

Does recovery buffer against emotional labor in terms of motivational outcomes at work?

Analyzing age differences among Finnish health care professionals

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ABSTRACT

Introduction: Emotional labor (EL) is a common stressor in health care work and factors buffering its negative outcomes deserve more attention. More information is also needed on whether the effects of EL and its buffers are age-specific as health care workers are aging.

Aim: We examined recovery from work as a stress buffer between EL and motivational outcomes, i.e., job satisfaction, dedication to work, organizational citizenship behavior, aged-specifically. We also examined whether the effects of EL and recovery showed age-specific variations in relation to the outcomes. The age groups were moreover compared in key constructs.

Method: The study was conducted among Finnish nurses and physicians (n = 4, 311) representing four different age groups. Cross-sectional data were collected by survey in 2014. Analyses were conducted age-specifically.

Results: The regression analyses showed that early middle-aged employees (35-44 years old) benefited more than the other age groups from good recovery if experiencing high EL in terms of higher job satisfaction, dedication to work, and organizational citizenship behavior. Particularly harmful EL was in early middle-age by explaining lower job satisfaction and dedication to work at this time of life. Good recovery predicted positively all outcomes across the age groups, thus these linkages showed no age-specific variation. Mean comparison analyses revealed that the youngest age group (18-34 years) reported the greatest EL.

Conclusions: Early middle-age seems to be a vulnerable time of life for experiencing EL as stressful. Good recovery from work constitutes one critical buffering resource for this age group.

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1. Introduction and aims

The aging population impacts on today's health care sector by depleting the workforce of healthcare professionals (), and by increasing the number of people needing medical care (see e.g., Cooper, Getzen, McKee, & Laud, 2002; Oulton, 2006; Parker & Thorslund, 2007). This puts health care professionals under pressure by forcing them to work faster, increasing their already high work stress and impairing their work ability. Due to a labor shortage in health care, there is an interest in retaining health care professionals in the workforce as long as possible. For these reasons, it is crucial to understand, particularly in health care work, which factors buffer against the negative effects of work stress and whether these factors show age-specific variation.

The present study focuses on *emotional labor* (EL) as a specific work stressor. EL is encountered also in caring work where the work is characterized by human interaction. EL is a well-documented work stressor contributing to negative health and well-being outcomes (Hüelsheger & Schewe, 2011), signifying that we urgently need more information on factors that might buffer against EL. In this study, we investigate perceived *recovery from work* as a potential buffering factor between EL and three specific work-related motivational outcomes, namely job satisfaction, dedication to work, and organizational citizenship behavior (OCB) (for specific definitions, see measures). The specific focus will be on age differences in these relationships as these differences have received surprisingly little attention in EL and recovery research. The study was conducted among Finnish health care professionals ($n = 4,311$) representing four different age groups.

1.1. Defining EL as a stressor and recovery as a stress buffer

According to Hochschild (1983), EL refers to a required expression of appropriate emotions during inter-personal face-to-face or voice-to-voice transactions. More specific definitions have subsequently been proposed (Zapf, 2002; Zapf, Vogt, Seifert, Mertini, & Isic, 1999). In line with these definitions, EL refers here to "the effort, planning, and control needed to express organizationally-desired emotions during interpersonal transactions" (Morris & Feldman, 1996, p. 987). Many occupations and organizations have certain rules regarding the display of emotions, specifying which emotions may be expressed in interpersonal transactions between employees and clients / customers / patients. For

example, health care employees, the target group of the present study, are expected to express sympathy, sensitivity, and overall friendly and caring emotional behavior while interacting with patients (Zapf, Seifert, Schmutte, Mertini, & Holz, 2001, Zapf, Semmer, & Johnson, 2014). However, displaying these emotions may become problematic when they do not match with an employees' true emotions. Faking or expressing insincere emotions may cause feelings of emotional dissonance, and dealing with these feelings of dissonance may cause stress and result in an impairment of health and well-being as has been documented in various empirical studies (see e.g., Hüelsheger & Schewe, 2011; Zapf et al., 1999, 2014).

However, it should be pointed out that EL does not necessarily imply negative outcomes if an employee has adequate *coping resources*, protecting him/her against the negative effects of EL (see e.g., Bechtoldt, Rohrmann, De Pater, & Swody, 2011; Pugh, Groth, & Hennig-Thurau, 2011). Coping resources include various contextual (e.g., informal and formal support available) and individual (e.g., skills and personality factors) resources. The ability to *recover from job stress*, which we focus on as an individual coping asset, can be regarded as a form of successful adaptation and coping in the job stress process. Specifically, in line with the stress buffer model (Cohen & Wills, 1985), we conceptualize recovery as a salutary *stress buffering resource* that is assumed to mitigate the negative effects of job stressors (here EL) on various outcomes.

