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Article

Rest to Resist: How Recovery Shields Well-Being from Work-Family Strain

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Abstract: This study explores the mediating role of recovery experiences in the relationship between work-family conflict (WFC) and employee well-being. Although WFC has been widely associated with negative outcomes such as psychological distress and reduced life satisfaction, little is known about the processes that may buffer its effects. Guided by the Conservation of Resources Theory and the Effort-Recovery Model, we investigated whether four types of recovery experiences—psychological detachment, relaxation, mastery, and control—mediate the WFC–well-being relationship. A cross-sectional survey was administered to 240 employees, using validated self-report measures. Data were analyzed using correlation, regression, and mediation techniques, including bootstrapping procedures via PROCESS. Results confirmed a significant negative association between WFC and well-being. All recovery experiences were positively associated with well-being, with relaxation showing the strongest predictive power. Mediation analyses revealed that all four recovery experiences partially mediated the impact of WFC on well-being. These findings underscore the importance of recovery as a psychological buffer in contexts of high work-family interference. Supporting recovery through organizational practices—such as promoting psychological detachment, flexible scheduling, and restorative activities—may help sustain employee mental health and resilience.

Keywords: work-family conflict; recovery experiences; well-being; occupational stress; employee mental health

1. Introduction

In recent decades, significant societal and organizational changes—such as the growing participation of women in the workforce, dual-career households, and increased permeability between work and family domains—have heightened the complexity of balancing professional and personal responsibilities. These transformations have contributed to a rise in work-family conflict (WFC), defined as a form of inter-role conflict where demands from work and family domains are mutually incompatible (Greenhaus & Beutell, 1985). Extensive research has shown that WFC negatively impacts employees' physical and psychological health, job satisfaction, and overall well-being (Amstad et al., 2011; Bakker et al., 2011). Despite these well-documented consequences, less is known about the mechanisms that may buffer the negative effects of WFC on employee well-being. In particular, the role of recovery experiences — defined as psychological processes that restore depleted personal resources (Sonnentag & Fritz, 2007) — has been underexplored in this context.

Recovery experiences such as psychological detachment, relaxation, mastery, and control have been associated with positive emotional states, reduced stress, and improved health outcomes (Sonnentag, 2018; Bennett et al., 2018). However, few studies have examined whether these experiences mediate the relationship between WFC and well-being. Understanding this mediating process can shed light on how individuals can protect their mental health in the face of increasing work-family demands.

This study aims to fill this gap by investigating the mediating role of recovery experiences in the relationship between work-family conflict and employee well-being in a Portuguese working population. Building on the Conservation of Resources Theory (Hobfoll, 1989) and the Effort-Recovery Model (Meijman & Mulder, 1998), we argue that recovery experiences serve as psychological buffers that mitigate the harmful impact of WFC on well-being. By exploring these mechanisms, this research contributes to a deeper understanding of the interplay between work and family roles, offering practical insights for organizations seeking to foster employee well-being through recovery-supportive practices.

1.1. Work-Family Conflict and Employee Well-Being

Work-family conflict (WFC) refers to a form of inter-role conflict in which the demands of work and family roles are mutually incompatible, such that participation in one role makes participation in the other more difficult (Greenhaus & Beutell, 1985). WFC is commonly divided into two directional dimensions: work-to-family conflict (W→F), where work demands interfere with family responsibilities, and family-to-work conflict (F→W), where family duties disrupt professional performance (Frone et al., 1992).

Numerous studies have linked WFC to negative individual and organizational outcomes. At the individual level, WFC is associated with emotional exhaustion, depression, reduced life satisfaction, and burnout (Kossek et al., 2011; Amstad et al., 2011). At the organizational level, WFC predicts reduced job performance, absenteeism, and turnover intentions (Allen et al., 2013). These findings underline the detrimental effect of WFC on employee well-being, a construct that encompasses both psychological health and positive functioning (Ryff & Singer, 2008).

1.2. Recovery Experiences as Protective Mechanisms

Recovery experiences refer to psychological processes that help individuals restore depleted mental and emotional resources after work (Sonnentag & Fritz, 2007). According to the Effort-Recovery Model (Meijman & Mulder, 1998), recovery occurs when work demands cease, allowing physiological and psychological systems to return to baseline levels. Similarly, the Conservation of Resources Theory (Hobfoll, 1989) posits that stress occurs when valuable resources are threatened or lost; recovery experiences are thus seen to replenish these resources.

