

# Emotional dissonance and burnout among child welfare workers: The moderating role of social support from colleagues, supervisors, and organization

Journal of Social Work  
2023, Vol. 23(4) 615–635

© The Author(s) 2023

Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/14680173221143649

journals.sagepub.com/home/jsw



**Morten Birkeland Nielsen** 

National Institute of Occupational Health, Oslo, Norway

**Håkon A. Johannessen** 

National Institute of Occupational Health, Oslo, Norway

**Jan Olav Christensen**

National Institute of Occupational Health, Oslo, Norway

**Live Bakke Finne**

National Institute of Occupational Health, Oslo, Norway

## Abstract

● *Summary:* Occupational burnout has significant costs for individuals, employers, and the society. Knowledge about risk and protective factors is therefore highly important. This study examined emotional dissonance as a risk factor and colleague, supervisor, and organizational support as protective factors regarding burnout among child welfare workers. It was expected that emotional dissonance would be positively related to burnout, and that social support would attenuate the magnitude of the association. Based on the Psychosocial safety climate model, it was also suggested that organizational support would be negatively associated with levels of emotional dissonance and thereby also burnout.

## Corresponding author:

Morten Birkeland Nielsen, National Institute of Occupational Health, Pb 5330 Majorstuen, 0304 Oslo, Norway.  
Email: morten.nielsen@stami.no

- *Findings:* The study was based on a cross-sectional probability sample of employees working in the child welfare service in Oslo municipality, Norway ( $N = 678$ ). Emotional dissonance was positively related to burnout. In contrast to expectations, the interaction analyses showed a reverse buffering effect where the examined sources of social support intensified the association between emotional dissonance and burnout. Organizational support had an indirect association with burnout through emotional dissonance.
- *Applications:* While the cross-sectional nature of the study does not allow for any conclusions about causal effects, the findings indicate that other stress-buffering job resources than social support are more beneficial in efforts focusing on reducing the detrimental impact of emotional demands in child welfare work. However, more knowledge concerning the actual effectiveness of receiving support is necessary to draw more definite conclusions.

### Keywords

emotional demands, exhaustion, depersonalization, stress-exacerbation

Burnout, the experience of physical, emotional, and mental exhaustion that can arise from long-term involvement in occupational situations that are emotionally demanding, costs billions of dollars each year in employee turnover, medical costs, and absenteeism (Hallsten et al., 2011; Han et al., 2019). Child welfare work is an especially demanding field of employment (Barak et al., 2001), and is therefore considered a high risk group for burnout (Font, 2012; Kim, 2011). While there are several demands that increase the risk of burnout among child welfare workers, including a high work pace, challenging decisions, and the risk of threats and violence (King, 2021; Lizano & Barak, 2012), the sustained presence of *emotional demands*, that is, those aspects of the job that require sustained emotional effort because of interactional contact with clients (De Jonge & Dormann, 2003), is likely to be a key antecedent regarding occupational burnout (Zapf et al., 2001). Knowledge about protective factors is therefore highly important regarding the development of effective interventions that can contribute to reduce burnout and its costs in child welfare work. Although several theories point to the importance of receiving social support as a buffering resource (Greenglass et al., 1997; Halbesleben, 2006), few studies have examined how social support may moderate the impact of emotional demands on burnout among child welfare workers. To fill this knowledge gap, the overarching aims of this study were to explore the association between *emotional dissonance* and burnout among child welfare workers and to determine the role of three sources of social support, namely colleague, supervisor, and organizational support, as conditional factors in this association.

### *Emotional dissonance and burnout: The role of social support*

Child welfare work is concerned with ensuring the welfare and wellbeing of children by assisting parents in giving their children the best possible upbringing. However, working with children, and especially in cases of maltreated children, is also a risk factor for child

welfare workers' own psychological wellbeing (Baugerud et al., 2018). Although the causes of mental health problems are complex and multifold, the emotional demands that are inherent in client-driven work are expected to be one key determinant of the psychological health of child welfare workers (Drury, 2018; Lizano & Barak, 2012). Expectations to display appropriate emotions according to the organization's explicit or implicit emotional display during social interactions have emerged as an especially prevalent emotional demand for employees working with customers and clients (Zapf, 2002). If there is a discrepancy between the emotions that the worker is expected to display, and his/hers actual felt emotions, the worker is experiencing *emotional dissonance* (Zapf, 2002). It is theoretically assumed that such experiences of internal incongruence cause feelings of discomfort, anxiety, stress, and frustration which subsequently can develop into mental and somatic health complaints, including fatigue and burnout (Grandey, 2000a, 2000b). Supporting this assumption, a significant body of evidence from other occupational groups suggests that emotional dissonance at the workplace increases emotional exhaustion (Indregard, et al., 2018b; Zapf et al., 2021) and burnout (Andela & Truchot, 2017; Back et al., 2017; Diestel & Schmidt, 2010). To examine whether emotional dissonance is related to burnout also among child welfare workers, the following hypothesis will be tested:

H1: High levels of emotional dissonance are associated with high levels of burnout among child welfare workers.

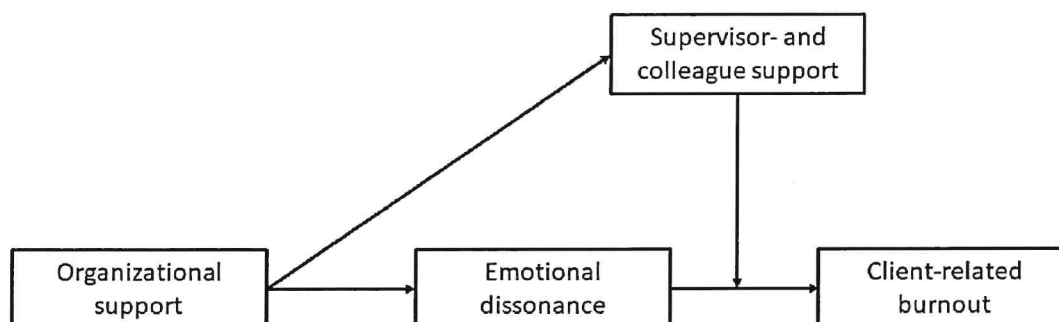
According to the transactional model of stress and coping, reactivity to stressors is governed by the availability of coping resources (Lazarus & Folkman, 1984). Social support is one coping resource that has been suggested to be beneficial for reducing the negative impact of work-related stressors (Dormann & Zapf, 1999; Viswesvaran et al., 1999). Defined as "verbal and nonverbal communication between recipients and providers that reduces uncertainty about the situation, the self, the other, or the relationship, and that functions to enhance a perceptions of personal control in one's experience" (Albrecht & Adelman, 1987), social support consists of (i) instrumental support (getting help), (ii) information support, (iii) emotional support (empathy, sympathy), and (iv) feedback (House et al., 1982). According to the buffer theory of social support (Alloway & Bebbington, 1987), receiving social support should lessen the impact of psychosocial adversity on health and wellbeing. This claim has been substantiated across several studies (Halbesleben, 2006; Hausser et al., 2010). Social support seems to be especially beneficial regarding mental health, as high perceived emotional and instrumental support, as well as having a large and diverse support network, is associated with lower levels of depression (Santini et al., 2015; Wang et al., 2014). As for the mechanisms that can explain its impact, social support is thought to affect health in three ways: (a) by regulating thoughts, feelings, and behavior so as to promote health; (b) by fostering an individual's sense of meaning in life; and (c) by facilitating health promoting behaviors (Callaghan & Morrissey, 1993, p. 205). Regulation of emotions and fostering a sense of meaning in life should be especially important regarding emotional dissonance.

