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Published in:
Work, Aging and Retirement

DOI:
[10.1093/workar/wav007](https://doi.org/10.1093/workar/wav007)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2015

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Scheibe, S., Stamov-Roßnagel, C., & Zacher, H. (2015). Links between emotional job demands and occupational well-being: Age differences depend on type of demand. *Work, Aging and Retirement*, 1(3), 254-265. <https://doi.org/10.1093/workar/wav007>

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Links Between Emotional Job Demands and Occupational Well-being: Age Differences Depend on Type of Demand

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ABSTRACT

In the growing health care sector, meeting emotional job demands is crucial to organizational outcomes but may negatively affect employees' well-being. Drawing on the emotional aging literature, we predicted that two common emotional job demands, display demands (expressing positive, negative, and neutral emotions toward clients) and sensitivity demands (knowing what the client is feeling), affect older health care workers' occupational well-being differently than young workers, as indicated by their job satisfaction and need for recovery. Survey data from employees of senior care homes ($N = 141$, aged between 17 and 62 years) confirmed the moderating role of age for links between emotional job demands and occupational well-being indicators. Emotional display demands were generally positively associated with emotional dissonance; however, the association between demands to display neutral emotions and emotional dissonance was stronger among young compared with older employees. In contrast, among older but not young employees, emotional dissonance was negatively associated with job satisfaction, and emotional sensitivity demands were positively associated with need for recovery. These findings suggest that age may confer both advantages (facing neutral display demands) and vulnerabilities (facing emotional dissonance and sensitivity demands) in managing emotional job demands.

Emotional job demands arising from interactions with clients, customers, or patients are part of many, if not most, contemporary jobs (Glomb, Kammeyer-Mueller, & Rotundo, 2004). For example, in the growing health care sector, employees are required to display certain emotions (Hochschild, 1983), recognize patients' emotions and react empathically (Zapf & Holz, 2006), and adequately cope with human suffering or occasional mistreatment by patients and their families (Roche, Diers, Duffield, & Catling-Paull, 2010). For organizations, employees' fulfillment of emotional job demands is necessary for organizational success (Morris & Feldman, 1996). For employees, emotional job demands have consequences for occupational well-being and health. Research has demonstrated that emotional display demands often lead to feelings of inauthenticity and exhaust self-regulatory resources, which negatively affect employees' well-being (Hülshager & Schewe, 2011). Yet, not every employee is equally affected by emotional job demands (Judge, Woolf, & Hurst, 2009).

As so far largely unexplored individual difference characteristic linking emotional job demands and occupational well-being is employee age. Due to demographic changes, the average age of the workforce is steadily rising in industrialized countries and, thus, jobs with high

emotional demands are increasingly carried out by older employees (Hedge & Borman, 2012). The aging of the population further leads to an expansion of the service and health care sector, in which high emotional demands are placed on employees (Glomb et al., 2004). Such changes in workforce composition and the economy render attention to the role of age in the occupational stress and well-being process timely and important (Ng & Feldman, 2013; Scheibe & Zacher, 2013; Zacher, 2015). The goal of the current study was to shed light on the question whether emotional job demands affect older employees differently than young employees. Specifically, we examined whether two types of emotional job demands, emotional display demands (the requirement to display positive, negative, and neutral emotions toward clients) and emotional sensitivity demands (the requirement to sense clients' emotions), are differentially related to experiences of emotional dissonance and occupational well-being as a function of employee age.

The hypothesized relationships are summarized in Figure 1. The model is largely based on Zapf and Holz (2006) and extended by adding age as a moderator. We examined two indicators of occupational well-being. *Job satisfaction* is defined as employees' positive evaluation of their job experiences (Weiss, 2002). *Need for recovery* describes the

Figure 1. Conceptual model and hypothesized relationships (based on Zapf & Holz, 2006).

desire to unwind and “recharge batteries” when returning home after work and represents an early sign that employees develop long-term strain reactions (Sonnentag & Zijlstra, 2006).

Age, Emotional Display Demands, and Occupational Well-Being

Probably the most widely studied emotional job demand is *emotional labor*, defined as the requirement to adjust emotional expressions to organizational display rules (Diefendorff & Gosserand, 2003; Grandey, 2000; Hochschild, 1983). Many jobs that involve interactions with external relations require the display of positive emotions to enhance customer satisfaction (e.g., sales clerks; Pugh, 2001) and (less often) the display of negative emotions to influence others (e.g., police officers; Rafaeli & Sutton, 1991). Some occupations also require employees to refrain from both positive or negative emotional displays and show neutral expressions in order to appear competent or to not unduly influence others (e.g., legal professionals; Trougakos, Jackson, & Beal, 2011). Employees do not always feel the emotions that they need to express in a given workplace situation. When dealing with a patient who is impatient or makes unreasonable requests, caretakers may find it difficult to uphold a friendly expression. When confronting human suffering, they may find it difficult to appear positive or neutral and not let their grief show. Depending on their actual emotional experience and emotional abilities, adhering to emotional display rules can therefore create varying degrees of *emotional dissonance*, the experienced discrepancy between which emotions employees feel and which emotions they are required to display toward others (also called emotion-rule dissonance; Morris & Feldman, 1996). Emotional dissonance is a form of person-role conflict where the need to be authentic conflicts with the requirement to act professionally (Rafaeli & Sutton, 1987).

