




Antecedents and Consequences of Teachers' Emotional Labor: a Systematic Review and Meta-analytic Investigation

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Abstract

Emotional labor represents a long-standing area of research that since its initial development by Hochschild (1983) has been increasingly explored to understand *why* and *how* teachers manage and express their emotions in class. However, previous studies investigating teachers' emotional labor have utilized varying conceptual frameworks and have often shown inconsistent effects, particularly concerning deep acting (i.e., the internalization of desired emotions such that expressed emotions are more consistent with experienced emotions). The current systematic review aimed to outline and summarize existing research findings on teachers' emotional labor and is supplemented by a meta-analytic investigation on the connection between teachers' emotional labor and psychological well-being. Practical implications, limitations, and directions for future research are discussed.

Keywords Teachers' emotional labor · Systematic review · Meta-analysis · Surface acting · Deep acting · Psychological well-being

The emotional climate in the classroom is of considerable importance to both student and teacher development (Wolters and Gonzalez 2008). Students not only acquire knowledge and skills from teachers but also increasingly recognize and respond to their teachers' emotions as part of social–emotional development (Konishi et al. 2010). Conversely, teachers are also influenced by their students' behaviors and experience various emotions that impact both themselves and their students. However, research to date has primarily explored emotions in the classroom as experienced by students, leaving teachers' emotions underexplored. Existing research shows teachers to indeed experience various emotions while teaching ranging from

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enjoyment and empathy to anger and pity, with these emotions influencing various aspects of teachers' lives (e.g., well-being, cognition, motivation; Chang 2009, 2013; Frenzel and Stephens 2013; Sutton 2005; Sutton and Wheatley 2003). For example, teachers who report more positive emotions (e.g., enjoyment) also tend to report lower burnout and higher job satisfaction (Brackett et al. 2010) with teachers' positive emotions also fostering student development by way of teacher enthusiasm (Fredrickson 2001; Frenzel et al. 2009). However, research on emotions in educational settings highlights that they are not only passively experienced but also actively regulated (see Gross 2015), with the emotions teachers experience often differing significantly from those they express in the classroom (Taxer and Frenzel 2015). As social norms and display rules require teachers to present specific emotions to students on a daily basis, many teachers experience a persistent disconnect between the emotions they experience and those they perform (Taxer and Frenzel 2015; Zembylas 2005). Although teachers may express genuine emotions in class, they nevertheless often routinely fake or hide emotions to either facilitate or not impede student development. Referred to as "emotional labor," this performative aspect of emotion regulation reflects the discrepancy between experienced and expressed emotions and can impact teachers' psychological, behavioral, and physical adjustment (e.g., Cheung and Lun 2015a, b; Qi et al. 2017; Taxer and Frenzel 2015).

Research on emotional labor has typically focused on the service sector due to daily performative interactions with others (e.g., customers, patients, or students; see Hülshager and Schewe 2011; Mesmer-Magnus et al. 2012). However, a recent meta-analysis found occupation type to significantly moderate the negative effects of emotional labor (Mesmer-Magnus et al. 2012) highlighting the importance of exploring emotional labor in specific occupations. Unlike other service providers, teachers interact with students for extended periods, both individually and in large groups, with the emotions they express in class impacting students' emotional development by serving as examples of effective emotion regulation strategies (Sutton 2004). Accordingly, the present review was conducted to gain a deeper understanding of how teachers manage and express their emotions given the unique challenges of instructional settings, as well as the individual and organizational correlates thereof.

Although teachers' emotional labor has received increasing research attention over the past few decades, findings to date are contradictory and based primarily on cross-sectional designs that do not provide clear evidence as to the antecedents versus consequences of emotional labor behaviors. Whereas some research suggests that teachers' emotional labor is associated with better psychological well-being (e.g., Akin et al. 2014; Philipp and Schüpbach 2010), other research suggests the opposite (e.g., Näring et al. 2012; Tuxford and Bradley 2015). Hence, it is difficult at present to draw reliable conclusions from existing individual empirical studies as to the correlates of emotional labor in teachers. Thus, the present review aimed to synthesize past research to outline present knowledge about emotional labor in teachers and identify areas for future research.

Conceptual Framework

Emotional Labor

Emotional labor was originally defined by Hochschild (1983) as "the management of feeling to create a publicly observable facial and bodily display" (p. 7) and is commonly used to

describe how individuals modify their emotional expressions from their truly experienced emotions for communicative purposes. Hochschild further suggested that individuals invest substantial effort in displaying desirable emotions in organizational settings through various cognitive, physiological, and expressive processes, with the resulting disconnect between internal feelings and external expressions corresponding with higher psychological strain. According to Hochschild (1983), *surface acting* referred to when individuals externally expressed an emotion (e.g., physical behavioral, facial response) that differed from their experienced emotions without modifying their internal feelings, as evidenced by amplifying, faking, or suppressing an emotion (Côté et al. 2013; Grandey 2000). In contrast, the term *deep acting* referred to internalizing the desired emotion such that the emotions expressed are more consistent with felt emotions. Ashforth and Humphrey as well as Morris and Feldman (1996) later included *genuinely expressing emotions* as a third emotional labor strategy, arguing that although emotional dissonance—the discrepancy between expected and experienced emotions—may be low, cognitive effort is nonetheless required to express internally felt desired emotions in a contextually appropriate manner. Diefendorff et al. (2005) also argued that effort is required to determine how to genuinely express emotions such that “their displays coincide with the organization’s expectations” (p. 340).

In an attempt to synthesize dominant theories of emotional labor, Grandey (2000; Grandey and Gabriel 2015) proposed an integrative model suggesting that personal factors, including personality traits, work motives, and emotional abilities, as well as contextual factors (e.g., job autonomy, supervisor support), can influence emotional labor that, in turn, impacts well-being (e.g., job satisfaction, burnout) and organizational outcomes (e.g., performance, dedication). This model suggests that emotional labor is best understood as an integrative process including individuals’ perceptions concerning emotional display rules, emotion regulation, and emotional performance, with other contextual factors, such as social support, serving as personal resources that may further moderate the impact of emotional labor on well-being. Concerning the measure of emotional labor behaviors, the most comprehensive and commonly adopted is the emotional labor scale of Diefendorff et al. (2005). Derived from earlier scales by Grandey (2003), as well as Kruml and Geddes (2000), this measure assessed surface acting (e.g., “I just pretend to have the emotions I need to display for my job”), deep acting (e.g., “I try to actually experience the emotions that I must show to customers”), as well as genuine emotion displays (e.g., “The emotions I show customers match what I spontaneously feel”). It is generalized and can thus be used across professions.

Emotional Labor and Related Constructs

Whereas the main focus of the current review is on teachers’ emotional labor, it is important to first differentiate emotional labor from related yet distinct constructs, namely emotion regulation and emotional intelligence. *Emotional intelligence*, defined as one’s ability to monitor, discriminate, use, and express emotions (Salovey and Mayer 1990), is commonly understood as a broad construct that reflects on one’s ability to perceive and utilize emotions wisely to facilitate personal and intellectual growth (Yin 2015; Yin et al. 2013). The construct specifically addresses one’s *capacity* for carrying out emotion-related behaviors. On the other hand, *emotional labor* focuses on the conscious or unconscious *behaviors* of hiding or faking emotions in a professional context, in accordance with specific emotional display rules. It is suggested that individuals’ beliefs in their capacity to perceive and regulate emotions should impact their subsequent emotion-related behaviors (Yin 2015; Yin et al. 2013). Therefore, prior

empirical studies that have examined potential relationships between emotional intelligence and emotional labor have analyzed emotional intelligence as either a predictor of emotional labor behaviors (e.g., college students: Austin et al. 2008; nurse: Mikolajczak et al. 2007), or a moderator of emotional labor effects (e.g., teachers: Karim and Weisz 2011; Yin et al. 2013). Concerning the correlations between the two constructs, Yin's (2015; Yin et al. 2013) study found low correlations between teachers' emotional intelligence and surface acting (.01–.10 for the different subtypes of emotional intelligence) and low to moderate correlations between emotional intelligence and deep acting (.25–.31).

Relatedly, although the constructs of *emotional labor* and *emotion regulation* both focus on the goal-directed management of emotional experiences, emotional labor is typically conceptualized as more specific in nature. Accordingly, emotional labor can be understood as a subtype of emotion regulation that occurs in a performative context with the goal of publicly expressing desirable emotions to facilitate interpersonal interactions (Carson 2006; Grandey and Gabriel 2015; Gross 2013). Terms such as upregulating versus downregulating (e.g., emotion regulation: Côté et al. 2013; Sutton and Harper 2009; emotional labor: Frenzel 2014), or faking versus hiding emotions (Taxer and Frenzel 2015), are used in both emotion regulation and labor research to refer to intentionally modulating the intensity of one's emotions. However, it is commonly understood that whereas emotion regulation frameworks address an individuals' general dispositional approach to coping with stressors, emotional labor frameworks instead involve performing expected emotions in employment settings despite potentially inconsistent internal experiences (e.g., caregiving, teaching, public service). In sum, whereas conceptual frameworks referring to emotion regulation and emotional labor share similar tenets, they can be differentiated in that the former emphasizes internal processes and individual differences, and the latter addresses the psychological challenges of conforming to extrinsically required emotion display rules (see Grandey et al. 2013 for more on the differentiation between emotional labor and emotion regulation). Accordingly, given the focus of the present review on emotion regulation and expression by teachers as required to facilitate student development, we specifically examined published research on emotional labor in teachers.

The Present Review

Despite its relatively brief history, the concept of emotional labor represents a particularly useful tool for understanding how the types of emotions teachers experience in class correspond with the types of emotions they choose to express. This construct thus addresses both *why* (antecedents of emotional labor; e.g., emotion display rules) and *how* (emotional labor strategies; e.g., surface vs. deep acting) teachers manage their emotions in instructional settings, as well as the individual and organizational correlates thereof. Although multiple empirical investigations have been conducted to evaluate teachers' emotional labor, study protocols and findings have proven inconsistent, especially concerning the effects of deep acting. Therefore, the aim of the current review is twofold: First, this review summarizes empirical findings to date on teachers' emotional labor, with findings organized according to possible relationships as proposed by the study authors and consistent with established theories of emotional labor (Grandey and Gabriel 2015; Hochschild 1983; see Fig. 1). Second, this review aims to provide a clear and detailed evaluation of teachers' emotional

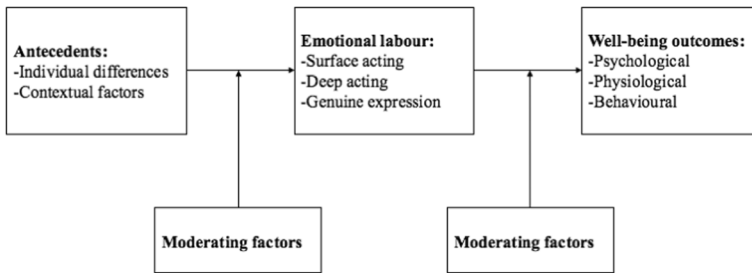


Fig. 1 Hypothesized framework for the current review

labor through a meta-analysis of the relationship between the various emotional labor strategies (i.e., deep acting, surface acting, genuine expression) and teachers' psychological well-being (e.g., job satisfaction, burnout).

