Emotional Display Rules as Work Unit Norms:
A Multilevel Analysis of Emotional Labor Among Nurses

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Emotional labor theory has conceptualized emotional display rules as shared norms governing the expression of emotions at work. Using a sample of registered nurses working in different units of a hospital system, we provided the first empirical evidence that display rules can be represented as shared, unit-level beliefs. Additionally, controlling for the influence of dispositional affectivity, individual-level display rule perceptions, and emotion regulation, we found that unit-level display rules are associated with individual-level job satisfaction. We also showed that unit-level display rules relate to burnout indirectly through individual-level display rule perceptions and emotion regulation strategies. Finally, unit-level display rules also interacted with individual-level dispositional affectivity to predict employee use of emotion regulation strategies. We discuss how future research on emotional labor and display rules, particularly in the health care setting, can build on these findings.

Keywords: emotional display rules, emotional labor, emotions, health care, job burnout

Stimulated by Ekman and Friesen's (1975) notion of social–cultural emotional norms and Hochschild's (1983) ideas of emotional labor, organizational researchers adopted the term *display rules* to describe the expressive expectations placed on employees as part of the occupational or organizational context (Ashforth & Humphrey, 1993; Rafaeli & Sutton, 1989; Van Maanen & Kunda, 1989). According to the emotional labor literature, display rules shape employee emotional displays in ways that facilitate the attainment of organizational objectives (e.g., customer satisfaction, team morale). This literature has provided evidence that display rules for expressing

positive emotions and suppressing negative emotions, also known as *integrative display rules* (Wharton & Erickson, 1993), are common in "people work" jobs (e.g., health care, education, service; Brotheridge & Grandey, 2002) and are viewed as in-role job requirements by employees and their supervisors (Diefendorff, Richard, & Croyle, 2006).

Display rules are typically conceptualized as "a set of shared, albeit often latent rules" (Hochschild, 1983, p. 268) that can vary based on occupational norms or sociocultural differences (Ashforth & Humphrey, 1993; Ekman, 1973). However, empirical research has yet to examine whether employees actually share display rule beliefs and what effect these shared beliefs might have on emotional labor processes. The present study extends the literature on emotional display rules in three ways. First, we develop the idea that display rules are, in part, shared norms derived from unit- or group-level characteristics, as implied by previous authors (Bartel & Saavedra, 2000; Kelly & Barsade, 2001). We focus on employees in one occupational group (i.e., nursing) and one organization (i.e., a hospital system) and assess whether display rules exhibit shared properties at the work unit level of analysis.

Second, we test key theoretical points in the emotional labor literature by incorporating both unit-level display rules and individual-level display rule per-

ceptions in our research design. Specifically, we compare theoretical proposals that display rules relate to employee well-being indirectly through the emotion regulation performed by employees (Grandey, 2000) and directly, as a result of feeling controlled by work requirements (Gosserand & Diefendorff, 2005). In testing the effects of unit-level display rules in emotional labor processes, we consider whether shared beliefs have unique effects beyond individual-level display rule perceptions or whether unit-level effects operate through these employee perceptions.

Third, although previous theory implies that how one typically *feels* should interact with display rules to predict emotion regulation (Diefendorff & Gosserand, 2003), empirical work has primarily examined the main effects of display rules and employee affect on emotion regulation (e.g., Brotheridge & Grandey, 2002; Diefendorff, Croyle, & Gosserand, 2005; Gosserand & Diefendorff, 2005; Grandey, 2003; Totterdell & Holman, 2003; for exceptions, see Beal, Trougakos, Weiss, & Green, 2006; Bono & Vey, 2007; Goldberg & Grandey, 2007). We examine whether unit-level display rules and individual affectivity interact to predict emotion regulation strategies and provide the first test of such interactive effects in a field study.

Previous research has frequently focused on customer service employees (e.g., sales; Tsai, 2001) or employees from a heterogeneous set of occupations (e.g., Diefendorff & Richard, 2003). We focus on the emotionally charged context of hospital nurses, which may make display rules even more meaningful

than in other contexts (Brunton, 2005; Erickson & Grove, 2008b; Henderson, 2001). Given the high turnover rates and high demand for health care workers in the United States, understanding factors that affect the well-being of nurses is of practical significance. In what follows, we develop and test the theoretical relationships depicted in Figure 1.

Display Rules as a Unit-Level Concept

Although typically studied as individual-level perceptions, display rules have been argued to vary at both the occupational and organizational levels. Before Hochschild's work, Ekman and Friesen (1975) pointed out that display rules varied as a function of occupational requirements. For example, nurses are socialized to express compassion, caring, and empathy (Hinds, Quargnenti, Hickey, & Mangum, 1994) at the same time that they are encouraged to develop a level of professional detachment (Carmack, 1997; Savett, 2000; Stephany, 1989; Stowers, 1983). At the organizational level, display rules are thought to be shaped and perpetuated by informal company-specific culture (e.g., language, symbols and stories, informal social consequences for display rule violation), as well as formal policies and practices (e.g., selection, recruitment, socialization, reward systems; Arvey, Renz, & Watson, 1998; Martin, Knopff, & Beckman, 1998; Van Maanen & Kunda, 1989). Thus, there is evidence that emotional display rules operate at levels of analysis higher than that of individual perceptions.

Furthermore, we suggest that display rules will emerge in, and vary by, work groups as well (Kelly &
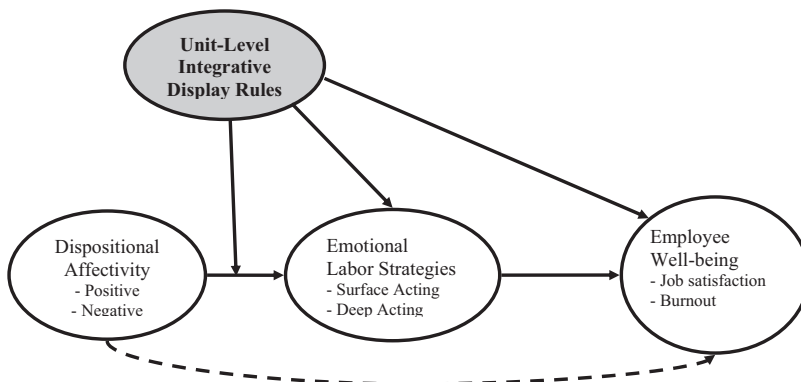

Figure 1. Theoretical model. Gray shading indicates unit-level construct; all others are at the individual level. The effects of individual-level display rule perceptions on each of these theoretical links are examined.