Engaging in emotional labor frequently and for long hours will likely challenge and eventually overtax employees' ability to show the required emotions (Morris & Feldman, 1996). In several samples of human service workers, Zapf and colleagues (Zapf & Holz, 2006; Zapf, Vogt, Seifert, Mertini, & Isic, 1999) found that the requirements to frequently show positive and negative emotions were positively

associated with emotional dissonance. Moreover, [Trougakos and colleagues \(2011\)](#) showed in an experimental study that when participants were given neutral display instructions, they tended to engage in surface acting, which suggests a high degree of experienced emotional dissonance ([Diefendorff, Croyle, & Gosserand, 2005](#)). In the current study, we expected to replicate the link between display demands and emotional dissonance. The more often the work context demands the display of particular types of emotions—and thus limits the free expression of felt emotions—the more likely employees should experience emotional dissonance.

Hypothesis 1: (a) Positive, (b) negative, and (c) neutral display demands are positively related to emotional dissonance.

Research in lifespan psychology suggests that age is associated with normative changes in emotional experience and emotional abilities that are relevant to fulfilling emotional job demands (Charles, 2010; Scheibe & Zacher, 2013). Contrary to common beliefs that older workers have lower emotional resilience than young workers (Rauschenbach, Göritz, & Hertel, 2012), a large body of research demonstrates that older adults on average enjoy higher levels of well-being and higher emotional stability than their younger counterparts (Morgan & Scheibe, 2014; Roberts, Walton, & Viechtbauer, 2006). Consistently, meta-analytic data from employee samples revealed that age is positively related with job satisfaction and negatively with emotional exhaustion and role overload (Ng & Feldman, 2010).

Two common explanations for these positive age-related trends in well-being are that older adults are more motivated to, and are more effective at, regulating emotional experience (Scheibe & Carstensen, 2010). According to socioemotional selectivity theory (SST), people's sense of remaining lifetime determines their goals (Carstensen, 2006). When the future is perceived as open-ended, as is typical in young age, people prioritize future-oriented goals focused on learning and development. In contrast, when the future is perceived as close-ended, as is typical in older age, people prioritize present-oriented goals focused on emotional well-being and satisfaction (Carstensen, Isaacowitz, & Charles, 1999). Accordingly, older adults are presumably more motivated than young adults to avoid experiencing negative emotions or dissolve them quickly. For example, older adults were found to display a "positivity effect" in attention, memory, and decision making (Reed & Carstensen, 2012) and to report more hedonic motivation than young adults in everyday life (Riediger, Schmiedek, Wagner, & Lindenberger, 2009).

In addition to motivational shifts, older adults' long-term experience with emotionally laden situations throughout life may make them more effective and efficient in regulating their emotional experience (Morgan & Scheibe, 2014). Older adults report that they can control emotions more easily than young adults (Gross et al., 1997; Kessler & Staudinger, 2009), choose more often emotion regulation strategies that effectively down-regulate negative emotions (Blanchard-Fields, Mienaltowski, & Seay, 2007), and can implement many (though not all) regulatory strategies equally or more effectively (Phillips, Henry, Hosie, & Milne, 2008; Shiota & Levenson, 2009) and with less mental effort in laboratory contexts (Emery & Hess, 2008; Scheibe & Blanchard-Fields, 2009).

In field studies, older service workers, compared to young workers, report using emotional labor strategies associated with less emotional dissonance; specifically they report using more naturally felt emotions, more deep acting, and less surface acting (Cheung & Tang, 2010; Dahling & Perez, 2010). There is further evidence from laboratory studies that older adults are as effective as young adults in implementing strategies aimed at modifying emotional displays when instructed to do so (Kunzmann, Kupperbusch, & Levenson, 2005; Shiota & Levenson, 2009). For example, Kunzmann and colleagues (2005) asked young and older adults to either suppress or amplify facial expressions while watching disgust-evoking film clips and found no age differences in self-reported, physiological, and behavioral indicators of the emotional response. However, older adults' unregulated emotional reactivity to the disgust clips was lower than that of young adults, suggesting that negative emotion suppression was easier and amplification more difficult for the older adults. This finding converges with other research showing that older adults react less strongly physiologically to negative stimuli than young adults, presumably because biological changes inhibit the emotion-generative process (Mather, 2012).

Taken together, older adults' higher trait positive affectivity and stronger motivational orientation to avoid negativity suggest that older employees should experience less emotional dissonance than young employees when having to display organizationally required positive emotions in work interactions. Additionally, in the midst of negative client interactions, older adults' lower negative reactivity and stronger emotion regulation abilities may make it easier to stay emotionally neutral. The same age-related changes may, however, increase emotional dissonance when having to display negative emotions.

Hypothesis 2: Age moderates the positive relationships of emotional display demands with emotional dissonance. The relationships will be weaker for older compared to young employees in case of (a) positive and (b) neutral display demands, and stronger in case of (c) negative display demands.

The accumulation of emotional dissonance experiences creates a threat to occupational well-being. This is because emotional dissonance often requires inauthentic emotion display to fulfill display demands, which is perceived as unpleasant (Erickson & Wharton, 1997). Emotional dissonance further enhances the need to use surface acting in order to align felt and required emotions, which is cognitively effortful (Diefendorff et al., 2005). Numerous studies showed that emotional dissonance leads to short-term strain, exhaust self-regulatory resources, and diminishes employees' occupational well-being (Hülshager & Schewe, 2011).

So far, however, it is unclear whether emotional dissonance impacts older employees in the same way as young employees. While older employees on average may be more successful than young employees in avoiding emotional dissonance when having to display positive or neutral emotions (though not when having to display negative emotions), emotional dissonance cannot always be avoided. When being mistreated by a client, for example, nearly everyone will experience a disconnect between inner feelings and the required outward display. Frequent experiences of emotional dissonance may diminish older

employees' job satisfaction more than is the case for young employees. Job satisfaction is driven by the positive evaluation that the job supplies experiences in line with employees' goals (Kristof-Brown, Zimmerman, & Johnson et al., 2005), yet goals are hypothesized to differ systematically by age. According to SST, older adults, compared with young adults, prioritize goals related to momentary emotional well-being (Carstensen, 2006). Emotional dissonance experiences are incompatible with emotional well-being goals, therefore such experiences should dampen older adults' job satisfaction more than is the case for young adults. In fact, two recent studies showed that older employees' job satisfaction is more strongly diminished in face of unpleasant work conditions than that of young adults (Krumm, Grube, & Hertel, 2013; Tenhiälä et al., 2013).