Part I: Literature Review

Method

Three databases were included in the literature search (ERIC, PsycINFO, Web of Science) with search terms focusing on emotional labor as experienced by teachers (i.e., “teacher” or “instructor” or “educator” + “emotional labor,” “emotional labour,” “emotional dissonance,” “emotional congruence,” or “emotional authenticity”). Database searches included journal articles, book chapters, dissertations, and conference proceedings in the English language (see Table 1 and Fig. 2 for details). Snowball searches of primary sources were additionally conducted. Following an initial total of 693 search results that included a very high percentage of overlapping articles across databases (~70–80%), duplicate papers were removed, as were papers with relevant titles or abstracts but irrelevant content (e.g., “EI training and pre-service teacher well-being”; “Splitting the academy: The emotions of intersectionality at work”; Moore et al. 2010; Vesely et al. 2014), resulting in a reduced list of 106 unique and relevant articles for additional screening. These articles were further reduced to 28 following two inclusion criteria: First, studies were required to examine practicing teachers' emotional labor as experienced in the school context (all instructional levels); studies examining teachers' emotional labor not experienced in an instructional context (e.g., athletics; e.g., Beal et al. 2006; Lee and Chelladurai 2016) were excluded as were studies on educational professionals not engaged in teaching (e.g., school principals; e.g., Maxwell and Riley 2017; Zapf and Holz 2006) and teachers' perceptions of emotional labor in others (e.g., in other school personnel; e.g., Lu and Liou 2015). Second, studies were required to examine empirical relationships between emotional labor and related variables thereby excluding studies that examined philosophical or sociological aspects of emotional labor (e.g., commentaries, interviews, case studies; e.g., Acheson et al. 2016; Bellas 1999; Loughran 2015).

Of the 28 articles reviewed, 24 (86%) adopted the classification of emotional labor as surface versus deep acting with only two articles further differentiating teachers' emotional labor into genuine, faking, and hiding emotions (Mahoney et al. 2011; Taxer and Frenzel 2015) and two additional articles examining emotional labor as a singular construct (Keller et al. 2014; Kinman et al. 2011). The current review therefore focuses on the most commonly

Table 1 Key search terms

Database	Search strategy	Results	
Eric ProQuest (total 266)	teacher* AND emotional labor/emotional labour	145	
	instructor* AND emotional labor/emotional labour	13	
	educator* AND emotional labor/emotional labour	32	
	teacher* AND emotional dissonance	22	
	instructor* AND emotional dissonance	2	
	educator* AND emotional dissonance	11	
	teacher* AND emotional congruence	16	
	instructor* AND emotional congruence	0	
	educator* AND emotional congruence	2	
	teacher* AND emotional authenticity	20	
	instructor* AND emotional authenticity	1	
	educator* AND emotional authenticity	2	
	PsycINFO (total 125)	teacher* AND emotional labor	51
		instructor* AND emotional labor	10
		educator* AND emotional labor	6
teacher* AND emotional labour		32	
instructor* AND emotional labour		1	
educator* AND emotional labour		4	
teacher* AND emotional dissonance		8	
instructor* AND emotional dissonance		1	
educator* AND emotional dissonance		8	
teacher* AND emotional congruence		2	
instructor* AND emotional congruence		0	
educator* AND emotional congruence		1	
teacher* AND emotional authenticity		1	
instructor* AND emotional authenticity		0	
educator* AND emotional authenticity		0	
Web of Science (total 285)	teacher* AND emotional labor/emotional labour	182	
	instructor* AND emotional labor/emotional labour	15	
	educator* AND emotional labor/emotional labour	28	
	teacher* AND emotional dissonance	17	
	instructor* AND emotional dissonance	1	
	educator* AND emotional dissonance	7	
	teacher* AND emotional congruence	17	
	instructor* AND emotional congruence	0	
	educator* AND emotional congruence	2	
	teacher* AND emotional authenticity	13	
	instructor* AND emotional authenticity	2	
	educator* AND emotional authenticity	1	

Note *is a wildcard symbol that broadens the search by including all terms having these specific root letters

adopted strategies of teachers' emotional labor—deep acting, surface acting, and genuine expression—and classified faking and hiding emotions as subtypes of surface acting (Glomb and Tews 2004; Grandey and Gabriel 2015; Mikolajczak et al. 2009). Among all the empirical studies reviewed, only two investigated teachers' emotional labor longitudinally to examine its effects on subsequent well-being outcomes (Hülshager et al. 2010; Philipp and Schüpbach 2010). Accordingly, each of the remaining studies ($k = 26$) examined teachers' emotional labor cross-sectionally. Due to the cross-sectional nature of most studies reviewed, the present review thus does not intend to infer nomological causal relationships between the related constructs, but instead to simply classify the variables assessed in relation to teachers' emotional labor according to how they were proposed in the original articles and in Grandey's (2000; Grandey and Gabriel 2015) theoretical model (e.g., personality traits, school climate are

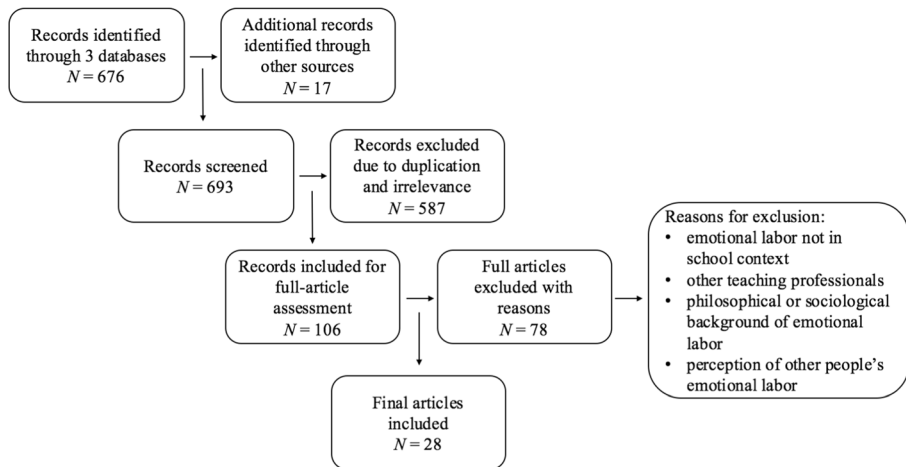


Fig. 2 Literature search flow diagram

assumed to influence subsequent emotional labor; more global psychological, behavioral, and physiological variables such as job satisfaction and burnout are instead proposed as possible outcomes of teachers' emotional labor). Finally, we further summarize findings for factors outlined in prior studies as moderating variables (of both antecedents–labor and labor–outcome relations). A detailed summary of protocols and findings across studies is presented in Table 2.

Proposed Antecedents of Teachers' Emotional Labor

Individual Differences Teacher personality has been examined in prior empirical studies as a potential predictor of teachers' emotional labor (Basim et al. 2013). More specifically, the study of Basim et al. (2013) with Turkish primary and high school teachers showed greater neuroticism to be associated with more surface acting, and higher openness to experience to be related to more deep acting, with openness and agreeableness additionally found to correspond with greater expression of genuine emotions. Moreover, teachers' self-reports of trait emotional labor (retrospective, persistent over time) have been found to be associated with their state-level self-reports of emotional labor (variable, situation-specific; Chaplin et al. 1988). More specifically, teachers who reported a tendency to show inauthentic emotions in the classroom on traditional retrospective self-report questionnaires (trait-level) were also more likely to report engaging in emotional labor on real-time assessments (state-level; i.e., experience sampling method; Keller et al. 2014).

Research also shows teachers' tendency to experience positive or negative moods, referred to as “emotional affectivity,” to correspond with their reports of emotional labor (Karim and Weisz 2011). Teachers who typically experienced positive emotions were more likely to engage in deep acting, whereas those who more often experienced negative emotions reported greater surface acting. Concerning specific (discrete) teaching-related emotions, Keller et al. (2014) showed low enjoyment, high anger, and high anxiety to significantly correspond with higher levels of teachers' general emotional labor with respect to emotional dissonance (discrepancy between internal and expressed emotions). However, research in which emotional labor in teachers is more specifically differentiated suggests that whereas surface acting is related to lower enjoyment, as well

Table 2 Summary of study findings

Article/study	Sample	Predictors of emotional labor	Consequences of emotional labor	Moderators of emotional labor	Measurement	Emotional labor strategy	Specific models tested
Akin et al. (2014)	370 Turkish primary school teachers		Emotional exhaustion, depersonalization, personal accomplishment		Adapted from Diefendorff et al. (2005)	Deep acting, surface acting, genuine expression of emotions	Emotional labor → emotional exhaustion, depersonalization, personal accomplishment
Basim et al. (2013)	798 Turkish primary and secondary school teachers	Personality	Emotional exhaustion		Diefendorff et al. (2005)	Deep acting, surface acting, genuine expression of emotions	Personality → emotional labor → emotional exhaustion
Cheung and Lun (2015a)	262 Chinese primary and secondary school teachers		Job satisfaction, emotional exhaustion, depersonalization, personal accomplishment		Diefendorff et al. (2005)	Deep acting, surface acting, genuine expression of emotions	Emotional labor → job satisfaction, emotional exhaustion, depersonalization, personal accomplishment
Cheung and Lun (2015b)	262 Chinese primary and secondary school teachers		Work engagement; organizational citizenship behaviors (OCB)		Diefendorff et al. (2005)	Deep acting, surface acting, genuine expression of emotions	Latent profile analyses: 3 classes of teachers → job satisfaction, burnout
Cheung et al. (2011)	264 Chinese primary and secondary school teachers		Job satisfaction, emotional exhaustion, depersonalization, personal accomplishment	Psychological capital (self-efficacy, hope, resilience, and optimism)	Diefendorff et al. (2005)	Deep acting, surface acting, genuine expression of emotions	Emotional labor × psychological capital → burnout and job satisfaction
Hülshager et al. (2010)	152 trainee teachers from primary and secondary schools in Germany		Strain and job performance		Brotheridge and Lee (2003)	Deep acting, surface acting	Cross-lagged models between emotional labor and strain/job performance (longitudinal design)
Karim and Weisz (2011)	210 Pakistan university teachers	Positive and negative	Psychological distress	Emotional intelligence	Grandey (2003) for surface acting;	Deep acting, surface acting	Emotional affectivity × emotional intelligence

Table 2 (continued)

