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Job Resources and Recovery Experiences to Face Difficulties in Emotion Regulation at
Work: A Diary Study among Nurses.

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Abstract

The present study examines the role of daily difficulties in emotion regulation at work in nurse's daily well-being and how certain job resources and recovery experiences influence this relationship. We hypothesized that daily difficulties to regulate emotions at work would be significantly and positively related to emotional exhaustion at work in the afternoon, and to fatigue and negative affect at home at night. Moreover, we hypothesized that co-worker and supervisor support, as well as psychological detachment and relaxation, would buffer the negative impact of these difficulties on the outcomes. Seventy-four nurses from various Spanish hospitals and primary health care centres completed a general questionnaire and a diary booklet over 5 consecutive workdays at two different moments, after work and at night (N = 74 participants and N = 370 observations). The results of multilevel analyses showed that nurses' daily difficulties in emotion regulation have a direct effect on daily emotional exhaustion at work, and on fatigue and negative affect at home at night. We also found that co-worker support, psychological detachment and relaxation minimize the unfavourable effects on well-being of difficulties in emotion regulation. Limitations and implications for nursing and other health occupations are mentioned.

Keywords: difficulties in emotion regulation, job resources, recovery, emotional exhaustion, well-being.

Job Resources and Recovery Experiences to Face Difficulties in Emotion Regulation at
Work: A Diary Study among Nurses.

Nursing is an emotionally demanding profession, as it requires working with high stress, and dealing with illness, human suffering, and patients' emotions (Broom et al., 2014; Happell et al., 2013; Oflaz et al., 2010). On a daily basis, these professionals face uncooperative patients, intense emotional reactions, and aggressive behaviours of patients, relatives, and sometimes even of their own colleagues and supervisors (Chou, Hecker, & Martin, 2012; Spector, Zhou, & Che, 2014). Such emotional contexts can cause nurses to experience very diverse and intense emotions, leading to negative consequences for their health and well-being, for the health organization, and for the quality of service. There are reports in the literature of how the emotional stress of nursing can increase nurses' levels of emotional exhaustion and fatigue (Le Blanc, Bakker, Peeters, Van Heesch, & Schaufeli, 2001; Winwood & Lushington, 2006), their intentions to quit the profession (Flinkman, Laine, Leino-Kilpi, Hasselhorn, & Salantrea, 2008), and work-family conflict (Cortese, Colombo, & Ghislieri, 2010), as well as decrease their job satisfaction (Chou et al., 2012). It has also been reported that the number of deaths in hospitals can increase due to nurses' stress (Clausen, Nielsen, Carneiro, & Borg, 2012). Emotion regulation difficulties among these professionals can increase the negative consequences of a work context characterized by high emotional intensity and stress (Losa-Iglesias, Vallejo, & Fuentes, 2010; Manzano-García, Calvo, & Carlos, 2012). From this perspective, nurses' emotion regulation skills to perceive and understand their emotions or to manage emotions in order to achieve their own goals is relevant to promote their well-being (Garrosa, Moreno-Jiménez, Rodríguez-Muñoz, & Rodríguez-Carvajal, 2011; Mikolajczak, Menil, & Luminet, 2007).

The study of the influence of personal emotion regulation difficulties on people's well-being began gaining significance in the last decade, particularly in the field of clinical psychology (Aldao, Nolen-Hoeksema, & Schweizer, 2010). Difficulties in emotion regulation are conceptualized by Gratz and Roemer (2004) as maladaptive ways of responding to emotions (regardless of their intensity/reactivity). These maladaptations include a lack of emotional abilities such as awareness and emotional clarity, rejecting responses, high emotional interference of negative emotions in the performance of goal-oriented behaviours, and the inability to control behaviours in the face of emotional distress. Research shows that emotion regulation difficulties can lead to health-related problems such as depression (Rude & McCarthy, 2003), anxiety (Mennin, Heimberg, Turk, & Fresco, 2005) and higher negative affect (Cisler, Olatunji, & Lohr, 2009). In the field of the psychology of work and organizations, the study of workers' difficulties to regulate their emotions has mostly been addressed in studies based on constructs like *emotional labour* and *emotional dissonance* (Bakker & Heuven, 2006; Cheung & Tang, 2007; Hülshager, Alberts, Feinholdt, & Lang, 2013, Schraub, Turgut, Clavairoly, & Sonntag, 2013), or else studies have explored how lack of emotional intelligence can affect workers' well-being and health (Smith, Profetto-McGrath, & Cummings, 2009). However, most studies dealing with emotional regulation at work address these issues from the point of view of the discomfort or distress caused by not managing emotions adequately to achieve an organizational end or to comply with the norms and rules of emotional expression in force in some organizations. Such norms often refer to the interaction with patients or clients but do not address the way internal emotion regulation difficulties can affect workers' personal and professional well-being at work (Martínez-Iñigo, Totterdell, Alcover, & Holman, 2007). Moreover, most research on emotion regulation difficulties has examined relatively stable differences between

people in terms of their enduring emotional difficulties. This approach may only explain how employees differ from each other in their emotion regulation difficulties, but it cannot explain within-person fluctuations in these difficulties over time. Therefore, the first objective of this study is to explore the daily impact of nurses' emotion regulation difficulties on their daily levels of emotional exhaustion after work, as well as on fatigue and negative affect at night.