We do not necessarily expect age to moderate the relationship of emotional dissonance with need for recovery. Need for recovery indicates the amount of energy depletion from behaviors shown to meet job demands (Sonnentag & Zijlstra, 2006). In line with the literature, we expect that employees who experience emotional dissonance will use resource-intensive surface acting strategies such as suppression to nevertheless show the required emotion, which would exhaust their energetic resources and enhance their need for recovery after work. Prior studies have shown no systematic age differences in the effectiveness of suppression in laboratory studies (Kunzmann et al., 2005; Phillips et al., 2008; Shiota & Levenson, 2009) or in worker samples (Bal & Smit, 2012; Yeung & Fung, 2012). Consequently, we assume that frequent experiences of emotional dissonance should be equally resource-depleting for young and older employees, and should lead to an enhanced need for recovery in employees of all ages.

Hypothesis 3: Emotional dissonance is (a) negatively related to job satisfaction and (b) positively related to need for recovery.

Hypothesis 4: Age moderates the relationship of emotional dissonance with job satisfaction (but not with need for recovery) such that the relationship is stronger among older than young employees.

Age, Emotional Sensitivity Demands, and Occupational Well-Being

Another emotional job demand that has received relatively little research attention is *emotional sensitivity demands*, or the requirement to sense the interaction partner's emotions (Parker & Axtell, 2001; Zapf et al., 1999). Being sensitive to and accurately perceiving what the client or patient is feeling are necessary conditions for providing effective service or care, and to guide one's own emotion display (Bechtoldt, Rohmann, De Pater, & Beersma, 2011; Joseph & Newman, 2010). Fulfilling emotional sensitivity demands may not necessarily lead to psychological strain. Zapf and Holz (2006) argued that sensitivity requirements, if successfully met, will enhance employees' sense of personal accomplishment and self-efficacy and lead to spirals of positive feelings between interaction partners.

Similarly to regulating emotions, identifying others' emotions requires cognitive resources to process and integrate emotional cues from the other person's face, voice, and behavior as well as situational cues (Adolphs, 2002). Moreover, evaluating another's perspective

requires cognitive control to actively inhibit the self-perspective, which is the “default mode” according to Decety and Jackson (2004). Fulfilling sensitivity requirements frequently and for long hours will likely challenge and eventually exhaust human service workers’ cognitive resources, enhancing their need for recovery after work. Consequently, the frequent fulfillment of emotional sensitivity demands may leave workers feeling simultaneously satisfied and exhausted. In line with the assumption that sensitivity demands have positive consequences for some aspects of occupational well-being and negative consequences for other aspects of well-being, Zapf and colleagues (1999) and Zapf and Holz (2006) found that requirements to frequently sense clients’ emotions were associated with a higher sense of personal accomplishment but also with higher levels of emotional exhaustion. Thus, emotional sensitivity demands tend to show divergent associations with occupational well-being indicators, depending on the type of indicator under consideration (positive job-related experiences vs. exhaustion).

Hypothesis 5: Emotional sensitivity demands are positively related to (a) job satisfaction and (b) need for recovery.

Finally, we also expected that age moderates the association between emotional sensitivity demands and occupational well-being. A variety of laboratory studies has examined age differences in the accurate perception of emotions in others. Although there is an ongoing debate about whether the material used represents well the complexity of emotional expressions encountered in real life (Isaacowitz & Stanley, 2011), the predominant finding is that older adults tend to perform lower than young adults on tasks testing the identification of both basic emotions from facial, lexical, and vocal stimuli (Ruffman, Henry, Livingstone, & Phillips, 2008) and complex emotions in theory of mind tasks (where participants read brief stories and infer the thoughts and emotions of the protagonists; Henry, Phillips, Ruffman, & Bailey, 2013). Studies on cognitive empathy also demonstrate that accuracy in perceiving others’ emotions declines with age, although this was not found for emotional empathy, the degree of sharing another person’s emotion (Richter & Kunzmann, 2011).

Two potential explanations for lower emotion perception accuracy with age are that older adults are less motivated than young adults to perceive negative emotions in others (Kellough & Knight, 2012), and that age-related neuropsychological changes make emotion perception more difficult at higher age (Ruffman et al., 2008). In the health care context, clients’ emotions will often (though not exclusively) be negative, such as when grappling with loss of control, fear of dying, or loneliness. In line with motivational shifts postulated by SST and the positivity effect (Reed & Carstensen, 2012), older employees should be motivated to avoid processing negative client emotions. Additionally, older adults’ difficulty with recognizing emotions, especially anger and sadness, has been attributed to age-related change in the neural systems underlying effective emotion recognition (Ruffman et al., 2008). These considerations suggest that older employees may find it more aversive and more difficult than young employees to fulfill frequent sensitivity demands. Therefore, they may be less successful at, and may have to invest more cognitive effort into, being sensitive, which might in turn lower their satisfaction and increase mental exhaustion.

Hypothesis 6: Age moderates the relationships between emotional sensitivity demands and indicators of occupational well-being such that (a) the positive relationships with job satisfaction is weaker, and (b) the positive relationship with need for recovery is stronger among older than young employees.