Article/study	Sample	Predictors of emotional labor	Consequences of emotional labor	Moderators of emotional labor	Measurement	Emotional labor strategy	Specific models tested
		emotional affectivity			Brotheridge and Lee (1998) for deep acting		→ emotional labor; emotional labor × emotional intelligence → psychological distress
Keller et al. (2014)	39 German teachers	Emotions, emotional exhaustion, trait emotional labor			Zapf et al. (1999)	Emotional labor	Discrete emotions, emotional exhaustion, trait emotional labor → state emotional labor
Kimman et al. (2011)	628 secondary school teachers from England		Emotional exhaustion, personal accomplishment, job satisfaction	Social support	Zapf et al. (1999)	Emotional labor	Emotional labor × social support → burnout and job satisfaction
Lee et al. (2016)	189 secondary school teachers from Germany		Discrete emotions		Diefendorff et al. (2005)	Deep acting, surface acting	Emotion regulation and emotional labor → discrete teacher emotions
Li and Wang (2016)	317 primary and middle school teachers from China	Public service motivation	Job satisfaction		Liu (2007)	Deep acting, surface acting	Public service motivation → emotional labor → job satisfaction
Mahoney et al. (2011)	598 professors in the USA		Job satisfaction, emotional exhaustion, and affective commitment		Glomb and Tews (2004)	Genuine positive, faking positive, faking negative, hiding positive, hiding negative	Emotional labor → emotional exhaustion → job satisfaction → affective commitment; emotional labor → job satisfaction → affective commitment
Näring et al. (2006)	365 math secondary teachers in the Netherlands		Emotional exhaustion, depersonalization, personal accomplishment		Brüet et al. (2005)	Deep acting, surface acting	Work characteristics and emotional labor → burnout
			Emotional exhaustion		Brüet et al. (2005)		

Table 2 (continued)

Article/study	Sample	Predictors of emotional labor	Consequences of emotional labor	Moderators of emotional labor	Measurement	Emotional labor strategy	Specific models tested
Naring et al. (2012)	219 Belgium secondary school teachers					Deep acting, surface acting	Emotional labor → emotional exhaustion
Noor and Zainuddin (2011)	102 female teachers from Malaysia		Emotional exhaustion and depersonalization	Work–life conflict (n.s.)	Brotheridge and Lee (1998)	Deep acting, surface acting	Emotional labor → work life conflict (moderation/-mediation) → emotional exhaustion and depersonalization
Philipp and Schüpbach (2010)	102 primary and secondary school teachers from Germany		Emotional exhaustion and dedication (n.s.)		Translated version of Brotheridge and Lee (1998)	Deep acting, surface acting	Cross-lagged models between emotional labor and emotional exhaustion/dedication (longitudinal design)
Qi et al. (2017)	43 Chinese preschool teachers		Hair cortisol levels		Translated version of Grandey (2003)	Deep acting, surface acting	Emotional labor → hair cortisol levels
Retowski and	Fila-lankowska (2013)	173 primary and secondary school teachers from Poland		Emotional exhaustion and job satisfaction	Attitudes toward occupation	Bazińska et al. (2010)	Surface acting
Surface acting × attitudes → emotional exhaustion and job satisfaction							
Taxer and Frenzel (2015)	266 secondary school teachers from the USA				Glomb and Tews (2004)	Genuine positive, faking negative, hiding positive, hiding negative	Emotional labor correlates with self-efficacy, relatedness, physical health, mental health, emotional exhaustion, and job satisfaction
Truta (2014)							

Table 2 (continued)

Article/study	Sample	Predictors of emotional labor	Consequences of emotional labor	Moderators of emotional labor	Measurement	Emotional labor strategy	Specific models tested
Tuxford and Bradley (2015)	188 Romanian teachers from all levels of the education system	Emotional effort, display rules, job demands, motivation	Emotional exhaustion	Self-efficacy; social support (n.s.)	Brotheridge and Lee (2003)	Deep acting, surface acting	Emotional effort, display rules, job demands, motivation → emotional labor
Wrobel (2013)	556 Australian primary school teachers	Empathy	Emotional exhaustion		Brotheridge and Lee (2003)	Deep acting, surface acting	Emotional labor → emotional exhaustion, moderated by self-efficacy and social support
Yao et al. (2015)	209 Polish teachers	School climate	Emotional exhaustion		Kruml and Geddes (2000)	Deep acting, surface acting	Empathy → emotional labor → emotional exhaustion
Yilmaz et al. (2015)	703 Chinese teachers	School climate	Emotional exhaustion, depersonalization, personal accomplishment		Yin (2012)	Deep acting, surface acting	School climate → emotional labor → emotional exhaustion
Yin (2015)	410 Turkish teachers	Emotional job demands and emotional intelligence	Emotional exhaustion, depersonalization, personal accomplishment		Diefendorff et al. (2005)—adapted version	Deep acting, surface acting, genuine expression of emotions	Emotional labor on depersonalization, and personal accomplishment
Yin et al. (2017)	1281 primary and secondary school teachers from China	Emotional job demands and emotional intelligence	Job satisfaction	Emotional intelligence	Yin (2012)—adapted from Diefendorff et al. (2005)	Deep acting, surface acting, genuine expression of emotions	Emotional job demands × emotional intelligence → emotional labor; emotional job demands, emotional intelligence, and emotional labor → job satisfaction
Yin et al. (2017)	1115 primary teachers from Hong Kong	Emotional job demands, trust in colleagues	Self-efficacy; student engagement, instructional strategies, classroom management		Yin (2012)—adapted from Diefendorff et al. (2005)	Deep acting, surface acting, genuine expression of emotions	Emotional job demands and trust → emotional labor → self-efficacy

Table 2 (continued)

Article/study	Sample	Predictors of emotional labor	Consequences of emotional labor	Moderators of emotional labor	Measurement	Emotional labor strategy	Specific models tested
Yin et al. (2013)	1281 primary and secondary school teachers from China	Emotional intelligence	Teaching satisfaction		Yin (2012)—adapted from Diefendorff et al. (2005)	Deep acting, surface acting, genuine expression of emotions	Emotional intelligence → emotional labor → teaching satisfaction
Zhang and Zhu (2008)	164 Chinese university English teachers		Emotional exhaustion, depersonalization, personal accomplishment, job satisfaction		Diefendorff et al. (2005)	Deep acting, surface acting, genuine expression of emotions	Emotional labor → emotional exhaustion, depersonalization, personal accomplishment, job satisfaction

Note. → represents relationships presented in the original articles and does not refer to causality

as more anxiety, anger, and frustration, deep acting is consistently associated with a more positive emotional profile (Lee et al. 2016).

Findings also suggest that teachers' motivation may correspond with emotional labor behaviors. For example, Li and Wang (2016) showed that teachers who were more motivated to teach due to a commitment to public service also reported more deep acting and fewer surface acting behaviors. Truta's (2014) study similarly showed higher levels of intrinsic motivation and effort reported by teachers concerning their expression of appropriate emotions to be associated with more deep acting behaviors. Instructional self-efficacy has also been found to be related to teachers' emotional labor, with lower self-efficacy related to more frequent reports of hiding and faking emotions (e.g., surface acting; Taxer and Frenzel 2015; Yin et al. 2017). Deep acting and expression of genuine emotions have similarly shown positive relations with multiple aspects of teaching self-efficacy (instructional strategies, classroom management, student engagement; Yin et al. 2017). Finally, emotional intelligence has also been found to correspond with higher levels of deep acting and expression of naturally felt emotions in teachers (Yin et al. 2013).

Contextual Factors Emotional display rules are often considered by researchers as proximal contributors to emotional labor (Grandey 2000; Grandey and Gabriel 2015). Accordingly, research shows teachers' endorsement of display rules concerning the hiding of negative emotions to be positively associated with surface acting, with adherence of display rules involving expression of positive emotions instead being positively related to deep acting (Truta 2014). Teachers' beliefs concerning the frequency, intensity, and duration of emotional interactions while teaching (i.e., emotional job demands) have also been consistently found to be associated with their emotional labor (e.g., Truta 2014; Yin 2015). Findings with Chinese teachers show those who report greater emotional job demands to be more likely to engage in both surface and deep acting and to express genuinely felt emotions (Yin 2015). Findings from other countries similarly show higher perceived emotional job demands to be positively related to both deep and surface acting (Hong Kong; Yin et al. 2017) or deep acting specifically (Romania; Truta 2014). Other research has additionally shown teachers' perception of school climate to impact their emotional labor, with findings from Yao et al. (2015) showing teachers' beliefs concerning student-teacher relationships, support for instructional innovation, and collaboration between teachers impacting how they expressed emotions in the classroom. The better the perceived school climate, the more likely teachers were to report deep acting and avoid surface acting (Yao et al. 2015). Yin et al. (2017) further showed that teachers who reported higher levels of trust of their colleagues to also report lower surface acting and greater expression of naturally felt emotions at school.

Proposed Consequences of Teachers' Emotional Labor

Psychological Well-Being According to Chang (2009), emotional display rules requiring teachers to express positive emotions and hide negative emotions represent an unspoken instructional burden that can lead to burnout. Findings with teachers also show greater emotional dissonance (disparity between experienced vs. expressed emotions) to be associated with greater burnout and lower job satisfaction in teachers (Keller et al. 2014; Kinman et al. 2011). Although these results should be interpreted with caution as emotional dissonance does not directly address the specific type of emotional labor strategies employed to create or

resolve the dissonance (e.g., surface vs. deep acting; Grandey 2000), it nonetheless suggests a possible link between teachers' emotional labor and their psychological health.

Studies have also found surface acting to be negatively associated with teachers' psychological well-being including greater occupational stress (Hülshager et al. 2010; Karim and Weisz 2011) and lower job satisfaction (Zhang and Zhu 2008). Surface acting by teachers has also been found to correspond with greater burnout in terms of emotional exhaustion (Akin et al. 2014; Basim et al. 2013; Cheung and Lun 2015a; Näring et al. 2006; Noor and Zainuddin 2011; Retowski and Fila-Jankowska 2013; Tuxford and Bradley 2015; Yao et al. 2015; Yilmaz et al. 2015), depersonalization (Akin et al. 2014; Cheung and Lun 2015a; Näring et al. 2006; Noor and Zainuddin 2011; Yilmaz et al. 2015; Zhang and Zhu 2008), and lower perceived personal accomplishment (Yilmaz et al. 2015). Other studies similarly show surface acting by teachers to correspond with lower extrinsic job satisfaction (e.g., derived from interpersonal relations, school policies), with deep acting instead found to correspond with higher intrinsic job satisfaction (e.g., derived from personal responsibility, social status; Li and Wang 2016).

Mahoney et al. (2011) further differentiated teachers' surface acting according to positive versus negative emotions, and faking versus hiding emotions, and found teachers who tended to fake positive emotions to also report lower job satisfaction and greater exhaustion. Taxer and Frenzel (2015) similarly showed teachers who tended to fake positive or negative emotions, or hide negative emotions, to also report greater exhaustion. However, despite most existing research having hypothesized emotional exhaustion as a psychological outcome of teachers' emotional labor, studies have also examined it as an antecedent with higher exhaustion levels also found to contribute to greater surface acting (Keller et al. 2014; Philipp and Schüpbach 2010). These findings underscore the importance of future work to more directly examine causal relations between emotional labor and corresponding variables to provide substantive empirical evidence in support of hypothesized directional relations (e.g., longitudinal, experimental).

