and employment contexts. Also, the sampling strategy relied on convenience and snowball methods, which may introduce selection bias and restrict variability in key study constructs. Parents who are more socially connected, more educated, or more interested in psychological topics may have been more likely to participate, potentially leading to underrepresentation of families experiencing higher levels of work–family conflict or greater emotional difficulties. This restriction of range may have attenuated associations among variables and contributed to the relatively modest effect sizes observed.

Fourth, perceived parental self-efficacy was assessed using different numbers of items depending on the child's age to ensure developmental appropriateness of item content. Although mean scores were used to maintain comparability across participants, differences in scale length may have introduced additional measurement variability and may limit strict comparability of self-efficacy estimates across parents of younger versus older children. Future studies should consider using age-specific versions of parental self-efficacy scales or formally testing measurement invariance across child age groups to ensure equivalence of the construct across developmental stages.

Finally, although this study examined work–family conflict as a potential mechanism linking ER difficulties and PPSE, other factors (e.g., coparenting or marital quality) may also play a role. Moreover, because the focus was on general difficulties in ER, future research should adopt a more micro perspective by examining the role of specific ER strategies (e.g., expressive suppression, cognitive reappraisal) in shaping work–family conflict and, consequently, PPSE. Also, the use of multiple mediation models increases the risk of Type I error. Because the analyses of specific emotion regulation dimensions were exploratory and not based on strong prior empirical evidence, findings regarding individual pathways should be interpreted with caution. Future studies should test integrated models including multiple dimensions simultaneously, apply correction procedures for multiple testing, and seek replication in independent samples to confirm the robustness of the observed patterns.

4.2. Theoretical and Practical Implications

These results extend existing models of parenting and emotion regulation [27] by suggesting that behavior- and strain-based WFC may represent potential pathways through which DER relate to PPSE. However, given the modest effect sizes and cross-sectional design, these associations should be interpreted as preliminary, rather than as evidence of definitive mechanisms. The findings indicate that certain regulatory processes, particularly

difficulties in maintaining goal-directed behavior, controlling impulsive responses, and accessing ER strategies, were more consistently associated with strain- and behavior-based WFC, which in turn showed links with lower PPSE.

Accordingly, rather than supporting broad clinical recommendations, the present results suggest that future intervention research may benefit from testing whether targeting specific behavioral and executive regulation processes is relevant for improving parents' confidence in managing caregiving demands, particularly in contexts characterized by high emotional and role-related strain. Potential intervention components could include skills aimed at enhancing emotion-driven behavior management, distress tolerance, and adaptive problem-solving in high-demand situations, which are theoretically aligned with the regulatory dimensions implicated in this study. Importantly, the present data do not allow conclusions about intervention effectiveness and should be used to inform future experimental and longitudinal designs.

In contrast, time-based WFC did not emerge as a significant pathway in the tested models, suggesting that interventions focusing exclusively on time management or workload restructuring may be insufficient to address psychological aspects of parenting confidence, although such approaches may still be relevant for other outcomes. Overall, the findings point to the importance of considering emotional and behavioral regulation processes in future studies of parental self-efficacy, while recognizing that these represent only one part of a broader, multifactorial system influencing parenting functioning.

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