In sum, research in lifespan psychology suggests that aging is associated with changes in emotional factors relevant to fulfill emotional job demands, including both improvements in emotion regulation and affect, as well as decreases in emotion perception accuracy (Charles & Carstensen, 2010; Ruffman et al., 2008; Scheibe & Carstensen, 2010). Based on these age-related differences in emotionality, we expected that age differences in the links between emotional job demands and occupational well-being differ by type of emotional demand. Older employees should find it easier than young employees to fulfill positive and neutral display demands, but more difficult to fulfill negative display and sensitivity demands. Additionally, we expected emotional dissonance—when it cannot be avoided—to more strongly diminish older than young employees’ job satisfaction. To test hypotheses, we conducted a survey study among employees of senior care homes, an occupational group characterized by high emotional job demands (Glomb et al., 2004).

METHOD

Participants

The sample comprised 146 employees of an organization operating senior care homes throughout Germany. We excluded five participants with extensive missing data from the analyses. The effective sample ($N = 141$) ranged in age from 17 to 62 years ($M = 42.6$, $SD = 11.65$; 81% female). Of the sample, 20% were aged 17–29 years, 21% were aged 30–39 years, 23% were aged 40–49 years, and 36% were aged 50–62 years. Participants were recruited from all departments of the organization and included certified nurses, senior caretakers, interns, and support staff; all had daily client contact and 37% held supervisory positions. Of the sample, 15% held a German general school degree, 53% held a middle school degree, 23% held a high school degree, and 9% held a university degree. Participants had an average organizational tenure of 6.4 years ($SD = 6.0$), worked on average 7.8 hr ($SD = 3.6$) per day, and had on average 5.4 hr ($SD = 4.7$) per day of client contact. As incentive for participation, participants received individual feedback about their emotion regulation profile, which was retrievable online via a self-generated code, and had the chance to win one of three restaurant vouchers worth 100€.

Procedure

All retirement homes that had decided to participate ($n = 16$) were visited by one of two experimenters. In group sessions, employees were informed about the study and given the option to complete a paper-and-pencil questionnaire and sign up for an individual session (not included in the current report). In total, approximately 450 employees received information about the study during group sessions, resulting in a return rate of ca. 32%. The questionnaire contained demographic questions and measures of emotional job demands and occupational well-being. Participants could choose

to either complete the questionnaire directly in the group session with the experimenter present, or take it home to complete later. A small number of participants ($n = 4$) completed the questionnaire online. Completion of the questionnaire required approximately 1 hr.

Measures

Emotional job demands

We measured positive, negative, and neutral display demands as well as emotional sensitivity demands using four shortened subscales of the Frankfurt Emotion Work Scales (FEWS; Zapf et al., 1999). *Positive display demands* were assessed with three items ($\alpha = .59$). An example item is “How often in your job do you have to display pleasant emotions towards clients (e.g., friendliness or sympathy)?” *Negative display demands* were assessed with four items ($\alpha = .73$; “How often in your job do you have to display unpleasant emotions towards clients (e.g., impatience or anger if rules are not followed)?”). *Neutral display demands* were assessed with three items ($\alpha = .62$; “How often in your job do you have to display a neutral or impartial mood towards clients?”). Finally, *emotional sensitivity demands* were also assessed with three items ($\alpha = .77$; “How often is it of importance in your job to know how the clients are feeling at the moment?”). Participants provided their responses on 5-point scales ranging from 1 (*very rarely/never*) to 5 (*very often/several times per hour*). In their scale development and validation study, Zapf and colleagues (1999) conducted factor analyses using data from three different samples and provided evidence for the discriminant validity and criterion-related validity of the scales. For instance, positive and negative display demands were positively correlated with emotional dissonance, emotional exhaustion, and depersonalization, and emotional sensitivity demands were positively related to irritation and psychosomatic complaints (Zapf et al., 1999; for similar findings see also Zapf & Holz, 2006; Zapf, Seifert, Schmutte, Mertini, & Holz, 2001).

Emotional dissonance

We measured emotional dissonance with four items also from the FEWS (Zapf et al., 1999; $\alpha = .87$; “How often in your job do you have to display emotions that do not agree with your true feelings?”). Zapf and colleagues (1999) provided evidence for the criterion-related validity of this scale by showing that it strongly positively predicted emotional exhaustion, depersonalization, irritation, and psychosomatic complaints (for similar results, see also Dormann & Zapf, 2004; Zapf & Holz, 2006; Zapf et al., 2001). Moreover, Zapf, Isic, Bechtoldt, and Blau (2003) showed that customer service representatives in call centers experienced higher levels of emotional dissonance compared with other workers.

We examined the factor structure of the five predictor variables in our model (the four emotional job demands and the mediator variable emotional dissonance) by means of confirmatory factor analysis. A five-factor model, $\chi^2 = 227.89$, $df = 109$, $p < .001$, CFI = .85, RMSEA = .09 (90% confidence interval [CI]: .07, .10) showed a better fit than a one-factor model, $\chi^2 = 501.85$, $df = 119$, $p < .001$, CFI = .53, and RMSEA = .15 (CI: .14, .17); $\Delta\chi^2 = 273.96$, $df = 10$, $p < .001$. Although fit indices for the five-factor model were somewhat below established standards (and 3 out of 17 standardized factor loadings were below .50), the model comparison supports the utility of distinguishing five factors in further analyses.

Job satisfaction

We assessed overall job satisfaction with a single item: “Please indicate how satisfied you have been with your work during the last 4 weeks.” Previous research suggested that single-item measures of overall job satisfaction are highly correlated with multi-item overall job satisfaction scales (Wanous, Reichers, & Hudy, 1997). Participants provided their responses on a 7-item scale ranging from 1 (*very dissatisfied*) to 7 (*very satisfied*).