With respect to relations between deep acting and well-being, existing findings are mixed. Studies consistently show higher levels of deep acting by teachers to be associated with greater job satisfaction (Cheung and Lun 2015a; Yin 2015; Zhang and Zhu 2008) and lower burnout in terms of exhaustion (Akin et al. 2014; Basim et al. 2013; Philipp and Schüpbach 2010; Zhang and Zhu 2008), depersonalization (Akin et al. 2014; Yilmaz et al. 2015; Zhang and Zhu 2008), and higher perceived personal accomplishment (Akin et al. 2014; Cheung and Lun 2015a; Yilmaz et al. 2015; Zhang and Zhu 2008). However, findings from Wrobel (2013) contradict these results in showing deep acting by teachers to correspond with significantly greater emotional exhaustion, with multiple studies showing nonsignificant relationships between deep acting and teachers' psychological well-being (e.g., Karim and Weisz 2011; Näring et al. 2006, 2012; Noor and Zainuddin 2011) highlighting the need for more research to examine potential confounds or moderating variables.

Finally, teachers who reported a greater tendency to genuinely express felt emotions also tend to report lower stress (Karim and Weisz 2011) and higher job satisfaction (Cheung and Lun 2015a; Yin 2015; Yin et al. 2013), as well as lower burnout (Akin et al. 2014; Basim et al. 2013; Cheung and Lun 2015a; Yilmaz et al. 2015). Research that further differentiated teachers' genuine expression by positive versus negative emotions additionally shows natural expression of positive emotions to be associated with higher job satisfaction and lower exhaustion, with naturally expressing negative emotions instead linked to poorer job satisfaction and burnout (Taxer and Frenzel 2015). These findings underscore the importance of considering emotional valence when examining the effects of teachers' expression of genuine

emotions, with the authentic expression of positive versus negative emotions showing opposite relations with teacher well-being.

Physical Health and Behavioral Engagement In general, teachers who report better physical health tend to less frequently express genuine negative emotions, fake positive or negative emotions, or hide negative emotions (Taxer and Frenzel 2015). In their research with Chinese female kindergarten teachers, Qi et al. (2017) found that teachers who reported higher levels of surface acting to have higher cortisol levels indicating higher levels of physiological stress. In contrast, no significant relationship between deep acting and cortisol was observed. Concerning teaching behaviors, studies show teachers who report greater surface acting to be less behaviorally engaged in their teaching, with teachers who report more deep acting or expressing genuine emotions to report higher work engagement (Cheung and Lun 2015b). Mahoney et al. (2011) also found that teachers who reported greater expression of genuine emotions to be more committed to their work, with longitudinal findings with German teachers similarly showing deep acting to correspond with better teaching performance as evaluated by senior instructors 2 months later (Hülshager et al. 2010).

Proposed Moderators of Teachers' Emotional Labor

Emotional Intelligence In addition to research examining hypothesized predictors of teachers' emotional labor, such as job demands and affectivity, the moderating effects of emotional intelligence on the relationships between these variables and teachers' emotional labor have also been examined. For example, findings from Yin (2015) show "global" emotional intelligence (combining across four factors) to moderate the relationship between teachers' perceptions of emotional job demands and their emotional labor. Whereas teachers who perceived their job as emotionally demanding were more likely to engage in surface acting, and less likely to express their naturally felt emotions, this relationship was especially pronounced for teachers who reported greater emotional intelligence. Moderation effects by emotional intelligence were also observed by Karim and Weisz (2011) with respect to teachers' affectivity, with teachers who reported higher emotional intelligence levels (discriminating between emotions) also showing stronger positive relations between negative affectivity and surface acting, as well as stronger positive relations between positive affectivity and deep acting. Negative relations between negative affectivity and deep acting were also found to be stronger for teachers who reported greater emotional intelligence (monitoring one's emotions).

Emotional intelligence has also been found to moderate relations between teachers' emotional labor and well-being. In Karim and Weisz (2011), although teachers who reported greater emotional intelligence (e.g., monitoring emotions, discriminating between emotions) were typically found to report lower levels of distress, this negative relationship was found mainly for teachers who also reported lower levels of surface or deep acting. In summary, existing findings suggest that whereas emotional intelligence may contribute to more adaptive emotional labor strategies and greater well-being for teachers when conditions are optimal (e.g., low emotional job demands, more genuine emotion expression; when less surface or deep acting is required), it may nevertheless contribute to higher levels of more detrimental emotional labor strategies (i.e., high surface acting, low deep acting, low genuine expression of emotions) under more adverse circumstances (e.g., high emotional demands or negative affectivity).

Other Moderating Variables Multiple studies have also examined possible interactive effects between teachers' emotional labor and other motivational and emotional constructs on well-being outcomes. For example, although high surface acting is typically maladaptive, its relationship with job satisfaction was especially negative for teachers who also report less *positive attitudes* (e.g., toward the occupation, teaching, students; Retowski and Fila-Jankowska 2013). Other findings show teachers' *psychological capital*, operationalized as high levels of work-related self-efficacy, resilience, hope, and optimism, to significantly moderate relations between emotional labor and well-being. Whereas surface acting and low natural expression of emotions were detrimental for burnout, particularly for teachers with low psychological capital, deep acting, expressing naturally felt emotions, and even surface acting were beneficial for job satisfaction when teachers reported high psychological capital (Cheung et al. 2011). These results suggest that just as greater psychological capital can attenuate the negative relationship between surface acting and well-being, it may also bolster the relationship between deep acting or genuine emotion expression and teachers' psychological well-being.

Research has also examined *teaching self-efficacy* as a moderator of the relationship between teachers' emotional labor and well-being. In a study by Tuxford and Bradley (2015), although deep acting was found to correspond with greater exhaustion, this relationship was found primarily for teachers who reported low teaching self-efficacy for motivating students. *Social support* has also been examined as a protective moderating factor, with findings from Kinman et al. (2011) showing the negative relationship between emotional labor and burnout in teachers to be attenuated when teachers report receiving more support from colleagues or supervisors. Finally, studies examining *gender differences* show male teachers to report more surface acting (hiding emotions; Yin 2015), with this greater emotional labor possibly contributing to male teachers also reporting higher levels of exhaustion and quitting intentions (Demetriou et al. 2009). However, existing findings for the moderating effects of gender are mixed, with Akin et al. (2014) showing Turkish male teachers to report lower levels of both deep and surface acting than female teachers.

Discussion

Figure 3 shows the final framework for the current review following from the present comprehensive review of existing published research on teachers' emotional labor.

Surface Acting As a major component of teachers' emotional labor, surface acting has been found to be associated with both teachers' personal characteristics (i.e., neuroticism, negative affectivity, motivation, emotional intelligence; Basim et al. 2013; Li and Wang 2016; Karim and Weisz 2011; Yin 2015; Yin et al. 2017) and contextual factors (i.e., emotional demands, emotional display rules, perceived school climate; Truta 2014; Yao et al. 2015; Yin 2015; Yin et al. 2017). Additionally, teachers' emotional intelligence was found to moderate the relationship between proposed antecedents and emotional labor, as well as the relationship between emotional labor and the proposed adjustment outcomes (Karim and Weisz 2011; Yin 2015). Moreover, the negative relations between teachers' emotional labor and adjustment were also found to be moderated by teachers' psychological capital and teaching attitudes (Cheung et al. 2011; Retowski and Fila-Jankowska 2013). Finally, as for the proposed consequences of surface acting, consistent results across the studies reviewed show teachers

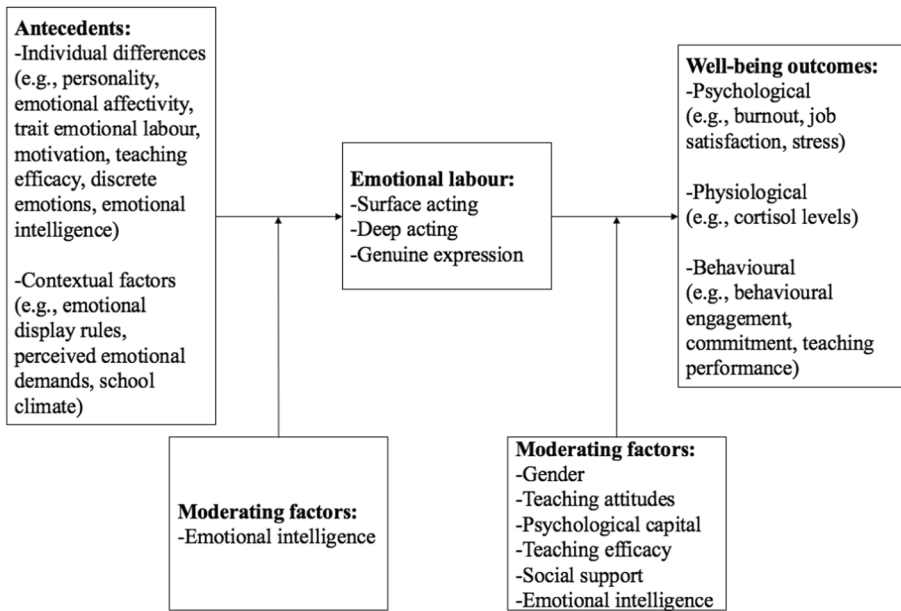


Fig. 3 Final framework of current review

who engage in more surface acting to experience poorer levels of exhaustion, depersonalization, distress, and job satisfaction (e.g., Taxer and Frenzel 2015; Zhang and Zhu 2008). Moreover, teachers who reported greater surface acting also demonstrated poorer physical health (Qi et al. 2017), less engagement with their instructional activities (e.g., Cheung and Lun 2015b), and poorer teaching performance (Hülshager et al. 2010).

Deep Acting Similar to findings for surface acting, deep acting was found to correspond significantly with both teachers' personal characteristics (i.e., openness to new experiences, positive affectivity, motivation, emotional intelligence) and perceived teaching environment (emotional demands; Basim et al. 2013; Karim and Weisz 2011; Li and Wang 2016; Truta 2014; Yin 2015; Yin et al. 2017). Interestingly, findings concerning the relationships between deep acting and teacher well-being were more mixed than for surface acting. Whereas multiple studies showed teachers' deep acting to be associated with better well-being (e.g., Akin et al. 2014; Li and Wang 2016) and behavioral outcomes (e.g., Cheung and Lun 2015b; with the exception of Wrobel 2013), other studies have found deep acting to have no relationship with teacher well-being or persistence in the teaching profession (e.g., Cheung et al. 2011; Näring et al. 2006, 2012; Qi et al. 2017). Nevertheless, deep acting was consistently found to correspond with greater teaching motivation (e.g., Li and Wang 2016; Truta 2014; Yin et al. 2017) and emotional effort in teachers (Truta 2014). One possible explanation for these paradoxical findings is the potential moderating effects of teacher motivation. Whereas the benefits of deep acting on teacher well-being (e.g., job satisfaction) may be strengthened by high psychological capital (Cheung et al. 2011), its negative impact on teacher well-being (e.g., burnout) can conversely be intensified by low teaching self-efficacy (Tuxford and Bradley 2015). Further studies are thus warranted to more systematically investigate the causal and contingent effects of deep acting on teachers' psychological well-being.