In the context of the workplace, the main sources of social support are coworkers, supervisors, and organization in general (Birkeland et al., 2017). Previous research indicates that coworker support reduces symptoms of burnout following emotional demands. In a quantitative diary study involving nurses from Spanish hospitals and healthcare centers, it was found that colleagues support considerably minimized the effects of emotion regulation difficulties on levels of fatigue and emotional exhaustion (Blanco-Donoso et al., 2017). Social support from supervisors tends to promote employees' personal resources and intrapersonal motivation reactions and reduce employees' stress reactions and should therefore be especially important as a stress resistance resource (Jolly et al., 2021). Prospective studies of the relationship between work factors and psychological distress among employees across a wide variety of organizations have established that a lack of supervisor support is one of the most consistent predictors of psychological distress (Finne et al., 2014; Nielsen et al., 2012). Although less investigated than support on the dyadic level (i.e. colleague and supervisor support), prior research indicates that organizational support (the extent to which an organization provides the resources, communication, reinforcement, and encouragement to enable employees to improve wellbeing) also could be important. According to the Psychosocial safety climate model, organizational support should enable employees to cope with emotional demands by providing relevant supportive practices such as the opportunity to debrief after emotionally challenging experiences, and thereby buffer the potential negative impact of the demands (Dollard & Bakker, 2010; Dollard et al., 2012). Supporting this view, a prospective study of 7758 employees working with customers and clients found that higher levels of organizational support reduced the positive association between emotional dissonance and exhaustion, as well as the indirect effect of emotional dissonance on medically certified sickness absence through exhaustion (Indregard, et al., 2018b). Based on this knowledge about colleague, supervisor, and organizational support in other occupational settings we proposed and tested the following hypotheses:

H2: High levels of social support, be it from colleagues, supervisors, or organization, lessen the magnitude of the association between emotional dissonance and burnout among child welfare workers.

In addition to being a buffering resource, the Psychosocial safety climate model also suggest that organizational support could function as a precursor to other factors at the workplace, including job demands and coping resources (Dollard & Bakker, 2010). Organizational support reflects the senior management's commitment, participation, and consultation in relation to stress prevention, and is a communicated position from the management about the value of human psychological health and safety at work (Dollard et al., 2012). In cases of high organizational support, managers should be vigilant and concerned about worker wellbeing, jobs will be designed within the unit so that workers will be able to manage the demands they face, and managers will monitor and adjust work demands to enable workers to get the job done (Dollard et al., 2012). Furthermore, managers would be aware of the essential role of social support, both

**Figure 1.** Theoretical model for the associations between emotional dissonance, sources of social support, and burnout.



emotional and instrumental, in getting the job done in a meaningful way, and thereby elicit supportive and cohesive relationships from both coworkers and supervisors (Dollard et al., 2012). Based on this reasoning, high levels of organizational support should reduce the occurrence of emotional dissonance, and therefore also secure low levels of burnout. In addition, in cases where emotional dissonance does occur, high levels of organizational support should foster social support from supervisors and colleagues that will contribute to alleviate the impact of the experienced dissonance (see Figure 1). To test this antecedent role of organizational support, the following hypotheses will be tested:

H3a: Emotional dissonance mediates the relationship between organizational support and burnout among child welfare workers.

H3b: Social support from supervisors and colleagues moderates the indirect association between organizational support and burnout through emotional dissonance.

## Methods

### *Data collection method and sample*

The study hypotheses were using data from a questionnaire survey of Norwegian child welfare workers. The data were collected as part of the “Oslo Workplace Aggression Survey” a collaborative project between the Norwegian National Institute of Occupational Health and the vice mayor of education and child services in Oslo municipality. All employees ( $N = 1264$ ) working full or part time in the child welfare service in Oslo municipality were invited to participate in a survey in which the employees were asked to fill in an anonymous self-reporting questionnaire assessing different aspects of the psychosocial working environment, work stress, and health and wellbeing. The survey was conducted electronically in March 2020. A further description of the project is provided in a separate project protocol (Nielsen et al., 2020).

A total of 678 questionnaires were returned, yielding a response rate of 53.6%. The sample consisted of 74.4% women and 25.6% men. The mean age was 39 years ( $SD = 10.91$ ). A total of 82.4% worked in a full-time position, 10.4% in a part-time position, while 6.6% were on-call staff. A total of 0.6% were on temporary leave. Altogether 16.6% of the respondents had some sort of formal leadership responsibility.

### *Consent to participate*

The project was conducted in accordance with the World Medical Association Declaration of Helsinki. When accessing the web-based questionnaire by a personal login code, the respondents had to confirm their informed consent before responding to the questionnaire. This procedure for securing informed consent was approved by the ethics committee. No personally identifiable information about respondents was available to the researchers, as data were de-identified prior to analyses.

### *Research tools*

*Dependent variable.* Emotional dissonance was measured with the Norwegian translation (Indregard et al., 2017) of the Frankfurt Emotion Work Scales (Zapf et al., 1999). The scale includes four items with high internal consistency ( $\alpha = .90$ ). An example item is "How often in your job do you have to suppress emotions in order to appear neutral on the outside?". Responses were provided on a 5-point scale with the following alternatives "1 = seldom or never," "2 = once per week," "3 = once per day," "4 = several times per day," and "5 = several times an hour." Evidence for criterion-related validation of the scale has been showed by Zapf et al. (1999).

*Independent variables.* *Burnout* was assessed with the six item "client-related burnout" scale from the Copenhagen Burnout Inventory (Kristensen et al., 2005). Client-related burnout is defined as the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work with clients (Kristensen et al., 2005). Example items are "Do you find it hard to work with clients?" and "Are you tired of working with clients?" Responses were made on a 5-point scale ranging from 1 (*always*) to 5 (*never/almost never*). The scale labels were then recoded so that higher scores indicate more burnout. The scale items had satisfactory internal consistency (Cronbach's alpha: .80).

*Social support from colleagues* was assessed with two items from the QPS<sub>Nordic</sub> (Dallner et al., 2000; Wannstrom et al., 2009). The inventory assesses the respondents' perceived social support and appreciation from colleagues at the workplace. Example item is "If needed, can you get support and help with your work from your coworkers?". The response alternatives for colleague support were provided on a 7-point scale ranging from "Completely wrong" (1) through "Neither right or wrong" (4) to "Completely right" (7). The internal consistency for colleague support was satisfactory (Cronbach's alpha: .79).