Need for recovery

We measured need for recovery with 11 items from a scale developed by van Veldhoven and Broersen (2003), translated into German by Sonnentag, Kuttler, and Fritz (2010). An example item is “By the end of the working day, I feel really worn out” ($\alpha = .86$). Participants were asked to indicate how they general feel at the end of their work day; responses were provided on a 7-item scale ranging from 1 (*never*) to 7 (*always*). van Veldhoven and Broersen (2003) and Sonnentag and colleagues (2010) provided evidence for the validity of the scale by showing that it was moderately to strongly positively correlated with workload, emotional dissonance, and emotional exhaustion.

Demographic variables

We computed participants' chronological age based on their year of birth. We accounted for participants' gender in the analyses, to account for the unequal gender distribution and because previous research has suggested gender differences in emotionality (Labouvie-Vief, Lumley, Jain, & Heinze, 2003). Moreover, we accounted for participants' occupational tenure (i.e., how many years they have worked in general), their organizational tenure (i.e., how many years they have worked in the current organization), and their job tenure (i.e., how many years they have worked in the current function). We note that very similar patterns of results emerged when gender and tenure variables were not included in analyses.

Statistical Analyses

Hypotheses 1, 3, and 5 are direct effect hypotheses, while Hypotheses 2, 4, and 6 are moderation hypotheses. Moreover, in combination, Hypotheses 1–4 suggest conditional indirect effects, whereby display demands interact with age in predicting emotional dissonance, which, in turn, interacts with age in predicting employee outcomes. We used the PROCESS macro (Hayes, 2012) to test the hypothesized direct and moderated effects, as well as the conditional indirect effects on each of the two well-being outcomes. PROCESS uses bootstrapped CIs to test the indirect effects for significance at different values of the moderator (i.e., age). Note that we entered display demands and sensitivity demands simultaneously as predictors in the regression analyses in order to test, consistent with our conceptual model (Figure 1), whether their effects on employee outcomes are direct, or mediated by emotional dissonance. The results were very similar when we examined display demands and sensitivity demands in separate analyses.

RESULTS

Preliminary Analyses

Table 1 shows the descriptive statistics and correlations of variables. Age, gender, and the tenure variables were not significantly related to any of the other variables. Emotional job demands and emotional dissonance

Table 1. Means (M), Standard Deviations (SD), and Correlations of Variables

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Age	42.57	11.65	—											
2. Occupational tenure	21.55	12.91	.88	—										
3. Organizational tenure	6.39	6.04	.43	.35	—									
4. Job tenure	4.89	5.53	.27	.23	.50	—								
5. Gender	0.81	0.39	.20	.19	.15	.09	—							
6. Positive display demands	3.95	0.75	.11	.11	.15	.12	-.02	(.59)						
7. Negative display demands	1.80	0.69	-.13	-.16	-.02	-.01	-.07	.09	(.73)					
8. Neutral display demands	3.26	0.79	-.01	.04	-.06	.01	.02	.35	.36	(.62)				
9. Emotional sensitivity demands	4.24	0.66	.12	.07	.02	-.01	.06	.44	.00	.17	(.77)			
10. Emotional dissonance	3.03	0.99	-.01	-.00	.00	-.03	-.03	.45	.28	.37	.26	(.87)		
11. Job satisfaction	4.70	1.37	.06	.05	-.09	.05	-.09	.02	-.12	.07	.01	-.12	—	
12. Need for recovery	3.45	1.02	.03	.02	.12	.14	.00	.19	.19	.17	.14	.20	-.35	(.86)

Note. $N = 141$. Reliability estimates (α), where available, are shown in parentheses along the diagonal. Significant correlations are highlighted in bold ($p < .05$).

were not significantly related to job satisfaction, but positive and negative display demands (both $r_s = .19$, $p_s = .026$) and emotional dissonance ($r = .20$, $p = .018$) correlated positively with need for recovery.

Predicting Emotional Dissonance

Table 2 shows the results of a regression analysis predicting emotional dissonance; all predictor variables were z -standardized. According to Hypotheses 1a, 1b, and 1c, the three emotional display demands positively predict emotional dissonance. All three hypotheses were supported, as emotional dissonance was positively predicted by positive display demands ($B = .36$, $p < .001$), negative display demands ($B = .16$, $p = .049$), and neutral display demands ($B = .23$, $p = .008$).

According to Hypotheses 2a, 2b, and 2c, age moderates the positive relationships between the three emotional display demands and emotional dissonance, such that the relationship will be weaker for older relative to young employees in case of positive and neutral display demands, and stronger in case of negative display demands. As shown in Table 2, only the interaction between neutral display demands and age was significant ($B = -.21$, $p = .009$). We further probed this significant interaction effect by regressing emotional dissonance on neutral display demands at low (i.e., -1 SD) and high (i.e., $+1$ SD) values of age. This simple slopes analysis and the interaction plot in Figure 2 showed that neutral display demands were positively and significantly related to emotional dissonance among young employees ($\beta = .44$, $p = .001$) but unrelated among older employees ($\beta = .01$, $p = .899$). Thus, Hypothesis 2b was supported, whereas Hypotheses 2a and 2c were not supported.

Predicting Occupational Well-Being

Table 3 shows the results of two regression analyses predicting job satisfaction and need for recovery. Hypotheses 3a predicts a negative relationship between emotional dissonance and job satisfaction and Hypothesis 3b predicts a positive relationship between emotional dissonance and need for recovery. As shown in Table 3, neither Hypothesis 3a nor Hypothesis 3b received support: emotional dissonance was unrelated to the two outcome variables.