Barsade, 2001). Consistent with this view, Bartel and Saavedra (2000) theorized that social norms guide team members' expressions of their moods, and Kelly and Barsade (2001) suggested that work groups may come to perceive local "emotion norms" that differ from or even supersede (Barker, 1993) the formal display rules of the organization or occupation. One qualitative study demonstrated that different units of The Body Shop developed distinct group-level norms that firmly controlled emotional behavior (Martin et al., 1998).

Such local emotional display norms are likely to be shaped by top-down, contextual factors as well as bottom-up, emergent properties of the social environment (Kozlowski & Klein, 2000). In addition to the distal top-down influences of occupation and organization, more proximal top-down influences on work-unit display rules include expectations of unit managers (Pescosolido, 2002; Wilk & Moynihan, 2005), the workplace design or layout (e.g., availability of "back rooms"; Hochschild, 1983), and the specific function or work activities performed in the units. In the case of nurses, specific hospital units may commonly deal with certain types of patients (e.g., children, aging adults) or certain types of illness or disease (e.g., cancer, heart disease). These distinct situations may be effectively handled by expressing particular levels or forms of positive affect to patients and their families. As a result, members of the same unit will come to adopt similar display rules, which may differ from other units who face prototypically different work situations (Smith, 1992). Consistent with this idea, Feldstein and Gemma (1995) reported that oncology nurses often feel intense emotions such as grief but do not show those emotions because they are taught that they are a hindrance to caring for their patients. At the same time, pediatric nurses may view expressions of sympathy and caring for the patient as the only "professional" way to act (Lewis, 2005).

Unit-level display rules also may be shaped by bottom-up, emergent processes (Kozlowski & Klein, 2000). There is ample evidence that each individual has his or her own beliefs about what emotional displays are most appropriate in a given situation (Diefendorff & Greguras, 2009), opening the possibility that the display rule beliefs of individual members of a unit may influence other members' beliefs and come to be shared by unit members through patterns of social interaction, role modeling, or advice giving (Kozlowski & Klein, 2000). We argue that the presence of unit-level display norms may be particularly likely for health care professionals, given that emotional demands are high and vicarious learn-

ing is common (Rafaeli & Sutton, 1987; see also Smith, 1992; Smith & Kleinman, 1989). Moreover, by overlooking these unit-level norms, previous research has not fully modeled how display rules influence employee behavior (e.g., emotion regulation) and outcomes (e.g., attitudes, stress), as unit-level emotional display rules may represent a unique source of influence on emotion management and well-being. Furthermore, we propose that unit-level display rules may combine with individual level dispositional affect to predict emotion regulation.

Main Effects of Unit-Level Display Rules on Emotional Regulation and Well-Being

Generally, the presence of display rules is linked to greater levels of emotion regulation—more management of emotion is needed if display rules are prominent than if individuals are free to display their feelings however they choose. Emotional labor theory contends that two general emotion regulation strategies are performed in response to display rules: surface acting and deep acting (Hochschild, 1983). Surface acting involves attempts to change one's emotional expressions without modifying one's feelings; in contrast, deep acting involves attempts to bring one's felt affect in line with display rules (Ashforth & Humphrey, 1993; Brotheridge & Lee, 2002; Hochschild, 1983). Surface acting has been discussed as the cynical, "bad-faith" approach to emotion management that meets only the letter, and not the spirit, of the rule (Rafaeli & Sutton, 1987). In contrast, deep acting is the more sincere, "good-faith" form of emotion management (Rafaeli & Sutton, 1987). In a recent meta-analysis, Bono and Vey (2005) reported that individual perceptions of display rules were positively, although modestly, associated with both deep acting ($r = .32$) and surface acting ($r = .26$). We propose that unit-level display rules relate to emotion regulation strategies either directly by shaping the social environment or indirectly by influencing the display rules that individuals perceive.

Consistent with previous work on display rules (Brotheridge & Grandey, 2002; Gosserand & Diefendorff, 2005), we propose that unit-level display rules relate to nurse well-being outcomes. There are two primary views regarding the relationship between display rules and such outcomes (Côté, 2005). First, the autonomy view suggests a direct effect of display rules on well-being caused by a perceived lack of personal control (Goldberg & Grandey, 2007; Hochschild, 1983), regardless of the emotion regulation

actually performed (Gosserand & Diefendorff, 2005). Indeed, the organizational *expectation* to manage emotions may be more deleterious than the performance of emotional labor itself (Ashforth & Humphrey, 1993; Rutter & Fielding, 1988). There is some evidence that integrative display rules—manipulated and perceived—are directly linked to lower well-being (Goldberg & Grandey, 2007; Schaubroeck & Jones, 2000). Thus, we predict that shared display rules are negatively related to well-being, independent of the emotion regulation performed. In testing this idea, we focus on two employee outcomes that are important in the health care setting: burnout and job satisfaction.

> *Hypothesis 1:* Unit-level emotional display rules are (a) positively related to burnout and (b) negatively related to job satisfaction.

Second, the depletion view suggests an indirect effect of display rules through the use of emotion regulation strategies that use valuable resources (Grandey, 2000; Gross & Levenson, 1997). However, there is mixed empirical support for this notion. Surface acting has consistently been linked to emotional exhaustion and job satisfaction, whereas deep acting has weak or null relations (Brotheridge & Lee, 2003; Erickson & Ritter, 2001; Grandey, 2003; Totterdell & Holman, 2003; see also Bono & Vey, 2005). Moreover, dispositional affectivity accounts for a large portion of the surface acting and job strain relations (Brotheridge & Grandey, 2002; Erickson & Ritter, 2001), making it important to examine the extent to which emotion regulation, rather than typical felt emotions, contributes to job strain. We propose that emotion regulation *partially* mediates the effect of unit-level display rules on job strain, given evidence for a direct effect (e.g., Gosserand & Diefendorff, 2005). When testing these relations, we control for the influence of dispositional positive affectivity (i.e., tendency to experience positive emotions such as enthusiasm) and negative affectivity (i.e., tendency to experience negative emotions such as anxiety), which have been shown to relate to emotional display rules, emotion regulation, and well-being outcomes (e.g., Brotheridge & Grandey, 2002; Diefendorff & Richard, 2003).

> *Hypothesis 2:* The relations of unit-level emotional display rules with (a) burnout and (b) job satisfaction are partially mediated by surface acting and deep acting, controlling for the influ-

ence of positive affectivity and negative affectivity.