The second goal of this study is to explore the way in which certain job resources and recovery experiences can buffer the negative impact on nurses' well-being of these emotional difficulties at work. Research shows that workers can make use of job resources and implement actions that help them to mitigate the negative impact of different stressors (de Jonge, Spoor, Sonnentag, Dormann, & Van den Tooren, 2012). Job resources such as co-worker and supervisor support can prevent nurses from feeling emotional exhaustion at work (de Jonge, Le Blanc, Peeters, & Noordam, 2008), whereas recovery experiences after work help to them to recover physically, psychologically, and emotionally from the extra effort made at work and to feel better outside of work (Drach-Zahavy & Marzuq, 2013). However, the buffering effect of these job resources and recovery experiences against the presence of emotion regulation difficulties at work in the nursing profession has not yet been explored.

The present study aims to contribute to the literature in the following ways. To our knowledge, this study is the first that analyses the construct of emotion regulation difficulties in the work setting. We build on previous studies analysing the role of emotion regulation in an organizational field by incorporating workers' difficulties to regulate emotions, thereby obtaining a more complete picture of emotion regulation at work. Moreover, we examine within-person fluctuations in emotion regulation difficulties, relating them to daily fluctuations in emotional exhaustion, fatigue, and

negative affect. Most studies on emotion regulation difficulties have examined between-person differences in these difficulties and their consequences, for instance, in terms of physical and mental health problems. In contrast to previous studies, we use a diary approach and a multilevel design, which takes into account both between-person and within-person variations. This is also the first study to incorporate the role of certain job resources and recovery experiences to deal with these emotion regulation difficulties at work at the day level. Thus, we integrate research lines on emotion regulation, work stress, and recovery. Finally, the current study focuses on nurses, a sample that faces high emotional demands at work and for whom the availability of emotional job resources and recovery experiences can be very relevant. Emotional self-regulation at work is critical to understand the stress reaction among nurses, and the results of this study may have important implications for the quality of care provided to patients, the retention of professionals in the organization, and the workers' performance, as other studies have pointed out.

Emotion regulation difficulties and well-being

Gratz and Roemer conceptualize emotion regulation as adaptive ways of responding to emotions (regardless of their intensity/reactivity), including emotional abilities such as awareness and emotional clarity, accepting responses, a low emotional interference of negative emotions to perform goal-oriented behaviours, and the ability to control behaviours in the face of emotional distress. In accordance with these authors “the relative absence of any or all of these abilities would indicate the presence of difficulties in emotion regulation, or emotion dysregulation” (Gratz & Roemer, 2004, p. 43; Gratz, Rosenthal, Tull, Lejuez, & Gunderson, 2006). This conceptualization emphasises the functionality of emotions and defines emotion dysregulation as a multidimensional construct involving the following: lack of emotional awareness, lack of emotional

clarity, non-acceptance of emotional responses, difficulties engaging in goal-directed behaviour, impulse control difficulties, and limited access to emotion regulation strategies (Gratz & Roemer, 2004). These difficulties are involved in many clinical disorders, including depression, anxiety and personality disorders and could reveal the loss of the capacity to regulate one's emotions, which implies the loss of a particular personal resource (Gross, 1998).

Workers who have emotion regulation difficulties perceive, understand, regulate, and manage their emotions and the emotional content of their work more poorly than workers who have emotional skills (Giardini & Frese, 2006). Moreover, scientific literature shows that workers with difficulties to regulate emotions (their own and others') can present higher levels of frustration and stress (King, 2012) and emotional exhaustion (Augusto-Landa et al., 2008; Losa-Iglesias et al., 2010). For example, research on the construct of emotional intelligence among nursing professionals concludes that professionals who have low awareness and emotional clarity are more vulnerable to emotional exhaustion (Augusto-Landa, López-Zafra, Berrios-Martos, & Aguilar-Luzón, 2008; Mikolajczak et al., 2010). In contrast, recent literature reveals that, when the nurses possess certain emotional resources (e.g., emotional abilities, self-efficacy, resilience, optimism), the emotional demands of their work can become a source of motivation and reduce their levels of emotional exhaustion and stress (Bakker & Sanz-Vergel, 2013; Donoso, Demerouti, Garrosa-Hernández, Moreno-Jiménez, & Carmona-Cobo, 2015; Heuven, Bakker, Schaufeli, & Huisman, 2006).

The deterioration of well-being caused by emotion regulation difficulties at work may be explained by the conservation of resources (COR) theory (Hobfoll & Shirom, 2001). According to this theory, people strive to obtain, retain, and protect resources that include social conditions, personal characteristics, and energies. Individuals who do

not have access to strong resource pools are more likely to experience increased resource loss (loss spiral). From a COR perspective, emotional difficulties at work would indicate the loss of the capacity to regulate emotions. This loss could demand more effort from them, leading to the depletion of other resources used for emotional control, together with a depletion of energy and well-being (Muraven & Baumeister, 2000; Hobfoll & Shirom, 2001). Taking into account these arguments, we formulate the following hypotheses:

*H*₁. Day-specific difficulties in emotion regulation at work will be significantly and positively related to (1a) day-specific emotional exhaustion in the afternoon, (1b) day-specific fatigue at night, and (1c) day-specific negative affect at night.

