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# Emotion regulation and worker well-being: Does who you act with matter?

Megan Schmidt  
mes192@zips.uakron.edu

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Emotion regulation and worker well-being: Does who you act with matter?

Megan Schmidt

The University of Akron

### Abstract

The relationships of nurses' emotion regulation directed at different targets at work and worker well-being were investigated in the current study. I looked at surface acting and deep acting (i.e., suppressing felt emotions and faking unfeared emotions, or actually attempting to feel the emotions that are shown). Specifically, I analyzed the data to see if surface acting and deep acting is more or less harmful for nurses depending on the interaction target. To do this, I looked at responses to a survey that indicated the degree to which nurses engaged in surface acting and deep acting with various targets as well as their reported levels of burnout, their physical symptoms, as well as turnover intentions. Overall, I found that nurses were significantly more likely to use both regulation strategies with external targets (i.e., those who are external to the workplace) than with internal organizational targets. Burnout was significantly related to both regulation strategies. Deep acting showed select differences between targets. Physical symptoms were significantly related to both regulation strategies. Surface acting with external targets had a significantly stronger relationship with physical symptoms, as did deep acting with different targets. Turnover intentions were significantly related to surface acting. Surface acting with external targets had a significantly weaker relationship with turnover intentions than surface acting with internal targets. Deep acting with fellow nurses had significantly stronger relationships with turnover intentions than the other targets. Significant unique predictors were identified with supplemental analyses.

Emotion regulation and worker well-being:

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Emotional labor is the management of emotions as part of the work role (Grandey, Diefendorff, & Rupp, 2013). Organizations are thought to have specific emotional display rules (Hochschild, 1983; Rafaeli & Sutton, 1987) that specify which emotions are appropriate for expression on the job. Sometimes, employees may be able to conform to these emotional display rules by showing what they naturally feel, but at other times, they may need to actively regulate their emotions (Grandey, 2000). Employees can regulate their emotions by either attempting to change what they are feeling so that it matches display expectations, which is labeled deep acting, or suppressing what they feel and showing an emotion that is not felt, which is labeled surface acting (Hochschild, 1983). These two emotion regulation strategies have been linked to a variety of outcomes, with surface acting being negatively related to worker well-being and deep acting being positively associated with performance outcomes (Hülshager & Schewe, 2011). Additionally, some recent research has shown that deep acting is linked to well-being outcomes (Gabriel, Daniels, Diefendorff, & Greguras, 2015).

Hochschild (1983) defined “emotional labor” as interactions with the public, suggesting that emotion regulation occurring during interactions with other employees was a different phenomenon labeled “emotion work.” Importantly, she made the implicit argument that “emotional labor” was inherently more harmful for worker well-being than was “emotion work.” As such, the focus on emotional labor has led to the relative neglect of research on the regulation of emotions with individuals internal to the organization. Much of the research to date on Hochschild’s externally focused conceptualization of emotional labor has focused on the interactions between “boundary-spanning” workers and the individuals external to the

organization with whom they work, including customers, consumers, clients, and patients (Hülshager & Shewe, 2011). This neglect is surprising given the acknowledgment in the literature (Grandey, Kern, & Frone, 2007) that other employees are often a source of stress and negative emotional experiences. It stands to reason that (a) emotional labor with internal targets may commonly occur, (b) it may have implications for the strength of worker and organizational outcomes compared to external targets and, (c) regulation toward internal targets may explain variance in outcomes above and beyond the regulation of emotions performed with individuals who are external to the organization. Although a couple recent investigations have begun to examine these topics by examining surface acting (Diefendorff & Greguras, 2009; Hu & Shi, 2015), neither of these studies considered the role of deep acting and they only considered a small number of interaction partners.