Recovery is seen as a process that allows individuals to replenish their psychobiological resources, constituting one key factor in promoting long-term work performance and well-being at work, and in retaining employees in the work force for longer (see e.g., Fritz, Sonnentag, Spector, & McInroe, 2010; Sonnentag & Fritz, 2015). Specifically, recovery refers to how much an individual feels physically and mentally refreshed during off-job time (Binnewies, Sonnentag, & Mojza, 2009). In the present study, recovery is defined as a state of feeling recovered from work during leisure time. The stress buffering role of recovery, i.e., whether it mitigates the detrimental effects of stressors on well-being/health/performance, has been examined only in a few studies. In these studies the focus has been on recovery experiences, e.g., detaching mentally from work, and feeling relaxed during free time (see e.g., Kinnunen, Mauno, & Siltaloppi, 2010; Moreno-Jimenez et al., 2009). Overall these studies have found that recovery experiences buffer against the negative effects of job stressors (e.g., time demands, work-family conflict, and job insecurity) on employee well-being. Accordingly, successful recovery during free time seems to be beneficial to employees' well-being under stressful job conditions. Despite these valuable insights, these earlier studies have concentrated on stressors other than EL,

which we focus on here. Consequently, it is important to examine whether recovery from work during off-job time is also a beneficial resource against EL.

1.2. The role of age differences in the stress buffer process

The present study set out from the assumption that stress buffering effects may not be the same for everyone, meaning that some individuals may benefit more than others from certain buffering resources due to individual differences. Indeed, earlier research findings on stress and coping suggest that one important individual difference determining coping effectiveness and overall adaptation in life adversities is chronological *age* (e.g., Aldwin, 1991; Ben-Zur, 2002; Diehl, Coyle, & Labouvie-Vief, 1996). Consequently, age very likely also *moderates* the relationship between work stressors and outcomes, implying that the effects of work stressors on outcomes tend to be stronger/weaker at a certain age (see e.g., Johnson, Holdsworth, Hoel, & Zapf, 2013; Mauno, Kinnunen, & Ruokolainen, 2013). However, we do not yet know whether this age-specific hypothesis also concerns EL as earlier studies have examined other work stressors.

Viewed theoretically, both life management and coping theories propose that human adaptation to stress and life adversities may vary with age also concerning coping with work stress. For example, socio-emotional selectivity theory (Carstensen, Fung, & Charles, 2003) argues that positive emotions, emotion control and regulation tend to improve with increasing age because older individuals are more prone to see their future as limited and are less concerned about it (see also Aldwin, 1991; Diehl et al., 1996). On the other hand, as individuals are aging they may also suffer from some losses in physiological and cognitive capacity and skills (e.g., Barnes-Farrell, Rumery, & Swody, 2002), implying poorer resilience and adaptation to stress. Thus, there seem to be mixed views on how age(ing) is related to human stress, coping and adaptation.

Empirical findings concerning age-specific relationships between stress, coping, and adaptation have also yielded mixed results: some studies suggest that older people tend to cope less successfully with stressors than younger people, whereas other studies show the opposite (see e.g., Aldwin, 1991; Mauno et al., 2013; Whitty, 2010). One recent study in a work context conducted by Johnson et al. (2013) showed that older employees were more effective in using certain adaptive coping strategies (e.g., humor, downplaying) in the presence of high level of social stress at work (caused by customers) examining emotional exhaustion as a criterion for coping effectiveness. In general, older employees also exhibited better emotion regulation coping in this study. However, the authors conclude that the

relationship between age, job stress, and coping is complex and that more research is needed especially as the working population is aging rapidly. Altogether, systematic research on age differences in coping with work stress is rare. In addition, none of these studies has examined whether recovery, as a coping resource, buffers the relationship between work stressors and employee outcomes differently across different age groups.

Overall age differences in recovery have rarely been studied, yet a few of the existing studies suggest that need for recovery increases as age increases (Kiss, De Meester, & Brackman, 2008; Mohren, Jansen, & Kant, 2010). The reason for this increasing need for recovery may due to a decrease in work capacity among ageing workers that will result in an increasing need for recovery if the workload remains the same. For instance, it has been shown that employees aged over 45 years scored higher on need for recovery than did younger employees (< 45 years) (e.g., Kiss et al., 2008; Mohren et al., 2010). However, these earlier studies have not examined whether the effects of recovery on employee outcomes vary by age or whether recovery is more beneficial at certain age if work stress is high. These issues will be scrutinized here.

1.3. Study objectives

This study has three main objectives. First, we investigate whether the relationships between EL and work-related outcomes (job satisfaction, dedication at work, OCB) vary by age. Second, we examine whether the relationships between recovery from work and work-related outcomes show age-specific variation. The two first objectives mean that we examine whether age acts as a *moderator* between EL and the outcomes (the first objective), and between recovery and the outcomes (the second objective). Third, and most importantly, we also explore whether recovery from work is a more beneficial coping resource in the presence of a high level of EL among younger vs. older employees (i.e., an examination of EL x recovery interaction effect across the age groups). This third objective is expected to show whether there are age differences in the buffering effects of recovery in the association between EL and the outcomes. Specifically, we will compare four age groups in this study: 18-34 years, 35-44 years, 45-54 years, and 55-65 years old.

