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EFFECTS OF WORK-FAMILY CONFLICT ON EMPLOYEE'S WELL-BEING: THE MODERATING ROLE OF RECOVERY EXPERIENCES

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Abstract

Based on effort-recovery model and conservation of resources (COR) theory, the present study links the work-family interface (i.e. work-family conflict (WFC) and family-work conflict (FWC) with the concept of recovery. The authors hypothesized that two recovery experiences, that is, psychological detachment from work and verbal expression of emotions- moderated the relationship of the two types of conflict (WFC and FWC) with two indicators of well-being, namely psychological strain and life satisfaction. The sample was composed of 128 emergency professionals from Spain. Our hypotheses were partially supported. Results revealed that psychological detachment from work moderated the relationship between (1) WFC and psychological strain and between (b) FWC and life satisfaction. Verbal expression of emotions moderated the relationship between both types of conflict and psychological strain. Findings were discussed in terms of their theoretical and practical implications.

EFFECTS OF WORK-FAMILY CONFLICT ON EMPLOYEE'S WELL-BEING: THE MODERATING ROLE OF RECOVERY EXPERIENCES

Balancing work and family responsibilities has become a challenge for many employees nowadays. It is widely known that the incompatibility or conflict between these two domains has adverse effects on employees' health and well-being (e.g. Kinnunen, Feldt, Geurts, & Pulkkinen, 2006; Noor, 2003). It is more and more acknowledged that adequate recovery from job and family pressures is crucial to avoid these negative health effects. However, within the field of work-family research, only a few studies have focused on recovery-related concepts. For instance, a longitudinal study conducted by Jansen, Kant, Kristensen, and Nijhuis (2003) showed that work-family conflict was related to a higher need for recovery as well as higher levels of fatigue. Recently, Demerouti, Taris, and Bakker (2007) also in a longitudinal study, showed that need for recovery and home-work interference were related. However, the majority of studies link work-family conflict with recovery-related concepts (e.g. 'need for recovery' and 'fatigue') without referring to underlying recovery experiences. Only few studies have focused on recovery as a process aiming at the assessment of experiences underlying recovery (e.g., Geurts & Sonnentag, 2006; Sonnentag & Fritz, 2007). This paper is an attempt to relate work-family conflict to recovery by investigating recovery experiences as possible moderators between work-family conflict and health and well-being indicators.

Work-family conflict has been defined as a form of interrole conflict in which the role pressures from work and family domains are mutually incompatible in some respect (Greenhaus & Beutell, 1985). As Frone (2000) suggested, the definition of Greenhaus and Beutell implies a bidirectional relation between work life and family life. Therefore, usually two types of work-family conflict are distinguished: work interfering with family life (often referred to as work-family conflict, WFC) and family interfering with work life (a related term is family-work conflict, FWC; e.g., Frone, Russell, & Cooper, 1992a; Frone, Yardley, & Markel, 1997). WFC occurs when work-related demands interfere with home responsibilities, such as bringing work into the home domain and trying to complete it at the expense of family time. Conversely, FWC conflict arises when family responsibilities impede work activities, such as having to cancel an important meeting because a child is suddenly taken ill (Frone et al., 1992a).

It has been demonstrated that these two types of conflict have important and adverse consequences on employees' health and well-being. For instance, several studies have demonstrated that both types of conflict are associated with health problems such as psychological strain (Kinnunen, Feldt, Geurts, & Pulkkinen, 2006; Noor, 2003), depression and anxiety (Lapierre & Allen, 2006), or lower sleep quality (Williams, Franche, Ibrahim, Mustard, & Layton, 2006). WFC and FCW have also been negatively related to employees' satisfaction in several domains, including overall life satisfaction (Aryee, Fields, & Luk, 1999a; Aryee, Luk, Leung, & Lo, 1999b; Bedeian, Burke, & Moffett, 1988; Hill, 2005).

Some authors have recognized the importance of considering possible moderator variables in the relationship between WFC and FWC, on the one hand, and health and well-being, on the other. For instance, it has been found that certain personality variables may buffer the negative effects of both types of conflict on consequences such

as exhaustion and depression (Kinnunen, Vermulst, & Mäkikangas, 2003). Other studies provided evidence for the moderating effect of support or coping on relationships between WFC/FWC and strain outcomes (Brough & O'Driscoll, 2005; Viswesvaran, Sanchez, & Fisher, 1999).