With this in mind, the current investigation examines the extent to which nurses regulate their emotions via surface acting and deep acting with a variety of internal and external targets and the effects of this regulation on the nurse outcomes of burnout, physical symptoms and turnover intentions. In particular, this study analyzed data to compare the amount of surface acting and deep acting when interacting with patients, patient families, doctors, fellow nurses, and nurse aides. These targets represent different entities that are both internal and external to the organization and, for the internal targets, they span different hierarchical levels (e.g., doctors at a higher level, nurses at the same level, and nurse aides at a lower level). It was anticipated that emotion regulation would be performed at higher mean levels with external entities than internal entities and, at higher levels for higher hierarchical levels than lower hierarchical levels. Furthermore, the current study examines the relationships of target-based surface acting and deep acting with the well-being outcomes of burnout and physical symptoms and the behavior-related

outcome of turnover intentions. Although regulation may be performed at a higher mean level with external entities than internal entities, it was anticipated that regulation (specifically surface acting) with internal targets would be more strongly related to attachment-based outcomes, such as turnover intentions, than regulation with external targets, whereas it is anticipated that regulation with external targets would be more strongly related to well-being outcomes. A few other previous studies have also found evidence that employee turnover is related to surface acting (Chau, Dahling, Levy & Diefendorff, 2009; Goodwin, Groth, & Frenkel, 2011). This is to say that turnover intentions may be more strongly related to emotion regulation directed at targets that are within the organization (i.e., towards doctors, other nurses, and nurse aides) than surface acting directed at individuals who are external to the organization (i.e., patients, patient families).

### **Emotion Regulation with Different Organizational Targets**

Surface acting and deep acting with customers has been examined in empirical studies spanning nearly 40 years (since Hochschild, 1979). Research in this area has revealed important insights into the impact that regulating one's emotions with these targets can have on worker well-being and performance (Hülshager & Schewe, 2011). As previously noted, research has also begun to acknowledge the importance of regulating emotions with non-customer targets in organizational contexts. Interactions with internal targets differ from external targets in that (a) display rules may be less clearly specified for internal targets (i.e., there is no formal "service with a smile" expectation), (b) the emotion regulation episodes with internal targets take place in the context of an ongoing interpersonal relationship with the target, and (c) employees have the knowledge that they will continue to work with and interact with the internal organizational

targets in the future. As such, there is reason to expect that the amount and effect of emotion regulation may differ for non-customer targets as compared to customer targets.

As previously noted, the most common forms of emotion regulation discussed in organizational research are surface acting and deep acting. Surface acting, specifically, involves suppressing felt emotions and faking unfeared emotions. Negative effects of surface acting on well-being include physical symptoms, especially among those who show lower ability to adapt emotionally (Shaubroeck & Jones, 2000) as well as various other psychological strains, as suggested by Hülshager and Schewe's (2011) meta-analysis. It is clear that expressing emotions that are different from what one feels can have negative effects on worker well-being, as surface acting with customers is positively related to a variety of ill-being outcomes, including burnout, emotional exhaustion, and felt inauthenticity (Côté & Morgan, 2002; Ozelik, 2012; Gabriel et al., 2015; Goodwin et al., 2011).

A complementary form of emotional regulation is deep acting, where individuals actually attempt to feel the emotions that they are expected to show (Hochschild, 1983; Gabriel et al., 2015). Deep acting is often found to be unrelated to well-being outcomes but is positively related to performance outcomes (Wang, Wang, & Hou, 2016; Hülshager, Lang, & Maier, 2010). The lack of a consistent relationship between deep acting and well-being outcomes may be surprising given the benefits observed for other similar strategies in experimental work on emotion regulation, as suggested by Webb and colleague's (2012) meta-analysis. This circumstance has led some authors to search for factors that might serve to increase or decrease the strength of the relationships of deep acting with outcomes, including whether deep acting is performed at high levels with high surface acting (Gabriel et al., 2015). As elaborated below, we suggest that deep acting, and regulating emotions more generally, may be more harmful for well-being when it is

done with fellow employee targets than with external targets (i.e., patients or patient's families). It is important to note that the current literature on this regulation strategy have not specified whether it is harmful or beneficial to worked well-being overall.