In testing the direct and indirect effects of display rules proposed in Hypotheses 1a-2b, we explore whether unit-level effects are independent of the effects of individual display rule perceptions, or whether individual display rule beliefs play an intervening role. We expect that unit-level display rules and individual perceptions may have independent effects, given that unit-level display rules represent normative controls over emotional behaviors whereas individual perceptions reflect personal preferences or idiosyncratic beliefs, which may be shaped by norms as well as other factors (Diefendorff & Richard, 2003; Ekman & Friesen, 1975).

Cross-Level Interactive Effects of Unit-Level Display Rules

Implicit in many descriptions of emotional labor is the idea that individuals engage in emotion regulation in response to the combination of emotional display expectations and their felt affect (e.g., Diefendorff & Gosserand, 2003; Hochschild, 1983; Morris & Feldman, 1996; Zapf, 2002). Although this view is commonly found in writings on emotional labor, there is surprisingly little empirical support for it. Goldberg and Grandey (2007) found that high surface acting was reported when either positive display rules were required or a negative affective experience occurred; contrary to the interactive approach, both were not necessary to evoke emotion regulation (see also Bono & Vey, 2007).

In considering how unit-level display rules combine with dispositional affect to shape emotion regulation, we adopted a motivational perspective. Specifically, we argue that the type of emotion regulation performed depends on the level of shared display rules as well as the valence and level of employee affect. Positive affect is linked to approach motivation tendencies, and negative affect is tied to avoidance motivation tendencies (Gray & McNaughton, 2000). Similarly, Dahling and Johnson (2010) showed that deep acting aligns with approach motivation and surface acting aligns with avoidance motivation. On the basis of their common foundation in distinct motivational tendencies, we make separate predictions regarding the intersection of affective tendencies and display rules in predicting deep and surface acting.

First, we propose that the approach-oriented regulation strategy of deep acting will be more likely for

individuals who both tend to experience positive affect and work in units with high levels of integrative display rules. In essence, high levels of shared display rules provide the normative goal that results in more deep acting for employees high in positive affectivity (and approach motivation; Gray & McNaughton, 2000) compared with employees low in positive affectivity. Consider that even when a nurse typically feels positive emotions, expressing a sense of genuine caring for each and every patient requires energy and attentional resources; thus, shared display rules can provide the motivation to engage in deep acting to do so (Ashforth & Humphrey, 1993; Goldberg & Grandey, 2007). In contrast, when a person tends to experience low positive affect, there is less motivational energy to engage in deep acting; thus, integrative display rules are less likely to evoke this effortful approach. Consistent with this motivational perspective, Totterdell and Holman (2003) found that deep acting was more likely from call center employees who had pleasant, rather than unpleasant, interactions. Thus, nurses who tend to be high in positive affectivity may be more likely to use deep acting when they are working in a unit with high expectations for positive displays than when the display rules are not as clearly expected in the work group.

> *Hypothesis 3:* Unit-level emotional display rules moderate the relationship of positive affectivity with deep acting, so that the relationship is strong and positive when display rules are high and weak when display rules are low.

Consistent with the motivational explanation, we contend that surface acting is more likely when avoidance motivation is high (Dahling & Johnson, 2010). High levels of negative affectivity suggest a tendency to withdraw from (or aggress toward) others, as well as an increased sensitivity to signals of punishment and nonreward (Carver & Scheier, 1990; Keltner, Gruenfeld, & Anderson, 2003). We propose that employees who tend to experience negative emotions and who work in units with low levels of integrative display rules are likely to simply express their negative feelings. However, if units have high levels of shared integrative display rules, employees may seek to regulate their affect to avoid the social consequences associated with showing negative emotions (e.g., anticipated shame, being ignored by others, experiencing a lack of support), but they may do so using the more cynical emotion regulation strategy of surface acting. Thus, the avoidant orientation associated with negative affectivity may lead individuals to simply conform to display rules at the surface level. We propose that the positive link between negative affectivity and surface acting (Brotheridge & Lee, 2002; Gosserand & Diefendorff, 2005) will be stronger when employees work under high, rather than low, levels of shared integrative display rules. This prediction is consistent with that of Totterdell and Holman (2003), who found that call center employees, who work under integrative displays rules, were more likely to surface act during an unpleasant or negative customer interaction than a pleasant one.

> *Hypothesis 4:* Unit-level emotional display rules moderate the relationship of negative affectivity with surface acting, such that the relationship is strong and negative when display rules are high and weak when display rules are low.

Given that there are no common motivational links between positive affectivity and surface acting and between negative affectivity and deep acting (Dahling & Johnson, 2010), we do not predict that unit-level display rules will moderate these links. However, we test these nonpredicted interactions to further assess whether our theoretical alignment based on motivational tendencies is supported. In addition, we control for the influence of individual-level emotional display rule perceptions when testing the cross-level interactions to provide a conservative test of the relationships of unit-level display rules with emotion regulation.

Method

Participants and Procedure

Participants were registered nurses working for a health care system consisting of two urban hospitals in the midwestern United States owned and operated by a single health care system (no differences between hospitals were observed for any study variables). In both hospitals, the nursing staff was managed through one office of nursing administration. Written questionnaires, with an accompanying letter describing the study, were distributed to all registered nurses at their place of employment ($N = 1,461$). Surveys were returned directly to the researchers through the U.S. mail in a previously addressed, stamped envelope. Eighty percent of the potential respondents returned a completed questionnaire ($n = 1,169$). To hold constant the occupation, only completed questionnaires from direct care nurses were

included, resulting in a sample size of 929 (79% of respondents).

Of the 929 respondents, 96% were female and 95% were White. The nurses were distributed across 60 work units, resulting in an average of 15.48 nurses per unit. Thirty-three percent had earned a diploma of nursing, 12% had earned an associate's degree, 50% had completed a bachelor's degree, and 5% had earned a graduate degree in nursing. Seventy-five percent of the respondents were married, and 66% had children living at home. The mean age of the participants was 42 years old, with an average tenure of 16.8 years as a registered nurse. The average nurse in the present sample worked 33 hr/week. According to the organization's records, participating nurses were representative of those employed by the health system studied.