In this study, we seek to expand the range of possible moderator variables in the relationship between WFC/FWC and well-being by studying recovery experiences. The idea behind examining recovery experiences is to recognize that some individuals may be more prone to experience diminished well-being because of the difficulties they have to recover.

THEORETICAL FRAMEWORK AND HYPOTHESES
During the last few decades, several studies have demonstrated that people who face stressful situations at work tend to experiment lower levels of psychological well-being and more health problems (e.g. De Lange, Taris, Kompier, Houtman, & Bongers, 2003; Sonnentag & Frese, 2003). This is the reason why recovery is so necessary to avoid the negative effects associated to these stressful conditions (Eden, 2001).

Recovery has been defined as a process of psycho-physiological unwinding after effort expenditure at work (Geurts & Sonnentag, 2006) and it is considered a process that is opposite to the building up of strain (Geurts & Sonnentag, 2006; Sonnentag & Fritz, 2007). A small but growing body of empirical research has found that positive experiences after work, such as taking time to relax or learning new things, may increase well-being. However, if people still face stressful situations during potential recovery time (e.g., a vacation period), the levels of exhaustion seem to increase when they return to work (Fritz & Sonnentag, 2006). Recent research has started to analyze a serial of recovery experiences that can help individuals to unwinding from stressors (Sonnentag & Fritz, 2007).

Two Recovery Experiences: Psychological Detachment from Work and Verbal Exrpession of Emotions
Psychological detachment from work has been defined by Etzion et al., (1998) as "the individual's sense of being away from the work situation" (p.579). This definition implies that psychological detachment is not only being physically away from the workplace, but also being mentally occupied with other activities different from those related to work duties. It has been demonstrated that psychological detachment from work helps people to recover from stress. For example, Sonnentag and Bayer (2005), in a daily survey study, found that psychological detachment from one's job during leisure activities resulted in a better mood and less fatigue at bedtime. We aim to consider psychological detachment from work as a personal resource that may prevent WFC/FCW to result in reduced health and well-being. In other words, if, for instance, work interferes with employees' family life, its negative effect on health and well-being will be lower when individuals are capable to "switch off" mentally from work facilitating the recovery process.

Until now, recovery strategies primarily involve cognitive and behavioural aspects. For example, psychological detachment from work implies not thinking about work as well as engaging in other activities not related to job duties. We believe that it would also be interesting to understand the concept of recovery from an emotional

viewpoint. Therefore, and in contrast with previous research in this area, we included *verbal expression of emotions* as a possible emotional recovery experience as previous research has demonstrated that particularly this concept has been strongly related to health (Moreno-Jiménez, Garrosa, Losada, Morante, & Rodríguez, 2004). Verbal expression of emotions is part of the emotional competence construct (EC), defined as "the demonstration of self-efficacy in emotion-eliciting social transactions," (Saarni, 1999) and is conceptually known as the ability to use emotional vocabulary to express feelings (Saarni, 2000). In the context of the work-family interface, verbal expression of emotions can also be considered an important personal resource that may buffer the impact of WFC.FWC on well-being. The finding that the negative effects of WFC/FCW are higher among people who do not have social support (Noor, 2002) may be understood from this perspective. It may well be that people who experience WFC/FCW and who can use their social network to express their emotions (e.g. to their supervisor, colleagues or family members), may experience their conflicting situation in a different way, preventing the adverse impact on health and well-being. Verbally expressing emotions may be considered a way of recovering from a negative mood state, liberating feelings of uneasiness and displeasure, and at the same time, looking for social support.

The Moderating Role of Recovery Experiences
For the purposes of this study, we founded our hypotheses on two theories that provide a useful framework to study the potentially buffering role of recovery in the relation between WFC/FWC and well-being: the Conservation of Resources (COR) Theory and the Effort-Recovery (E-R) Model. According to the Conservation of Resources Theory (Hobfoll, 1989, 2001), the threat of or actual loss of resources is the chief element of the stress process. "Resources" refer to a broad category including external objects and conditions such as relationships, as well as personal characteristics and energies such as skills. For the aim of conceptual clarity, in the current paper we define "resources" as "personal experiences that have the potential to have a recovering effect". COR theory has been related to the work-family interface with the reasoning that WFC/FWC lead to strain because resources are lost in attempting to balance work and family lives (Grandey & Cropanzano, 1999), and that personal resources may be important to reduce the negative effects of WFC/FWC. In the current study, recovery experiences are considered as personal resources that may help to reduce the negative impact of WFC.FWC on well-being, more specifically, on psychological strain and life satisfaction.