Resources to cope with emotion regulation difficulties at work

With regard to emotion regulation difficulties at work, or emotional resource loss, having access to other resources may be crucial to buffer the impact of such a loss on strain (Hobfoll & Shirom, 2001). In this study, we will explore the role of two job resources (i.e., co-worker and supervisor support) and two recovery experiences (i.e., psychological detachment and relaxation) as potential buffers against these negative effects.

Job resources: Co-worker and supervisor support

Job resources have been broadly conceptualized as different kinds of energy reservoirs that can be tapped when the employee has to cope with job stressors (Hobfoll & Shirom, 2001). The presence and availability of job resources helps workers to reduce job demands, provides mental states of vigour and dedication at work, and activates personal resources (Bakker & Demerouti, 2007). From this perspective, social support is probably the most well-known job resource as a potential moderator against job strain. The social support of colleagues and supervisors helps to achieve work goals and

protects workers from the pathological consequences of stressful job experiences because social support offers both instrumental and emotional support (Van den Tooren & de Jonge, 2008; Van den Tooren, de Jonge, & Dormann, 2012). For example, de Jonge and Dormann's (2006) study with health professionals by revealed that co-worker and supervisor support moderated the relationship between these professionals' emotional stress and emotional exhaustion, and this has been confirmed in other investigations (de Jonge et al., 2008; Pisaniello, Winefield, & Delfabbro, 2012; Zapf, 2002).

Workers with difficulties to regulate emotions at work can find support and an emotional resource among their colleagues (Grandey, 2000; Zapf, 2002). Emotionally supportive interactions include expressions of caring, encouragement, attentive listening, reassurance, and they usually avoid criticism. Such exchanges foster the experience of feeling accepted, cared for, admired, respected, and valued despite personal difficulties (Dennis, 2003). Support by a supervisor can also be a great buffer against the effects of emotion regulation difficulties. Supervisor support takes many forms, including managers' recognition of the emotional dimensions of the work, debriefing after a distressing event, giving useful advice, and treating workers with respect (King, 2012). Co-worker and supervisor support may therefore moderate the relationship between emotion regulation difficulties at work and nurse's emotional exhaustion, fatigue, and negative affect. This moderation could be explained by the COR theory (Hobfoll & Shirom, 2001), which holds that emotional exhaustion and strain are a result of individuals' inability to retain energetic and emotional resources spent on emotion regulation. Workers with emotion regulation difficulties may substitute these depleted emotional resources with other emotional resources, such as colleagues' and supervisors' support, thereby feeling less emotional exhaustion, fatigue,

and negative affect (Van den Tooren & de Jonge, 2008; Van den Tooren et al., 2012). Thus, on the basis of the arguments and literature presented, we formulate the following hypotheses:

H₂. Day-specific emotion regulation difficulties at work will be more positively associated with day-specific emotional exhaustion in the afternoon (2a) on days when nurses perceive less co-worker support as opposed to days when nurses perceive more co-worker support, and (2b) on days when nurses perceive less supervisor support as opposed to days when they perceive more supervisor support at work.

Recovery experiences: Psychological detachment and relaxation

Workers can also carry out activities that help them to recover from stress after a workday (Sonnentag & Bayer, 2005). The inability to rest and recover from work can have severe negative effects on individual health and well-being (Meijman & Mulder, 1998). In this sense, nurses should be able to recharge the emotional and physical resources that are used up when facing emotion regulation difficulties in order to retain their well-being after work. Recovery offers the individual resources to reduce the negative effect of daily stress and helps alleviate the mood-related effect of stressors and restore individual well-being (Sonntag & Bayer, 2005). Sonntag and Fritz (2007) conceptualized recovery as a process during which individual functional systems that have been called upon during a stressful experience return to their pre-stressor levels (Meijman & Mulder, 1998). In the present study, we focused on mechanisms that help recovery, which Sonntag and Fritz (2007) called recovery experiences. These recovery experiences are understood not as activities per se, but as underlying psychological experiences through which people feel recovered. Among the four recovery experiences proposed by Sonntag and Fritz (i.e., psychological detachment, relaxation, mastery experiences, and control during leisure time), psychological

detachment and relaxation have been studied the most, and their recovery effect has received the most empirical support (Sonnentag & Fritz, 2007). On the basis of these considerations, we decided to focus on these two recovery experiences.

Psychological detachment from work has been described as the sense of being not only physically, but also mentally away from the work situation (Etzion, Eden, & Lapidot, 1998, pp. 579). When psychologically detached from work, one stops thinking or ruminating about job-related problems or opportunities. When workers have higher levels of stress, psychological detachment from work can decrease fatigue (Sonnentag & Bayer, 2005), somatic symptoms, anxiety (Moreno-Jiménez, Rodríguez-Muñoz, Sanz-Vergel, & Garrosa, 2012) and psychological strain (Moreno-Jiménez et al., 2009).

Relaxation is an emotion-regulation strategy aimed at decreasing and modulating the physiological component of emotions (Lawrence, Troth, Jordan, & Collins, 2011). This implies a state in which the person has low activation and high positive affect (Sonnentag & Fritz, 2007). Like psychological detachment, relaxation has also been related to less anxiety, somatic symptoms (Moreno-Jiménez et al., 2012) and emotional exhaustion when workers face stress (Siltaloppi, Kinnunen, & Feldt, 2009).