2. Methods

2.1. Participants

The data used in this study were collected among Finnish nurses and physicians in 2014. Three health care labor unions (*FMA*: the Finnish Medical Association, *TEHY*: the Union of Health and Social Care Professionals and *SuPer*: The Finnish Union of Practical Nurses), to which the great majority of Finnish physicians and nurses belong, invited their members to participate in our survey. In the *FMA* (the trade union representing physicians) the invitation was sent via e-mail to 3,000 in *TEHY* to 10,000 and in *SuPer* to 6,963 (the trade unions representing nurses) randomly sampled members' work e-mail addresses. A total of 4,311 physicians ($n = 604$) and nurses ($n = 3707$) working in the health care sector responded to our electronic questionnaire.

The overall response rate was low, only 20.4%. The invitation message did not reach all potential respondents, as many e-mail addresses were not valid/in use. Therefore the response rate given is only a rough (conservative) estimate. However, it is noteworthy that the membership rates of Finnish trade unions are generally high, ranging from 60 to 80 %, suggesting that our respondents do indeed represent the target population (physicians, nurses) relatively well despite a low response rate. Indeed, despite the relatively low response rate, the respondents represented the target population reasonably well in terms of gender and age (see more in Saarinen et al., 2015). The vast majority of the participants were female: 94% of nurses and 67% of physicians. The mean age of nurses was 47.7 years ($SD = 10.8$) and physicians 46.5 years ($SD = 11.2$). Of the nurses 6 per cent were working in managerial positions and of the physicians 27 per cent.

All participants were categorized into the following four age groups: 18-34 (Group 1, $n = 1,184$), 35-44 (Group 2, $n = 991$), 45-54 (Group 3, $n = 1,133$) and 55-65 (Group 4, $n = 783$) years old. All analyses were performed on the basis of these four age groups.

2.2. Measures

The present study examined *EL* as a specific stressor related to human factors at work. *EL* has been regarded as a multidimensional concept (Zapf et al., 1999, 2014). Here we used a two-dimensional operationalization of the phenomenon, focusing on two sub-scales, i.e. emotional dissonance and emotional sensitivity requirements at work. We selected these two dimensions of *EL* as in a large validation study (Zapf et al., 1999) they showed the most consistent relationships with several psychological outcomes also examined in the present study in a work context. This two-dimensional

scale has also been used in earlier Finnish studies (Mauno, Ruokolainen, Kinnunen, & De Bloom, 2015), showing a significant relationship with motivational work-related outcomes (work engagement).

Specifically, *emotional dissonance* refers to an employee's perception of a dissonance (or discrepancy) between real/true and expressed emotions, whereas *sensitivity requirements* refers to the degree to which an employee needs to be sensitive to the feelings of patients/customers (Zapf et al., 1999). Emotional dissonance (3 items; e.g., "Display emotions which do not correspond to inner feelings", "Requirements to suppress feelings") and sensitivity requirements (3 items; e.g., "Important to know what a patient feels", "Requirements to be sensitive to the feelings of customers") were scored on a scale ranging from 1 (rarely, never) to 5 (very often, always). The Cronbach's alpha for the EL scale (consisting the items of emotional dissonance and sensitivity requirements) was 0.61.

An employee's overall state of perceived *recovery from work* was examined as a buffering resource (moderator) in the present study. Specifically, recovery was measured with a single question about an individual's evaluation of his or her recovery status ("How well do you generally feel you recover from the strain caused by your job after the working day"), ranging from 1 (not at all) to 10 (completely). This question has been used earlier in Finnish studies and it has been shown to have good criterion validity, that is, to correlate, for example, with high need for recovery after work (see e.g., Kauppinen et al., 2012; Kinnunen, Siltaloppi, & Sonnentag, 2011). International studies have also successfully used a similar one-item-based assessment of recovery from work (Niks, Gevers, De Jonge, & Houtman, 2016; Windwood, Winefield, Dawson, & Lushington, 2005).

The present study focuses on motivational (job satisfaction, dedication to work) and performance-related (OCB) outcomes in the work context. *Job satisfaction* refers to a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences (see Locke, 1976) and it was measured with one item ("How satisfied do you generally feel about your current job") using a response scale from 1 (totally dissatisfied) to 10 (totally satisfied). It has been shown that job satisfaction can be measured reliably using one-item-based assessment (Wanous, Reichers, & Hurdy, 1997).

Dedication to work refers to a strong psychological involvement in one's work, combined with a sense of significance, enthusiasm, inspiration, pride, and challenge (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002). We measured dedication with a sub-scale from the Utrecht Work Engagement Scale (3 items; "I am proud of the work that I do") (Schaufeli et al., 2002). This particular sub-scale, with other sub-scales of work engagement, has been validated in Finland among various occupational

groups (Seppälä et al., 2009). The responses were given on a scale from 0 (never) to 6 (always, daily). The Cronbach's alpha for the dedication scale was 0.88.