The E-R Model (Meijman & Mulder, 1998) assumes that effort expended at work may lead to negative load reactions such as strain and fatigue. Usually, these reactions are reversible. However, without sufficient recovery from these load reactions, psychobiological systems do not stabilize at baseline levels. As a consequence, load reactions accumulate and may result in chronic and manifest health problems.

The importance of recovery as an explanatory mechanism between acute stress reactions and chronic health problems has been recently addressed by Geurts and Sonnentag (2006). These authors propose that a chronic situation of sustained physiological activation may lead to chronic health impairment if the recovery process is incomplete. Following this model, we consider recovery experience as potentially buffering mechanisms in the relation between WFC/FWC and health. Building upon this theoretical framework, we developed the following research hypotheses:

- *Hypothesis 1.* Psychological detachment from work will buffer the relationship between WFC and well-being, such that the negative impact of WFC on (a) psychological strain and (b) life satisfaction will be lower among individuals who experience high detachment from work.

- *Hypothesis 2.* Psychological detachment from work will buffer the relationship between FWC and well-being, such that the negative impact of FWC on (a) psychological strain and (b) life satisfaction will be lower among individuals who experience high detachment from work.

- *Hypothesis 3.* Verbal expression of emotions will buffer the relationship between WFC and well-being, such that the negative impact of WFC on (a) psychological strain and (b) life satisfaction will be lower among individuals who report high verbal expression of emotions.

- *Hypothesis 4.* Verbal expression of emotions will buffer the relationship between FWC and well-being, such that the negative impact of FWC on (a) psychological strain and (b) life satisfaction will be lower among individuals who report high verbal expression of emotions.

METHOD

Sample

The sample of our study incorporated 128 emergency professionals from Spain. The main work tasks of these professionals are providing medical assistance in the case of emergencies (e.g. car accidents), and providing transportations for ill persons (e.g., from their home to medical institutions, or from one hospital to another). Emergency services workers are at high risk of suffering from stress and health problems since their job is characterized by high workload and time pressure (Figley, 1989; Stamm, 1995). However, little is known about work-family conflict and its consequences among this kind of professionals (Brough, 2005; Shakespeare-Finch, Smith, & Obst, 2002).

The average age of participants (79 men and 46 women) was 34 years (SD = 7.7). The average hours worked per week was 35 hours (SD = 9.1). The majority of the participants (79%) were cohabiting with a partner, whereas 17.5% were living alone. In total, 57% of the participants had no children, 19.5% had one child, 14,1% had two children, and 6.2% had three or more children. Of the 128 participants, 50% were ambulance drivers, 21% were physicians and 19.5% were nurses.

Procedure

We had contact with the supervisors of three emergency services of the Community of Madrid- SUMMA 112, CRUZ ROJA and SAMUR-. We reached participants by phoning the head of each organization and asking them if they would be willing to participate in our study. Once they had given their consent for participation, supervisors estimated the number of respondents in their own organization. We sent out survey packages including a letter, a self-report questionnaire with instructions, and a return envelope. The letter described the purpose of the study, emphasized voluntariness, anonymity and confidentiality. In each center, a return box was installed. Participants

were asked to deposit the completed questionnaires in a sealed envelope in these boxes, that were sent back to the researchers.

Measures
Work-family conflict and family-work conflict was measured by two subscales of the SWING (Geurts Taris, Kompier, Dikkers, Van Hooff, & Kinnunen, 2005). The work-family conflict (WFC) subscale was composed of 8 items and the family-work conflict (FWC) subscale was composed of 4 items. Respondents used a 4-point scale ranging from 0 to 3 (never, sometimes, often and always) to indicate the frequency with which they had experienced the situations described by each of the 12 items (e.g. "Your work schedule makes it difficult for you to fulfil your domestic obligations?"). Cronbach's α were .90 for WFC and .86 for FWC.