According to Hypothesis 4, age moderates the relationships between emotional dissonance and job satisfaction, such that the relationship is stronger among older than among young employees. The results shown in Table 3 indicate that the interaction between

Table 2. Results of Regression Analysis Predicting Emotional Dissonance

Predictor	Emotional Dissonance			
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Gender	.03	.07	0.41	.680
Occupational tenure	-.01	.15	-0.10	.923
Organizational tenure	-.04	.09	-0.43	.665
Job tenure	-.04	.08	-0.50	.615
Age	-.00	.15	-0.01	.989
Positive display demands	.36	.09	4.11	< .001
Negative display demands	.16	.08	1.99	.049
Neutral display demands	.23	.08	2.68	.008
Emotional sensitivity demands	.04	.09	0.48	.635
Positive display demands $\times$ Age	-.06	.09	-0.61	.545
Negative display demands $\times$ Age	-.03	.07	-0.42	.672
Neutral display demands $\times$ Age	-.21	.08	-2.66	.009
Emotional sensitivity demands $\times$ Age	.15	.09	1.64	.103
R^2			.35	
F			5.32	
p			< .001	

Note. $N = 141$. Unstandardized regression coefficients (B_s) are shown. Significant effects are highlighted in bold ($p < .05$).

emotional dissonance and age indeed predicted job satisfaction ($\beta = -.32$, $p = .018$), and not need for recovery. A simple slopes analysis showed that emotional dissonance was negatively and significantly related to job satisfaction among older employees ($\beta = -.37$, $p = .030$) but there was no significant relationship among young employees ($\beta = .27$, $p = .216$). The interaction effect is shown in Figure 3. Hypothesis 4 was therefore supported.

Hypotheses 5a and 5b state that emotional sensitivity demands are positively related to job satisfaction and need for recovery. None of these hypotheses were supported, as sensitivity demands did not have significant main effects on the two outcome variables (Table 3).

According to Hypotheses 6a and 6b, age moderates the relationships between emotional sensitivity demands and indicators of

occupational well-being such that the positive relationship with job satisfaction is weaker, and the positive relationship with need for recovery is stronger among older than young employees. Table 3 shows that the interaction between emotional sensitivity demands and age significantly predicted job satisfaction ($\beta = -.37, p = .011$) and need for recovery ($\beta = .33, p = .003$).

The interaction effect of sensitivity demands and age on job satisfaction is shown in Figure 4 (Panel A). A simple slopes analysis showed that sensitivity demands were positively and significantly related to job satisfaction among young employees ($\beta = .49, p = .027$), but there

Figure 2. Relationship between neutral display demands and emotional dissonance moderated by age.

was no significant relationship among older employees ($\beta = -.26, p = .143$). Hypothesis 6a was therefore supported. Figure 4 (Panel B) shows the interaction effect of sensitivity demands and age on need for recovery. Sensitivity demands were positively and significantly related to need for recovery among older employees ($\beta = .35, p = .008$) and unrelated to need for recovery among young employees ($\beta = -.30, p = .072$). Thus, Hypothesis 6b was also supported.

Testing for Conditional Indirect Effects

Finally, we examined whether display demands had indirect effects on employee outcomes through emotional dissonance, and whether these indirect effects were moderated by age (i.e., conditional indirect effects). First, as reported above, positive, negative, and neutral display demands were positively associated with emotional dissonance which, in turn, interacted with age in predicting *job satisfaction* (note that emotional sensitivity demands, and its interaction with age, did not predict emotional dissonance, which is consistent with our theoretical model, see Figure 1). The conditional indirect effect of positive display demands on job satisfaction was significant among older employees (indirect effect = $-.11, SE = .09, 95\% CI = -.408, -.002$), but not among young employees. Negative and neutral display demands did not have significant indirect effects on job satisfaction. Neither emotional dissonance nor the interaction between emotional dissonance and age predicted *need for recovery* (Table 3); therefore, we did not examine conditional indirect effects for this outcome.

DISCUSSION

Emotional job demands are ubiquitous in many contemporary jobs and certainly in the growing health care sector. Furthermore, as a consequence of demographic and government policy changes, health

Table 3. Results of Regression Analyses Predicting Job Satisfaction and Need for Recovery

Predictor	Job Satisfaction				Need for Recovery			
	B	SE	t	p	B	SE	t	p
Gender	-.23	.12	-1.97	.051	.03	.09	0.29	.774
Occupational tenure	-.02	.23	-0.08	.938	-.02	.17	-0.14	.889
Organizational tenure	-.19	.14	-1.37	.172	.08	.11	0.74	.458
Job tenure	.14	.13	1.08	.284	.14	.10	1.50	.137
Age	.18	.23	0.75	.455	-.04	.18	-0.21	.833
Positive display demands	-.10	.15	-0.65	.517	.13	.11	1.14	.257
Negative display demands	-.13	.13	-0.97	.333	.06	.10	0.62	.534
Neutral display demands	.04	.14	0.31	.759	.09	.11	0.90	.370
Emotional sensitivity demands	.12	.13	0.88	.381	.03	.10	0.26	.794
Positive display demands $\times$ Age	.14	.15	0.91	.362	-.09	.11	-0.81	.417
Negative display demands $\times$ Age	-.00	.12	-0.00	.998	.06	.09	0.66	.510
Neutral display demands $\times$ Age	.23	.13	1.71	.090	-.08	.10	-0.81	.421
Emotional sensitivity demands $\times$ Age	-.37	.14	-2.56	.011	.33	.11	3.00	.003
Emotional dissonance	-.05	.14	-0.37	.715	.06	.11	0.58	.564
Emotional dissonance $\times$ Age	-.32	.13	-2.39	.018	-.10	.10	-1.00	.321
R ²	.18				.17			
F	1.88				1.71			
p	.032				.057			

Note. N = 141. Unstandardized regression coefficients (Bs) are shown. Significant effects are highlighted in bold ($p < .05$).

Figure 3. Relationship between emotional dissonance and job satisfaction moderated by age.