Recent research suggests that the different interaction partners at work can lead individuals to be more or less likely to actively conceal their felt emotions (Diefendorff & Greguras, 2009). Diefendorff and Greguras (2009) examined the use of expression management strategies with a variety of discrete negative emotions for different targets at work. The expression management strategies represented various degrees of concealing felt emotions, ranging from deamplification (showing less emotion than felt) to neutralizing (showing no emotion), to masking (covering emotions with a smile), among other strategies (e.g., amplification, qualifying). The authors focused on the targets of customer, supervisor, coworker, and subordinate and compared the level of concealment of emotions for these targets. They found that individuals were more likely to report using surface acting strategies aimed at fully concealing felt negative emotions when interacting with customers and supervisors, followed by subordinates and then coworkers. They interpreted these results as an indication that the organizational level and degree of interpersonal closeness produced the pattern of emotional concealment. They also observed that interactions with coworkers often lead to partial suppression of felt emotions, whereas the interactions with customers and supervisors lead to complete suppression. If more surface acting is linked to worse well-being, one can infer that the targets who cause the most "harm" to worker well-being may be customers, followed by supervisors. Although surface acting is still used with subordinates and coworkers, it appears that the frequency of this is lower, and therefore, potentially less of a harmful source of targeted emotion regulation.



Moreover, Diefendorff, Morehart and Gabriel (2010) followed up on this idea by directly testing whether manipulated relative power (less, equal, or more power in the target) and solidarity (high liking versus low liking) could explain the observed pattern of emotional concealment in Diefendorff and Greguras (2009). Diefendorff et al. (2010) found that the greatest concealment of emotion occurred when interacting with targets who had greater relative power and low levels of interpersonal solidarity and the least concealment occurred for equal or lower relative power and high solidarity targets. In general, these results suggest that mean levels of surface acting are likely to differ for different organizational targets, with higher levels expected for customers and other extra-organizational targets, followed by internal organizational targets with greater power and lower solidarity. That is, the least amount of surface acting should be found for fellow nurses. Of course, a limitation of Diefendorff and Greguras (2009) and Diefendorff et al. (2010) is that these authors did not consider the emotion regulation strategy of deep acting (or any strategy aimed at changing felt emotions). As such, it is unclear if this strategy will be used at different levels for different targets, though we might expect that its level of use will exhibit a pattern similar to surface acting. Further, these past studies did not link the expression management strategies to well-being outcomes, so it is unclear if regulating emotions with different targets is equally stressful or if doing so with particular targets is more stressful.

One recent study by Hu and Shi (2015) attempted to address this issue by examining the amount of suppression and faking (i.e., surface acting) performed when interacting with supervisors and peers and correlated this regulation with the well-being outcomes of emotional exhaustion and felt inauthenticity. Although these authors did not test for mean level differences in surface acting with the two targets, they did test whether there were differences between the

two targets in the surface acting-emotional exhaustion and surface acting-felt inauthenticity relationships. Interestingly, the authors did not find support for the idea that regulating with one target was more strongly related to well-being outcomes than regulating with the other target. As with Diefendorff and Greguras (2010) and Diefendorff et al. (2010), these authors did not measure deep acting for different targets. They also only considered two organizationally-internal targets, so it is not possible to compare to the regulation performed with either organizationally-external targets or other internal targets that are at a lower hierarchical level.

A study by Goodwin, Groth, and Frenkel (2011) investigated turnover in relation to surface and deep acting. Employees working in a call center were asked to complete a survey in regards to their emotion regulation strategies. After a period of 9 months, the employee's responses were measured against the number of turnovers that were on record. As expected, surface acting was related to factors such as emotional exhaustion and turnover rates. Overall, deep acting was not related to employee turnover. Although, the authors did not measure multiple targets in this study and thus, it is unclear if the emotional regulation strategies were primarily directed towards certain targets external to the organization or internal to it.

As such, the current investigation seeks to address these limitations of past work by examining both surface acting and deep acting for five different organizational targets and to link the regulation performed with each of these targets to nurse well-being outcomes and turnover intentions.