Psychological detachment from work was measured by a six items scale developed for this study, based on Sonnentag and Fritz (2007). Items had to be answered on a 5-point Likert scale ranging from1 (I do not agree at all) to 5 (I fully agree). A sample item is : ''After work, I forget about it''. Cronbach's α was .87.

Verbal expression of emotions was measured with a subscale from the emotional competence scale developed by Garrosa (2006). Participants rated their agreement with each of the 4 items on a 5-point Likert scale ranging from 1 (I do not agree at all) to 5 (I fully agree). A sample item is: "When I have problems and I feel bad, I talk to someone about how I feel". Cronbach's α for this subscale was .77.

Psychological strain was assessed using the 12-item version of the general health questionnaire (GHQ-12) (Goldberg, 1972). The GHQ-12 asks participants how they felt through questions such as "Have you recently been feeling unhappy and depressed?", "Have you recently lost much sleep over worry?", or "Have you recently felt you couldn't overcome your difficulties?" Responses are given on a 4-point scale (ranging from 0 = better than usual to 3 = much less than usual). Cronbach's α for this study was .88.

Life satisfaction was measured with the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985). The SWLS is a 5 item measure of global life satisfaction (e.g., "I am satisfied with my life"). Respondents were asked to rate the extent of their agreement to these items across a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) and the measure showed a high internal consistency reliability ($\alpha = .83$).

Controls. We included gender, age, marital status, number of children, number of hours worked per week and professional status as control variables (Cullen & Hammer, 2007; Lapierre & Allen, 2006), as these variables may covary with the variables under study (e.g., WFC/FWC, life satisfaction and psychological strain), thus causing possible spurious relations.

RESULTS
Preliminary Analyses
Table 1 presents the means, standard deviations, intercorrelations and reliability of all the study variables. All measurement scales were internally consistent, with α's ranging from .77 to .90, all above the .70 minimum established by Nunnaly and Berstein (1994).

Also, the correlations among the variables were in the expected direction. WFC has a significant positive and significant correlation with psychological strain ($r = .42$ $p < .001$), and a significant negative correlation with life satisfaction ($r = -.38$, $p < .001$). A similar correlation pattern emerged for WFC. Conversely, psychological detachment from work had a significant negative correlation with psychological strain ($r = -.36$, $p < .001$), and a significant positive correlation with life satisfaction ($r = .59$, $p < .001$). A similar correlation pattern emerged for verbal expression of emotions.

-Insert table 1 about here-

The correlations among psychological detachment from work, verbal expression of emotions and the two types of conflict were all significant. From a theoretical viewpoint, it is possible that the two types of conflict and the two recovery experiences would show conceptual overlap. In order to explore this, we conducted an exploratory factor analysis with varimax rotation including the 8 WFC items, the 4 FWC items, the 6 psychological detachment items and the 4 emotional expression items. This factor analysis resulted in a clear four-factor solution with Eigenvalues of the four factors all being above 1. All items loaded on their respective factors and with cross-loading not exceeding .34. Thus, WFC, FWC, psychological detachment from work and verbal expression of emotions are not only theoretically but also empirically distinct concepts.

Moderation analyses
We used hierarchical regression to test the potentially moderating role of the two recovery experiences, following the procedure suggested by Cohen, Cohen, West, and Aiken (2003). In order to avoid multicollinearity problems, all independent variables were centered prior to their entry in regression equations. The significance of the interaction effects was assessed after controlling for all main effects. Following Aiken and West (1991), interaction terms (i.e., two-way and three-way interactions between the three types of worktime demands, and two-way and three-way interactions between worktime demands and worktime control) were computed on the basis of the standardized component variables. Control variables were entered in Step 1 of the model, followed by the main effects of WFC and FWC in Step 2, psychological detachment from work and verbal expression of emotions in Step 3, and the four possible interaction terms in Step 4. We found no evidence of multicolinearity according to Kleinbaum, Kupper, and Mueller's (1988) criteria for VIF and tolerance values. Furthermore, the Durbin-Watson statistic for all analyses indicated that the errors were not correlated since values were in the recommended range (1.5-2.5) (Durbin & Watson, 1971; Ryan, 1997).