*Social support from supervisors* was assessed with two items from the QPS<sub>Nordic</sub> (Dallner et al., 2000; Wannstrom et al., 2009). The items measure the respondents'

perceived social support and appreciation from their immediate leader at the workplace. Example item is “If needed, is your immediate superior willing to listen to your work-related problems?”. The response categories for supervisor support ranged from “Never” (1) to “often or always” (5). This indicator of supervisor support had acceptable internal consistency (.86).

*Organizational level social support* was measured with the three item “Management support and commitment” subscale which was taken from the Psychosocial safety climate 12 inventory (Hall et al., 2010). An example item is “Senior management clearly considers the psychological health of employees to be of great importance.” All items were measured on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree) and were added together to form a composite scale. High scores reflect high levels of psychosocial safety climate. The scale had high internal consistency ( $\alpha = .95$ ).

*Control variables.* It is documented that there are gender differences in occupational exposure patterns, and in the reactions to such exposures (Eng et al., 2011). As for burnout, research findings show that burnout is associated with age and gender (Antoniou et al., 2006; Marchand et al., 2018). Furthermore, evidence show that persons in leadership positions report lower levels of burnout (Martinussen et al., 2007). Age, gender, and leadership responsibility were therefore included as control variables in this study.

*Statistical analyses.* Statistical analyses were conducted with IBM SPSS 25.0. Main and moderating effects, as well as moderated mediation, were analyzed using the PROCESS 4.0 script in SPSS (Hayes, 2012). PROCESS uses an ordinary least squares or logistic regression-based path analytical framework for estimating direct and indirect associations in simple and multiple mediator models, two-way and three-way interactions in moderation models along with simple slopes and regions of significance for probing interactions, conditional indirect associations in moderated mediation models with a single or multiple mediators and moderators, and indirect associations of interactions in mediated moderation models also with a single or multiple mediators (see [www.afhayes.com](http://www.afhayes.com) for further description and documentation). In line with Aiken and West (1991), the continuous predictor variables were centered prior to the two-way interaction analysis.

## Findings

Means, standard deviations, and bivariate correlations for all study variables are presented in Table 1. The directions and magnitude of all correlations were as to be expected. Emotional dissonance was positively related to client-related burnout ( $r = .33$ ;  $p < .001$ ). Colleague support ( $r = -.17$ ;  $p < .001$ ), supervisor support ( $r = -.15$ ;  $p < .001$ ), and organizational support ( $r = -.15$ ;  $p < .001$ ) were all negatively associated with client-related burnout. The correlations between the three different forms of support ranged between .27 and .51. The magnitude of the associations between the control variables (age, gender, and leadership) and the main study variables were nonsignificant to small.

**Table 1.** Descriptive statistics and intercorrelations for study variables.

	Scale	M	SD	1	2	3	4	5	6	7
1	Gender	0-1	1.78	.41						
2	Age	20-69	39.16	10.81	-.02					
3	Leadership responsibility	0-1	.17	.37	.26***					
4	Burnout	1-5	2.59	.68	-.17***	-.07				
5	Emotional dissonance	1-5	1.87	.88	-.14**	.02	.33***			
6	Colleague support	1-7	6.28	.93	.05	-.12**	-.17***	-.22***		
7	Supervisor support	1-5	4.13	.81	.01	.04	-.15**	-.17***	.34***	
8	Organizational support	1-5	3.64	1.09	-.09*	.08*	-.15**	-.23***	.27***	.51***

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ Note. Reference category for gender was "Male." Reference category for leadership responsibility was "No leadership responsibility."  
SD: standard deviation.



### The interactive effect of social support

Findings from the analyses of two-way interaction effects between emotional dissonance and the three examined sources of social support regarding burnout are displayed in Table 2 and Figure 1. In the analyses of colleague support as a moderator, the main effect showed that emotional dissonance was positively ( $B = .24$ ;  $p < .001$ ), while colleague support was negatively ( $B = -.13$ ;  $p < .001$ ) associated with burnout. The interaction term between emotional dissonance and colleague support was significant ( $B = .07$ ;  $p < .05$ ) and added 1% to the variance in burnout. Altogether, the predictor variables and the interaction term explained 16% of the variance in the outcome variable. The overall model was significant ( $F = 15.30$ ;  $DF = 6/471$ ;  $p < .001$ ). To examine the nature of the interaction, scores were plotted at the low (1 SD below the mean) and high (1 SD above the mean) values on emotional dissonance and colleague support (Figure 2). The findings showed a stronger association between emotional dissonance and burnout among respondents who reported higher levels of colleague support ( $\beta = .29$ ;  $p < .001$ ), than among those who received little colleague support ( $\beta = .17$ ;  $p < .001$ ). The strength of the coefficients indicates that although emotional dissonance

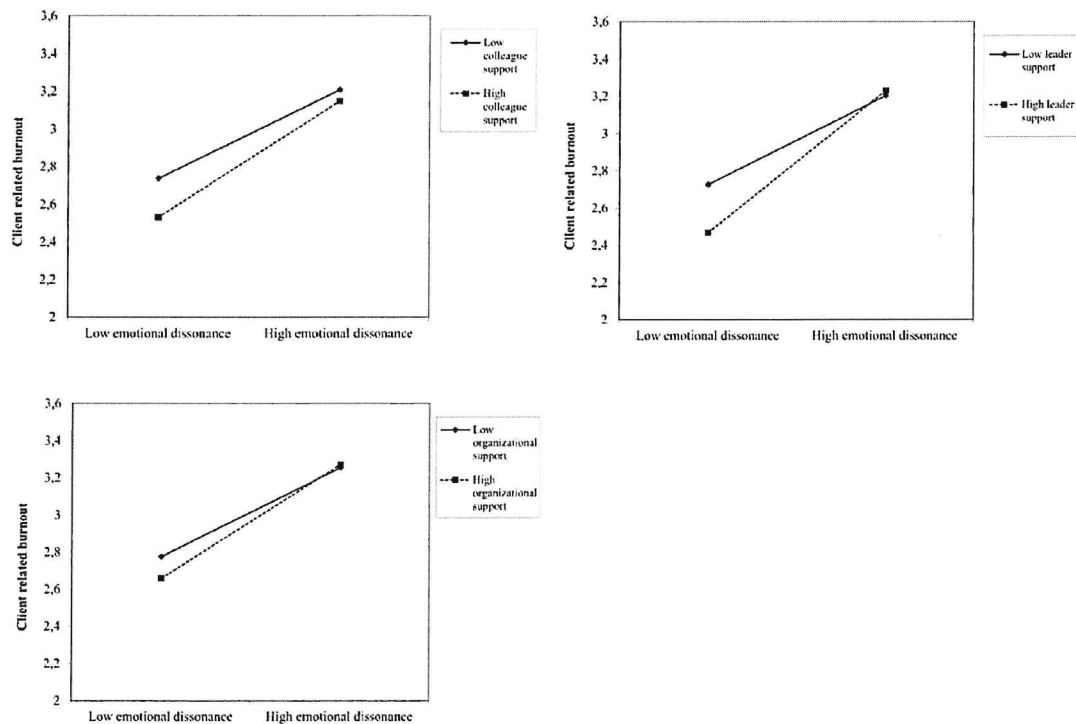
**Table 2.** Main and interactive effects of emotional dissonance (ED) and three sources of social support on client-related burnout ( $N = 478$ ).