### **Current Investigation**

Based on the work of Diefendorff and Greguras (2009) and Diefendorff et al. (2010), I made predictions about the extent to which emotion regulation strategies would be used for the five organizational targets. Specifically, taking into account issues with regard to distinction

between internal and external targets, I expected that mean levels of surface acting and deep acting would be higher for patients and patient families than for doctors, nurses, and nurse aides, in part because of the display rules that are enforced with external targets. Furthermore, accounting for potential differences in relative power and solidarity, I expected that greater emotional control would occur for doctors, followed by nurse aides, and finally nurses. More specifically, the lowest levels of emotion regulation are expected to occur for fellow nurses, because of their similar hierarchical level combined with their likely higher levels of solidarity.

*Hypothesis 1:* Surface acting differs across targets such that it is used more frequently with external targets (e.g., patients and patient's families) and less frequently with internal targets (e.g., doctors and nurse aides, followed by nurses).

*Hypothesis 2:* Deep acting differs across targets such that it is used more frequently with external targets (e.g., patients and patient's families) and less frequently with internal targets (e.g., doctors and nurse aides, followed by nurses).

In addition to making predictions with regard to the mean level of regulation performed, I also anticipated that regulating with some targets may be more stressful (and therefore more strongly related to outcomes) than regulating with other targets. Organizational norms in many hospitals and occupational norms of nurses place heavy emphasis on expressing positive emotions and suppressing negative emotions when interacting with patients. As such, many nurses understand and perhaps even value the need to regulate emotions when interacting with – and perhaps on behalf of – sick, injured, scared, sad, and sometimes, irrational patients (Ashforth & Humphrey, 1993; Bolton, 2005; Humphrey, Ashforth, & Diefendorff, 2015). This knowledge of the need to regulate with this target and the belief that this is an important part of the job

means that when one needs to surface act or deep act, it may not be experienced as being as harmful.

Although the potential for higher frequency of emotion regulation may still produce higher levels of ill-being, it may depend on the particular criterion variable under consideration. In the next hypotheses, I look specifically at burnout as the variable. Bono and Vey (2005) found that emotional exhaustion, a type of burnout, was related to managing emotions. Emotional exhaustion, which is often thought to be one of the more often occurring dimensions of burnout, occurs when an individual's emotional resources are "depleted or "drained" (Maslach & Jackson, 1986). These resources may become depleted or drained after frequent emotion regulation with certain targets. Specifically, those that are external to the organization, such as the frequent interactions that take place between nurses and patients or patient families. Due to nature of nursing, taking care of patients and consoling/speaking to patient's families is a large portion of the job. The internal relationships, such as those with a doctor, other nurse, or nurse aide, may occur with slightly less frequency, and thus, slightly less harmful to nurses in regards to burnout. Additionally, because there is little to no difference among relative power between nurses and higher amounts of solidarity, I expected the relationship between doctors and nurse aides (who have different relative power) to be more stressful. One particularly vexing issue for emotional labor research is that deep acting is often observed to be unrelated to well-being outcomes, such as emotional exhaustion (Hülshager & Schewe, 2011), though similar regulation strategies, such as cognitive reappraisal, have been shown to produce benefits to individuals in experimental research. One potential explanation is that the effects of deep acting may depend on the target. Given the lack of theorizing on this issue, we follow the logic developed for surface acting when making predictions for deep acting. In particular, deep acting will tend to be more harmful for

externally-based targets than for internally-based targets, primarily because of the presumed frequency with which deep acting will occur. That is, internally-based targets may require more frequent deep acting, resulting in regulation with these targets contributing more to the overall sense of burnout.

*Hypothesis 3:* Surface acting (SA) is positively related to burnout, but the strength of this relationship varies as a function of the interaction partner, with burnout being more strongly related to external-SA (i.e., patient-SA, patient family-SA) than to internal-SA (doctor-SA and nurse aide-SA, followed by nurse-SA).

*Hypothesis 4:* Deep acting (DA) is positively related to burnout, but the strength of this relationship varies as a function of the interaction partner, with burnout being more strongly related to external-DA (i.e., patient-DA, patient family-DA) than to internal-DA (doctor-DA and nurse aide-DA, followed by nurse-DA).