Sonnentag and Fritz (2007) identified four core recovery experiences:

1. **Psychological detachment:** mentally disengaging from work during non-work time.
2. **Relaxation:** experiencing low levels of activation and high levels of positive affect.
3. **Mastery:** engaging in challenging activities that promote personal growth.
4. **Control:** having autonomy over how one spends their leisure time.

Each of these experiences contributes uniquely to stress reduction and well-being (Bennett et al., 2018; Yang & Jo, 2022). While detachment and relaxation facilitate passive recovery, mastery and control involve active engagement and personal agency.

1.3. Recovery as a Mediator

Empirical studies suggest that recovery experiences not only directly enhance well-being but may also buffer the negative effects of job stressors, including WFC (Park et al., 2021; Ding et al., 2020). Individuals who effectively recover from work-related strain are more likely to maintain higher levels of well-being, even in the presence of high work-family demands (Sari, 2020; Khawaled, 2018).

In this study, we posit that recovery experiences act as mediators in the relationship between WFC and well-being. That is, individuals experiencing high levels of WFC may benefit from recovery processes that protect their psychological health and mitigate the depletion of personal resources.

Based on this literature, we propose the following hypotheses:

H1: Work-family conflict is negatively associated with employee well-being.

H2: Recovery experiences are positively associated with employee well-being.

H3: Recovery experiences mediate the relationship between work-family conflict and employee well-being.

2. Materials and Methods

2.1. Participants

The study sample consisted of 240 Portuguese working adults, with a majority identifying as female (72.1%, $n = 173$) and 27.9% ($n = 67$) as male. Participants' ages ranged from 23 to 66 years ($M = 43.45$, $SD = 9.80$). Regarding family status, 32.5% reported having no children, 28.7% had one child, 32.1% had two children, and 6.7% had three or more. Most participants were married or in a domestic partnership (60.4%), followed by single (27.9%) and divorced (11.7%).

Educational levels varied, with 30.8% holding a bachelor's degree, 28.3% a master's degree, 12.9% a postgraduate diploma, and 3.8% a PhD. The majority (58.3%) worked in the public sector, 36.7% in the private sector, and 5% in mixed institutions. Occupations were primarily in intellectual and scientific professions (61.3%), followed by mid-level technicians (15.8%) and administrative staff (8.3%). Most participants were employed full-time (94.6%), and 75% held permanent contracts.

2.2. Measures

Work-Family Conflict - WFC was assessed using the Portuguese version of the Work-Family Conflict and Family-Work Conflict Scale (Santos & Gonçalves, 2014), originally developed by Netemeyer et al. (1996). The scale comprises 10 items measured on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree), with two subscales: work-to-family conflict and family-to-work conflict. In this study, Cronbach's alpha was .87 for the total scale, and .86 for both subdimensions.

Recovery Experiences - Recovery was measured using the Portuguese adaptation of the Recovery Experiences Questionnaire (Sonnetag & Fritz, 2007; Lobo & Pinheiro, 2012), consisting of 16 items across four subscales: psychological detachment, relaxation, mastery, and control. Responses were given on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Internal consistency in this study was acceptable to excellent: $\alpha = .80$ (detachment), $\alpha = .90$ (relaxation), $\alpha = .89$ (mastery), and $\alpha = .70$ (control).

Well-Being - Well-being was assessed using the GHQ-12 (Goldberg & Williams, 1988), a unidimensional measure of mental health adapted for Portuguese by Carochinho (2006). The 12 items are rated on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). Higher scores indicate lower levels of well-being. In the present study, the scale demonstrated good internal consistency ($\alpha = .88$).

2.3. Procedure

Data were collected using an online questionnaire distributed via social media and professional networks between October 2023 and April 2024. Participants were informed of the study's purpose and provided informed consent prior to participation. Anonymity and confidentiality were assured.

2.4. Data Analysis

Descriptive statistics, Pearson correlations, and regression analyses were conducted using IBM SPSS Statistics version 28. Mediation analysis was performed using PROCESS macro (Model 4) developed by Hayes. The significance of indirect effects was tested via bootstrapping with 5,000 samples. Correlation coefficients were interpreted according to Marôco (2021): values below .25 were considered weak, between .25 and .50 moderate, and above .50 strong.