Expression of Genuine Emotions Scattered findings show teachers' personality characteristics, such as openness to new experiences and agreeableness, to correspond with a greater tendency to genuinely express emotions in class (Basim et al. 2013). Relatedly, results also show teachers' perceptions of their instructional environment to impact their genuine emotion expression, with teachers who report greater trust in colleagues (Yin et al. 2017) or greater emotional job demands (Yin et al. 2017) being more inclined to genuinely express their emotions. Findings also consistently show teachers who genuinely express their emotions to also experience greater job satisfaction, lower burnout (e.g., Akin et al. 2014), and lower distress (e.g., Karim and Weisz 2011). However, studies that more specifically differentiate teachers' genuine emotion expression according to valence (positive vs. negative) further observe that although genuinely expressing positive emotions tends to be adaptive, expressing genuine negative emotions is consistently maladaptive for psychological well-being (Mahoney et al. 2011; Taxer and Frenzel 2015).

Part II: Supplementary Meta-analysis

In addition to the summative literature review provided above, the present research further aimed to address a notable research gap concerning the lack of a comprehensive meta-analysis on the effects of various emotional labor dimensions on teacher well-being. Beyond an integrative synthesis of emergent themes addressed in the previous section, this meta-analysis aimed to additionally provide statistical support for our review findings and address the aforementioned mixed findings on the relationship between deep acting and well-being in teachers. To shed light on the boundary conditions of emotional labor, we also examined features of the primary studies to identify potential moderators of the relationship between emotional labor and well-being. Due to the scarcity of articles that examined equivalent proposed antecedents or moderators of emotional labor, it was only possible to meta-analyze studies reporting findings concerning the effects of teachers' emotional labor strategies on their psychological well-being.

Method

Coding Process Each of the 28 articles satisfying the systematic review inclusion criteria were coded by the first author for publication year, sample size, sample demographics, and measurement methodology, as well as the direction of the relationship between teachers' emotional labor and well-being (Table 2). Of the articles reviewed, 23 focused specifically on the relationships between teachers' emotional labor (e.g., surface acting and deep acting) and psychological outcomes. One paper examined emotions as an outcome of emotional labor (Lee et al. 2016), another investigated physiological correlates (Qi et al. 2017), and three focused on motivational correlates (i.e., self-efficacy, work engagement, emotional effort, intrinsic motivation; Cheung and Lun 2015b; Truta 2014; Yin et al. 2017).

To illustrate a clear pattern of results concerning the effects of teachers' emotional labor across commonly examined outcomes, the present meta-analysis focused exclusively on the relationship between teachers' emotional labor and well-being. The teacher burnout subtypes of emotional exhaustion and depersonalization, as well as teacher stress, were reverse coded such that lower levels indicated poorer well-being levels. Greater well-being was thus

represented in this meta-analysis by low levels of emotional exhaustion, depersonalization, and occupational stress and high levels of job satisfaction and personal accomplishment. For different articles based on data from the same sample (Cheung and Lun 2015a and Cheung et al. 2011; Yin 2015 and Yin et al. 2013), results were coded and assessed once to prevent dependency between studies. The final pool for the meta-analysis consisted of 23 published articles which included 21 studies. Finally, we analyzed sample size, culture, and measurement scale as potential moderators of labor–well-being relations, with sample size coded as *lower than 372* versus *372 or higher* (372 was the mean sample size across all studies reviewed), culture coded as *Eastern* versus *Western*, and measurement scale coded as *Diefendorff et al.'s (2005) scale* versus *others*. However, due to the small number of studies that examined teachers' genuine expression of emotions in Western cultures ($k=2$) or used a measurement scale other than that of Diefendorff et al. (2005; $k=2$), the moderator analyses were conducted only for surface acting and deep acting behaviors.

Calculating Effect Sizes The present analysis employed the Comprehensive Meta-Analysis software (Borenstein et al. 2009) with effect sizes calculated based on Pearson correlations between the emotional labor and well-being variables. For articles in which correlations were reported between emotional labor and multiple well-being variables (e.g., emotional labor and exhaustion, stress, etc.), average effect sizes were calculated and reported to better address the independence issue and minimize violation of this assumption (e.g., Lipsey and Wilson 2001; for an empirical example, see Tze et al. 2016). As suggested by Borenstein et al. (2009), Pearson r was transformed into Fisher's z prior to analysis (see Table 3 for details on effect sizes and relationship between variables). After calculating effect sizes for each study, three overall effect sizes were calculated for deep acting, surface acting, and genuine expression of emotions (collapsing across valence for methodological consistency). As the relationships between teachers' emotional labor and adjustment varied across studies, a random-effects statistical model was used due to its conservative nature in assuming heterogeneity of population effects, as compared to a fixed-effects model that assumes homogeneity of effects (Borenstein et al. 2009, 2010; Tze et al. 2016).

Results

Results showed teachers' deep acting to not be significantly associated with well-being levels ($r = .03, p = .462; Q(15) = 138.60, p < .001; I^2 = 89.18$; see Fig. 4a for the forest plot). In contrast, surface acting correlated negatively with well-being levels ($r = -.26, p < .001; Q(20) = 209.83, p < .001; I^2 = 90.47$; Fig. 4b), with expression of genuine emotions correlating positively with well-being measures ($r = .19, p < .001; Q(7) = 47.79, p < .001; I^2 = 85.35$; Fig. 4c). The two studies in which a nonsignificant relationship between teachers' emotional labor and well-being was observed, namely Mahoney et al. (2015) and Taxer and Frenzel (2015), were those in which teachers' expression of genuine emotions was subdivided into the expression of genuine positive versus negative emotions. As the present analysis necessarily combined the positive effects of expressing positive emotions with the negative effects of expressing negative emotions, an overall null effect was observed due to these relations canceling out.

Assessment of Publication Bias The Rosenthal's (1979) fail-safe N test was used to examine publication bias in the present analysis. This test calculates the number of studies that are

Table 3 A list of included studies in the meta-analysis: originally reported statistics, independent effect size, and 95% confidence intervals (CI)

Study	Measurement point	Originally reported statistics	Effect size r [CI] for deep acting	Effect size r [CI] for surface acting	Effect size r [CI] for genuine expression	
Akin et al. (2014)		Deep acting ↔ low depersonalization	$r = .29$.30 [.20, .39]	.08 [−.02, .18]	.25 [.15, .35]
		Deep acting ↔ low emotional exhaustion	$r = .19$			
		Deep acting ↔ personal accomplishment	$r = .41$			
		Genuine expression ↔ low depersonalization	$r = .17$			
		Genuine expression ↔ low emotional exhaustion	$r = .16$			
		Genuine expression ↔ personal accomplishment	$r = .41$			
		Surface acting ↔ low depersonalization	$r = .05$			
		Surface acting ↔ low emotional exhaustion	$r = .02$			
		Surface acting ↔ personal accomplishment	$r = .17$			
		Deep acting ↔ emotional exhaustion	$r = .12$.12 [.05, .19]	−.11 [−.18, −.04]	
Basim et al. (2013)		Genuine expression ↔ emotional exhaustion	$r = .23$			
		Surface acting ↔ emotional exhaustion	$r = −.11$			
		Deep acting ↔ low depersonalization	$r = .03$.07 [−.06, .18]	−.09 [−.21, .03]	.29 [.17, .39]
Cheung and Lun (2015a), Cheung et al. (2011)		Deep acting ↔ low emotional exhaustion	$r = .06$			
		Deep acting ↔ job satisfaction	$r = .04$			
		Deep acting ↔ personal accomplishment	$r = .13$			
		Genuine expression ↔ low depersonalization	$r = .35$			
		Genuine expression ↔ low emotional exhaustion	$r = .28$			
		Genuine expression ↔ job satisfaction	$r = .19$			
		Genuine expression ↔ personal accomplishment	$r = .32$			
		Surface acting ↔ low depersonalization	$r = −.16$			
		Surface acting ↔ low emotional exhaustion	$r = −.16$			
		Surface acting ↔ job satisfaction	$r = .07$			
Hülshheger et al. (2010)	Time 1	Surface acting ↔ personal accomplishment	$r = −.10$	−.08 [−.24, .08]	−.25 [−.39, −.09]	
	Time 2	Deep acting ↔ low psychological strain	$r = −.04$			
Karim and Weisz (2011)		Surface acting ↔ low psychological strain	$r = −.20$			
		Deep acting ↔ low psychological strain	$r = −.29$			
		Surface acting ↔ low psychological strain	$r = −.12$	−.12 [−.25, .02]	−.33 [−.45, −.20]	
		Deep acting ↔ low psychological distress	$r = −.12$			
		Surface acting ↔ low psychological distress	$r = −.33$			

Table 3 (continued)

Study	Measurement point	Originally reported statistics	Effect size <i>r</i> [CI] for deep acting	Effect size <i>r</i> [CI] for surface acting	Effect size <i>r</i> [CI] for genuine expression
Keller et al. (2014)		Emotional dissonance (surface acting) ↔ low emotional exhaustion	$r = -.51$	$-.51 [-.71, -.23]$	
		Emotional dissonance (surface acting) ↔ low depersonalization	$r = -.44$	$-.30 [-.37, -.23]$	
		Emotional dissonance (surface acting) ↔ low emotional exhaustion	$r = -.44$		
		Emotional dissonance (surface acting) ↔ job satisfaction	$r = -.37$		
Kinman et al. (2011)		Emotional dissonance (surface acting) ↔ personal accomplishment	$r = .10$		
		Deep acting ↔ extrinsic job satisfaction	$r = .29$	$-.24 [-.34, -.13]$	
Li and Wang (2016)		Deep acting ↔ intrinsic job satisfaction	$r = .39$	$.34 [.24, .44]$	
		Surface acting ↔ extrinsic job satisfaction	$r = -.21$		
		Surface acting ↔ intrinsic job satisfaction	$r = -.27$		
		Faking negative ↔ low emotional exhaustion	$r = -.09$		$-.19 [-.27, -.12]$
		Faking negative ↔ job satisfaction	$r = -.05$		
		Faking positive ↔ low emotional exhaustion	$r = -.21$		
		Faking positive ↔ job satisfaction	$r = -.18$		
		Genuine negative ↔ low emotional exhaustion	$r = -.32$		
		Genuine negative ↔ job satisfaction	$r = -.28$		
		Genuine positive ↔ low emotional exhaustion	$r = .25$		
Näring et al. (2006)		Genuine positive ↔ job satisfaction	$r = .33$		
		Hiding negative ↔ low emotional exhaustion	$r = -.45$		
		Hiding negative ↔ job satisfaction	$r = -.38$		
		Hiding positive ↔ low emotional exhaustion	$r = -.08$		
		Hiding positive ↔ job satisfaction	$r = -.07$		
		Deep acting ↔ low depersonalization	$r = -.05$	$-.03 [-.13, .07]$	$-.31 [-.40, -.21]$
		Deep acting ↔ low emotional exhaustion	$r = -.10$		
		Deep acting ↔ personal accomplishment	$r = .06$		
		Surface acting ↔ low depersonalization	$r = -.39$		
		Surface acting ↔ low emotional exhaustion	$r = -.36$		
Näring et al. (2012)		Surface acting ↔ personal accomplishment	$r = -.16$	$-.16 [-.29, -.03]$	$-.21 [-.33, -.08]$
		Deep acting ↔ low emotional exhaustion	$r = -.16$		