Moderator	Variable	B	SE B	95% CI B	R2	$\Delta R2$
<i>Colleague support (CS)</i>					.16***	.01*
	Age	-.01*	.00	-.02 to -.00		
	Gender	-.00	.07	-.14 to .14		
	Leadership	-.10	.08	-.20 to .13		
	ED	.24***	.04	.17 to .30		
	CS	-.13***	.04	-.20 to -.07		
	ED*CS	.07*	.03	.01 to .13		
<i>Leadership support (SS)</i>					.17***	.02***
	Age	-.01*	.00	-.02 to -.00		
	Gender	-.00	.07	-.14 to .14		
	Leadership	-.10	.08	-.20 to .13		
	ED	.24***	.04	.17 to .31		
	LS	-.12**	.04	-.19 to -.04		
	ED*SS	.15***	.04	.06 to .22		
<i>Organizational support (OS)</i>					.15***	.01*
	Age	-.01*	.00	-.01 to -.00		
	Gender	-.03	.07	-.18 to .11		
	Leadership	-.06	.08	-.23 to .10		
	ED	.24***	.03	.17 to .31		
	OS	-.05	.03	-.10 to .01		
	ED*OS	.07*	.03	.01 to .12		

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

CI: confidence interval; SE: standard error.

**Figure 2.** The interactive effects between colleague, leader, and organizational support and emotional dissonance on burnout.



was associated with an increase in burnout in both the low and high social support categories, the emotional dissonance was most strongly related to higher burnout in the high-support category.

Findings from the analyses of leader ( $F = 16.14$ ;  $DF = 6/469$ ;  $p < .001$ ) and organizational support ( $F = 13.70$ ;  $DF = 6/465$ ;  $p < .001$ ) as moderators of the association between emotional dissonance and burnout were in line with the results presented for colleague support. Supervisor support and organizational support were both identified as significant moderators and emotional dissonance was most strongly related to burnout among those who reported high levels of leader (low:  $\beta = .17$ ;  $p < .01$  vs high:  $\beta = .35$ ;  $p < .001$ ) and organizational support (low:  $\beta = .17$ ;  $p < .01$  vs high:  $\beta = .31$ ;  $p < .001$ ).

### Moderated mediation model

A simple test of mediation showed that organizational support had an indirect association with burnout through emotional dissonance ( $B = -.04$ ; 95% confidence interval  $[CI] = -.04 - -.02$ ). The results showed that high levels of organizational support were associated with lower levels of burnout through low levels of emotional dissonance. To determine the moderating role of colleague and supervisor support, two moderated mediation models were tested. In the first model, colleague support was examined as a moderator of the indirect relationship between organizational support and burnout

**Table 3.** The conditional indirect association between organizational support on burnout through emotional dissonance as moderated by colleague support ( $F=9.25$ ;  $DF=4/471$ ;  $p < .001$ ).

	B	SE B	95% CI B
Mediator variable model (DV: emotional dissonance)			
Age	-.01	.00	-.02 to .00
Gender	.01	.10	-.18 to .21
Leadership	.19	.11	-.03 to .42
Organizational support	-.19***	.03	-.27 to -.12
Dependent variable model (DV = burnout)			
Age	-.01	.00	-.02 to .00
Gender	-.04	.07	-.19 to .10
Leadership	-.05	.08	-.22 to .11
Organizational support	-.02	.03	-.08 to .04
Emotional dissonance	.23***	.04	.16 to .30
Colleague support	-.11**	.04	-.19 to -.04
Emotional dissonance*colleague support	.06*	.03	.01 to .12
Conditional indirect association at different values of the moderator			
1 SD below mean	-.03	.01	-.06 to -.02
At mean	-.04	.01	-.07 to -.02
1 SD above mean	-.05	.01	-.08 to -.03
Moderated mediation effect	-.01	.01	-.03 to .01

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

CI: confidence interval; DF: Degrees of Freedom; SD: standard deviation; SE: standard error; DV: Dependent Variable.

through emotional dissonance. As displayed in Table 3, significant indirect relationships through emotional dissonance were established for all values of the moderator. However, the index of moderated mediation was not significant ( $B = -.01$ ; 95%  $CI = -.03$  to  $.01$ ), thus indicating that the magnitude of the indirect association was equal between the low, mean, and high values of the moderator variable.

Results for the analysis of supervisor support as a moderator of the indirect association between organizational support and burnout through emotional dissonance are presented in Table 4. The conditional process index provided support for a significant moderated mediation effect ( $B = -.03$ ; 95%  $CI = -.05$  to  $-.01$ ). Although significant indirect associations were established for all values of the moderator, the confidence intervals showed that the magnitude of the indirect association was significantly stronger for the high supervisor support category ( $B = -.07$ ; 95%  $CI = -.10$  to  $-.04$ ) when compared to the low supervisor support category ( $B = -.02$ ; 95%  $CI = -.05$  to  $-.01$ ). The interaction effect replicated the two-way analyses reported above in that there was a stronger positive association between emotional dissonance and burnout in the high supervisor support category compared to the low supervisor support category.

**Table 4.** The conditional indirect association between organizational support on burnout through emotional dissonance as moderated by supervisor support ( $F=9.15$ ;  $DF=4/464$ ;  $p < .001$ ).

	B	SE B	95% CI B
Mediator variable model (DV: emotional dissonance)			
Age	-.01	.00	-.02 to .00
Gender	.01	.10	-.18 to .21
Leadership	.19	.11	-.03 to .42
Organizational support	-.19***	.03	-.27 to -.12
Dependent variable model (DV = burnout)			
Age	-.01	.00	-.02 to .00
Gender	-.02	.07	-.16 to .13
Leadership	-.04	.08	-.19 to .13
Organizational support	-.01	.03	-.07 to .05
Emotional dissonance	.24***	.03	.17 to .30
Supervisor support	-.10*	.04	-.18 to -.02
Emotional dissonance*supervisor support	.14***	.04	.06 to .22
Conditional indirect association at different values of the moderator			
1 SD below mean	-.02	.01	-.05 to -.01
At mean	-.05	.01	-.07 to -.02
1 SD above mean	-.07	.02	-.10 to -.04
Moderated mediation effect	-.03	.01	-.05 to -.01

\* $p < .05$ ; \*\*\* $p < .001$ .

CI: confidence interval; SD: standard deviation; SE: standard error; DV: Dependent Variable.

## Discussion

The current study examined the association between emotional dissonance and burnout and the moderating effect of three sources of social support on this relationship. Building on theory and previous research we expected that emotional dissonance would be positively related to burnout, but that the magnitude of this association would be attenuated in cases of high social support. We found support for a positive association between emotional dissonance and burnout. However, the hypothesis that social support would buffer the impact of emotional dissonance was contradicted. That is, although there were significant interactive effects between emotional dissonance and the three sources of social support investigated, the findings indicated a reverse buffering effect in which social support only offers protective benefits on burnout in cases of low exposure to emotional dissonance. When levels of emotional dissonance increase, the benefits of social support diminish and in cases of high dissonance, workers report equal levels of burnout irrespective of perceived social support. A reverse buffering effect of colleague and supervisor support was also found when organizational support was examined as a predictor of emotional dissonance and burnout.