As mentioned above, the presence of emotion regulation difficulties among nurses during the workday can deplete their energy and well-being. However, recovery experiences offer the opportunity to replenish the energy and well-being resources depleted by these difficulties through “emotion-regulation breaks”, during which no further psychological and physiological efforts are required (Lilius, 2012). This moderation effect of recovery experiences could be explained by the effort-recovery (E-R) model (Meijman & Mulder, 1998). According to the E-R model, effort at work leads to load reactions (e.g., excretion of stress hormones, feelings of fatigue), and when an individual is no longer confronted with work demands, load reactions are released and

recovery occurs. Therefore, psychological detachment and relaxation may be helpful, because they imply that no further demands are made on the functional systems (e.g., neuroendocrine and cardiovascular systems) and on the internal resources (e.g., self-regulation) required during work (Meijman & Mulder, 1998). Thus, on the basis of the arguments and literature presented, we formulate the following hypotheses:

H₃. Day-specific difficulties in emotion regulation at work will be more positively associated with day-specific fatigue at night (3a) among nurses who had less relaxation experiences in afternoon after work, and (3b) among nurses who had less psychological detachment in the afternoon after work, as opposed to nurses who had more relaxation and psychological detachment experiences in afternoon.

H₄. Day-specific difficulties in emotion regulation at work will be more positively associated with day-specific negative affect at night (4a) among nurses who had less relaxation experiences in afternoon after work, and (4b) among nurses who had less psychological detachment in the afternoon after work, as opposed to nurses who had more relaxation and psychological detachment experiences in afternoon.

Method

Sample and Procedure

Nurses from various hospital and primary care centres in Spain participated in the study. Participants were recruited using a snowball technique, through the researchers' social networks. One hundred and twelve nurses received a package that included: a letter describing the objective of the study and the general and daily questionnaire. They had to fill in the general questionnaire and subsequently, they had to complete daily questionnaires two times a day (in the afternoon after work and at night before going to bed) for five consecutive workdays from Monday to Friday ($N = 5 \times 74 = 370$

occasions). To guarantee confidentiality, responses were matched using anonymous codes. The study protocol was approved by the ethical committee of the University.

Of the 112 surveys distributed, 74 were returned (response rate = 66%; 66 women, 5 men, and 3 missing values) from hospitals (54.1 %) and primary care centres (45.9 %). The hospital nurses belong to diverse care services (i.e., intensive care unit, surgical unit, and emergencies). Mean age was 42.83 years ($SD = 11.18$). Most employees worked 38.22 hours per week ($SD = 4.41$) and the average years of tenure in their work centres was 10.28 years ($SD = 9.42$). All the professionals worked the morning shift.

We collected the data with the same general and daily paper-based questionnaires. Emotion regulation difficulties at work, co-worker support, supervisor support, and emotional exhaustion were assessed in the afternoon after work, while fatigue, negative affect, relaxation, and psychological detachment were reported at night before bedtime. Participants received clear instructions to complete the questionnaire physically at work immediately after the shift ended, and at night right before going to the bed, and researchers emphasised the importance of following this procedure. The use of alarms as reminders was also suggested.

In the study, the general measure of the dependent variables (i.e., emotional exhaustion, fatigue, and negative affect at night) was taken to control for the effect of nurses' general levels of these variables.

Daily measures of all the variables were taken using modifications of the items from the corresponding general scale, reworded for daily administration. For daily measures, we used the same response categories as for the general variable (Nezlek, 2012).

Measures

Daily Emotion Regulation Difficulties at Work. This construct was measured through the Spanish adaptation (Hervás & Jódar, 2008) of the Difficulty of Emotion

Regulation Scale (DERS; Gratz & Roemer, 2004). The scale used for this study contains 28 items divided into 5 subscales: Lack of Emotional Awareness (e.g., “I am attentive to my feelings”; reversed item), Lack of Emotional Clarity (e.g., “I have no idea how I am feeling”), Emotional Non-acceptance (e.g., “When I’m upset, I feel guilty for feeling that way”), Emotional Interference (e.g., “When I’m upset, I have difficulty getting work done”), and Lack of Emotional Control (e.g., “When I’m upset, I feel out of control”). For this study, we calculated and used a general index of emotion regulation difficulties, which also showed good psychometric properties in the Spanish validation study of this scale (Hervás & Jodar, 2008). For the daily measure after work, the items were adapted to refer to the preceding workday (i.e., “Today at work, when I was upset, I had difficulty concentrating”). The instrument format is a graduated Likert scale, ranging from 1 (*almost never*) to 5 (*almost always*): the higher the score, the greater the emotion regulation difficulty. The reliability and validity of the scale are well-established (Gratz & Roemer, 2004; Hervás & Jódar, 2008). The Cronbach alpha of the daily measure in this study ranged between .81 and .87 ($M = .83$).