OCB refers to an employee's extra-role performance at work, implying that (s)he is willing to do more at work than what is formally required in his/her job description, and that doing more is also voluntary (see Organ, 1988). We measured OCB on a scale developed by Lee and Allen (2002) and this particular scale proved to be a valid and reliable assessment of OCB in this original study. The version used in the present study included two sub-dimensions: OCB towards colleagues (e.g., "I am glad to help my colleagues with their job-related problems") and OCB towards one's organization (e.g., "I express new ideas to improve our organization"). Cronbach's alpha for the overall OCB scale was 0.74.

Correlations between the study variables are presented in Table 1. Age and EL showed a significant negative correlation ($r = -.07$, $p < .001$): younger employees reported higher EL. Recovery from work was negatively related to EL ($r = -.27$, $p < .001$): the higher the EL, the poorer was recovery from work. EL showed robust negative correlations with job satisfaction ($r = -.28$, $p < .001$) and dedication at work ($r = -.21$, $p < .001$): higher EL associated with lower job satisfaction and impaired dedication at work. However, EL was not significantly related to OCB ($r = .02$, ns). Recovery from work was significantly and robustly associated with all three outcomes: job satisfaction ($r = .55$, $p < .001$), dedication at work ($r = .43$, $p < .001$), and OCB ($r = .19$, $p < .001$).

-----Insert Table 1 about here-----

2.3. Statistical analyses

We started with an examination of age differences on the key variables (EL, recovery, job satisfaction, dedication, OCB). Specifically, we compared group means in these variables across four age groups (Group 1 = 18-34, Group 2 = 35-44, Group 3 = 45-54, Group 4 = 55-65 years old) with ANCOVAs. Covariates included occupational group (nurses/physicians), gender (1 = male, 2 = female) and supervisory / managerial position (1 = no, 2 = yes) as basic demographic factors. They were available in both samples of nurses and physicians. Paired comparisons between the four age groups were performed, using Bonferroni corrections to counteract the problem of multiple comparisons.

Direct (EL, recovery) and moderator relationships (EL \times recovery) in explaining work-related outcomes (job satisfaction, dedication, and OCB) were examined with moderated hierarchical regression analysis, which is the most common method for examining moderator effects using multiple

variables (Cohen, Cohen, West, & Aiken, 2003). Specifically, these analyses were computed separately for the four age groups to examine potential age differences in these relationships. We estimated separate regression models for the age groups instead of analyzing three-way interaction effects (EL \times recovery \times age) because we were also interested in examining age differences in the direct effects of EL and recovery on the outcomes studied. Furthermore, estimating three- (or more) way interaction effects often causes multicollinearity problems as lower level interactions should always be estimated before higher level interactions are entered into the model.

We estimated the regression models in the following way: In the first step, the background variables (occupational group, gender, and supervisory position) were added into the model to control for their effects. Background factors were followed by EL (Step 2), recovery from work (Step 3) and interaction terms between EL and recovery (EL \times recovery, Step 4). Before computing the interaction terms, the independent and moderator variables were standardized (Cohen et al., 2003). In the results section the standardized beta coefficients are reported from the step when the variables were entered into the model for the first time. Graphic representations of the significant two-way interactions were performed using the standardized beta coefficient from the final step of the model and drawing the regression lines for employees with high (1 *SD* above the mean) and low (1 *SD* below the mean) scores on the moderator variable (Cohen et al., 2003). Moreover, the significant interactions were examined in more detail by conducting a simple slope analysis.

3. Results

3.1. Descriptive results concerning mean comparisons in key variables across the age groups

Age groups differed in *EL* ($F = 8.96$, $df (3), 4404$, $p = .006$). Specifically, paired comparisons (Bonferroni) showed that the youngest age group (18-34 years $M = 3.42$, $SD = 0.50$) reported *EL* more often than did the two oldest age groups (44-54 years $M = 3.34$, $SD = 0.50$; $p < .001$; 55-65 years $M = 3.34$, $SD = 0.50$; $p < .001$). Differences between age groups were also found for *recovery from work* ($F = 2.68$, $df (3), 4415$, $p < .05$). However, paired comparisons did not confirm these differences as Bonferroni test did not reveal significant differences between the four age groups.

Concerning the outcomes, we found that both job satisfaction ($F = 23.96$, $df (3), 4386$, $p < .001$) and dedication ($F = 8.78$, $df (3), 4420$, $p < .001$) varied by age group. *Job satisfaction* increased with age and paired comparisons indicated that all four age groups differed significantly from each other (p -value ranging from .000 to .006). For example, the two oldest age groups reported higher job

satisfaction (45-54 years $M = 7.52$, $SD = 1.78$; 55-65 years $M = 7.80$, $SD = 1.66$) than the two youngest age groups (18-34 years $M = 7.29$, $SD = 1.65$; 35-45 years $M = 7.19$, $SD = 1.88$). *Dedication to work* also increased with age and paired comparison confirmed that all groups differed significantly from each other (p-value ranging from .000 to .037). For instance, the two oldest age groups reported higher level of dedication (45-54 years $M = 4.88$, $SD = 1.06$; 55-65 years $M = 4.90$, $SD = 1.07$) than did the two youngest age groups (18-34 years $M = 4.76$, $SD = 1.03$; 35-45 years $M = 4.70$, $SD = 1.20$). However, *OCB* showed no variation across the different age groups. To summarize, EL was more common among younger employees and job satisfaction and dedication at work among older employees.