As discussed in the introduction of this article, social support has been theoretically assumed to lessen the impact of work stressors on health outcomes

(Alloway & Bebbington, 1987; Frese, 1999). The results from the analyses of two-way interactions in the current study on colleague, supervisor, and organizational support go against this assumption by showing that high levels of support intensify levels of burnout. Rather, the findings are in line with previous evidence for a stress-exacerbation hypothesis which holds that the detrimental effects of work stressors on health outcomes is stronger among those with high levels of social support (Bavik et al., 2020; Beehr et al., 2003; Hobman et al., 2009). In the following study, we will present three explanations for this reverse buffering effect.

The first explanation suggests that high social support contributes to exaggerating the impact of the stressor. For instance, by discussing the experienced stressors, such as emotional dissonance, with colleagues or supervisions, reflections about the stressor may lead to an increased awareness of the situation and may thereby convince the stressed worker that things are as bad as they seem, or even worse (Kaufmann & Beehr, 1986). This may thereby enhance the experience of emotional exhaustion since the emotional dissonance is perceived as even more distressing.

The second explanation relates mainly to the effects of supervisor and organizational support. It has been suggested that the supervisors' attempts to provide support may actually strengthen employees' emotional exhaustion (Kickul & Posig, 2001). Supervisors and managers are responsible for how the workplace is organized and the distribution of work tasks and resources that are instrumental for the levels of emotional dissonance. If the employee experiences a situation where he/she receives emotional support from the leader, but where the leader does not do anything to diminish the sources of stress, the employee will perceive an inconsistency between the supervisor's actions and subsequent attempts at emotional support. Consequently, the employee may be left with two conflicting cognitions about the supervisor, and according to dissonance theory, such dissonant cognitions would be a source of discomfort or tension (Beehr et al., 2003). The additive effect of cognitive and emotional dissonance to the person's strain may thereby explain a reverse buffering effect of leader and organizational support.

The third explanation is that the reverse buffering effect of social support is an artifact of the study design. As our study design was cross-sectional, we cannot conclude about the causal relationship between the variables. Specifically, although we assume that emotional dissonance and social support predict burnout, it is also possible that the impact of emotional dissonance on burnout leads employees (as proactive agents) to seek social support, thus making social support an outcome variable (Kaufmann & Beehr, 1986). If this causal relation is true, that is, that employees actively seek support or that supervisor increase their support in following a stressor-strain experience, then a reverse buffering effect for social support is to be expected in two-way interaction analyses based on cross-sectional data (Mayo et al., 2012).

Extending the findings on two-way interactions, the moderated mediation analyses of colleague and leader support as moderators of an indirect association between organizational support and burnout through emotional dissonance provided partially support to the Psychosocial safety climate model. Specifically, the results showed that high levels of organizational support may contribute to lessen the occurrence of emotional dissonance, and thereby symptoms of burnout. However, although it was expected that high

organizational support should elicit supportive and cohesive relationships from both co-workers and supervisors which again should lessen the impact of experienced emotional dissonance, the findings once again showed that support from these sources exacerbated levels of burnout following emotional dissonance. Taken together, organizational support seems to reduce emotional dissonance and thereby also burnout, but when emotional dissonance does occur, receiving colleague and supervisor support may counteract the effect of organizational support.

Our study has implications for child welfare work, as well as for other occupations that involves direct contact with customers and clients. First, as the findings add further support to emotional dissonance as a risk factor for burnout (Bakker & Heuven, 2006; Indregard, et al., 2018b), our study points to the importance of considering emotional aspects in client-driven work environments and interventions aiming to prevent burnout. As for how to consider such emotional aspects, we have shown that providing employees with organizational support is one way to reduce both emotional demands and the outcomes of such demands. However, based on our findings, such support is only beneficial if used as a form of primary intervention where it contributes to reduce the occurrence of the emotional demands. If emotional demands, such as emotional dissonance, already have occurred, social support, be it from colleagues, supervisors, or organization, have a counterintuitive effect as it seems to strengthen the impact of the experienced demands. This indicates that secondary efforts aimed at reducing the impact of emotional demands should consider other strategies. For instance, as previous research has found that workers with high levels of self-efficacy may be more resilient toward emotional dissonance, interventions that can strengthen the self-efficacy may be especially beneficial (Indregard, et al., 2018a). Another possibility is to train child welfare workers in managing their emotions, while also regulate the emotions of recipients (Bakker & Heuven, 2006). For instance, in the same way air hostesses are taught how to make passengers feel safe and comfortable during their flight, and police officers are instructed how to reduce aggressive behavior and calm victims of crime (Bakker & Heuven, 2006), training programs could teach child welfare workers learn how to reduce and handle emotionally charged situations at work. Training programs may also help workers recontextualize the causes of the emotional dissonance and thereby become more likely accept the presence of the demand in question. This may subsequently help workers to better understand how to handle the demand, thus making it more controllable. It is well established that the experience of control is a key factor regarding successful coping with stressors (Karasek, 2011; Stansfeld & Candy, 2006). As highlighted in theoretical models such as the job demands-control model (Karasek, 1979) and the job demands-resources model (Bakker & Demerouti, 2007), implementing job designs that provides workers with more control over the work pace and decisions may therefore contribute to reduce the emotional load.

### **Limitations of the study**

Important strengths of the current study are the use of a probability sample of child welfare workers, the relatively high response rate and the use of valid and

well-established instruments. We note some limitations of this research. First, the study is based on cross-sectional data, a design that does not allow for causal inferences. However, the knowledge that many pairs of variables are associated, even without knowing their causal connections, is extremely valuable as a basis for theory and the target of intervention (Spector, 2019).

Second, all data were collected using self-report questionnaires, which could hamper the internal validity of the findings. For instance, there is the possibility of subjective interpretations, common method variance, and response set tendencies (Spector, 2006). However, as emotional dissonance, social support, and burnout all have subjective components and are influenced by perceptions, it is difficult to assess these phenomena by using objective methods. Several steps were taken to reduce problems associated with common-method variance, including varying response anchors for different subscales, ensuring that the independent variables were presented in different sections of the survey from the dependent variable, and emphasizing to participants that their responses would be anonymous (Podsakoff et al., 2003).

It should be noted that the included measure of social support assessed support internal to organization only. Other forms of social support not related to the workplace, such as support from family and friends, may have a different effect on the relationship between emotional dissonance and burnout. Furthermore, the questions about emotional dissonance were limited to emotional experiences related to clients. As emotional dissonance may also be grounded in situations involving colleagues, leaders, systems, or the institution in general, it remains unanswered how social support moderates the impact of burnout in such situations. To better understand the roles of emotional dissonance and social support in regard to burnout, upcoming studies should be based on instruments that assess all dimensions of emotional dissonance and social support. Although we adjusted our analyses for several variables that previously have been associated with our key study variables, there are several additional confounding variables that may have influenced the examined associations. For instance, individual dispositions, such as negative affectivity or emotional stability, may play a key role in understanding how the emotional dissonance relates to burnout. Such variables should be considered in future replications and extensions of this study.