The multiple regression results for Steps 1–4 are shown in Table 2, first for psychological strain as dependent variable and next for life satisfaction as dependent variable. For both dependent variables, we will discuss the findings as obtained in Step 4.

As can be seen, the main effects of the two types of conflict and recovery experiences on psychological strain and life satisfaction were in the expected direction. When all variables were included in the model (Step 4), work-family conflict was associated to psychological strain ($\beta = .21$, $p < .01$) but not to life satisfaction. However, family-work conflict was associated both to psychological strain ($\beta = .39$, $p < .001$) and

to life satisfaction (β = -.28, p <.01). As regards the recovery experiences, psychological detachment from work was associated to life satisfaction (β = .39, p <.001) but not to psychological strain. Similarly, verbal expression of emotions was associated to life satisfaction, although this association was weaker (β = .17, p <.05), and it was not related to psychological strain. Finally, we did not find main effects of control variables on the two outcomes.

-Insert table 2 about here-

The two recovery strategies contribute to the variance explained in psychological strain and life satisfaction. In the case of psychological strain, when interactions were entered in the model (Step 4), there was a statistically significant increment in variance beyond the control variables and main effects (ΔR^2= .06, p <.01). In the case of life satisfaction, although there were an increment in variance, the contribution of the interactions were marginally significant (ΔR^2= .04, p <.10).

To better explore the moderating effects, we plotted the interactions using the standardized regression coefficients of the regression lines for employees high (1 SD above the mean) and low (1 SD below the mean) on the moderator variable (Aiken & West, 1991). Graphical representations of these interactions are shown in Figures a-d.

-Insert figures 1 to 4 about here-

Hypothesis 1 proposed that psychological detachment from work will moderate the relationship between WFC and well-being. As expected, Figures 1 shows that the relationship between work-family conflict and psychological strain was stronger when psychological detachment from work was low (β = -.20, p <.05). Thus, Hypothesis 1 was supported for psychological strain. Also, Hypothesis 2 proposed that psychological detachment from work will moderate the relationship between FWC and well-being. As expected, Figure 2 indicates that the effect of family-work conflict on life satisfaction was weaker when psychological detachment from work was low (β=.31, p <.01), providing support for hypothesis 2 regarding life satisfaction.

Hypothesis 3 proposed that verbal expression of emotions will moderate the relationship between WFC and well-being. Contrary to our expectations, Figure 3 shows that the effect of work-family conflict on psychological strain was stronger when verbal expression of emotions was high (β =.23, p <.01). Thus, Hypothesis 3 was not supported. Hypothesis 4 proposed that verbal expression of emotions will moderate the relationship between FWC and well-being. Figure 4 shows that, as expected, the effect of family-work conflict on psychological strain was stronger when verbal expression of emotions was low (β= -.22, p <.05). Thus, these findings support Hypothesis 4 for psychological strain.

DISCUSSION
General Findings and Implications for Theory
The purpose of this study was to elucidate the relationships of WFC and FWC with two well-being indicators, that is, psychological strain and life satisfaction by studying the possible moderating role of two recovery experiences. In general, our findings support the notion that psychological detachment for work is an effective strategy to mitigate some of the negative consequences of work-family conflict on employees´ well-being.

Moreover, the buffering effects of verbal expression of emotions on the relationship between work-family conflict and well-being are more complex.

Psychological detachment from work moderates the relationship between work-family conflict and psychological strain. Furthermore, this recovery process also moderates the relationship between family-work conflict and life satisfaction. What this means is that when work interferes with family responsibilities, disconnecting from job related duties can be an important resource to diminish the effects of conflict on psychological strain. Furthermore, when people have to attend family demands, their performance at work can be reduced, and this descent on work, could diminish their level of life satisfaction. However, when people are capable of attending their family demands, disconnecting from work when necessary, the level of life satisfaction does not diminish. These findings are in line with Etzion et al. (1998), who also demonstrated the moderating role of psychological detachment, but in this case, in the relationship between work stressors and burnout.

Surprisingly, psychological detachment from work did not moderate the relationship between work-family conflict and life satisfaction and between family-work conflict and psychological strain. In the first case, it may be that when work interferes with family, it is difficult to disconnect from the source of your conflict, which can lead to lower levels of life satisfaction in the long term. In the second case, a possible explanation could be that when family interferes with job related duties, although individuals disconnect from work, it is likely that they continue thinking about their family matters, making more difficult to attenuate the levels of psychological strain.