3.2. Results of hierarchical regression analysis across the age groups

The results of the hierarchical regression analyses explaining job satisfaction, dedication, and OCB across the age groups are presented in Table 2. We found that *EL* was related to lower *job satisfaction* across all age groups but it explained more variance of job satisfaction in older (ΔR^2 8%) age groups than in the youngest age group (ΔR^2 2%). The strongest negative association between EL and job satisfaction was observed among the respondents who were 35-44 years old (ΔR^2 15%). Thus, the strength of the association between EL and job satisfaction was partly age-specific, yet significant in all age groups. EL was also associated with lower *dedication to work* across all age groups. Again, the negative relationship was stronger in the middle-aged groups (35-44 years ΔR^2 9% and 45-54 years ΔR^2 6%) than in the youngest (18-34 years, ΔR^2 1%) and oldest groups (55-65 years, ΔR^2 3%). However, we found that EL did not explain *OCB* in any age group, signifying that EL did not associate with OCB, the finding of which is consistent with the correlation coefficient (see Table 1).

-----Insert Table 2 about here-----

Recovery from work showed a direct positive relationship with all outcomes studied and across the age groups. Explanation rates for recovery varied by outcomes studied (ΔR^2 2–28%) and were highest for job satisfaction (ΔR^2 23–28%) and lowest for OCB (ΔR^2 2–4%). Thus, even though recovery was an important antecedent for job satisfaction, dedication at work, and OCB in all age groups it proved to be more relevant for certain work-related outcomes, particularly for job satisfaction (in terms of explanation rates).

The regression analysis also showed significant *moderation effects* of $EL \times$ *recovery from work* on job satisfaction ($\beta = 0.11$, $p < .001$), dedication at work ($\beta = 0.10$, $p < .001$) and OCB ($\beta = 0.08$, $p <$

.05) but only in one age group, namely among *early middle-aged* respondents (35-44 years old). According to the simple slope test, the negative relationship between EL and job satisfaction was stronger among employees reporting lower (-1 SD: $\beta = -0.26$, $p < .001$) than higher (+1 SD: $\beta = -0.09$, $p < .05$) recovery. Among early middle-aged employees, job satisfaction was significantly lower among employees under the condition of higher EL compared to lower EL. Nevertheless, the difference was more marked among those reporting lower recovery from work (see Figure 1).

-----Insert Figures 1-3 about here-----

Among early middle-aged employees, EL was also negatively related to dedication to work among the employees with lower level of recovery (-1 SD: $\beta = -0.22$, $p < .001$) but not among employees with higher level of recovery (+1 SD: $\beta = -0.08$, $p = .098$). Dedication to work was significantly lower among employees reporting lower level of recovery from work in a situation of higher EL compared to lower EL, whereas among employees with higher level of recovery dedication remained at about the same level despite the level of EL (see Figure 2).

Finally, the simple slope test confirmed that EL was positively associated with OCB among employees reporting higher level of higher recovery (+1 SD: $\beta = 0.11$, $p < .05$) but not among employees reporting lower level of recovery (-1 SD: $\beta = 0.02$, $p = .589$). This suggests that among early middle-aged employees reporting better recovery from work, OCB was higher when EL was high instead of low, whereas among employees reporting poorer recovery, OCB did not differ by the level of EI (see Figure 3).

Altogether, we may conclude that the age-specific analyses reported above produced detailed information as to in which age-group good recovery at work buffered against EL in relation to the work-related outcomes. In this study, the early middle-aged (35-44 years old) health care professionals benefited most from good recovery from work during off-job time: among them, good recovery served as a stress buffer against impaired job satisfaction, dedication to work, and OCB in the presence of high EL.

4. Discussion

We investigated whether the relationship between EL and three particular work-related outcomes (job satisfaction, dedication to work, and OCB), and between recovery from work and these outcomes varied by age. More importantly, we also analyzed whether recovery was a more beneficial coping resource in the presence of high EL for younger than for older employees. In addition, we also

compared the age groups in their mean levels of EL, recovery from work and the outcomes studied as no such comparison had so far been done. To the best of our knowledge, this is the first study to focus on the age-specific effects of EL on work-related outcomes paying particular attention to the protective role of recovery from work (i.e., as a buffer) in this stressor-outcomes relationship. The study was conducted among Finnish health care professionals ($n = 4, 311$) across four different age groups.