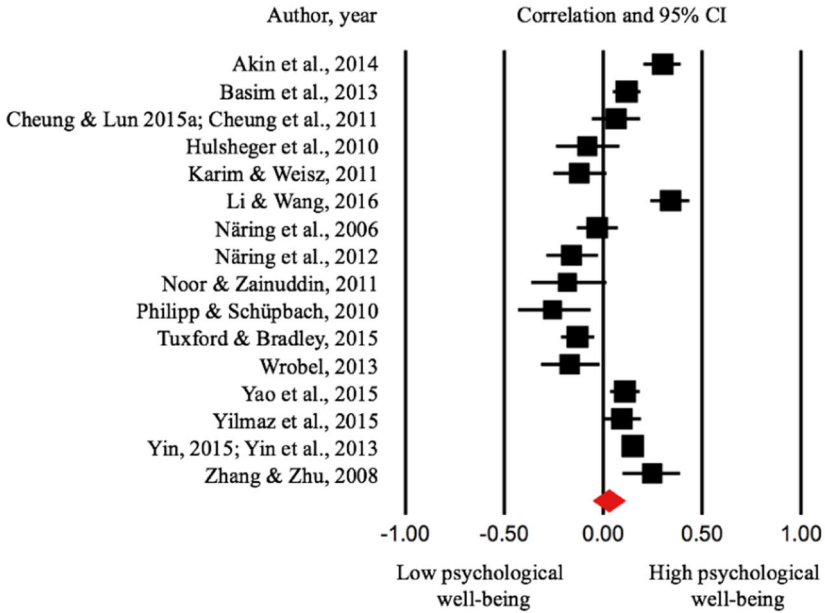
Table 3 (continued)

Study	Measurement point	Originally reported statistics	Effect size r [CI] for deep acting	Effect size r [CI] for surface acting	Effect size r [CI] for genuine expression
Noor and Zaimuddin (2011)		Surface acting \leftrightarrow low emotional exhaustion	$r = -.21$		
		Deep acting \leftrightarrow low depersonalization	$r = -.23$	$-.18 [-.36, .02]$	$-.39 [-.54, -.21]$
		Deep acting \leftrightarrow low emotional exhaustion	$r = -.13$		
		Surface acting \leftrightarrow low depersonalization	$r = -.41$		
		Surface acting \leftrightarrow low emotional exhaustion	$r = -.36$		
Philipp and Schüpbach (2010)	Time 1	Deep acting \leftrightarrow low emotional exhaustion	$r = -.32$	$-.26 [-.43, -.07]$	$-.54 [-.67, -.39]$
		Surface acting \leftrightarrow low emotional exhaustion	$r = -.54$		
		Deep acting \leftrightarrow low emotional exhaustion	$r = -.19$		
		Surface acting \leftrightarrow low emotional exhaustion	$r = -.54$		
		Surface acting \leftrightarrow low emotional exhaustion	$r = -.41$		$-.29 [-.42, -.15]$
Retowski and Fila-Jankowska (2013)		Surface acting \leftrightarrow job satisfaction	$r = -.16$		
		Faking negative \leftrightarrow low emotional exhaustion	$r = -.22$	$-.10 [-.22, .02]$	$.67 [-.06, .19]$
		Faking negative \leftrightarrow job satisfaction	$r = -.13$		
		Faking negative \leftrightarrow mental health	$r = -.06$		
		Faking positive \leftrightarrow low emotional exhaustion	$r = -.14$		
Taxer and Frenzel (2015)		Faking positive \leftrightarrow job satisfaction	$r = -.02$		
		Faking positive \leftrightarrow mental health	$r = -.08$		
		Genuine negative \leftrightarrow low emotional exhaustion	$r = -.27$		
		Genuine negative \leftrightarrow job satisfaction	$r = -.17$		
		Genuine negative \leftrightarrow mental health	$r = -.26$		
		Genuine positive \leftrightarrow low emotional exhaustion	$r = .29$		
		Genuine positive \leftrightarrow job satisfaction	$r = .40$		
		Genuine positive \leftrightarrow mental health	$r = .37$		
		Hiding negative \leftrightarrow low emotional exhaustion	$r = -.19$		
		Hiding negative \leftrightarrow job satisfaction	$r = -.07$		
		Hiding negative \leftrightarrow mental health	$r = -.18$		
		Hiding positive \leftrightarrow low emotional exhaustion	$r = -.04$		
Hiding positive \leftrightarrow job satisfaction	$r = -.02$				
Hiding positive \leftrightarrow mental health	$r = -.04$				
Tuxford and Bradley (2015)		Deep acting \leftrightarrow low emotional exhaustion	$r = -.13$	$-.13 [-.21, -.05]$	$-.49 [-.55, -.42]$
		Surface acting \leftrightarrow low emotional exhaustion	$r = -.49$		

Table 3 (continued)

Study	Measurement point	Originally reported statistics	Effect size r [CI] for deep acting	Effect size r [CI] for surface acting	Effect size r [CI] for genuine expression	
Wrobel (2013)		Deep acting ↔ low emotional exhaustion	$r = -.17$	$[-.31, -.02]$	$[-.25, -.10]$	
		Surface acting ↔ low emotional exhaustion	$r = -.25$			
Yao et al. (2015)		Deep acting ↔ low emotional exhaustion	$r = .11$	$ [.04, .18]$	$ [-.43, -.37]$	
		Surface acting ↔ low emotional exhaustion	$r = -.43$			
Yilmaz et al. (2015)		Deep acting ↔ low emotional exhaustion	$r = .05$	$ [-.00, .19]$	$ [-.23, -.13]$	
		Deep acting ↔ low emotional exhaustion	$r = .01$			
		Deep acting ↔ personal accomplishment	$r = .22$			
		Genuine expression ↔ low depersonalization	$r = .29$			
		Genuine expression ↔ low emotional exhaustion	$r = .13$			
		Genuine expression ↔ personal accomplishment	$r = .35$			
		Surface acting ↔ low depersonalization	$r = -.31$			
		Surface acting ↔ low emotional exhaustion	$r = -.24$			
		Surface acting ↔ personal accomplishment	$r = .15$	$ [.10, .20]$	$ [-.07, -.02]$	$ [.29, .34]$
		Deep acting ↔ teaching satisfaction	$r = -.29$			
Yin (2015), Yin et al. (2013)		Genuine expression ↔ teaching satisfaction	$r = .07$			
		Surface acting ↔ teaching satisfaction	$r = .27$			
		Deep acting ↔ low depersonalization	$r = .21$	$ [.10, .39]$	$ [-.21, -.06]$	$ [.15, .30]$
		Deep acting ↔ low emotional exhaustion	$r = .18$			
		Deep acting ↔ job satisfaction	$r = .33$			
		Deep acting ↔ personal accomplishment	$r = .21$			
		Genuine expression ↔ low depersonalization	$r = .05$			
		Genuine expression ↔ low emotional exhaustion	$r = .17$			
		Genuine expression ↔ job satisfaction	$r = .17$			
		Genuine expression ↔ personal accomplishment	$r = -.30$			
Zhang and Zhu (2008)		Surface acting ↔ low depersonalization	$r = -.17$			
		Surface acting ↔ low emotional exhaustion	$r = -.19$			
		Surface acting ↔ job satisfaction	$r = -.19$			
		Surface acting ↔ personal accomplishment	$r = -.19$			

a



b

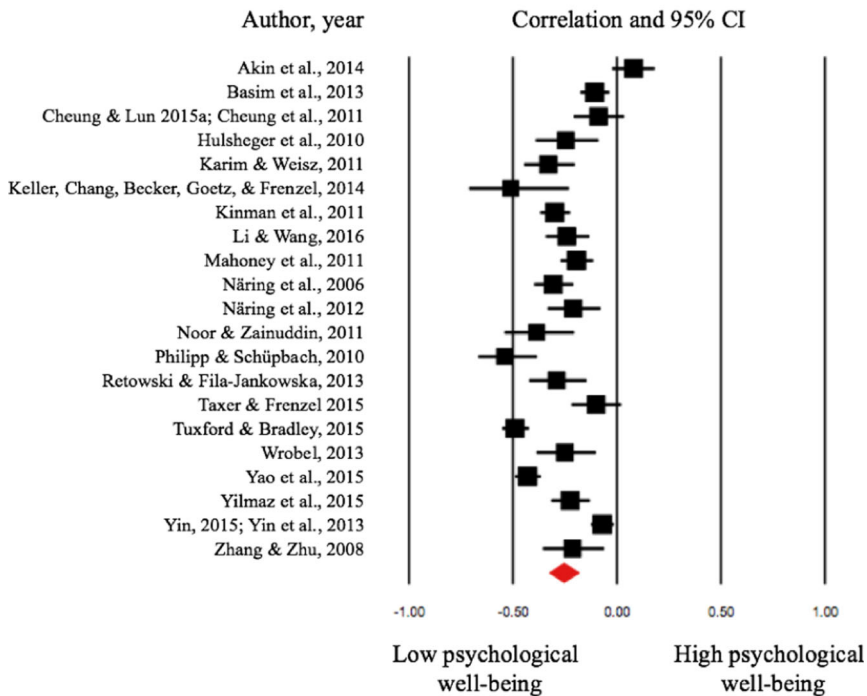


Fig. 4 Forest plot for the correlations between emotional labor strategies and teachers' psychological well-being (a deep acting; b surface acting; c genuine expression of emotions)

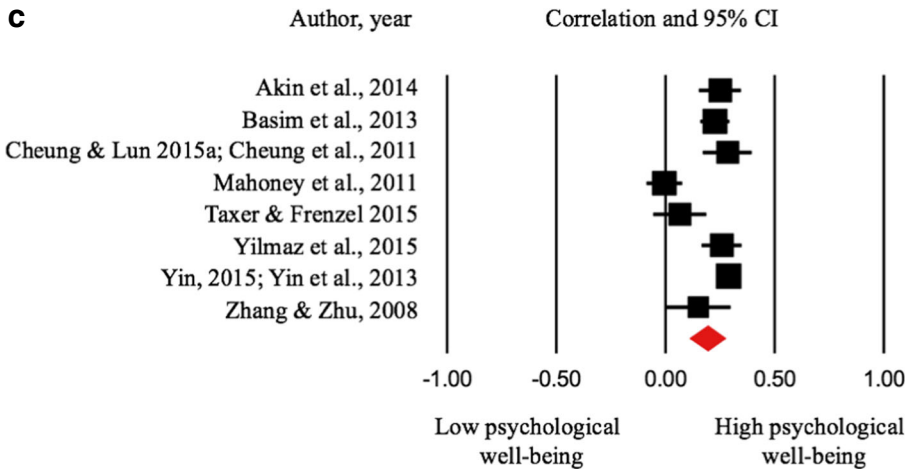


Fig. 4 (continued)

further needed with nonsignificant results so as to bring the current significant relationships suggested in meta-analysis down to nonsignificant levels. In the current analysis, since the relationship between deep acting and teacher well-being was already not significant, the fail-safe N test was conducted only for surface acting and the expression of genuine emotions. Results showed that 2264 unreported studies for surface acting and 313 unreported studies for genuine emotion expression with nonsignificant findings would be additionally required to reduce the effects of surface acting and genuine expression on well-being to nonsignificance and thus ascribe the current results to sampling bias. Finally, results from Begg and Mazumdar's (1994) rank correlation analyses were satisfactory (deep acting: tau $b = -.30$, $p = .105$; surface acting: tau $b = -.22$, $p = .165$; genuine expression: tau $b = -.14$, $p = .711$), and funnel plots of standard error for all analyses showed acceptable asymmetry (see Fig. 5a–c), findings that taken together suggest that publication bias was not an issue of concern in the studies reviewed.