Figure 4. Relationship of emotional sensitivity demands with (A) job satisfaction and (B) need for recovery, moderated by age.

care workers tend to face longer work lives. These trends increase the need to understand the impact of emotional job demands at higher worker ages. On this backdrop, the goal of our research was to investigate whether two types of emotional job demands, emotional display and sensitivity demands, relate to older health care workers' occupational well-being differently than is the case for young workers. Overall, the findings are consistent with the assumption that age confers both advantages and vulnerabilities for managing emotional job demands, depending on the type of demand. We found that neutral

display demands (the requirement to project a calm and rational exterior) appeared more costly for young employees—as indicated by stronger feelings of emotional dissonance—than for older employees. In contrast, emotional dissonance (the experience of having to show emotions different from those actually felt) and emotional sensitivity demands (the requirement to know what the client is feeling) appeared more costly for older than young employees in terms of occupational well-being.

Age as Potential Advantage: Neutral Display Demands

Replicating prior studies (Zapf & Holz, 2006; Zapf et al., 1999), the three emotional display demands under study (the requirement to frequently express positive, negative, or neutral emotions toward clients) were associated with increased emotional dissonance. Emotional dissonance is generally experienced as unpleasant and prompts the use of resource-intensive emotional labor strategies such as surface acting (Brotheridge & Lee, 2002; Diefendorff et al., 2005). It is considered the core mechanism by which emotional display demands diminish employees' well-being (Hochschild, 1983). The finding that relatively older employees experience less emotional dissonance than young employees in face of neutral display demands thus represents a potential age-related advantage. We argued that this advantage comes about by older adults' lower trait negative affectivity, higher emotional stability, and more effective emotion experience regulation (Charles & Carstensen, 2010; Morgan & Scheibe, 2014). Neutral display demands require that employees convey a calm, unemotional, and professional exterior (Troughakos et al., 2011). Research on the situational determinants of neutral display rules is lacking, but it is likely that, at least in the health care context, keeping one's cool is mainly required when negative emotions run high, such as when witnessing client suffering, being mistreated, or in emergency situations. In these contexts, older adults' emotional stability, low negative reactivity, and strong ability to down-regulate negative emotions likely help them reach the neutral emotional state they are required to display. It should be noted, however, that the low reliability of the neutral display demands measure renders our conclusions tentative. Future studies using refined measures are needed to fully investigate the role of age in the link between neutral display demands and emotional dissonance.

Our data did not confirm the prediction that age confers an advantage to fulfill positive display demands. For young and older employees alike, positive display demands predicted emotional dissonance. One reason may be that positive display demands were significantly more salient than neutral display demands in the daily work life of our study participants. The descriptive data suggest that the present sample of health care workers experienced the requirement to show positive emotions on average several times a day. In comparison, they experience neutral display demands only occasionally, about once per day. The higher prevalence of positive display demands suggests that positive displays may often be required when employees are actually in a neutral mood, hence creating the need to up-regulate positive emotions. While the literature on age and negative affect regulation is extensive, much less is known about age differences in positive affect regulation (Scheibe, English, Tsai, & Carstensen, 2013). It may well be that older adults' advantage over young adults lies in down-regulating negative emotions more so than in up-regulating positive emotions. Notwithstanding these considerations, the lack of an age advantage

for fulfilling positive display demands remains a puzzling finding that requires further investigation. This is especially important given that the reliability of the positive display demands measure failed to meet traditional standards.

We also did not confirm the prediction that fulfilling negative display demands is more costly (in terms of emotional dissonance) at higher ages, which was based on assumptions about older adults' unwillingness to experience negativity. For this measure, reliability was sufficient, therefore, reliability concerns cannot explain the lack of an age moderation effect. Instead, the lack of an age moderation effect may be due to sample characteristics. Descriptive data suggest that this kind of display was not prevalent in the current sample; the average reported frequency was less than once a week, indicating a floor effect. Thus, the current occupational group may not have been an optimal setting to test the impact of negative display demands on older employees. Generally, this type of display demand is less common than positive or neutral display demands, although it is clearly relevant in some professions such as law enforcement (Rafaeli & Sutton, 1991). These professions may be better suited to test age-related differences in the psychological consequences of negative display rules.

Age as Potential Vulnerability: Emotional Dissonance and Sensitivity Demands

While older health care employees appear to experience equal or even less emotional dissonance in face of emotional display demands, further findings indicated that if emotional dissonance cannot be avoided, this may have more negative consequences for older than young employees. In line with our hypotheses, emotional dissonance was associated with diminished job satisfaction at higher ages, while no such effect was found at younger ages. The finding that emotional dissonance affects older employees' job satisfaction more than that of young employees is consistent with motivational shifts proposed by SST that older adults prioritize emotionally satisfying experiences over other goals (Carstensen et al., 1999). Emotional dissonance entails the suppression of felt emotions, which according to prior research leads to higher physiological responding, reduced attention to the ongoing interaction, and low communication quality (Gross & John, 2003). This is opposite to what older adults strive for. Hence, the frequent occurrence of emotional dissonance signals the failing of older adults' goals, which in turn, may translate into low satisfaction with the job (Maier & Brunstein, 2001). These findings dovetail with two recent studies indicating that older employees' job satisfaction is more strongly diminished in face of negative work experiences (Tenhiälä et al., 2013) and low person-job fit (Krumm et al., 2013) than that of young employees.