Considering that some targets may be more stressful for nurses, it is interesting to look at other consequential outcomes. In addition to burnout, physical symptoms are often a negative consequence of emotion regulation. Maslach and Jackson (1986) stated that physical complaints are related to long-term emotional regulation. Since surface acting is often deemed to be more “harmful” due to the inauthenticity of the emotions that are shown, the amount of physical symptoms that are associated with it may be more than what we would find to be associated with levels of deep acting. Deep acting is not commonly associated with well-being outcomes, but perhaps in comparison to surface acting, we will see a significant difference in levels or reported physical symptoms. Here it is interesting to consider how Hu and Shi (2015) found in their study that both deep acting and surface acting were both related to somatic symptoms. Since emotional regulation can lead to physical symptoms over time, we might expect that the more frequent

external interactions with patients and patient families would lead to more emotional regulation, and thus, more physical symptoms than when emotions are regulated for internal targets (i.e., doctors, nurse aides, and nurses). Once more, it is important to consider that nurses will have the highest levels of solidarity with other nurses and the least amount of relative power difference, so I expected that nurses would be the least stressful targets.

*Hypothesis 5:* Surface acting (SA) is positively related to physical symptoms, but the strength of this relationship varies as a function of the interaction partner, with physical symptoms being more strongly related to external-SA (i.e., patient-SA, patient family-SA) than to internal-SA (doctor-SA and nurse aide-SA, followed by nurse-SA).

*Hypothesis 6:* Deep acting (DA) is positively related to physical symptoms, but the strength of this relationship varies as a function of the interaction partner, with physical symptoms being more strongly related to external-DA (i.e., patient-DA, patient family-DA) than to internal-DA (doctor-DA and nurse aide-DA, followed by nurse-DA).

Turnover intent is also related to emotional labor. Goodwin et al., (2011), found that turnover was related to surface acting. While the study did not look at deep acting or targeted emotional regulation, I estimated that since different targets have differences in amount of surface acting (Diefendorff & Greguras, 2009), that certain internal targets may be more related to turnover intention. Since turnover is related to an individual's attachment to an organization, we might expect that long-term regulation with organizationally internal targets might make nurses feel less attached to the organization, and thus, likelier to quit their jobs. Again, it is important to note here that the interactions in an organization occur on a more long-term basis, whereas those that are external may be seen to be more short-lived. If a nurse continuously must regulate their emotions and cannot rely on the relationship to be a temporary situation, such that

of a nurse and a patient or a patient's family, their attachment to the organization might diminish, and thus, they might not be interested to remain in their position. Though certain factors of nursing, such as the understanding of the work role that consists of assisting ill patients, may make burnout less prevalent when done with external targets, as they expect those interactions to be a source of stress. Since individuals might not often anticipate to heavily regulate emotions for those who are internal to the organization, we might expect that prolonged amounts of effortful emotional regulation within an organization are more likely to be related to turnover intention. It is also important to consider that the nature of these relationships within an organization are on an ongoing basis and more emotional labor would be exerted over time, whereas those with patients and patient's families may be for a shorter duration. Again, we might expect other nurses on the unit to be the least stressful due to the solidarity between nurses as well as the lower amount of power differences (such that would occur with doctors or nurse aides).

*Hypothesis 7:* Surface acting (SA) is positively related to turnover intentions, but the strength of this relationship varies as a function of the interaction partner, with turnover intention being more strongly related to internal-SA (doctor-SA and nurse aide-SA, followed by nurse-SA) than to external-SA (i.e., patient-SA, patient family-SA).

*Hypothesis 8:* Deep acting (DA) is positively related to turnover intentions, but the strength of this relationship varies as a function of the interaction partner, with turnover intention being more strongly related to internal-DA (doctor-DA and nurse aide-DA, followed by nurse-DA) than to external-DA (i.e., patient-DA, patient family-DA).

## Method

### Sample and Procedure

Because of the emotional demands of nursing, display rules play a particularly important role in the day-to-day job requirements of those in this specific field (Erikson & Grove, 2008b). This study examines individuals from just one occupation, as opposed to a mixture of data collected from various occupations (Diefendorff & Richard, 2003). This consistency in participant's occupations allowed us to avoid confounding variables that might arise when including individuals from multiple occupations.