## Conclusions and directions for future research

In conclusion, this study has shown that emotional dissonance is a potential risk factor for burnout among child welfare workers, and more importantly, that receiving social support seems to exacerbate the negative impact of emotional dissonance. As this study represents a single contribution to the literature, future research should replicate this study in other cultures and contexts as way of validating the findings. While the current study was based on the theoretical assumption that emotional dissonance is a precursor to burnout conditioned by social support, other causal relationships are also possible. As discussed above, a potential explanation for the reverse buffering effect of social support is that emotional dissonance and burnout in conjunction increase the need for social support and that support therefore should be examined as an outcome variable

rather than a moderator (Kaufmann & Beehr, 1986). To better understand the causal relation between the variables, upcoming studies on emotional dissonance, social support, and burnout should examine the associations between the variables using longitudinal data. Furthermore, the indicators of social supports used in the current study did not differentiate between emotional and instrumental support. As these two forms of social support may have differential impact on the association between emotional dissonance and burnout, future research should extend our findings by using more explicit measures of emotional and instrumental support.

### **Ethics**

The Regional Committees for Medical and Health Research Ethics in Norway (REC South East) approved the project (project number 28496). In line with the General Data Protection Regulation (GDPR), permission was acquired from the Norwegian Centre for Research Data (NSD; approval: 226309) to process the personal data in this project for research purposes.

### **Funding**

The authors received no financial support for the research, authorship, and/or publication of this article.

### **Authors contributions**


MN initiated the study, conducted analyses, and was responsible for writing the manuscript. HJ, JC, and LF participated in the idea development, contributed to the structure and content, and read all versions of the manuscript. MN and LF were responsible for the data collection. All authors contributed to the article and approved the submitted version.

### **Acknowledgements**

Thanks to Sana Parveen, Shahrooz Elka, and Jan Shahid Emberland for their contribution to the data collection.

### **ORCID iD**

Morten Birkeland Nielsen  <https://orcid.org/0000-0001-7858-8623>

Håkon A. Johannessen  <https://orcid.org/0000-0001-9974-4824>

### **References**

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Albrecht, T. L., & Adelman, M. B. (1987). *Communicating social support*. Thousand Oaks, CA: Sage.
- Alloway, R., & Bebbington, P. (1987). The buffer theory of social support: A review of the literature [Peer Reviewed]. *Psychological Medicine*, 17(1), 91–108. <https://doi.org/10.1017/S00332917000130153575581>



- Andela, M., & Truchot, D. (2017). Emotional dissonance and burnout: The moderating role of team reflexivity and re-evaluation. *Stress and Health, 33*(3), 179–189. <Go to ISI>://WOS:000407283500001. <https://doi.org/10.1002/smi.2695>
- Antoniou, A. S., Polychroni, F., & Vlachakis, A. N. (2006). Gender and age differences in occupational stress and professional burnout between primary and high-school teachers in Greece [Peer Reviewed]. *Journal of Managerial Psychology, 21*(7), 682–690. <https://doi.org/10.1108/02683940610690213>
- Back, C. Y., Hyun, D. S., & Chang, S. J. (2017). Association between emotional labor, emotional dissonance, burnout and turnover intention in clinical nurses: A multiple-group path analysis across job satisfaction. *Journal of Korean Academy of Nursing, 47*(6), 770–780. <Go to ISI>://WOS:000423497100005. <https://doi.org/10.4040/jkan.2017.47.6.770>
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology, 22*(3), 309–328. <https://doi.org/10.1108/02683940710733115>
- Bakker, A. B., & Heuven, E. (2006). Emotional dissonance, burnout, and in-role performance among nurses and police officers [Peer Reviewed]. *International Journal of Stress Management, 13*(4), 423–440. <https://doi.org/10.1037/1072-5245.13.4.423>
- Barak, M. E. M., Nissly, J. A., & Levin, A. (2001). Antecedents to retention and turnover among child welfare, social work, and other human service employees: What can we learn from past research? A review and metanalysis *Social Service Review, 75*(4), 625–661.<Go to ISI>://WOS:000173037000005. <https://doi.org/10.1086/323166>
- Baugerud, G. A., Vangbaek, S., & Melinder, A. (2018). Secondary traumatic stress, burnout and compassion satisfaction among Norwegian child protection workers: Protective and risk factors. *British Journal of Social Work, 48*(1), 215–235. <Go to ISI>://WOS:000425536800014. <https://doi.org/10.1093/bjsw/bcx002>
- Bavik, Y. L., Shaw, J. D., & Wang, X. H. (2020). Social support: Multidisciplinary review. *Synthesis, and Future Agenda. Academy of Management Annals, 14*(2), 726–758. <Go to ISI>://WOS:000559755500008. <https://doi.org/10.5465/annals.2016.0148>
- Beehr, T. A., Farmer, S. J., Glazer, S., Gudanowski, D. M., & Nair, V. N. (2003). The enigma of social support and occupational stress: Source congruence and gender role effects [Peer Reviewed]. *Journal of Occupational Health Psychology, 8*(3), 220–231. <https://doi.org/10.1037/1076-8998.8.3.22012872959>
- Birkeland, M. S., Nielsen, M. B., Hansen, M. B., Knardahl, S., & Heir, T. (2017). Like a bridge over troubled water? A longitudinal study of general social support, colleague support, and leader support as recovery factors after a traumatic event [Peer Reviewed]. *European Journal of Psychotraumatology, 8*(1), 1302692. <https://doi.org/10.1080/20008198.2017.1302692>
- Blanco-Donoso, L. M., Garrosa, E., Demerouti, E., & Moreno-Jimenez, B. (2017). Job resources and recovery experiences to face difficulties in emotion regulation at work: A diary study among nurses. *International Journal of Stress Management, 24*(2), 107–134.<Go to ISI>://WOS:000399744900001. <https://doi.org/10.1037/str0000023>
- Callaghan, P., & Morrissey, J. (1993). Social support and health: A review. *Journal of Advanced Nursing, 18*(2), 203–210. <Go to ISI>://WOS:A1993KL08200007. <https://doi.org/10.1046/j.1365-2648.1993.18020203.x>
- Dallner, M., Elo, A.-L., Gamberale, F., Hottinen, V., Knardahl, S., Lindström, K., Skogstad, A., & Ørhede, E. (2000). *Validation of the General Nordic Questionnaire (QPSNordic) for psychological and social factors at work*. Copenhagen: Nordic Council of Ministers
- De Jonge, J., & Dormann, C. (2003). The DISC model: Demand induced strain compensation mechanisms in job stress. In M. F. Dollard, H. R. Winefield, & A. H. Winefield (Eds), *Occupational stress in the service professions* (pp. 43–74). London: Taylor & Francis.