Regarding verbal expression of emotions, it was hypothesized that this recovery experience would help to buffer the negative effects of conflict on health and well-being. Within the framework of emotional competences, other studies have demonstrated that variables such as sense of humour help to reduce the negative impact of work stressors (e.g. Moran, 1999). Consistent with these studies, we found here that verbal expression of emotions moderated the relationship between family-work conflict and psychological strain, in the expected direction. It seems that expressing your personal problems is helpful. Probably, the explanation of this result is in line with the previous argument, and it depends on the content and on the listener. For instance, it may be that people receive more support when they talk to their family about personal problems than when they talk about work related issues. These results are in line with Gálvez (2006), who found the similar moderating pattern studying the process of burnout among physicians. What our findings suggest is that verbal expression of emotions could be considered as a double-edge sword, since depending on the type of conflict, expressing verbally the uneasiness about the situation, can increase the levels of psychological strain.

An intriguing finding is the reverse buffering effect of verbal expression of emotions on psychological strain. Contrary to our expectations, we found that work-family conflict was more strongly associated to psychological strain when verbal expression of emotions was high. A possible explanation of this result could be that talking about your conflict turns into a vicious circle, making the conflict increase and creating more strain. From this viewpoint, it may be that expressing your emotions is not as important as the expressed content and the reaction of the listener.

Practical Implications
This study has some practical implications. Our findings recognize the importance of psychological detachment from work to reduce psychological strain and increase life satisfaction. Furthermore, it has been demonstrated that psychological detachment from work increases organizational commitment (Fritz & Sonnentag, 2006; Sonnentag, 2003). Therefore, organizations should recognize the relevance of recovery, and reorganize work schedules, which are, to a large extent, the reason why employees have difficulties to recover (Sonnentag, 2003). Offering possibilites such as leisure activities or workshops about relaxation or time management would be also very helpful.

On the other hand, several authors have increasingly come to recognize the importance of providing employees with skills related to emotional competence, specially, among health care professionals (Garrosa, Moreno-Jiménez, Gálvez, & Rodríguez-Carvajal, 2005; Giardini & Frese, 2006). As the term "competence" indicates, it is an ability that can be improved through training. It is important to note the importance of providing employees with these abilities since research has provided greater support for the positive consequences of this personal resource (e.g. Asher & Rose, 1997; Thompson, 1991; Wolchik & Sandler, 1997).

Limitations and Suggestions for Future Research
Although this study contributes to our understanding of the work-family interface, several limitations should be considered. First, the cross-sectional nature of the data does not permit causal relationships among the variables. Longitudinal data will be necessary to establish causality among these relationships.

Another limitation is that our data are based on self-reports, provided by a single source, creating the possibility for common-method variance. As Poelmans, O'Driscoll, and Beham (2005) suggest, work-family conflict is a dynamic process which occurs in a context where several individuals are mutually interdependent. Therefore, future research should collect data from multiple sources, although as many authors have pointed out, it is difficult to obtain information from other family members in topics as sensitive as the work-family interface (Aryee, Srinivas, & Tan, 2005; Duxbury & Higgins, 1991). Anyway, we took precautions to reduce response biases, such as choosing scales with different response formats to curb consistency bias (Lapierre & Allen, 2006; Podsakoff, MacKenzie, Lee & Podsakoff , 2003). Furthermore, previous research has found that common method variance does not magnify the effects of interactions, but in any case it attenuates them (Barling, Rogers, & Kelloway, 1995).

Adittionally, the modest size of the sample, restricts the generalizability of our results. However, Tabachnick and Fidell (1989, p. 128) in their multiple regression chapter stated that a bare minimum requirement was to have at least 5 times more cases than IVs. In our study, with an N of 128 and 10 IVs in our regression analyses, the cases to independent variables ratio is 1:13, which is appropriate according to Tabachnick and Fidell's guidelines. Nevertheless, future research should include a larger sample to check the moderating role of the proposed recovery experiences.

Finally, we propose several suggestions for future research. First, there are professionals with certain work characteristics that make especially difficult for them to balance work and family. Research among emergency professionals, health care

professionals, or shift-work employees is relevant and has both practical and theoretical value. Thus, future research should focus not only on managerial employees but also on these kind of samples.