3. Results

3.1. Descriptive Statistics

Table 1 presents the means and standard deviations for the key study variables. On average, participants reported moderate levels of work-family conflict (WFC; $M = 3.06$, $SD = 1.19$), with higher levels of work-to-family conflict ($M = 3.69$, $SD = 1.48$) than family-to-work conflict ($M = 2.42$, $SD = 1.31$), indicating greater perceived interference from work into family life. Among the recovery experiences, mastery ($M = 3.74$, $SD = 0.96$) showed the highest mean, followed by control ($M = 3.44$, $SD = 0.85$), relaxation ($M = 3.43$, $SD = 1.09$), and detachment ($M = 3.15$, $SD = 0.90$). The highest mean was observed for well-being ($M = 5.01$, $SD = 1.09$), though this must be interpreted in reverse, as higher GHQ-12 scores indicate lower psychological well-being.

Table 1. Means and Standard Deviations of the variables under study.

Variables	M	SD
WFC-FWC	3.06	1.19
WFC	3.69	1.48
FWC	2.42	1.31
Relaxation	3.43	1.09
Mastery	3.74	0.96
Detachment	3.15	0.90
Control	3.44	0.85
Well-Being	5.01	1.09

3.2. Correlational Analysis

Pearson correlations revealed statistically significant relationships among the main variables (Table 2). Work-family conflict showed:

- Negative, moderate correlations with well-being ($r = -.432$, $p < .001$) and relaxation ($r = -.294$, $p < .001$),
- Weaker negative correlations with psychological detachment ($r = -.195$, $p = .002$) and control ($r = -.128$, $p = .047$).

All four recovery experiences were positively correlated with well-being, with the strongest relationship observed for relaxation ($r = .461$, $p < .001$), followed by control ($r = .313$), mastery ($r = .301$), and detachment ($r = .257$).

Table 2. Correlations.

	1	1.1	1.2	2.1	2.2	2.3	2.4
1. WFC-FWC	1						
1.1 WFC	.870**	1					
1.2 FWC	.830**	.447**	1				
2.1 Relaxation	-.294**	-.326**	-.165*	1			
2.2 Mastery	-.108	-.087	-.097	.456**	1		
2.3 Detachment	.195**	-.180**	-.149*	.476**	.121	1	
2.4 Control	-.128*	-.112	-.106	.405**	.355**	.255**	1
3. Well-Being	-.432**	-.384**	-.350**	.461**	.301**	.257**	.313**

3.3. Regression Analyses

To test H1, simple linear regression showed that work-family conflict significantly predicted lower well-being, explaining 18.7% of the variance ($\beta = -.432$, $p < .001$). Both subdimensions—work-to-family and family-to-work conflict—were also significant predictors ($\beta = -.384$ and $-.350$,

respectively; $p < .001$). To test H2, each recovery experience was entered separately into simple regressions predicting well-being. Results showed:

- Relaxation explained 21.3% of the variance ($\beta = .461$, $p < .001$),
- Mastery 9.0% ($\beta = .301$, $p < .001$),
- Detachment 6.6% ($\beta = .257$, $p < .001$),
- Control 9.8% ($\beta = .313$, $p < .001$).

These results support the hypothesis that recovery experiences are significant positive predictors of well-being.

3.4. Mediation Analysis

To test H3, a parallel mediation model was estimated using PROCESS Model 4. Work-family conflict (WFC) was entered as the independent variable, well-being as the dependent variable, and the four recovery experiences as parallel mediators. The total effect of WFC on well-being was significant ($\beta = -.432$, $p < .001$). When mediators were included, the direct effect decreased ($\beta = -.221$, $p < .001$), indicating partial mediation.

The indirect effects were significant for:

- Relaxation ($\beta = -.111$, 95% CI [-.170, -.059]),
- Control ($\beta = -.071$, 95% CI [-.125, -.030]),
- Mastery ($\beta = -.066$, 95% CI [-.113, -.028]),
- Detachment ($\beta = -.033$, 95% CI [-.065, -.008]).

These findings suggest that all four recovery experiences significantly mediate the relationship between WFC and well-being, with relaxation having the strongest effect.