Moderator Analyses Study sample size, culture, and emotional labor scale type were additionally analyzed as possible moderators of the relationship between teachers' emotional labor and well-being (see Table 4). First, as the mean sample size across all studies reviewed was 372, studies with sample sizes lower than 372 were thus compared with studies with sample sizes of 372 or higher. Results show no significant moderating effect of sample size for either deep or surface acting. However, our comparisons of teachers from Eastern versus Western cultures showed the relationship between deep acting and well-being to differ significantly across cultural groups, with deep acting being positively related to well-being for Eastern cultures but negatively related to well-being for Western cultures. Analyses of measurement instrument as a potential moderator were also significant for both deep and surface acting: whereas studies employing measures based on the emotional labor scale of Diefendorff et al. (2005) had a significant positive relationship between deep acting and well-being, studies using other scales instead showed a slightly negative but nonsignificant relationship. Furthermore, although a negative overall relationship was observed between teachers' surface acting and psychological well-being, this negative association was significantly stronger for studies that used emotional labor scales other than that developed by Diefendorff et al. (2005).

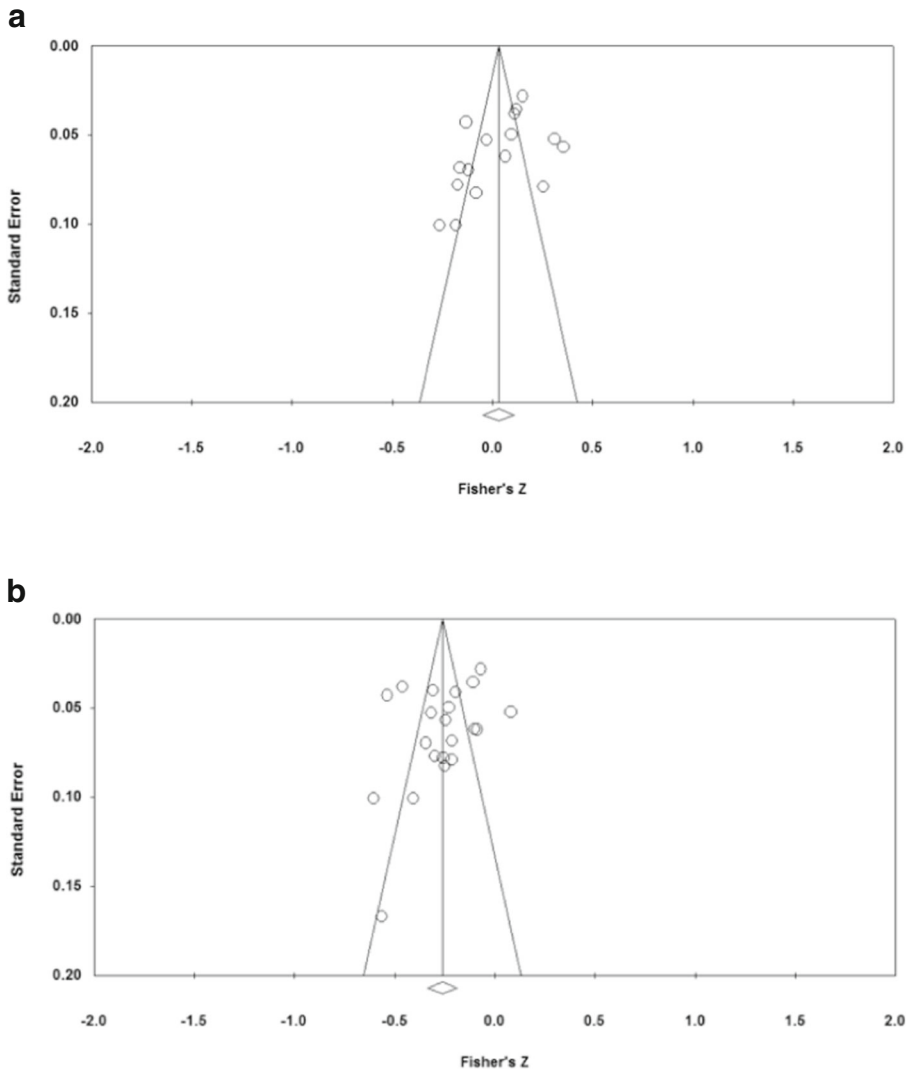


Fig. 5 Funnel plots using Fisher's z (**a** deep acting; **b** surface acting; **c** genuine expression of emotions)

Discussion

Results from the supplementary meta-analysis supported the findings reviewed in part I concerning the negative relationships for surface acting and positive relationships for genuine expression of emotions with teachers' psychological well-being. These meta-analytic results further underscore the weak relationship between deep acting and well-being across studies in showing an overall nonsignificant relationship. Additionally, these findings support our literature review in showing teachers' expression of genuine emotions to not significantly correspond with well-being levels when genuine expression is examined as a composite variable that collapses across positive and negative emotions. Moderator analyses further revealed both culture and scale type to

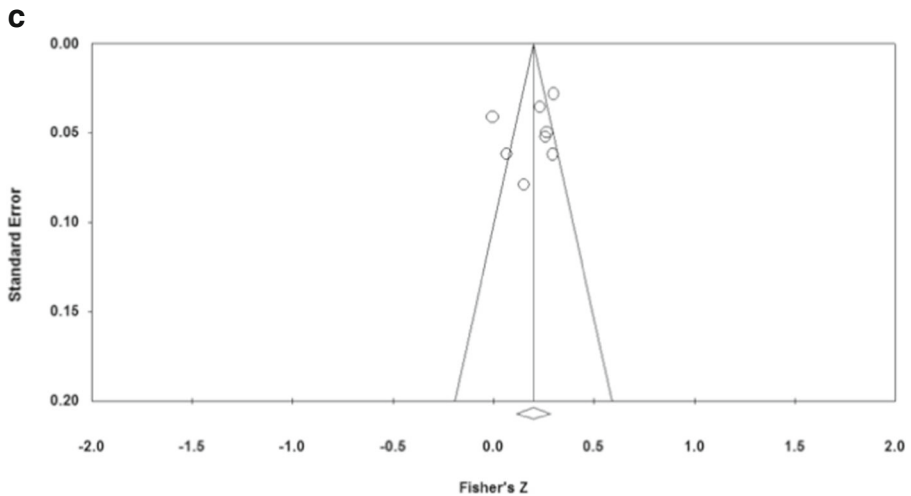


Fig. 5 (continued)

significantly influence the relationship between teachers' emotional labor and well-being, with opposite effects of deep acting on well-being found for teachers from Eastern as compared to Western cultures. Moreover, although the negative relationship between surface acting and well-being was stronger in studies that used emotional labor measures other than the scale of Diefendorff et al. (2005), the positive relationship between deep acting and well-being was significant only for studies in which the scale of Diefendorff et al. (2005) was used.

Of the various findings of this meta-analysis, perhaps the most surprising is the nonsignificant relationship observed between teachers' deep acting and their psychological well-being. Once again, empirical studies have found mixed results, with some showing deep acting to be psychologically adaptive and others showing it to have no relationship with teacher well-being. Concerning the potential benefits of deep acting, these are assumed to be due to the emotions expressed while deep acting being more consistent with teachers' internal feelings than during surface acting, with this congruence between emotions felt and expressed (low emotional dissonance) expected to bolster well-being levels. However, according to emotional labor frameworks (e.g., Hochschild 1983; Morris and Feldman 1996), it is also possible that negative relationships with well-being indicators may be observed due to the substantial effort required for deep acting (e.g., cognitive reappraisal, attention deployment), particularly when sustained at high frequency and intensity and involving a variety of emotions conveyed. As such, this overall null effect may represent the positive and negative effects of deep acting canceling out.

Additionally, our moderator analyses revealed opposite relations between deep acting and well-being for teachers from Eastern cultures (positive) as opposed to Western cultures (negative). One possible explanation for this cultural difference may be that teachers from Eastern countries place a stronger emphasis on complying with strict social norms and maintaining social harmony, due to the collectivistic nature of the culture. Accordingly, teachers from Eastern countries could be expected to focus more on how students benefit from displaying specific emotions and thus put greater value on deep acting (Yin 2016; Yin and Lee 2012). On the other hand, it is possible that teachers from

Table 4 Moderator analyses results

Emotional labor strategy	Moderator	<i>k</i>	Effect size [95% CI]	<i>Q</i>	<i>p</i>
Deep acting	Sample size			.482	.488
	< 372	11	.008 [–.094, .110]		
	≥ 372	5	.070 [–.071, .208]		
	Culture			18.604	<.001
	Eastern cultures	10	.127 [.059, .195]		
	Western cultures	6	–.130 [–.222, –.036]		
Scale used			8.728	.003	
Original or revised based on Diefendorff et al. (2005)	6	.162 [.051, .269]			
Other	10	–.055 [–.145, .037]			
Surface acting	Sample size			.032	.859
	< 372	14	–.251 [–.340, –.158]		
	≥ 372	7	–.265 [–.379, –.143]		
	Culture			2.475	.116
	Eastern cultures	10	–.200 [–.296, –.101]		
	Western cultures	11	–.307 [–.396, –.214]		
	Scale used			14.112	<.001
	Original or revised based on Diefendorff et al. (2005)	6	–.101 [–.196, –.004]		
Other	15	–.316 [–.374, –.255]			

more individualistic Western cultures could regard deep acting as a form of emotional inauthenticity (in addition to surface acting) and thus experience psychological costs from this type of emotional labor. However, it is important to note that given a notable lack of theoretical frameworks or international studies in which cultural differences in teachers' emotional labor are systematically addressed, further cross-cultural research is required to replicate and adequately address potential reasons for these contrasting effects (e.g., school support, emotional requirements at school).

Furthermore, our moderator analyses also revealed that the type of self-report scale used to assess deep acting significantly impacted observed relationships with well-being. It was also evident that studies using the scale of Diefendorff et al. (2005) were primarily conducted with Chinese and Turkish teachers (10 out of 28 papers reviewed), thus raising the possibility of this methodological moderating effect being confounded by cultural differences. Once again, given the lack of existing research in which comparisons of alternate emotional labor scales have been systematically analyzed across cultures, further research is needed to better identify whether their specific features of the commonly used deep acting scale developed by Diefendorff et al. (2005) are indeed responsible for the differential effects observed in comparison to other measures (e.g., generalized for all occupations vs. specific to one occupation).