Daily Job Resources. Co-worker support was measured with three items from the Spanish validation (Escribá-Agüir, Más, & Flores, 2000) of the Job Content Questionnaire (Karasek et al., 1998). Supervisor support was measured with three items from the same scale. For the daily measure after work, the items were adapted to refer to the preceding workday (e.g., “Today at work, the people I worked with took a personal interest in me” for Co-worker support, or “Today at work, my supervisor was helpful in getting the job done” for Supervisor support). Both variables were rated on a 4-point scale, ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Cronbach's alpha for the daily measure in this study ranged between .83 and .94 ($M = .87$) for Co-worker Support, and between .88 and .93 ($M = .92$) for Supervisor Support.

Daily Recovery Experiences. Psychological detachment and relaxation were measured with 3 items each from the Spanish validation (Sanz-Vergel et al., 2010) of the Recovery Experience Questionnaire (Sonnentag & Fritz, 2007). For the daily measurement at night, the items were adapted refer to the preceding afternoon (e.g., “This afternoon, I did relaxing things” for Relaxation, or “This afternoon, I distanced myself from my work” for Psychological detachment). Both variables were rated on a 5-point scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Cronbach's alpha for the daily measure in this study ranged between .80 and .87 ($M = .84$) for Relaxation, and between .88 and .93 ($M = .90$) for Psychological detachment.

General and Daily Emotional Exhaustion. Emotional exhaustion was assessed with 4 items from the Nursing Burnout Scale (NBS; Garrosa, Moreno-Jiménez, Liang, & González, 2008). For the daily measure after work, the items were adapted to refer to the preceding workday (e.g., “Today, I felt exhausted at the end of workday”). Each item was rated on a 4-point Likert-type scale, ranging from 1 (*totally disagree*) to 4 (*totally agree*). In this study, Cronbach's alpha for the general measure was $\alpha = .85$, ranging between .86 and .89 ($M = .88$) for the daily measure.

General and Momentary Fatigue at Night. Fatigue was measured with the Spanish version (González, Moreno, Garrosa, & López, 2005) of the Swedish Occupational Fatigue Inventory (SOFI; Ahsberg, Gamberale, & Kjellberg, 1997). This version of SOFI considers five dimensions of fatigue (3 items each): Lack of Energy (e.g., “In general, I feel drained”), Physical Effort (e.g., “In general, I feel palpitations”), Physical Discomfort (e.g., “In general, I feel my muscle are tense”), Lack of Motivation (e.g., “In general, I feel uninterested”), and Sleepiness (e.g., “In general, I feel sleepy”). Participants were asked to rate on an 11-point scale the extent to which the expressions described their own feelings, ranging from 1 (*not at all*) to 11 (*very much*). For this

study, we calculated and used a general index of fatigue. Daily fatigue at night was measured with the same scale, modified so that the items referred to the present moment (e.g., “At this moment, I feel drained”). In this study, Cronbach's alpha for the general measure was $\alpha = .90$, ranging between .88 and .93 ($M = .91$) for the daily measure.

General and Momentary Negative Affect at Night. Negative affect was measured with the Spanish short version (Robles & Páez, 2003) of the Positive and Negative Affect Schedule (PANAS; Mackinnon et al. 1999). The Negative subscale assesses with five items the general tendency to feel negative emotions (e.g., “hostile” or “ashamed”). Participants were asked to rate on a 5-point scale the extent to which the expressions described their own feelings, ranging from 1 (*very slightly*) to 5 (*extremely*). Daily negative affect at night was measured with the same scale, modified so that the items referred to the present moment (e.g., “At this moment, I feel ashamed”). In this study, Cronbach's alpha for the general measure was $\alpha = .70$, ranging between .70 and .84 ($M = .78$) for the daily measure.

Statistical analysis

We used multilevel analysis, given the hierarchical structure of our data (Nezlek, 2012). Predictor day-level variables were centred at the respective person mean, whereas person-level variables were centred at the grand mean. Centring day-level variables at the person mean implies that all between-person variance in these variables is removed, and interpretations of our results referring to stable differences between persons can be ruled out. Additionally, we included the variable “time” in the analyses as a control variable in order to control for possible accumulation effects in the dependent variable over the course of the five working days. In addition, the baseline levels of the outcome measures were included in the models as controls. Including baseline levels enabled us to analyse the daily fluctuations around the nurses’ baselines,

which is relevant because nurses' general levels could affect their momentary states (Ouweneel, Le Blanc, Schaufeli, & van Wijhe, 2012). Data was analysed using MLwiN 2.28 software.

Results

Preliminary analysis

In order to examine the total variance at the within-person level, we estimated the intra-class correlation coefficient (see Table 1). All predictor variables showed an intra-class correlation coefficient above 25% (Hox & Roberts, 2011). Overall, these findings suggest that a substantial portion of the variance in our variables can be attributed to within-person variation across the 5 days, which supports the usage of multilevel analysis (Fisher & To, 2012). Table 1 also shows the means, standard deviations, Cronbach's alphas, and correlations among all the study variables.

Insert Table 1 here

Hypothesis Testing

The results of our multilevel analyses testing Hypothesis 1 are presented in Tables 2, 3, and 4 (in Model 2). The results support Hypothesis 1a ($B = 0.412$, $SE = 0.105$, $t = 3.92$, $p < .001$), Hypothesis 1b ($B = 0.445$, $SE = 0.214$, $t = 2.07$, $p < .05$) and Hypothesis 1c ($B = 0.388$, $SE = 0.077$, $t = 5.03$, $p < .001$). Thus, on days with high emotion regulation difficulties at work, nurses feel more emotional exhaustion in the afternoon and also more fatigue and negative affect at home at night.