As predicted, we found that older age also represents a vulnerability when it comes to managing emotional sensitivity demands. Sensitivity demands were previously found to have both positive effects (such as enhanced personal accomplishment) and negative effects (such as emotional exhaustion) on employees (Zapf & Holz, 2006). Our results suggest that these effects are not equally distributed across ages. Findings were quite robust: Age moderated associations between sensitivity demands and both indicators of occupational well-being. Specifically, at younger ages employees appear to benefit from emotional sensitivity demands in terms of job satisfaction, without experiencing increased need for recovery. In contrast, at higher ages employees apparently cannot reap any benefits from sensitivity demands for job satisfaction,

but suffer from enhanced need for recovery. In line with the literature on age differences in emotion recognition, we argued that this may be due to motivational changes to avoid processing negative client emotions (Kellough & Knight, 2012) and age-related decline in neuropsychological systems responsible for accurate emotion perception (Ruffman et al., 2008). From this perspective, older adults may find it more dissatisfying and feel less successful in understanding the clients' perspective than young employees, and their cognitive resources may be exhausted more quickly.

Strengths, Limitations, and Future Directions

The current findings contribute to a better understanding of how employee age affects the management of emotional job demands. Although some prior studies have investigated age in the emotional labor process (e.g., Dahling & Perez, 2010), the focus was mainly on emotional labor strategies. Our findings help draw a more comprehensive picture by looking at the role of emotional job demands and emotional dissonance. Additionally, given the scarce attention paid to emotional job demands beyond emotional labor, our findings highlight, consistent with prior work by Zapf and colleagues (1999), that emotional sensitivity demands were prevalent in the current health care context, and had important—and for young employees positive—effects on employee well-being. At the same time, emotional sensitivity demands incurred costs for older employees without the associated benefits. Future research is needed to identify how older employees, who will increasingly carry out health care related work, can be supported in fulfilling emotional sensitivity demands.

One limitation of the current research is the reliance on cross-sectional self-report data, which is subject to common method bias (Podsakoff, MacKenzie, & Podsakoff, 2012). This is especially significant given that emotional job demands are assumed to be shared (although often implicit) rules and thus a job characteristic (Hochschild, 1983). We were only able to measure employees' perceptions of emotional job demands, which are subject to individual differences and biases (Diefendorff & Richard, 2003). An alternative would be to represent emotional job demands as unit-level constructs by aggregating across work group members' individual perceptions of demands (Diefendorff, Erickson, Grandey, & Dahling, 2011). This approach, however, requires larger samples per work team than were available in the current study. Additionally, future research will benefit from adding physiological measures of occupational stress and well-being, such as blood pressure and heart rate (Ilies, Dimotakis, & Watson, 2010). It is important to note that significant interaction effects cannot be artefacts of common method bias (Siemsen, Roth, & Oliveira, 2010). Nevertheless, future research would benefit from longitudinal designs and more objective measures.

The study did not allow shedding light on mechanisms underlying age differences in the well-being consequences of emotional job demands. We argued, without directly testing, that age-related changes in emotionality are responsible for the advantages and vulnerabilities that age confers to the management of emotional job demands. Future studies should include (objective) measures of these proposed mechanisms. Understanding the differential contribution of age differences in emotional goals, emotion regulation strategy use and effectiveness, and cognitive resources will help to identify the most useful targets for intervention. Relatedly, results are correlational and causal conclusions as well as conclusions about intraindividual age-related changes cannot

be drawn. However, the direction of effects from display rules to well-being has been demonstrated in prior experimental work (Troughakos et al., 2011) and is consistent with theoretical models of emotional labor (Brotheridge & Lee, 2002; Diefendorff & Gosserand, 2003).

As noted earlier, the reliability estimates of the three-item positive and neutral display demand measures were lower than .70 and some fit indices and factor loadings in a confirmatory factor analysis were below established standards in the field. At the same time, model comparisons supported the utility of distinguishing the different predictor and mediator variables, showing that it is reasonable to assume that these are separable factors. Nevertheless, as Zapf and colleagues (1999; see also Zapf & Holz, 2006) also reported relatively low reliability estimates for these measures, it would be an important task of future research to develop longer and more reliable emotional job demands scales that allow parsing display demands into different valences.

Finally, our study cannot rule out the possibility that some of the age moderation effects found are at least partly due to age differences in task assignments. For example, one could assume that older, more experienced employees are more often assigned to work with more severely ill patients, which renders it more difficult or resource-depleting to fulfill sensitivity demands. Future research should assess age-related mediating mechanisms such as age-contingent task assignments and experience to explain moderation effects of age on relationships between emotional job demands and occupational well-being outcomes.

Implications for Practice

The current findings indicate that young and older employees are differently impacted by certain emotional job demands. One practical implication therefore is to provide age-tailored trainings geared toward increasing each age group's capability to fulfill those emotional job demands that appear to be most challenging. For example, teaching younger employees to use more deep-acting strategies in order to appear emotionally neutral in negative client interactions will likely reduce their experience of emotional dissonance. Relatedly, enhancing older adults' ability to identify clients' emotions will likely increase the positive effects of sensitivity demands for job satisfaction, and alleviate recovery needs in older employees. More generally, it appears useful to communicate explicitly the role of emotional job demands in achieving desired organizational outcomes and acknowledge the psychological costs that this may incur for employees. If employees see more clearly the value of their "emotion work" to the organization and receive age-tailored training helping them to better manage those aspects of emotion work that they find hardest, their occupational well-being will likely be enhanced.

In conclusion, our findings support existing research on the psychological costs and benefits of emotional job demands for employees. Yet, our results also suggest that such costs and benefits may not be equally distributed across age groups. Consistent with the notion of multidirectional aging (Baltes et al., 2006), we identified age-related advantages and vulnerabilities in fulfilling emotional job demands in relation to occupational well-being. Some emotional job demands may become easier to meet, and others more costly, for employees as they get older.

ACKNOWLEDGMENTS

The research was supported by the Becker Stiftung Germany. We wish to thank Claudia Zemlin for facilitating access to participants, and

Lena Kristin Kunz and Marie-Theres Stratker for their assistance in data collection.

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