General Discussion

The aim of the current review was to summarize existing empirical findings on how teachers' emotional labor corresponds with other salient variables including motivational beliefs, classroom context, instructional behaviors, and well-being as informed by recent theoretical frameworks of emotional labor (Grandey and Gabriel 2015; Hochschild 1983). We further

addressed this aim with a meta-analysis of the relationship between teachers' emotional labor strategies (deep acting, surface acting, and genuine expression) and well-being indicators (e.g., job satisfaction, burnout, occupational stress). Generally speaking, our findings are consistent with existing theoretical models (Grandey 2000; Grandey and Gabriel 2015; Hülsheger and Schewe 2011) with teachers' emotional labor found to correspond with related individual differences, such as personality traits and emotional affectivity, as well as contextual factors, such as perceived school climate and emotional display rules. Teachers' emotional labor was also found to be significantly related to not only their instructional behavior but also their psychological and physical health. As such, our review extends prior theoretical frameworks in suggesting multiple critical moderating variables (e.g., emotional intelligence, teaching motivation, affectivity) that can significantly impact how emotional labor corresponds with teacher outcomes (see Grandey and Gabriel 2015). Moreover, whereas these results provide empirical support for current theoretical models in showing surface acting to be typically maladaptive and genuine expression to be generally adaptive (e.g., of positive emotions), they also illustrate the paradoxical effects of deep acting on teacher well-being.

Implications of Teachers' Emotional Labor for Instruction and Well-Being

In the current review, findings concerning hypothesized correlates of teachers' emotional labor support the premise that emotions "are not constructed from nothing but are controlled, shaped, and challenged in particular ways and for particular purposes" (Zembylas 2005, p. 16), with both dispositional characteristics and social-cultural contexts (e.g., school environment) shaping how teachers express emotions in class. Existing findings on the potential outcomes of teachers' emotional labor further show teachers' emotional labor to correspond with their psychological well-being, physical health, and teaching behaviors. Specifically, surface acting and genuine expression of negative emotions are consistently found to be detrimental, genuine expression of positive emotions to be adaptive, and deep acting shows either mixed or nonsignificant correlations with teacher adjustment. However, whether emotional labor in teachers is adaptive or maladaptive is not a question easily answered without taking into consideration the nature of the teaching profession and the underlying social and emotional norms. Although the link between greater emotional inauthenticity (i.e., surface acting) and poorer teacher well-being is consistently documented in published research, teachers nonetheless regularly engage in this type of emotional labor as part of their emotional job requirements for the benefit of student learning and development. In other words, given clear social norms and display rules that require teachers to exhibit enthusiasm and caring behaviors in class, and the anticipated positive effects of expressing these emotions for their students, it should be acknowledged that many teachers consciously engage in emotional labor despite its personal psychological cost (Isenbarger and Zembylas 2006; Zembylas 2004). The contradicting features of emotional labor (beneficial for student engagement vs. maladaptive for teacher well-being) might also explain the contrasting findings for teachers in different cultures.

Accordingly, the extent to which teachers engage in emotional labor in the classroom is likely to depend largely on how teachers judge its role in their teaching and how they can strategically utilize it in the classroom. This differentiated perspective on how and why teachers perform specific emotions in class may also explain why teachers tend to be resilient to the negative effects of emotional labor, do not avoid performing it in the classroom, and generally view it as an effective teaching strategy (Yin 2012). Existing research with teachers supports this assertion in showing that although more emotionally intelligent teachers engage

more frequently in surface acting during adverse teaching conditions (e.g., high levels of negative affectivity, perceived emotional demands), this behavior has not been found to impact psychological well-being (e.g., Karim and Weisz 2011). Such findings thus highlight the importance of moderators as possible protective resources for teachers' emotional labor in attenuating the negative impact of emotional labor on well-being levels (e.g., motivational variables promoting resilience). As such, further research is warranted to identify additional moderating factors that may similarly protect teachers' psychological resources while performing emotions in class (e.g., perceived benefits in student engagement).

Limitations and Future Directions

Emotional labor in teachers remains a relatively new area of study in educational research with the few studies conducted utilizing limited protocols, inconsistent measures, and exploring varied corresponding variables. More specifically, existing studies have to date principally employed cross-sectional self-report surveys (e.g., Brotheridge and Lee 2003; Diefendorff et al. 2005; Glomb and Tews 2004; Yin 2012) thereby precluding substantive evidence as to causal links between emotional labor and related constructs despite hypothetical assertions as to their potential roles as antecedents, moderators, or consequences of emotional labor (Grandey 2000; Grandey and Gabriel 2015). For example, just as teacher motivation has been explored as a predictor of emotional labor (Li and Wang 2016), it has also been assessed as an outcome (Cheung and Lun 2015b; Mahoney et al. 2011), with the current state of research on teachers' emotional labor providing little empirically informed guidance as to which theoretical assertion is ideal. Similarly, whereas teacher emotions were used to predict teachers' emotional labor in a study by Keller et al. (2014), they were instead assessed as consequences of emotional labor in research by Lee et al. (2016).

Therefore, whereas empirical findings concerning relations between emotion labor and related variables were classified in the current review according to the potential causal relations as proposed by the original study authors or prominent theoretical perspectives (e.g., Grandey 2000; Grandey and Gabriel 2015), the present findings do not afford concrete conclusions concerning the specific direction of relations between these variables. Future studies are thus encouraged to explore teachers' emotional labor experimentally or longitudinally so as to better establish the directional nature of relationships between emotional labor and possible antecedents, moderators, and consequences. Relatedly, although intriguing moderating results were found concerning cultural types and measurement scales, more specific explanations with respect to potential underlying mechanisms for these differences are not supported by the present findings. Therefore, greater consistency in the types of moderating variables assessed and self-report measures used to assess emotional labor specifically are recommended to allow researchers to more systematically evaluate how and when teachers' emotional labor is beneficial and maladaptive in classroom settings.

Additionally, it is important to note that cross-sectional self-report surveys are susceptible to retrospective biases (Frenzel 2014) and artificially inflated empirical relations due to common method that can threaten the reliability of study findings (Podsakoff et al. 2003). To address this problem, greater research efforts to examine teachers' emotional labor that incorporate protocols affording greater ecological validity, such as experience sampling methods (e.g., ESM; Keller et al. 2014), are needed to more closely investigate teachers' state versus trait emotional labor and their respective associations with teachers' emotional expressivity and well-being (e.g., mental and physical health).

Relatedly, further research is also required to address current measurement limitations of retrospective self-report questionnaires through triangulation with objective study protocols (e.g., observation, interviews, think-alouds, diaries, ESM, physiological markers) to provide greater confidence and consistency in published findings on teachers' emotional labor. As existing research on teachers' emotional labor has focused primarily on its effects on psychological well-being, specifically burnout and job satisfaction, more studies are needed to examine relations between emotional labor and objective behavioral outcomes such as teacher attrition or instructional activities. More specifically, research exploring the plausible link between teachers' emotional labor and surprisingly high teacher attrition in Western cultures should be particularly useful for informing intervention and policy efforts aimed at improving persistence in the teaching profession (OECD 2005; Schleicher 2011; for research on emotional labor and attrition in the general population, see Chau et al. 2009; Walsh and Bartikowski 2013).

Moreover, despite the hypothesized potential benefits of teachers' emotional labor for students' behavior, learning, or achievement, there currently exists no research in which this assertion has been systematically investigated. As existing studies on classroom emotional climate have been conducted primarily based on data from either students or teachers, but rarely both, future research on teachers' emotional labor could thus address not only student outcomes but assess both teachers and students simultaneously (e.g., Frenzel et al. 2009; Kunter et al. 2008, 2011).

Furthermore, although the construct of emotional labor has been extensively explored, research on this construct has primarily adopted the classifications of surface acting versus deep acting, and notably, little research has examined teachers' genuine expression of emotions, in spite of its strong positive association with teachers' well-being. Therefore, future studies are required to further address the various factors that are potentially associated with teachers' genuine expression of emotions (e.g., coping strategies, display rules). Moreover, the dichotomous classification of emotional labor (surface vs. deep acting) also does not account for the extent of emotional dissonance experienced by teachers, the co-occurrence of multiple labor types, or other more nuanced considerations that could prove beneficial. For instance, this framework does little to address important research questions such as whether teachers' hiding and faking emotions indeed represent surface acting (maximal dissonance), whether hiding and faking emotions occur simultaneously (e.g., experiencing anger while showing enthusiasm), and whether it is more detrimental to only fake emotions (e.g., no emotions felt but showing enthusiasm) or to hide emotions (e.g., experiencing anger and not showing emotions). Similarly, this model also does not adequately account for potential differences in how the same emotional labor strategy may be differentially effective for different discrete emotions (e.g., anger vs. anxiety), or how the frequency, duration, and intensity of a given emotion may moderate emotional labor effects.

As indicated by the present meta-analysis, cultural factors can also substantially moderate the relationship between teachers' emotional labor and their well-being. Future studies investigating emotional labor and its potential antecedents, moderators, and consequences among teachers in different cultures are essential to providing greater understanding of how emotional labor is shaped by social expectations and can differentially impact teacher development internationally. Similarly, another contextual moderating factor deserving of further exploration is grade level of instruction, a potential moderating variable not examined in the present study due to limited existing research. For example, just as postsecondary educators could be expected to demonstrate different correlates of emotional labor as compared to primary or secondary school teachers (e.g.,

due to differences in students' prior knowledge, the volitional nature of higher education), significant differences between primary and secondary school teachers are also possible (e.g., due to developmental changes in students' learning needs).

Finally, the present findings concerning teachers' emotional labor are of significant practical importance due to their potential relevance to teacher development initiatives that would be expected to benefit significantly from highlighting emotional labor as a critical correlate of teachers' motivation, job satisfaction, and psychological well-being, and physical health. Informational sessions informing preservice or practicing teachers of the benefits and costs of emotional labor and promoting optimal ways of coping with the emotional demands of the teaching profession (e.g., cognitive reappraisal, proactive coping; Chang 2013; Sutton et al. 2009) are thus expected to benefit teachers' psychological adjustment and persistence. To summarize, the present review examined existing research on teachers' emotional labor with our findings highlighting the importance of understanding the role of specific demographic, psychological, and contextual correlates in how different types of emotional labor correspond to critical well-being outcomes. As reiterated by our meta-analytic results, teachers' genuine expression of emotions has consistently been found to be psychologically adaptive, surface acting to be maladaptive, and deep acting to show mixed results, potentially due to confounding contextual variables (e.g., cultural differences). Continued research is therefore encouraged to further examine the roles of measurement issues (e.g., longitudinal, real-time), theoretical frameworks (e.g., multiple labor types), and moderating factors (e.g., culture, measures, grade levels) in how teachers' emotional labor impacts their psychological well-being.

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