In order to test Hypotheses 2 to 4, the interaction terms were incorporated into the last model (Model 4 in the tables). For the significant moderating effect, we conducted simple slope tests in order to examine the pattern of the interaction (Preacher, Curran, & Bauer, 2006).

Insert Table 2 here

Emotional exhaustion in the afternoon. In the case of emotional exhaustion in the afternoon (see Table 2), Model 4, which included the two interaction terms, showed an improvement in the fit compared to Model 3 (difference of $-2 \times \log = 16.689$, $df = 2$, $p < .001$). Specifically, there was a significant interaction between emotion regulation difficulties at work and co-worker support at work on emotional exhaustion in the afternoon ($B = -0.582$, $SE = 0.161$, $t = -3.61$, $p < .001$). Moreover, the control variables time ($B = 0.070$, $SE = 0.021$, $t = 3.33$, $p < .001$) and general emotional exhaustion ($B = 0.732$, $SE = 0.107$, $t = 2.89$, $p < .01$) had a direct and significant relationship with emotional exhaustion in the afternoon. As shown in Figure 1, simple slope tests showed that emotion regulation difficulties were negatively related to emotional exhaustion in the afternoon on days with high co-worker support ($\gamma = -1.550$, $SE = 0.574$, $z = -2.69$, $p < .01$), whereas they were more positively related on days with low co-worker support ($\gamma = 1.107$, $SE = 0.174$, $z = 6.33$, $p < .001$). Hence, Hypothesis 2a was confirmed (see Figure 1). However, we did not find support for Hypothesis 2b, as supervisor support was not shown to be a significant moderator between emotion regulation difficulties at work and emotional exhaustion.

Insert Figure 1 here

Fatigue at night. In the case of fatigue at night, we can see in Table 3 that Model 4 added the interaction terms and increased the model fit (difference of $-2 \times \log = 11.122$, $df = 2$, $p < .01$). Specifically, there was a significant interaction between emotion regulation difficulties at work and relaxation in the afternoon on fatigue at night ($B = -0.716$, $SE = 0.280$, $t = -2.55$, $p < .01$), as shown in Figure 2. Moreover, relaxation in the afternoon had a direct and significant relationship with fatigue at night ($B = -0.305$, $SE = 0.103$, $t = -2.96$, $p < .001$). Simple slope tests showed that emotion regulation difficulties were more positively related to fatigue at night on days when people

experienced less relaxation in the afternoon ($\gamma = 1.054$, $SE = 0.371$, $z = 2.84$, $p < .01$), whereas they were unrelated on days when relaxation was high ($\gamma = -0.903$, $SE = 0.520$, $z = -1.73$, ns). Therefore, this result is in accordance with Hypothesis 3a (see Figure 2). However, we found no support for Hypothesis 3b because psychological detachment was not shown to be a significant moderator between emotion regulation difficulties at work and fatigue.

Insert Table 3 here

Insert Figure 2 here

Negative affect at night. In the prediction of negative affect at night (see Table 4), Model 4 added the interaction terms and increased the model fit (difference of $-2 \times \log = 7.058$, $df = 2$, $p < .05$). In this case, there was also a significant interaction between emotion regulation difficulties at work and psychological detachment in the afternoon on negative affect at night ($B = -0.219$, $SE = 0.092$, $t = -2.38$, $p < .05$). As shown in Figure 3, emotion regulation difficulties at work were more positively related to negative affect at night on days when people showed less detachment from work in the afternoon ($\gamma = 0.556$, $SE = 0.112$, $z = 4.93$, $p < .001$), whereas emotion regulation difficulties at work were unrelated to negative affect on days when psychological detachment was high ($\gamma = 0.053$, $SE = 0.150$, $z = 0.35$, ns). Hence, Hypothesis 4b was confirmed, but Hypothesis 4a was rejected. Namely, psychological detachment was a significant moderator between emotion regulation difficulties at work and negative affect, but relaxation did not show this moderating effect.

Insert Table 4 here

Insert Figure 3 here

Discussion

The present study investigated the role of daily difficulties in emotion regulation at work on nurse's daily well-being and how certain job resources and recovery experiences after work influence this relationship. On the one hand, we hypothesized that daily difficulties in emotion regulation at work would be significant and positively related to emotional exhaustion at work in the afternoon and to fatigue and negative affect at home at night. On the other hand, we hypothesized that co-worker and supervisor support, as well as psychological detachment and relaxation, would buffer the negative impact of emotion regulation difficulties on these outcomes. The study of these issues within the nursing profession is very relevant because nurses must face high emotional demands at work, and the presence of emotion regulation difficulties among these professionals could increase the negative consequences of working in that emotional labour context.

Overall, results show that nurses who have greater difficulties in emotion regulation at work also have higher levels of emotional exhaustion after work, as well as higher levels of fatigue and negative affect at night at home. Moreover, this negative effect is higher among nurses who have fewer job resources during their workday and insufficient recovery experiences after work.