Measures

Unit-level emotional display rules. Display rules were measured with a slightly modified version of the seven-item scale introduced by Best, Downey, and Jones (1997) and employed by Brotheridge and Grandey (2002). Nurses were presented with the sentence stem, "To be effective in your job, to what extent are you required to . . . ?" and asked to rate seven items involving the expression of positive emotions and hiding of negative emotions on a 5-point scale ranging from 1 (*not at all required*) to 5 (*always required*). Sample items are "reassure people who are distressed or upset," "express feelings of sympathy (i.e., saying you 'understand,' saying you are sorry to hear about something)," and "hide your disgust over something someone has done." Our underlying theoretical assumption is that the items on this scale represent a unitary construct aimed at expressing emotions in a way that brings the interaction partners closer together; that is, integrative display rules (Wharton & Erickson, 1993). Indeed, Gosserand and Diefendorff (2005) supported the idea that display rule items pertaining to showing positive emotions and hiding negative emotions could form a single scale.

To examine this issue empirically, we compared the fit of one-factor and two-factor models using multilevel confirmatory factor analysis (CFA; Dyer, Hanges, & Hall, 2005; Muthén, 1994) using Mplus 5.1 (Muthén & Muthén, 1998–2007). Results revealed good fit for both the one- and two-factor models. For the one-factor model, $\chi^2(26) = 114.21$, $p < .05$; root mean square error of approximation (RMSEA) = .060, Tucker–Lewis index (TLI) = .95,

confirmatory fit index (CFI) = .97, standardized root mean square residual for the within level ($SRMR_{within}$) = .062, and $SRMR_{between}$ = .054. For the two-factor model, $\chi^2(28) = 138.64$, $p < .05$; RMSEA = .065, TLI = .94, CFI = .96; RMSEA = .06, $SRMR_{within}$ = .050, and $SRMR_{between}$ = .054. Although the two-factor model is slightly preferred when using the change in chi-square significance test for comparing nested models, $\Delta\chi^2(2) = 24.43$, $p < .05$; the two-factor model had larger residuals at the within (i.e., person) level and equivalent residuals at the between (i.e., unit) level, compared with the one-factor model, as is evidenced by the SRMR values. Additionally, the correlation among the two factors was .92 at the person level and .99 at the unit level, suggesting that they are essentially redundant. Furthermore, when conducting CFAs on only the unit-level display rule data, the more parsimonious one-factor model did not fit worse than the two factor model, $\Delta\chi^2(1) = 0.19$, *ns*. As a result, we concluded that a one-factor model best represented the data. Coefficient alpha supported the reliability of this measure ($\alpha = 0.84$).

Our use and subsequent aggregation of self-referenced items to assess display rules reflects what Chan (1998) referred to as the "direct consensus" model of composition (see also Kozlowski & Klein, 2000). Such a model is in contrast to the "referent shift consensus" model of composition described by Chan (1998), in which individuals respond to group-referenced items (e.g., "the display rules for my work unit are . . . ."), which are then aggregated. Although Klein, Conn, Smith, and Sorra (2001) demonstrated that the use of self-referenced items results in greater within-group variability and less between-groups variability than the use of group-referenced items, there also is evidence that constructs assessed through self-referenced items can be meaningfully aggregated to the unit level of analysis (e.g., Kozlowski & Hults, 1987).

Emotion regulation strategies. Items measuring surface and deep acting with patients and their families were adapted from Brotheridge and Lee's (2003) Emotional Labor Scale. We assessed surface acting by asking respondents, "How often do you try to cover up your true feelings?" and "How often do you pretend to have feelings that are expected but that you don't really feel?" with separate items asking about interactions with patients and patient families (1 = *never*, 5 = *everyday*). The internal consistency reliability of these four items was .90. For deep acting, respondents were asked, "How often do you make an effort to actually feel the emotions you are

expected to display with patients and patient families?" (1 = *never*, 5 = *everyday*). The internal consistency reliability of these two items was .98. It should be noted that for deep acting, the coefficient alpha represents the extent of measurement error across the two targets (patients, patient families), rather than across different items from a construct domain; for surface acting the alpha is across two items and two targets.

Positive and negative affectivity. The Positive and Negative Affectivity Schedule (PANAS; Watson, Clark, & Tellegen, 1988) was used to measure dispositional positive affectivity and negative affectivity. The PANAS includes 10 positive and 10 negative mood adjectives and asks participants to indicate the extent to which they "generally" feel each emotion ("on average") on a 5-point scale ranging from 1 (*very slightly or not at all*) to 5 (*extremely*). Internal consistency reliabilities were $\alpha = 0.91$ for positive affectivity and $\alpha = 0.87$ for negative affectivity.

Burnout. We measured burnout with a seven-item scale (Erickson & Ritter, 2001) that was developed on the basis of the principal component of burnout, emotional exhaustion (Maslach & Jackson, 1986). Respondents were asked to indicate how often they had experienced each of the statements listed (1 = *never*, 7 = *almost every day*; sample item: "I feel emotionally drained from my work"). The internal consistency reliability was $\alpha = 0.92$.

Job satisfaction. Job satisfaction was measured with four items from the Quality of Employment Survey, which is commonly used to assess U.S. workforce changes in satisfaction over time (Quinn & Staines, 1978) and has been successfully used in other organizational research (e.g., Kossek & Ozeki, 1998). Respondents rated their satisfaction (1 = *very dissatisfied*, 4 = *very satisfied*) with the "work in

general," "work hours," "control over work," and "routine activities." Responses to these items were averaged ($\alpha = 0.74$).

Results

Means, standard deviations, and zero-order correlations among the study variables are reported in Table 1. Hierarchical linear modeling (HLM 6.0; Raudenbush & Bryk, 2002) was used to test all of the hypotheses, which involved simultaneously examining the effects of work unit-level display rules and individual-level predictors on dependent variables. We followed Enders and Tofighi's (2007) recommendations for centering Level 1 and Level 2 variables. For analyses focused on testing main effect predictions for display rules (Hypotheses 1 and 2), the Level 1 predictors (i.e., positive affectivity, negative affectivity, surface acting, deep acting) were centered at their grand means. Doing so allowed us to test whether unit display rules predicted Level 1 well-being outcomes beyond the effects of the Level 1 predictors. For analyses focused on testing cross-level interaction effects (Hypotheses 3 and 4), the Level 1 predictors (i.e., positive affectivity and negative affectivity) were centered at the means of each work unit. This approach "yields a pure estimate of the moderating influence that a level 2 predictor exerts on the level 1 association between X and Y" (Enders & Tofighi, 2007, p. 133). We also grand mean centered the Level 2 display rule variable.