4.1. EL was a more common job stressor among younger employees

The mean comparison analyses showed that younger employees reported higher EL than did the older ones. It could be that younger employees' lack work experience and for this reason the high level of EL may come as a surprise, explaining its higher perceived prevalence among younger employees. Older employees, in turn, have more work experience and often also better stress management skills (see e.g., Aldwin, 1991; Diehl et al., 1996; Johnson et al., 2013; Mauno et al., 2013), implying less likely the perceptions of EL. Overall stress and coping research supports this reasoning by showing that coping skills (Aldwin, 1991) and emotion regulation (Gross 1998) develop and improve over the life course. Considering the implications of this finding, we suggest that younger (health care) employees may benefit from mentoring or training or support groups where older colleagues would share their work experiences and knowledge of successfully dealing with stressful work situations, also including social stressors (EL). Furthermore, managers and supervisors, particularly in health care work, should also be aware that younger employees may be most prone to experiencing EL at work.

4.2. Early middle-aged employees were more vulnerable to social stressors at work

Interestingly, even though younger employees reported higher level of EL than the older age groups, EL predicted job dissatisfaction and poorer dedication to work more strongly among the older than among the youngest respondents. EL was particularly harmful (in terms of job satisfaction and dedication) among the early middle-aged respondents (35-44 years old). These age-specific findings suggest that early middle-age in particular seems to be a vulnerable time of life to experience EL as stressful. One explanation for this age-specific finding could be that early middle-aged employees live in a double-burden situation as they often have a demanding family situation, e.g., small or school-aged children, in addition to work. Thus, early middle-aged employees very likely experience socio-emotional demands at home making them more vulnerable to such demands in other life domains (at work). Unfortunately, we were not able to examine the employees' family situations as this variable

was not included in our survey, which focused exclusively on work-related factors. Moreover, it is important to bear in mind that early middle-age can also be a pivotal period for career establishment and development (Demerouti, Peeters, & van der Heijden, 2012), thereby lending additional support to the double-burden hypothesis.

Consequently, it could be that early middle-aged employees lack resources as both work and family life are demanding and drain their mental resources. This may result in a resource loss spiral, theoretically grounded in the conservation of resources theory (COR theory, Hobfoll, 1989). Specifically, the COR theory proposes that resource losses are cumulative. Accordingly, a spiral of losses is expected to result in poorer health, well-being, and motivational outcomes. Our findings point to the conclusion that such resource losses may also be age-specific. This age-specific finding also has practical implications: early middle-aged employees in particular might benefit more from interventions that alleviate EL directly or help them to cope better with the demands of EL. One fruitful avenue in terms of coping and stress management would be to improve off-job recovery of this specific age group. In fact, in our study good recovery from work acted as a protective resource particularly among early middle-aged employees, and this finding is discussed next.

4.3. Recovery from work buffered against EL only among early middle-aged employees

We found that early middle-aged employees benefited more than the other age groups from good off-job recovery in a situation of high level of EL. Specifically, early middle-aged employees reported higher job satisfaction, dedication to work and OCB if they experienced good recovery from work in a high stress (high EL) situation. Thus, good recovery protected early-middle aged employees against the detrimental effects of high EL on the studied work-related outcomes. The reasons for this particular finding may be in the double-burden hypothesis discussed above. Specifically, viewed in the light of the COR theory (Hobfoll, 1989), it could be argued that good off-job recovery allows employees to replenish their resources during free time, which then helps them to cope with stressors at work (e.g., Kinnunen et al., 2010; Sonnentag & Fritz, 2015), including social/emotional stressors (EL).

Altogether, these results suggest that early middle-aged employees might benefit from activities and strategies conducive to good recovery from work stress. In this respect, recovery research has shown that psychological detachment (detaching mentally from work while not working) is a beneficial recovery strategy associated with many positive health and motivational outcomes (for a review see Sonnentag & Fritz, 2015). Maybe such mental detachment is even more important if social stressors,

e.g., EL, are present at work as social stressors may often have severe consequences for an employee (see e.g., Johnson et al., 2013; Zapf et al., 2014).

However, despite the age-specific findings of this study, it is also good to recall that good recovery from work during off-job time was positively related to each work-related outcome across all age groups, proposing that recovery was a beneficial resource for all employees, not only for a particular age group. This finding underlines the positive effects of good off-job recovery for all employees. Recovery is acknowledged to be a key factor in maintaining good occupational health in today's turbulent and demanding work circumstances (see e.g., De Bloom, Kinnunen, & Korpela, 2015; Sonnentag & Fritz, 2015) and our findings are consistent with this reasoning.

4.4. Methodological considerations and limitations

The present study has few notable *limitations*. First, the design was cross-sectional, allowing no causal interferences between the phenomena, an issue which calls for longitudinal studies. In addition, all information was collected via a self-report survey, which is sensitive to common method variance bias. However, not all correlations between the key phenomena were high, suggesting that the common method variance issue was not a big problem (see also Podsakoff et al., 2003; Spector, 2006). In addition to these methodological limitations, our study has three content-related limitations. First, it does not answer the question *why* good recovery from work is more important, and particularly in the presence of EL, in early middle-age. Maybe the reasons lie in family factors as discussed above. As our data did not include family variables (e.g., children, perceived home demands) this question deserves more attention in future research. A related point is that age as such may not account for the age-specific associations found in the present study, but that these linkages are probably mediated by certain psychosocial factors connected to age(ing), e.g., changes in coping skills or mental resources over the life course. Therefore future studies should seek to identify those psychosocial mechanisms and processes behind the age-specific findings between job stressors and employee outcomes (EL as well as other stressors). Second, it would also be important to investigate whether our findings are generalizable across occupational groups or across different countries/cultures as we sampled only one field only (health care) in one country. Third, future studies could also explore which recovery activities (e.g., physical exercise) and experiences (e.g., psychological detachment from work) are particularly beneficial in early middle-age as we did not measure such detailed aspects of recovery.