- Diestel, S., & Schmidt, K. H. (2010). Interactive effects of emotional dissonance and self-control demands on burnout, anxiety, and absenteeism. *Journal of Vocational Behavior, 77*(3), 412–424. <Go to ISI>://WOS:000284441000008. <https://doi.org/10.1016/j.jvb.2010.05.006>
- Dollard, M. F., & Bakker, A. B. (2010). Psychosocial safety climate as a precursor to conducive work environments, psychological health problems, and employee engagement. *Journal of Occupational and Organizational Psychology, 83*(3), 579–599. <https://doi.org/10.1348/096317909x470690>
- Dollard, M. F., Opie, T., Lenthall, S., Wakerman, J., Knight, S., Dunn, S., Rickard, G., & MacLeod, M. (2012). Psychosocial safety climate as an antecedent of work characteristics and psychological strain: A multilevel model. *Work and Stress, 26*(4), 385–404. <Go to ISI>://WOS:000311788300005. <https://doi.org/10.1080/02678373.2012.734154>
- Dormann, C., & Zapf, D. (1999). Social support, social stressors at work, and depressive symptoms: Testing for main and moderating effects with structural equations in a three-wave longitudinal study. *Journal of Applied Psychology, 84*(6), 874–884. <https://doi.org/10.1037/0021-9010.84.6.874>
- Drury, I. (2018). Exploring emotional labor in child welfare using frontline stories. *Administrative Theory & Praxis, 40*(4), 342–356. <https://doi.org/https://doi.org/10.1080/10841806.2018.1485451>
- Eng, A., 't Mannelje, A., McLean, D., Ellison-Loschmann, L., Cheng, S., & Pearce, N. (2011). Gender differences in occupational exposure patterns. *Occupational and Environmental Medicine, 68*(12), 888–894. <Go to ISI>://WOS:000296794600006. <https://doi.org/10.1136/oem.2010.064097>
- Finne, L. B., Christensen, J. O., & Knardahl, S. (2014). Psychological and social work factors as predictors of mental distress: A prospective study. *PLoS ONE, 9*(7), e102514. <https://doi.org/10.1371>
- Font, S. (2012). Burnout in child welfare: The role of employment characteristics and workplace opportunities. *Social Service Review, 86*(4), 636–659. <Go to ISI>://WOS:000313036600004. <https://doi.org/10.1086/668817>
- Frese, M. (1999). Social support as a moderator of the relationship between work stressors and psychological dysfunctioning: A longitudinal study with objective measures [Peer Reviewed]. *Journal of Occupational Health Psychology, 4*(3), 179–192. <https://doi.org/10.1037/1076-8998.4.3.17910431279>
- Grandey, A. A. (2000a). *The effects of emotional labor: Employee attitudes, stress and performance*. Section B: The Sciences and Engineering, Fort Collins: Colorado State University.
- Grandey, A. A. (2000b). Emotional regulation in the workplace: A new way to conceptualize emotional labor [Peer Reviewed]. *Journal of Occupational Health Psychology, 5*(1), 95–110. <https://doi.org/10.1037/1076-8998.5.1.9510658889>
- Greenglass, E. R., Burke, R. J., & Konarski, R. (1997). The impact of social support on the development of burnout in teachers: Examination of a model [Peer Reviewed]. *Work & Stress, 11*(3), 267–278. <https://doi.org/10.1080/02678379708256840>
- Halbesleben, J. R. B. (2006). Sources of social support and burnout: A meta-analytic test of the conservation of resources model [Journal; Peer Reviewed Journal]. *Journal of Applied Psychology, 91*(5), 1134–1145. <http://dx.https://doi.org/10.1037/0021-9010.91.5.113416953774>
- Hall, G. B., Dollard, M. F., & Coward, J. (2010). Psychosocial safety climate: Development of the PSC-12. *International Journal of Stress Management, 17*(4), 353–383. <Go to ISI>://WOS:000208210600004. <https://doi.org/10.1037/a0021320>
- Hallsten, L., Voss, M., Stark, S., & Josephson, M. (2011). Job burnout and job wornout as risk factors for long-term sickness absence. *Work, 38*(2), 181–192. <https://doi.org/10.3233/WOR-2011-1120>

- Han, S., Shanafelt, T. D., Sinsky, C. A., Awad, K. M., Dyrbye, L. N., Fiscus, L. C., Trockel, M., & Goh, J. (2019). Estimating the attributable cost of physician burnout in the United States. *Annals of Internal Medicine*, *170*(11), 784–790. <https://doi.org/10.7326/M18-1422>
- Hausser, J. A., Mojzisch, A., Niesel, M., & Schulz-Hardt, S. (2010). Ten years on: A review of recent research on the Job Demand-Control (-Support) model and psychological well-being. *Work and Stress*, *24*(1), 1–35. <Go to ISI>://WOS:000277735600001. <https://doi.org/10.1080/02678371003683747>
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling. <http://www.afhayes.com/public/process2012.pdf>
- Hobman, E. V., Restubog, S. L. D., Bordia, P., & Tang, R. L. (2009). Abusive supervision in advising relationships: Investigating the role of social support. *Applied Psychology-an International Review-Psychologie Appliquee-Revue Internationale*, *58*(2), 233–256. <Go to ISI>://WOS:000263908800003. <https://doi.org/10.1111/j.1464-0597.2008.00330.x>
- House, J. S., Robbins, C., & Metzner, H. L. (1982). The association of social relationships and activities with mortality: Prospective evidence from the Tecumseh Community-Health Study. *American Journal of Epidemiology*, *116*(1), 123–140. <Go to ISI>://WOS:A1982NW06600010. <https://doi.org/10.1093/oxfordjournals.aje.a113387>
- Indregard, A. M. R., Knardahl, S., & Nielsen, M. B. (2018a). Emotional dissonance, mental health complaints, and sickness absence among health- and social workers. The moderating role of self-efficacy. *Frontiers in Psychology*, *9*, 1-9. <Go to ISI>://WOS:000430834800001. <https://doi.org/10.3389/fpsyg.2018.00592>
- Indregard, A. M. R., Ulleberg, P., Knardahl, S., & Nielsen, M. B. (2018b). Emotional dissonance and sickness absence among employees working with customers and clients: A moderated mediation model via exhaustion and human resource primacy. *Frontiers in Psychology*, *9*, 1–10. <Go to ISI>://WOS:000429243300001. <https://doi.org/10.3389/fpsyg.2018.00436>
- Indregard, A. R., Knardahl, S., & Nielsen, M. B. (2017). Emotional dissonance and sickness absence: A prospective study of employees working with clients. *International Archives of Occupational and Environmental Health*, *90*(1), 83–92. <https://doi.org/10.1007/s00420-016-1176-9>
- Jolly, P. M., Kong, D. T., & Kim, K. Y. (2021). Social support at work: An integrative review. *Journal of Organizational Behavior*, *42*(2), 229–251. <Go to ISI>://WOS:000587363600001. <https://doi.org/10.1002/job.2485>
- Karasek, R. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, *24*, 2, 285–307. <https://doi.org/10.2307/2392498>
- Karasek, R. (2011). Demand/control model: A social, emotional, and physiological approach to stress risk and active behaviour. In J. J. Hurrell Jr., L. Levi, L. R. Murphy, & S. L. Sauter (Eds), *Encyclopedia of occupational health and safety* (pp. 34.6–34.14). Geneva, International Labor Organization.
- Kaufmann, G. M., & Beehr, T. A. (1986). Interactions between job stressors and social support: Some counterintuitive results [Peer Reviewed]. *Journal of Applied Psychology*, *71*(3), 522–526. <https://doi.org/10.1037/0021-9010.71.3.522> 3745079
- Kickul, J., & Posig, M. (2001). Supervisory emotional support and burnout: An explanation of reverse buffering effects [Peer Reviewed]. *Journal of Managerial Issues*, *13*(3), 328–344. <https://www.jstor.org/stable/40604354>
- Kim, H. (2011). Job conditions, unmet expectations, and burnout in public child welfare workers: How different from other social workers? [Peer Reviewed]. *Children and Youth Services Review*, *33*(2), 358–367. <https://doi.org/https://dx.doi.org/10.1016/j.childyouth.2010.10.001>