Before testing our hypotheses, we examined whether there was statistical evidence to support aggregating the display rule ratings to the unit level of analysis. In essence, we wanted to know whether (a) the display rule ratings had sufficient between-unit variance, (b) units could be reliably differentiated, and (c) individuals within a unit agreed (Bliese,

Table 1

Means, Standard Deviations, Reliabilities, and Correlations of Individual-Level Variables

Variable	M	SD	1	2	3	4	5	6	7
1. Display rules	3.72	0.69	(.84)						
2. Positive affectivity	3.63	0.69	−.01	(.91)					
3. Negative affectivity	1.72	0.53	.24	−.38	(.87)				
4. Surface acting	3.02	0.95	.38	−.26	.33	(.90)			
5. Deep acting	3.19	1.19	.20	.03	.14	.26	(.98)		
6. Job satisfaction	2.89	0.56	−.17	.30	−.27	−.34	−.04	(.74)	
7. Burnout	4.07	1.49	.26	−.26	.41	.43	.21	−.54	(.92)

Note. N = 929 for all variables. Reliabilities are in parentheses on the diagonal. Correlations at .14 or higher are significant at $p < .01$.

2000). The intraclass correlation (ICC[1]), ICC(2), and $r_{wg(j)}$ values provide this information, respectively. ICC(1) is the proportion of variance in individual responses that is accounted for by unit membership. For display rules, ICC(1) = .092, F = 2.46, $p < .001$, suggesting that over 9% of the variance in individual responses was attributable to the nursing unit to which they belonged. ICC(2) is the reliability of the unit scores, or the extent to which units can be reliably differentiated. ICC(2) = .61 for display rules, suggesting that the units reliably differed in their mean level of display rules. Although there is no set cutoff for ICC values, James (1982) reported a median ICC(1) value of .12, and Glick (1985) suggested an ICC(2) minimum of .60. Thus, our ICC values are comparable with these guidelines as well as values used to justify aggregation in previous research (Liao & Chuang, 2004; Schneider, White, & Paul, 1998).

We computed $r_{wg(j)}$ values for display rules for each unit to determine the extent to which individuals within a given unit agreed on the display rules. The mean $r_{wg(j)}$ was .90, the median $r_{wg(j)}$ was .91, and the range was from .71 to .98. These values are all above the conventionally accepted value of .70. In summary, these results provide evidence that display rules exist at the work unit level of analysis in our sample, supporting the assumption in the emotional labor literature that display rules represent shared expectations for emotional expression.

Display Rules and Employee Well-Being: Direct and Indirect Effects

Hypotheses 1a and 1b proposed that the effects of unit-level display rules on burnout and job satisfaction are direct, whereas Hypotheses 2a and 2b proposed that the effects are partially mediated through surface acting and deep acting. To test these hypotheses, we performed a series of analyses in which we tested (a) the unique effect of unit-level display rules on the dependent variables, (b) whether these unit-level effects were independent of individual-level display rule perceptions, and (c) whether surface acting and deep acting could explain the links of display rules with strain-related outcomes. As a first step, we computed null models for deep acting, surface acting, burnout, and job satisfaction (see Table 2). These models revealed that the Level 2 residual variance of the intercept was significant for each variable, with the exception of deep acting. Thus, there was significant between-unit differences for surface acting (5.4%), burnout (15.5%), and job satisfaction (7.5%) but not for deep acting (1.5%).

Next, we examined the links of unit-level display rules with the proposed mediators, surface acting and deep acting, controlling for the influence of dispositional affectivity. These analyses demonstrated that unit-level emotional display rules were significantly related to both deep acting and surface acting (see the first column of results in Table 3). However, inclusion of grand mean centered individual-level display rules as a Level 1 predictor (see the second column of results in Table 3) reduced the effect of unit-level display rules to nonsignificance for both strategies. Individual-level display rules were significant in both cases, suggesting that the association between unit-level display rules and emotion regulation was fully accounted for by individual-level display rule beliefs.

Having established links of dispositional affect and display rules with the emotion regulation mediators, we turn our attention to testing Hypotheses 1a–2b. As a first step, we tested models with positive affectivity and negative affectivity as Level 1 predictors and unit-display rules as a Level 2 predictor. Consistent with Hypothesis 1a, the first column in Table 4 shows that PA and NA, as well as unit-level display rules, were significantly related to job burnout. However, at

Table 2
Hierarchical Linear Modeling Estimates of Null Models

Dependent variable	Pooled intercept (γ_{00})	Within-unit variance (σ^2)	Between-unit variance (τ_{00})	% Total variance between units
Deep acting	3.203***	1.395	0.021	1.51
Surface acting	2.989***	0.852	0.048***	5.37
Burnout	3.992***	1.921	0.353***	15.50
Job satisfaction	2.920***	0.289	0.023***	7.49

Note. Percentage of total variance between units was computed with the formula $\tau_{00}/(\sigma^2 + \tau_{00})$. γ_{00} is the average value of the dependent variable across individuals and units.
*** $p < .001$.

Table 3
Multilevel Random Coefficient Model Predicting Surface Acting and Deep Acting

Variable	PANAS and unit-level display rules	Add individual-level display rules	Add cross-level interactions
Dependent variable: Deep acting			
Level 1 model			
Intercept	3.172***	3.203***	3.200***
Positive affectivity (PA)	.021**	.019**	.014*
Negative affectivity (NA)	.041***	.031***	.029**
Display rules (DR)		.288***	.279***
Level 2 model			
Unit DR (intercept)	.383*	.113	.132
Unit DR × PA			.043*
Unit DR × NA			.016
Dependent variable: Surface acting			
Level 1 model			
Intercept	2.949***	2.985***	2.984***
PA	−.025***	−.028***	−.031***
NA	.043***	.029***	.022**
DR		.442***	.444***
Level 2 model			
Unit DR (intercept)	.564**	.145	.141
Unit DR × PA			.022
Unit DR × NA			.060**

Note. For employees, $n = 929$; for units, $n = 60$. Values are for fixed effects (γs) with robust standard errors. PANAS = Positive and Negative Affectivity Schedule.
* $p < .05$.   ** $p < .01$.   *** $p < .001$.

the next step, the grand mean centered individual-level display rules measure was significant (explaining 2.9% of the within-unit variance), and this resulted in unit-level display rules becoming nonsignificant (see the middle column of results in Table 4). This finding suggests that individual-level display rule perceptions fully mediated the effect of unit-level display rules on burnout. Finally, we added the hypothesized mediating variables of surface acting and deep acting, which were both significantly related to burnout (see third column of Table 4) and reduced the size of the individual-level display rule effect by 51.7% (from 2.9% to 1.4%), although it remained significant. Thus, these results support both direct and indirect effects of individual-level display rule perceptions on burnout but an effect of unit-level display rules that is fully accounted for by these individual-level perceptions. Thus, these results do not provide support for Hypotheses 1a or 2a, but they are consistent with such effects at the individual level of analysis. In summary, these results indicate that the effect of unit-level display rules on burnout operates completely through individual-level display rules and that individual-level display rules relate both directly and indirectly (through surface acting and deep acting) to nurse burnout. The full model

accounted for 30% of the within-unit and 38.5% of the between-unit variance in burnout.