4.5. Conclusions

The present study is the first study to ascertain the age-specific relationships between EL, recovery from work, and work-related outcomes, showing that these associations may partly be age-specific. We found that particularly early middle-age (35-44 years) seems to be a vulnerable time of life to experience EL as stressful. Good recovery from work might constitute one critical buffering resource for this age group. Early middle-aged employees might benefit from activities and strategies conducive to good recovery from work stress (e.g., psychological detachment from work during free time) especially if they experience interpersonal stress (EL) at work.

4.6. Highlights

- Emotional labor is a common job stressor among health care professionals and therefore more research evidence is needed concerning its buffers.
- Age-specific knowledge regarding the buffers of different job stressors is needed as health care professionals in industrialized countries are aging.
- The results showed that recovery from work buffering against emotional labor was age-specific: among early middle-aged health care professionals good off-job recovery served as a stress buffer against impaired job satisfaction, dedication to work, and organizational citizenship behavior, if employees experienced high emotional labor.
- Good recovery from work should be encouraged, particularly among early middle-aged health care professionals as a stress relieving coping resource.
- Psychological detachment from work while not working is one of the best off-job recovery strategies and should be encouraged among health care professionals.

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Table 1. Correlations (Pearson) between the study variables.

Measures	1	2	3	4	5	6	7	8	9
1. Age (in years)	-								
2. Occupational group (physicians/nurses)	.04*	-							
3. Gender (women/men)	-.02	-.32***	-						
4. Supervisor position (no/yes)	.13***	-.26***	.15***	-					
5. Emotional labor (EL)	-.07***	.04*	-.04**	-.05***	-				
6. Recovery from work (RE)	.01	-.06***	.05***	.06***	-.27***	-			
7. EL x RE	.01	-.02	.03	-.01	-.19***	.18***	-		
8. Job satisfaction	.12***	.04**	-.01	.08***	-.28***	.55***	.14***	-	
9. Dedication to work	.06***	-.01	-.03*	.04*	-.21***	.43***	.11***	.68***	-
10. OCB	.02	.02	-.01	.20***	.02	.19***	-.01	.26***	.36***

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Table 2. Results of regression analyses explaining job satisfaction, dedication to work, and OCB across four age groups.

Predictors	Job Satisfaction				Dedication to work				Org. Citizenship Behavior / OCB			
	18-34	35-44	45-54	55-65	18-34	35-44	45-54	55-65	18-34	35-44	45-54	55-65
Age groups (years)	18-34	35-44	45-54	55-65	18-34	35-44	45-54	55-65	18-34	35-44	45-54	55-65
n (in each age group)	1044	850	961	641	1050	853	966	647	1050	853	965	648
Step 1: controls ΔR^2	.005	<u>.014</u>	<u>.009</u>	<u>.017</u>	.003	.009	<u>.010</u>	.009	.055	.025	.072	.055
Step 2 β : EL	-.140	-.390	-.280	-.290	-.094	-.310	-.240	-.160	.030	-.020	.030	.010
ΔR^2	.021	.153	.077	.082	.009	.092	.058	.027	.001	.000	.001	.000
Step 3 β : RE	.530	.560	.490	.520	.360	.450	.390	.402	.150	.200	.200	.210
ΔR^2	.260	.279	.226	.244	.121	.184	.141	.147	.022	.035	.037	.042
Step 4 β : EL \times RE	-.001	.110	.001	-.013	.021	.100	.050	-.050	-.050	<u>.080</u>	-.030	-.060
ΔR^2	.000	.011	.000	.000	.000	.009	.002	.002	.002	<u>.005</u>	.001	.004

Note. EL = emotional labor; RE = recovery from work; ΔR^2 = change in explanation rate in each step.

Underlined standardized β -coefficients/ ΔR^2 $p \leq .05$. **Bolded** standardized β -coefficients/ ΔR^2 $p \leq .001$.

For Step 1 concerning control variables (physicians/nurses, gender, supervisory position) only ΔR^2 are shown.