More specifically, questionnaires were sent out to a total of 1,702 full-time RNs who worked in direct patient care in various units of 9 hospitals in the Midwestern region of the United States. Of the surveys that were sent out, 730 participants responded and had filled out the survey in its entirety. Demographically speaking, the mean age of the respondents was 40.78 years, and they had an average of 7.18 years in the unit they currently worked in. Moreover, the respondents had an average of 9.5 years in their organization and worked an average of 40.06 hours each week. 91% of the participants in the data sample identified as female, and they primarily indicated that they identified as European-American/White (89%). In regards to level of education completed, 25.6% had an associate's degree, 62% had a baccalaureate degree, and only 7% had a graduate degree. The remaining 5.4% had a school of nursing diploma. The list of RNs was obtained from the human resources department of the system of which the 9 hospitals were a part.

Each of the 730 participants completed the survey, which included measures of surface and deep acting, burnout, physical symptoms, and turnover intentions. To analyze the data, we will use a multiple regression to assess the hypotheses.



## Measures

*Surface and Deep Acting.* This measure was obtained using items that were based on Brotheridge and Lee's emotional labor scale (Brotheridge and Lee, 2003). Participants were asked to indicate the degree to which they feel effort is exerted for their emotional experiences at work. To measure this, questions such as, "How often do you cover up your true feelings?" or "How often do you make an effort to actually feel?" were asked in regards to different targets, such as "with other RNs on your unit" or "with doctors or residents."

*Emotional exhaustion.* Wharton's (1993; see also Erickson & Ritter, 2001) seven-item emotional exhaustion scale was used to assess the extent to which individuals experienced chronic emotional and interpersonal stressors at work, on a 5-point scale (1 not at all; 2 about once a month; 3 a few times a month; 4 about once a week; 5 almost every day). An example is, "I feel emotionally drained from my work." The coefficient alpha is .93.

*Physical Symptoms.* Physical symptoms were measured with a checklist of eight physical symptoms, including headaches, stomachache/pain, chest or heart pain, coughing/sore throat, faintness or dizziness, stiff/sore muscles, shortness of breath, and runny or congested nose (adapted from Emmons, 1991). Respondents were asked to indicate how often they experienced the physical symptoms described in the survey items: (1) rarely or never (2) a few times per year, (3) monthly, (4) weekly, (5) daily (coefficient alpha was .77).

*Turnover intent.* Turnover intentions were assessed with a measure created by Cropanzano, James, and Konovsky (1993) with items rated on 4-point Likert scale (1 strongly disagree; 4 strongly agree). An example item is, "I intend to leave this organization within the next year." Coefficient alpha for this scale was .80.

## Results

Hypothesis 1 proposed that surface acting would be utilized more frequently with external targets (i.e., patients and patients' families) than with internal targets (i.e. doctors, nurse aides, and nurses). To test this hypothesis, I used a repeated measures one-way ANOVA to compare the levels of surface acting reported for each of the five targets and follow-up planned comparisons among each combination of targets (see Table 1 for correlations between all variables, means, and standard deviations). As shown in Table 2, I observed an overall significant ANOVA,  $F(1,748) = 278.52, p < .05, \text{partial } \eta^2 = .27$ , indicating differences in surface acting among the five targets. Follow-up planned comparisons revealed significant differences among all five targets on surface acting (see Table 2). In a direct test of Hypothesis 1, surface acting with patients (mean = 2.94) had a significantly higher mean than surface acting with doctors (mean = 2.65), other nurses (mean = 2.44), and nurse aides (mean = 2.54). Similarly, surface acting with patients' families (mean = 2.99) had a significantly higher mean than the three internal targets as well as the external target of patients (see Table 2). Within the internal targets there were significant differences, with surface acting with doctors having the highest mean, followed by nurse aides, and fellow nurses. In total, these results support Hypothesis 1 in that surface acting was used with external targets to a higher extent than with internal targets, but it also provides some nuanced information about comparisons of targets within these two general categories. Specifically that surface acting with internal targets was used most commonly with doctors and least common with fellow nurses, suggesting potential differences in status or closeness may underlie the amount of surface acting performed with different coworker targets.