We followed the same steps for testing Hypotheses 1b and 2b for job satisfaction. At the first step, PA and NA were significant Level-1 predictors and unit-level display rules was a significant Level-2 predictor, consistent with Hypothesis 1a (see first column of results in Table 4). As a next step, we included grand mean centered individual-level display rule perceptions as a predictor, which had a significant relationship with job satisfaction (see second column of results in Table 4) and accounted for 1% of the incremental within-unit variance. In contrast to the result for burnout, unit-level display rules remained significant, though the magnitude of its effect was reduced (see Table 4). This finding suggests that individual-level display rules partially mediated the impact of unit-level display rules on job satisfaction. Finally, adding individual-level surface acting and deep acting to the model (see last column of Table 4) demonstrated that both strategies were significantly associated with job satisfaction. Furthermore, the effect of individual-level display rules became nonsignificant, whereas the effect of unit-level display rules was virtually unchanged. These results support Hypothesis 1b for unit-level display rules, showing that

Table 4

Multilevel Random Coefficient Model Predicting Burnout and Job Satisfaction

Variable	PANAS & unit-level display rules	Add individual-level display rules	Add emotion regulation strategies
Dependent variable: Burnout			
Level 1 model			
Intercept	3.984***	4.022***	4.027***
Positive affectivity	−.032***	−.036***	−.025***
Negative affectivity	.096***	.083***	.069***
Display rules (DR)		.382***	.174*
Surface acting			.396***
Deep acting			.093*
Level 2 Model			
Unit DR (intercept)	.769**	.367	.250
Dependent variable: Job satisfaction			
Level 1 model			
Intercept	2.935***	2.927***	2.924***
Positive affectivity	.023***	.024***	.019***
Negative affectivity	−.016**	−.013**	−.010*
DR		−.087***	−.031
Surface acting			−.143***
Deep acting			.025*
Level 2 model			
Unit DR (intercept)	−.290***	−.208**	−.214**

Note. For employees, $n = 929$; for units, $n = 60$. Values are for fixed effects (γs) with robust standard errors.
* $p < .05$. ** $p < .01$. *** $p < .001$.

it had direct effects on job satisfaction, and provide indirect support for the partial mediation idea in Hypothesis 2b, given that the effect of individual-level display rule perceptions (which itself carried some of the unit-level display rule effects) was reduced to nonsignificance when surface acting and deep acting were included in the model. Thus, Hypothesis 2b was supported by the finding that emotion regulation strategies mediated the relationship of unit-level display rules with job satisfaction that operated through individual-level display rule perceptions. The full model accounted for 20.6% of the within-unit and 25.2% of the between-unit variance in job satisfaction.

Shared Display Rules × Dispositional Affect in Predicting Emotion Regulation

Hypotheses 3 and 4, respectively, proposed that work unit-level display rules would moderate the relationships of individual-level positive affectivity with deep acting and of individual-level negative affectivity with surface acting. Building on the second model in Table 3, which included unit-level display rules, dispositional affectivity, and individual-level display rule perceptions, we added unit-level display rules as a predictor of the slopes of positive

affectivity and negative affectivity in predicting deep acting. As shown in the last column of Table 3, the cross-level interaction effect for unit-level display rules in predicting the positive affectivity and deep acting slope was significant, accounting for 3.5% of the variance in the slopes between positive affectivity and deep acting (or .05% of the total variance in deep acting). The form of this interaction is consistent with Hypothesis 3. As shown in Figure 2, there was a positive relationship between positive affectivity and deep acting for individuals working in units with high display rules (simple slope at 1 *SD* in display rules, $\gamma = .024$, $p < .05$), whereas the relationship was weaker for individuals working in units with low display rules (simple slope at −1 *SD* in display rules, $\gamma = .010$, $p < .10$). Consistent with expectations, the interaction between unit-level display rules and negative affectivity in predicting deep acting was not significant.

Hypothesis 4 proposed that work unit-level display rules would interact with individual level negative affectivity to predict surface acting. We added unit-level display rules as a predictor of the slopes of positive and negative affectivity in predicting surface acting (see Table 3). This hypothesis was supported because the cross-level interaction effect was significant and accounted for 36% of the variance in the
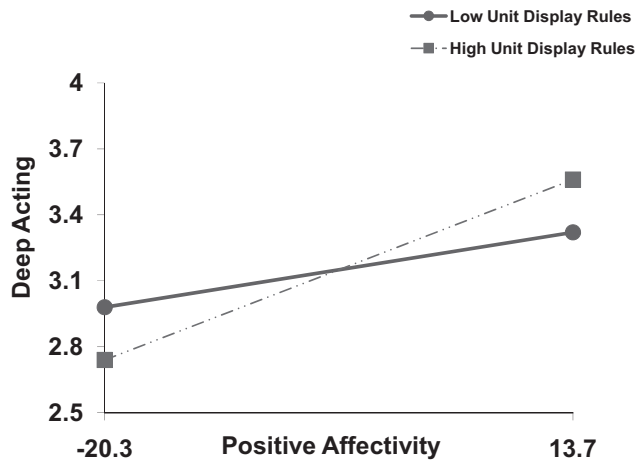
Figure 2. Unit-level display rules as a moderator of the relationship between person-level positive affectivity and deep acting.

slopes between negative affectivity and surface acting (or 4.9% of the total variance in surface acting). The form of this interaction supported Hypothesis 4. As shown in Figure 3, the relation of negative affectivity with surface acting was strong and positive at high levels of unit display rules (simple slope at 1 *SD* in display rules, $\gamma = .035$, $p < .01$) and weaker at low levels of unit display rules (simple slope at -1 *SD* in display rules, $\gamma = .015$, $p < .01$). Furthermore, the nonhypothesized interaction of unit-level display rules with positive affectivity in predicting surface acting was not significant (see Table 3).