- King, E. A. (2021). Child welfare workers' experiences of client-perpetrated violence: Implications for worker mental health. *Children and Youth Services Review, 120*, 105763. <https://doi.org/ARTN10576310.1016/j.chilyouth.2020.105763>
- Kristensen, T. S., Borritz, M., Villadsen, E., & Christensen, K. B. (2005). The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work and Stress, 19*(3), 192–207. <Go to ISI>://WOS:000233809000002. <https://doi.org/10.1080/02678370500297720>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer.
- Lizano, E. L., & Barak, M. E. M. (2012). Workplace demands and resources as antecedents of job burnout among public child welfare workers: A longitudinal study. *Children and Youth Services Review, 34*(9), 1769–1776. <Go to ISI>://WOS:000307615700024. <https://doi.org/10.1016/j.chilyouth.2012.02.006>
- Marchand, A., Blanc, M. E., & Beaugard, N. (2018). Do age and gender contribute to workers' burnout symptoms? *Occupational Medicine (Oxford), 68*(6), 405–411. <https://doi.org/10.1093/occmed/kqy088>
- Martinussen, M., Richardsen, A. M., & Burke, R. J. (2007). Job demands, job resources, and burnout among police officers. *Journal of Criminal Justice, 35*(3), 239–249. <Go to ISI>://WOS:000247753800002. <https://doi.org/10.1016/j.jcrimjus.2007.03.001>
- Mayo, M., Sanchez, J. I., Pastor, J. C., & Rodriguez, A. (2012). Supervisor and coworker support: A source congruence approach to buffering role conflict and physical stressors. *International Journal of Human Resource Management, 23*(18), 3872–3889. <Go to ISI>://WOS:000306831600009. <https://doi.org/10.1080/09585192.2012.676930>
- Nielsen, M. B., Christensen, J. O., Hetland, J., & Finne, L. B. (2020). Organizational prevention and management strategies for workplace aggression among child protection workers: A project protocol for the Oslo Workplace Aggression Survey (OWAS). *Frontiers in Psychology, 11*, 1–12. <Go to ISI>://WOS:000552966200001. <https://doi.org/10.3389/fpsyg.2020.01401>
- Nielsen, M. B., Tvedt, S. D., & Matthiesen, S. B. (2012). Prevalence and occupational predictors of psychological distress in the offshore petroleum industry: A prospective study. *International Archives of Occupational and Environmental Health, 86*(8), 875–885. <https://doi.org/10.1007/s00420-012-0825-x>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879–903. <https://doi.org/10.1037/0021-9101.88.5.879>
- Santini, Z. I., Koyanagi, A., Tyrovolas, S., Mason, C., & Haro, J. M. (2015). The association between social relationships and depression: A systematic review [Peer Reviewed]. *Journal of Affective Disorders, 175*, 53–65. <https://doi.org/10.1016/j.jad.2014.12.049> 25594512
- Spector, P. E. (2006). Method variance in organizational research – Truth or urban legend? *Organizational Research Methods, 9*(2), 221–232. <https://doi.org/10.1177/1094428105284955>
- Spector, P. E. (2019). Do not cross me: Optimizing the use of cross-sectional designs. *Journal of Business and Psychology, 34*(2), 125–137. <https://doi.org/10.1007/s10869-018-09613-8>
- Stansfeld, S., & Candy, B. (2006). Psychosocial work environment and mental health – a meta-analytic review. *Scandinavian Journal of Work Environment & Health, 32*(6), 443–462. <Go to ISI>://000243336100004. <https://doi.org/10.5271/sjweh.1050>
- Viswesvaran, C., Sanchez, J. I., & Fisher, J. (1999). The role of social support in the process of work stress: A meta-analysis. *Journal of Vocational Behavior, 54*(2), 314–334. <Go to ISI>://WOS:000079508800006. <https://doi.org/10.1006/jvbe.1998.1661>
- Wang, X., Cai, L., Qian, J., & Peng, J. (2014). Social support moderates stress effects on depression [Peer Reviewed]. *International Journal of Mental Health Systems, 8*(41), 5. <https://doi.org/10.1186/1752-4458-8-41>

- Wannstrom, I., Peterson, U., Asberg, M., Nygren, A., & Gustavsson, J. P. (2009). Psychometric properties of scales in the General Nordic Questionnaire for Psychological and Social Factors at Work (QPS(Nordic)): Confirmatory factor analysis and prediction of certified long-term sickness absence. *Scandinavian Journal of Psychology, 50*(3), 231–244. <https://doi.org/10.1111/j.1467-9450.2008.00697.x>
- Zapf, D. (2002). Emotion work and psychological well-being. A review of the literature and some conceptual considerations. *Human Resource Management Review, 12*, 2, 237–268. [https://doi.org/10.1016/S1053-4822\(02\)00048-7](https://doi.org/10.1016/S1053-4822(02)00048-7)
- Zapf, D., Kern, M., Tschan, F., Holman, D., & Semmer, N. K. (2021). Emotion work: A work psychology perspective. *Annual Review of Organizational Psychology and Organizational Behavior, 8*(8), 139–172. <Go to ISI>://WOS:000614614100007. <https://doi.org/10.1146/annurev-orgpsych-012420-062451>
- Zapf, D., Seifert, C., Schmutte, B., Mertini, H., & Holz, M. (2001). Emotion work and job stressors and their effects on burnout. *Psychology & Health, 16*(5), 527–545. <Go to ISI>://WOS:000171388900003. <https://doi.org/10.1080/08870440108405525>
- Zapf, D., Vogt, C., Seifert, C., Mertini, H., & Isic, A. (1999). Emotion work as a source of stress: The concept and development of an instrument [Peer Reviewed]. *European Journal of Work and Organizational Psychology, 8*(3), 371–400. <https://doi.org/10.1080/135943299398230>