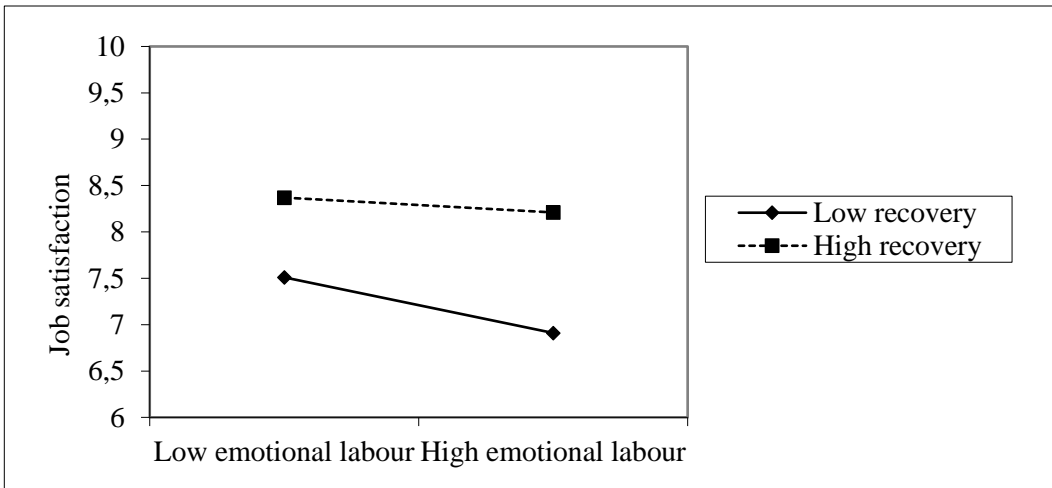


Figure 1. Recovery from work as a buffer between EL and job satisfaction: employees aged 35-44.

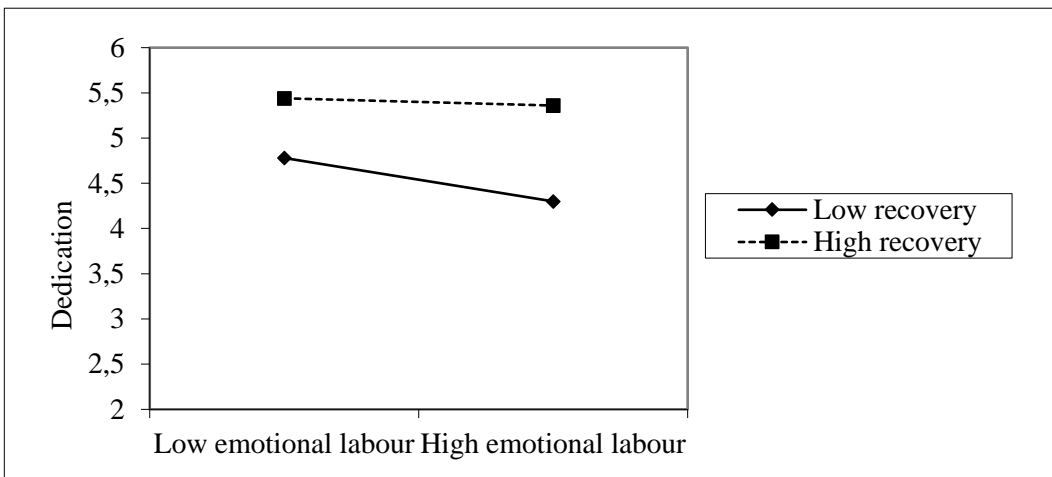


Figure 2. Recovery from work as a buffer between EL and dedication to work: employees aged 35-44.

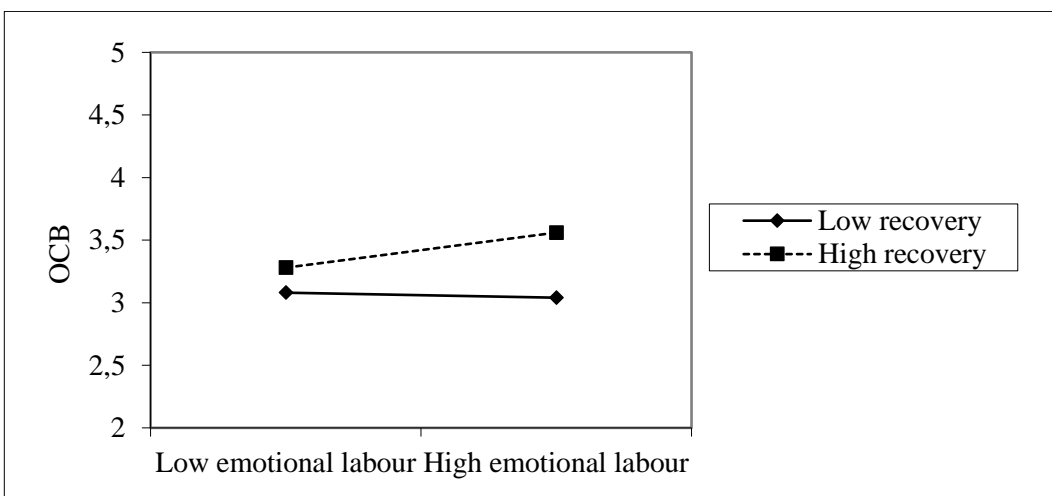


Figure 3. Recovery from work as a buffer between EL and OCB: employees aged 35-44.