Second, this study is a first attempt to examine recovery strategies related to the work-family interface. In the future, it would be interesting to continue examining the moderating role of psychological detachment from work and verbal expression of emotions, to achieve a better understanding of the existing relationships. For instance, relating the verbal expression of emotions with the received social support could help us to understand some of the results found in this study. In fact, the inconsistent findings concerning verbal expression of emotions imply that future research is needed to illuminate if this variable may play a beneficial, neutral or hindering role in the recovery process. Moreover, it is necessary to focus on a broad range of recovery experiences. Recently, Sonnentag and Fritz (2007) have proposed four recovery experiences that could be examined in the context of work and family, such as the individuals' control over their leisure time, their ability to disconnect psychologically from work, their ability to relax, and their engagement in mastery experiences. Furthermore, other authors have referred to sleep quality as an important variable in the recovery process (Fritz & Sonnentag, 2005; Lapierre & Allen, 2006; Williams et al., 2006), and given the little research linking work-family and sleep quality, it would be very interesting to examine this variable.

Further research that continues examining all these variables is necessary to achieve a better understanding of the relationships between work and family domains. These relationships are complex and recovery processes can be taking part in different parts of the process. Finding out which recovery experiences help people to better manage work and family responsibilities, will lead to the improvement of the quality of life of working people, their families and the overall society.

In conclusion, to date, none of the prior research on the work-family interface had attempted to bridge work-family conflict and personal resources by examining recovery strategies. Recently, Geurts and Sonnentag (2006) have pointed out that research should examine recovery processes focusing not only on stressful experiences at work, but also on experiences outside this domain. The current study addresses this gap by linking these two aspects. Moreover, we extend the range of recovery experiences, focused until now on cognitive and behavioral aspects, by including verbal expression of emotions as an emotional recovery experience.

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Table 1. Means, Standard Deviations, Alpha Reliabilities and Intercorrelations

	M	SD	1	2	3	4	5	6
1. Work-family conflict	0.88	0.63	(.90)					
2. Family-work conflict	0.46	0.57	.55***	(.86)				
3. Psychological detachment from work	3.96	0.71	-.37***	-.29**	(.87)			
4. Verbal expression of emotions	3.73	0.81	-.24**	-.33***	.43***	(.77)		
5. Psychological strain	0.87	0.43	.42***	.48***	-.36***	-.29**	(.88)	
6. Life satisfaction	5.21	0.96	-.38***	-.42***	.59***	.47***	-.52***	(.83)

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

Table 2. Results of hierarchical regression analyses

Step and Variables[a]	Psychological strain				Life Satisfaction			
	β Step 1	β Step 2	β Step 3	β Step 4	β Step 1	β Step 2	β Step 3	β Step 4
Gender	.12	.03	.01	.00	-.10	-.02	.03	-.02
Age	-.03	-.00	-.03	-.03	-.18	-.21*	-.16†	-.11
Marital status	-.11	.03	.05	-.00	.07	-.02	-.06	-.07
Number of children	.11	.08	.09	.10	.12	.15	.12	.02
Professional level	-.23*	-.17*	-.17*	-.13	.01	-.02	-.03	-.12
Number of hours worked per week	.10	-.11	-.10	-.05	-.05	.13	.11	.11
Work-family conflict (WFC)		.24**	.17†	.21**		-.28**	-.13	-.13
Family-work conflict (FWC)		.48***	.46***	.39***		-.30**	-.25**	-.28**
Psychological detachment from work			-.18*	-.10			.40***	.39***
Verbal expression of emotions			-.08	-.10			.18*	.17*
WFC X Psychological detachment				-.20*				-.10
FWC X Psychological detachment				-.00				.31**
WFC X Verbal expression of emotions				.23**				.09
FWC X Verbal expression of emotions				-.22*				-.11
R^2	.10	.45	.49	.56	.03	.25	.46	.51
ΔR^2	.10†	.35***	.04*	.06**	.03	.21***	.21***	.04†

[a] Nota. β are the standardized regression coefficients. Gender was coded as 0 = Male, 1 = Female; Marital status was coded as 0= Single, 1= Widowed, 2=Divorced, 3= With partner, but not living together , 4=Married or living with a partner; Professional level was coded as 1= Physician, 2=Nurse, 3=Driver, 4=Psychologist, 5= Other
† p < .10. * p < .05. ** p < .01. *** p < .001