4. Discussion

This study aimed to investigate the mediating role of recovery experiences in the relationship between work-family conflict (WFC) and employee well-being. The results offer robust support for the proposed model, aligning with prior research and expanding current knowledge in several meaningful ways. As expected, WFC was significantly and negatively associated with employee well-being, confirming H1 and consistent with the extensive literature linking inter-role conflict to increased psychological distress and reduced life satisfaction (Amstad et al., 2011; Bakker et al., 2011). Notably, participants reported more work-to-family interference than the reverse, underscoring the persistent impact of work demands on personal life. All four recovery experiences—relaxation, psychological detachment, mastery, and control—were positively related to well-being, supporting H2. Among these, relaxation emerged as the strongest predictor, reinforcing the importance of low-arousal, pleasurable states for psychological restoration (Sonnentag & Fritz, 2007). Crucially, the mediation analysis confirmed H3: recovery experiences partially mediated the link between WFC and well-being. This suggests that while WFC directly undermines well-being, individuals who engage in restorative activities may offset some of these negative effects.

This study adds to the growing body of literature applying the Effort-Recovery Model (Meijman & Mulder, 1998) and the Conservation of Resources Theory (Hobfoll, 1989) to the work-family interface. It extends existing findings by demonstrating that recovery experiences not only buffer the consequences of daily work demands but also function as psychological mechanisms that protect well-being in contexts of sustained inter-role conflict. Furthermore, the inclusion of all four dimensions of recovery experiences in a single mediation model provides a more nuanced understanding of their distinct contributions. While relaxation showed the strongest mediating effect, mastery, control, and detachment also played significant roles, confirming the multifaceted nature of recovery.

From a practical perspective, these findings suggest that organizations can play a critical role in promoting employee well-being by encouraging recovery-supportive cultures. Interventions might include:

Promoting detachment through boundary management policies (e.g., discouraging after-hours emails),

- Facilitating relaxation by supporting breaks, vacations, and stress reduction programs,
- Encouraging mastery through non-work-related training or creative opportunities,
- Enhancing control by offering flexible schedules or autonomy over leisure time.
- By creating environments where employees are empowered to engage in recovery experiences, organizations may mitigate the negative impacts of WFC and foster a healthier, more resilient workforce.

4.1. Limitations and Future Directions

This study is not without limitations. First, the use of a cross-sectional design limits the ability to draw causal conclusions regarding the relationships among work-family conflict, recovery experiences, and well-being. Although the theoretical model and statistical mediation suggest directional pathways, only longitudinal or experimental research designs could confirm the temporal ordering and causality of these effects. Second, all data were collected through self-report questionnaires, which may introduce common method variance and response biases, such as social desirability or recall bias. Future studies could benefit from incorporating multi-source data (e.g., supervisor ratings, behavioral indicators of recovery) or objective health measures to triangulate findings. Third, the sample was drawn exclusively from Portuguese working adults, limiting the generalizability of results to other cultural, economic, or organizational contexts. As work-family dynamics and recovery practices are influenced by cultural norms and labour policies, replication in cross-cultural and cross-sectoral samples is needed to validate and extend the findings.

Future research could also explore moderating variables, such as gender, parental status, job type, work schedule flexibility, or individual traits (e.g., neuroticism, resilience, mindfulness), to identify for whom and under what conditions recovery is most effective. Furthermore, qualitative or mixed-methods approaches may offer richer insights into how individuals subjectively experience and manage recovery processes in their daily lives.

5. Conclusion

This study contributes to the growing literature on work-family dynamics by providing empirical evidence that recovery experiences—namely psychological detachment, relaxation, mastery, and control—partially mediate the negative relationship between work-family conflict and employee well-being. These findings underscore the importance of recovery processes as psychological resources that help individuals cope with the strain arising from conflicting work and family demands. By integrating the Effort-Recovery Model and the Conservation of Resources Theory, the research highlights the complex and multifaceted ways in which individuals restore depleted energy and protect their psychological health. Recovery is not a passive consequence of time away from work but an active and dynamic process that requires awareness, opportunity, and support. The results show that while work-family conflict undermines well-being, employees who engage in effective recovery strategies are better equipped to maintain psychological functioning and resilience. The study offers practical implications for organizations seeking to promote sustainable well-being and performance. Employers should not only address sources of conflict, such as excessive workloads or rigid schedules, but also cultivate environments that foster recovery—through flexibility, autonomy, promotion of boundaries, and encouragement of leisure time. In an era marked by blurred boundaries between work and personal life, particularly in hybrid and remote work contexts, fostering a culture that supports recovery is no longer optional—it is a strategic imperative for both individual and organizational flourishing. Future policies and interventions should be informed by this understanding, ensuring that recovery is embedded into the fabric of organizational life.

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