Results of this study are consistent with current developments in the fields of psychopathology and occupational health psychology, which relate maladaptive patterns of emotion regulation to several indicators of strain and illness, such as anxiety, depression, negative affect and burnout (Aldao et al., 2010; Gratz & Roemer, 2004; Hülshager et al., 2013). Results are also in line with research stressing the importance of certain abilities and emotional competences in the nursing profession to prevent burnout. According to these studies, when nurses do not pay attention to their emotions, do not understand their emotional states, or have difficulties regulating them to achieve

personal and professional goals, they are more likely to experience exhaustion and strain at work (Augusto-Landa et al., 2008, Garrosa et al., 2011; Losa-Iglesias et al., 2010), physical complaints (Augusto-Landa et al., 2008) and negative affect (Cisler et al., 2009).

The relationship between emotion regulation difficulties and emotional exhaustion, fatigue and negative affect among nurses could be explained through the concept of the loss spiral proposed by Hobfoll in the COR theory (Hobfoll & Shirom, 2001). The presence among nurses of emotion regulation difficulties reflects the loss of a relevant emotional resource to cope with the emotional demands of their job, which can lead to the loss of more energy and well-being resources, causing emotional exhaustion, fatigue and negative affect (Hobfoll & Shirom, 2001; Maslach, Schaufeli, & Leiter, 2001). For example, according to Maslach and Jackson (1984), emotional exhaustion is characterized by lack of energy, negative emotions, and the perception that one has lost one's emotional resources. In fact, emotional exhaustion has been considered by some authors as a problem for some employees to manage their emotions during the workday, especially within human service professions (Schaufeli & Enzmann, 1998). The results of this study indicate the importance of incorporating training programs in emotion regulation among nursing professionals to provide them with tools to prevent the depletion of their emotional resources and to enable them to better cope with the emotional stressors they face daily.

Results also show that nurses who have emotion regulation difficulties but who perceive support from their colleagues during their workday feel less emotional exhaustion after work than nurses who do not perceive this co-worker support. As in previous research, co-worker support is a significant job resource for nurses when coping with high demands and emotional stressors at work (de Jonge et al., 2008;

Peeters & LeBlanc, 2001). If this support is not perceived by nurses in stressful situations, emotional exhaustion and strain are higher (de Jonge et al., 2008). Co-workers can provide emotional and instrumental support to workers with emotion regulation difficulties, which can lead to a decrease in emotional exhaustion (Van den Tooren & de Jonge, 2008). For example, according to Maslach (1978), emotional exhaustion is lower in individuals who express and share their personal feelings with their colleagues because this can defuse tension and assist in problem solving. Moreover, according to the COR theory, emotional resource gains (i.e., co-worker support) are more salient in a context of emotional resource loss (i.e., emotion regulation difficulties and emotional exhaustion), helping nurses to restore their energy and well-being reserves (Hobfoll & Shirom, 2001; Peeters & LeBlanc, 2001; Van den Tooren & de Jonge, 2008). Note that in Figure 1, emotion regulation difficulties positively relate to emotional exhaustion and fatigue in the condition of low co-worker support, but negatively in the case of high co-worker support. That is to say, the effect of co-workers' support goes beyond buffering, which would be in line with Hobfoll (2002), who has argued that resource gain in itself only has a modest effect, but acquires saliency in the context of resource loss. This implies that co-workers' support gains its positive effect especially when employees are under demanding conditions. However, this study did not find a significant buffering effect of supervisor support in the relationship between emotion regulation difficulties and emotional exhaustion. This could be due to the fact that nurses do not discuss such difficulties with their supervisors or perhaps because nurses and supervisors are not necessarily at the same place during a workday, which reduces the possibility of talking about these personal difficulties. In this regard, the results of this study show that it is also important to provide

interpersonal emotional resources for nurses in order to reduce their daily emotional stressors.

Regarding the role of recovery experiences, results confirm that nurses' recovery from emotional efforts made during the workday has a positive effect on their well-being, in line with previous research (Drach-Zahavy & Marzuq, 2013). When there is no recovery, workers are more likely to show higher fatigue and strain (Meijman & Mulder, 1998). On the one hand, nurses with emotion regulation difficulties who had fewer relaxation experiences in the afternoon after work showed higher levels of fatigue at night, compared to nurses who experienced such relaxation. This could be explained by the fact that relaxation reduces prolonged physiological activation produced by work and allows the human body to recover energy and well-being, especially if one has put out too much physical and psychological effort during the workday (Meijman & Mulder, 1998; Sonnentag & Bayer, 2005). When this relaxation does not occur, workers do not have the opportunity to restore their physical and psychological well-being after work, and they are more likely to show higher strain.

In contrast, nurses who had emotion regulation difficulties and had less psychological detachment in the afternoon after work also showed higher levels of negative affect at night. Detaching psychologically from work implies that the nurses do not think about the difficulties of the workday, including emotion regulation difficulties, during their leisure time. This implies the absence of rumination and negative affect in the afternoon (which usually strains the individual's physical and psychological system), which can also offer the opportunity to restore well-being reserves. When this psychological detachment does not occur, workers again do not have the opportunity to restore their individual well-being after work, and are therefore more likely to show higher strain. From this perspective, the results of the study stress the need to promote, from the

organization and among the workers, recovery experiences after the day's work with the aim of reducing the daily emotional stress of these professionals.