In supplemental analyses, we also examined whether unit-level display rules interacted with dispositional affectivity in predicting burnout and job satisfaction. None of these interactions were significant, suggesting that the cross-level moderating effects of unit-level display rules affect emotion regulation and not job satisfaction or burnout. Finally, we also examined whether individual-level display rule
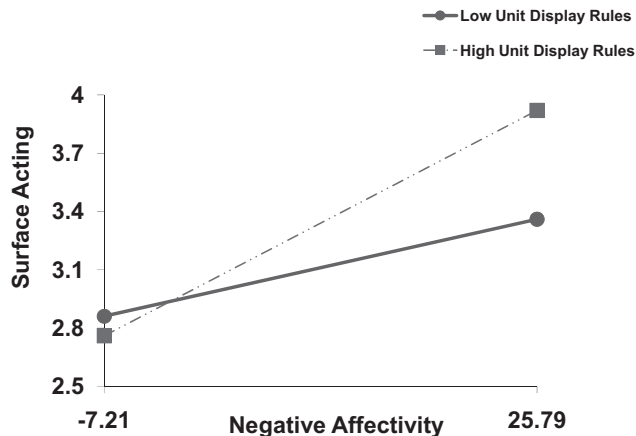

Figure 3. Unit-level display rules as a moderator of the relationship between person-level negative affectivity and surface acting.

perceptions interacted with positive affectivity and negative affectivity to predict emotion regulation and well-being outcomes; no significant interaction effects were observed.

Discussion

This study contributes to the emotional labor literature by demonstrating that emotional display rules are shared by nurses who work in the same unit. These shared perceptions relate to (a) emotion regulation indirectly through individual display rule perceptions, (b) burnout indirectly through individual-level display rule perceptions and emotion regulation, and (c) job satisfaction directly and indirectly through individual-level display rule perceptions and emotion regulation. Unit-level display rules were also shown to combine with individual-level dispositional affect in ways consistent with a motivational perspective of display rules to predict surface acting and deep acting.

Theoretical Implications

The results of this study advance emotional labor theory in several respects. First, they confirm a long-held but untested assumption that display rules can be represented as shared norms governing emotional expression (Hochschild, 1983; Rafaeli & Sutton, 1989). The results demonstrated that nurses who worked in the same unit exhibited agreement in their display rule perceptions and that work units differed in the level of display rules present. This is the first study to demonstrate that display rule perceptions exhibit group-level properties.

Of course, a next step in this line of research is to examine the mechanisms by which display rule perceptions come to be shared by unit members. Little existing research speaks to how these group-level display rules develop *within* units and become differentiated *between* units. Research on this issue could use longitudinal designs to examine how individual-level perceptions coalesce on shared understandings of desirable emotional expressions through different patterns of social interaction (Kelly & Barsade, 2001). Research also could focus on assessing unit-level predictors, including manager expectations (Wilk & Moynihan, 2005) and systematic differences in the type of work performed by the units (e.g., the level of emotionality of patients and their families). A look at the types of work units at the high and low ends of the display rule distribution in our sample is consistent with this view. Specifically, units at the

high end of the distribution included psychiatry, a Level-1 trauma emergency room, and preadmission testing (for admitting patients before surgery). Nurses in these units may engage patients and patient families in highly emotional situations. In contrast, units at the low end of the distribution were childbirth education, performance improvement (for monitoring and improving the quality of patient care), and health care review (for developing a plan of care for hospitalized patients). It may be that nurses in these units typically do not encounter patients and their families during highly emotional times. Although this descriptive look at work unit function is suggestive, theory-driven empirical tests of specific top-down influences are needed.

The present study also advances emotional labor theory by demonstrating how job burnout and satisfaction are influenced by a complex set of direct and indirect effects of unit-level display rules. Generally, we compared the autonomy view, which proposes direct effects, and the depletion view, which suggests indirect effects through emotion regulation, to examine the relation between display rules and well-being. We found support for both perspectives, although the pattern of effects became fairly complex when individual-level display rule perceptions were incorporated. For burnout, the effect of unit-level display rules was indirect, operating through individual-level display rules, which in turn was partially mediated by surface acting and deep acting. For job satisfaction, the effect of unit-level display rules was primarily direct, operating independently of individual display rules and emotion regulation. However, there was evidence of a small indirect effect of unit-level display rules on job satisfaction through individual-level display rule perceptions, an effect that was fully mediated by surface acting and deep acting. Finding that unit-level display rules had different patterns of linkages with these outcome variables is intriguing, although not entirely surprising given the nature of burnout and job satisfaction. The regulation of emotion and experience of burnout may be based more on internal psychological processes than shared norms, consistent with the finding that employees' own unique perceptions of display rules fully explained the impact of unit-level display rules. In contrast, job satisfaction reflects an evaluation of the job that may be, in part, influenced by the context of the social environment at work (Salancik & Pfeffer, 1978).

Although the results for dispositional affectivity and surface acting in predicting burnout and job satisfaction are largely replications of previous work (e.g., Brotheridge & Grandey, 2002; Erickson & Rit-

ter, 2001), the findings for deep acting in significantly predicting burnout and job satisfaction are in contrast to the nonsignificant results in a recent meta-analysis (Bono & Vey, 2005). Our findings may be due to the emotional nature of nurses' work in contrast to the typical service samples used in other studies. For example, it may be more exhausting and dissatisfying to modify the strong feelings that nurses experience in response to seriously ill patients compared to the more mundane circumstances faced by retail or fast food workers.

A third theoretical contribution of the present study concerns how work unit emotion norms interacted with individual-level affectivity to predict surface and deep acting. Consistent with the motivational approach, the positive relations of unit display rules with surface acting and deep acting was strengthened by high levels of negative affectivity and positive affectivity, respectively. These findings support the idea that the way in which nurses attempted to conform to high levels of unit-level display rules depended on their affective disposition, a conclusion that is consistent with the work of Dahling and Johnson (2010) who showed that surface acting is linked to avoidance motivation and deep acting is linked to approach motivation. The lack of support for the other possible interactions between dispositional affect and the emotion regulation strategies supports the theoretical alignment of affect and emotion regulation strategies on motivational grounds.

On the basis of these results, it seems that affectivity, in conjunction with display rules, motivates the extent and type of emotion management. Having high positive affectivity and working in a unit with high levels of shared, integrative display rules were associated with individuals making good-faith efforts (Rafaeli & Sutton, 1987) to feel the required emotion. In the case of our sample, nurses with high positive affectivity may have tried to feel empathy and compassion for patients and their families in response to display rules. However, when nurses high in negative affectivity worked in units with strong display rules, they were more likely to take the "bad-faith" approach and simply mask their true feelings. These results suggest that how the comparison of feelings with display rules relates to emotion regulation may be more complicated than previously thought. Additionally, it is important to point out that no such interactive effects occurred for individual-level display rules and dispositional affect.