Figure 1: Interaction effects of work-family conflict and psychological detachment from work in predicting psychological strain.
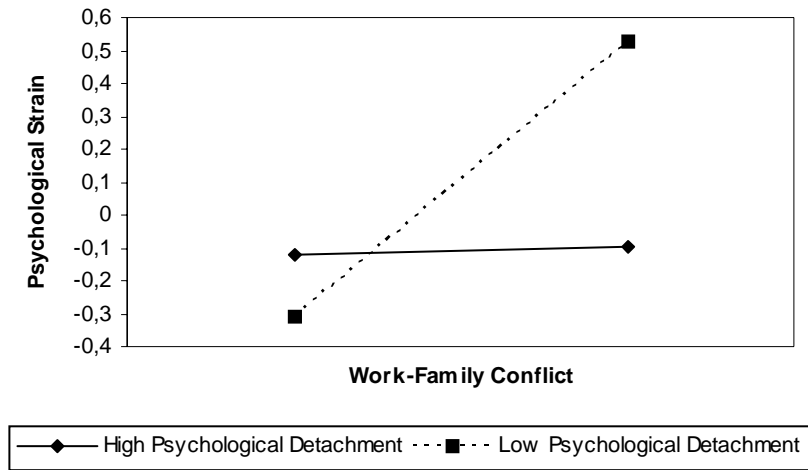

Figure 2: Interaction effects of family-work conflict and psychological detachment from work in predicting life satisfaction.
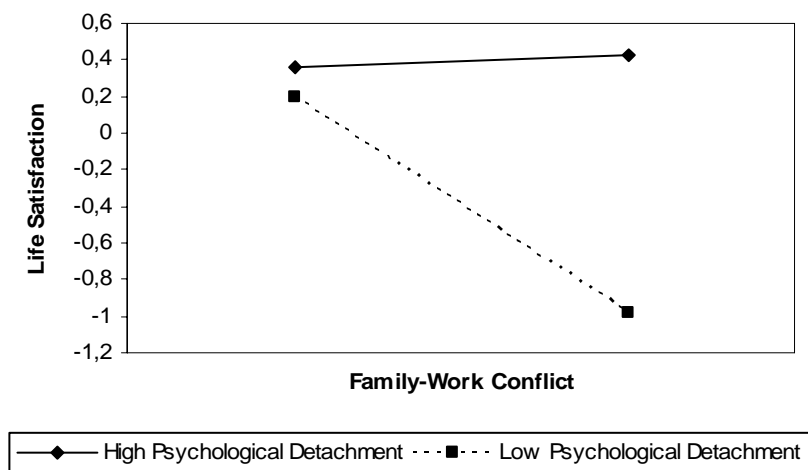
Figure 3: Interaction effects of work-family conflict and verbal expression of emotions in predicting psychological strain.
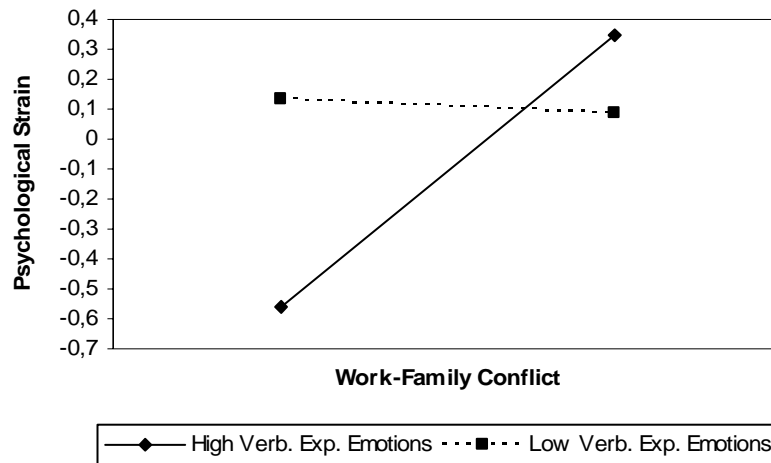

Figure 4: Interaction effects of family-work conflict and verbal expression of emotions in predicting psychological strain.

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