Finally, we underline the match between the experience of relaxation and the recovery of the physical aspect of well-being (i.e., recovery from fatigue) on the one hand, and between psychological detachment and the recovery of the psychological and emotional aspects of well-being (i.e., recovery from negative affect), on the other hand. The predominantly physical nature of relaxation and the psychological nature of psychological detachment could explain this match between the recovery experience and its outcomes (de Jonge et al., 2012; Van Den Tooren & de Jonge, 2008).

This result also highlights some authors' statements about the construct of regulatory flexibility (Bonanno & Burton, 2013), that is, “the limitations of a categorical perspective on regulatory strategies as consistently health-promoting or health-detracting” (i.e., fallacy of uniform efficacy). In this regard, recent research indicates that the efficacy of emotion regulation strategies can be variable and that a regulatory strategy that proves adaptive in one context can prove maladaptive (or does not have any effect) in a different context. The present study's results show the specificity of effects for particular recovery experiences, effects that are not diminished even on days where emotion dysregulation is high.

In conclusion, the study of daily difficulties to regulate emotions within a nursing context is relevant because the presence of such difficulties can contribute to the emergence of emotional exhaustion, fatigue and negative affect among nurses. However, nurses who have these difficulties but who perceive co-worker support during the workday and who also have opportunities to relax and detach psychologically from work during the afternoon suffer these negative consequences to a lesser extent.

Limitations and future research

The current study has some limitations. Firstly, we assessed all data with self-report measures, which raises concerns about common-method variance. However, the self-report nature of the study is essential, given that appraisals of affective experiences are fundamental. Moreover, by using person-centred scores in the analyses, we eliminated the potential influence of response tendencies stemming from individual differences, and we thereby reduced the problems associated with common-method variance.

However, we hypothesized that emotion regulation difficulties at work would be related to emotional exhaustion in the afternoon after work. Difficulties in emotion regulation at work were measured retrospectively after work, together with emotional exhaustion. In this sense, the relations may be increased by common method variance and by mood-dependent memory, as both were assessed simultaneously. Future research should try to minimize this problem by temporally separating predictor and outcome variables.

Secondly, participants of this study were day-shift workers, and well-being and emotion regulation difficulties could vary by different shifts, depending on certain work conditions. Therefore, future studies should try to replicate the results with a representative sample of workers with different shifts. Thirdly, participants in our study were predominantly women, and coping with emotion regulation difficulties and its consequences could vary by gender (Cottingham (2013)). Nevertheless, the overrepresentation of the female gender in nursing is well known. Again, future studies should try to replicate the results with a representative sample of males and females.

Finally, we cannot draw conclusions about causal relations between our variables. Experimental studies or intervention studies manipulating emotion regulation, job resources, and recovery experiences are needed to confirm the causal links of the proposed relations.

Future studies should also examine empirically whether emotion regulation difficulties would reduce job resources or recovery experiences, and ultimately, worker well-being (mediation hypothesis). Moreover, it would be interesting to test whether recovery could affect emotion regulation and emotional exhaustion one day later (lagged effects). The negative spiral advanced in the COR could support both mediation models. It would also be interesting to analyse the implications of daily difficulties in emotion regulation and the moderating role of job resources and recovery experiences for job performance. Finally, future research could also examine the role of affective rumination in the recovery process and analyse whether this could impact the positive moderating role of recovery between emotion regulation difficulties and workers' well-being.

Practical implications

Nowadays, it is increasingly clear that the interaction among organisational and personal variables is crucial to explain workers' well-being (Maslach et al., 2001). The presence of emotion regulation difficulties is a phenomenon that can emerge both in personal and work life (Lawrence et al., 2011). In certain professions or work contexts that do not require high emotional demands, these difficulties may be overlooked. However, in the nursing profession or other health occupations, where workers are exposed to high emotional demands from their patients, families, and co-workers, the presence of these difficulties can greatly affect their well-being and health. For this reason, health organizations, as a part of their organizational culture, must implement policies and actions aimed at recognizing, identifying, normalizing and intervening in this type of emotional difficulties to help these workers turn their work into a source of well-being and satisfaction, reduce their turnover intentions, and improve the healthcare quality they deliver to their patients. On the basis of the results obtained in this study,

we can advocate that stabilizing work teams and promoting their cohesion and positive climate can be effective measures to enhance well-being within health organizations. A positive leadership exercised by the supervisors could contribute to this. Also, providing training about emotional competences (e.g., emotional intelligence) or activating self-care programs (e.g., based on recovery experiences) can be useful in this health work context to reduce the physical and emotional load among workers and offer them the opportunity to recover their levels of energy and well-being. For example, organizations could implement plans of work-family balance or promote the reconciliation of the workers' schedules with activities to facilitate their recovery. Programs based on mindfulness and self-compassion aimed at emotional skills development could help workers to reduce their difficulties to deal with their daily emotions. In these programs, workers could learn to be aware of their day-to-day emotions and feelings, adopt a nonjudgmental attitude of acceptance, and learn not to react impulsively to external and internal stimuli (with the help of skills such as emotional observation). The inclusion of these skills in health promotion programs in occupational health services could be very positive.

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