Although these observed effects are consistent with general theoretical models of emotional labor,

they may be more pronounced in a profession such as nursing that places great value on being genuine and caring in one's interactions with patients and patient families (Brunton, 2005; Erickson & Grove, 2008a, 2008b; Henderson, 2001). For instance, the finding that high positive affectivity and high unit-level display rules combined to predict deep acting may not be observed in occupations in which authenticity and caring are not central professional values (e.g., sales).

Implications for Practice

The results of this study also have implications for practitioners. First, we demonstrated the existence of shared emotional display norms and showed how these shared perceptions influence individual-level affect regulation and well-being outcomes. These results suggest that emotion management at work has a normative component that may be leveraged by organizations to facilitate positive outcomes for employees and organizations. That is, organizations may work to build positive emotion norms by teaching managers to be effective display rule "regulators" (Wilk & Moynihan, 2005) and providing formal training to employees in how to handle emotional situations. Such training may also provide opportunities for display rules to emerge in a bottom-up fashion by encouraging employees to share with each other the ways they manage emotions in prototypical emotional situations. Such sharing of best practices and use of individual employee experiences to develop a shared understanding of what works in emotional situations could be especially beneficial for newer employees who are trying to navigate the emotional environment at work.

It may be that groups who share high levels of emotional display norms have less of a need for formal procedures aimed at monitoring and controlling emotional expressions. Although leadership and organizational policies may be instrumental in forming group-level display norms in some situations, after such norms are established there may be a reduced need for the direct control of emotional displays (Podsakoff & MacKenzie, 1997). Shared, group-level display norms are therefore likely to be desirable to the extent that they free managers from focusing on subordinates' emotional display requirements, allowing them to focus more on other duties.

Finally, these results suggest that health care administrators seeking to increase the well-being and retention of registered nurses should consider the role of unit-level emotion norms as well as the affect of nurses. To the extent that display rules, emotion

regulation strategies, and affective disposition are associated with job burnout and satisfaction, policies aimed at mitigating these linkages could help to address more distal outcomes, such as turnover and the provision of quality patient care (Buerhaus et al., 2007; Jennings, 2008; Letvak & Buck, 2008). Given that these display rules are relevant for effective functioning with patients and their families, management should identify ways to decrease the strain from these emotional requirements. For example, providing personal control over other aspects of the job has been shown to have benefits (e.g., Grandey, Fisk, & Steiner, 2005), and providing opportunities for respite breaks is another way to avoid depletion (Trougakos, Beal, Green, & Weiss, 2008).

Limitations

First, despite the strong theoretical bases for our hypotheses, we caution that our results are correlational and that causal inferences should be made with caution. For instance, well-being (i.e., burnout, job satisfaction) may be both an antecedent and consequence of emotion regulation strategies. However, the direction of effect chosen here is consistent with models of emotional labor (Grandey, 2000) and has been demonstrated in experimental research (e.g., Gross, 2002). Additionally, all variables were assessed from the same source, leading to the potential for common method variance in biasing the observed relations. We adopted practices to address this issue (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), including the use of different response scales across constructs and ensuring the anonymity of responses. Furthermore, by operationalizing display rules at both the unit and individual levels, we were able to reduce the potential bias of common method variance in understanding the operation of this key variable.

A third limitation of our study was that the measure of display rules referenced the individual and not the work unit. Although we still found that display rules exhibited group-level properties, the likely effect of our choice of measurement at the individual level is that the strength of our grouping effect was diminished (Klein et al., 2001), which may have contributed to the relatively small effects of unit display rules on outcome variables. We suggest that future work reference the unit as whole (e.g., "to be effective in our jobs, nurses in my work unit should reassure people who are distressed or upset."), which may lead to less within-unit variability and larger between-unit differences. A fourth limitation of the study was that some of the interactive effects in

predicting emotion regulation were fairly small, especially for deep acting. However, there are several reasons these effects should not be ignored. First, our focus on nurses within one hospital likely greatly restricted the potential to observe between-groups variability in display rules. As such, future research aimed at testing these ideas in a broader sample across distinct occupational groups and organizations may yield more robust group-level effects. Second, relatively small effects on emotion regulation and well-being outcomes may prove to have large effects at the organizational level over time. Small decreases in burnout and dissatisfaction through effective emotion regulation and appropriate group-level display rules may have large cost savings at the organizational level over time (Cascio & Boudreau, 2008). Third, even small effects documented at a new level of analysis for the first time are worthy of note.

Also pertaining to operationalization, some of our study variables (e.g., affect, emotion regulation) may well vary within persons over time, suggesting that using experience sampling to assess key constructs could yield important insights (see Beal et al., 2006, for a recent example). Indeed, three-level models could be developed in which display rules are assessed at the unit level, dispositional affectivity is assessed at the person level, and emotion regulation and depletion or exhaustion are assessed at the event level. Finally, although not unique to our investigation, there is the need to better define and measure the deep acting and surface acting constructs in the emotional labor literature and to explicate what it means to report low levels of these constructs. That is, when someone reports low surface acting, for instance, it is unclear whether the person is able to display the expected emotion and has no need to regulate emotions or whether the person needs to regulate his or her emotions but is simply choosing to not do so.

Conclusion

Our study demonstrated the existence and importance of shared emotional display rules in a sample of nurses. We showed that unit-level display rules had indirect (through individual-level display rules) and interactive effects with individual dispositional affect in predicting deep acting and surface acting and that these shared display rules were indirectly (through individual display rules and emotion regulation strategies) related to emotional exhaustion and directly and indirectly (through individual-level display rules and emotion regulation) related to job satisfaction. Despite the contributions of this study, additional

research is needed on how emotional display rules become shared among individuals and the mechanisms by which these shared perceptions influence employee behavior and well-being. Finally, although nurses are an appropriate sample because of the high emotional labor demands they face (Glomb, Kammeyer-Mueller, & Rotundo, 2004), we caution that nursing is a changing field, with many nurses increasingly viewing their profession as one that emphasizes technological skill as much as emotional caring (Erickson & Grove, 2008a, 2008b; Phillips, 1996; Woodward, 1997). Nonetheless, we expect that shared emotional display norms will continue to be an essential feature of occupations involving "people work" but that the nature of these norms and their effects on emotion regulation and employee well-being may vary across occupational groups.

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