Similar to Hypothesis 1, Hypothesis 2 proposed that deep acting would be used more frequently with external targets than with internal targets. To test this hypothesis, I again used a repeated measures one-way ANOVA to compare the levels of deep acting reported for each of the five targets, as well as follow-up planned comparisons. As shown in Table 2, I observed an overall significant ANOVA,  $F(1, 747) = 170.21, p < .05, \text{partial } \eta^2 = .19$ , which indicates that there are differences in deep acting among the five targets. Follow-up planned comparisons revealed that deep acting with the external targets (patients, patients' families) was performed significantly more than with the three internal targets (see Table 2). Unlike with surface acting where it was performed more with patients' families than with patients, deep acting was not significantly different between patients and patients' families. Also unlike surface acting, deep acting was not significantly different between doctors and nurses, or between nurses and nurse aides (though it was different between doctors and nurse aides). In a direct test of Hypothesis 2, deep acting with patients and patients' families (both with mean = 2.89) had a higher mean than deep acting with doctors (mean = 2.64), other nurses (mean = 2.63), and nurse aides (mean = 2.61). Within the internal targets, deep acting with doctors had the highest mean, followed by fellow nurses and nurse aides. In total, these results support Hypothesis 2 in that deep acting was used with external targets to a higher extent than with internal targets. However, they do suggest a somewhat different pattern compared to surface acting for the internal targets, with generally less separation in the levels of deep acting between the targets.

Hypothesis 3 proposed that surface acting would be positively related to burnout, but that the strength of this relationship would vary as a function of the interaction partner. Specifically, I predicted that burnout would be more strongly related to surface acting for external targets (i.e., patients, patients' families) compared to internal targets (i.e., doctors, nurse aides, other nurses).

Table 3 reports the correlations of surface acting and deep acting for each target with the three outcome variables of burnout, physical symptoms, and turnover intentions. Surface acting was significantly and positively correlated with burnout (ranging from  $r = .30, p < .05$  to  $r = .36, p < .05$ ) for all five targets, supporting the first part of the hypothesis. However, contrary to Hypothesis 3, there were no significant differences in the magnitude of these correlations, as tested with the Fisher's R-to-Z test (see Table 3). These results replicate past work showing that surface acting is linked to burnout (Hülshager & Schewe, 2011; Gabriel et al., 2015), but they do not support the idea that doing so with some targets will be more strongly linked to burnout than for others.

Hypothesis 4 proposed that deep acting would be positively related to burnout, but that the strength of this relationship would vary as a function of the interaction partner. Specifically, I predicted that burnout would be more strongly related to deep acting with external targets than with internal targets. Results showed that deep acting with all targets was positively related to burnout (ranging from  $r = .15, p < .05$  to  $r = .21, p < .05$ ), supporting the first part of Hypothesis 4. In addition, there were several significant differences in the magnitude of these correlations, as tested with the Fisher's R-to-Z test. Supporting Hypothesis 4, the correlation of deep acting with patients' families and burnout ( $r = .21, p < .05$ ) was significantly stronger than the correlations of deep acting and burnout for fellow nurses ( $r = .17, p < .05$ ), doctors ( $r = .16, p < .05$ ), and nurse aides ( $r = .15, p < .05$ ). Also consistent with Hypothesis 4, deep acting with patients had a significantly stronger relation to burnout than deep acting with doctors and nurse aides, but not fellow nurses (see Table 3). Interestingly, the correlations of deep acting with burnout were not different among the three internal targets or between the two internal targets. As such, Hypothesis 4 received fairly strong support, with only one hypothesized comparison of

correlations not emerging as being significantly different (i.e., deep acting with patients was not more strongly related to burnout than deep acting with fellow nurses).

Hypothesis 5 proposed that surface acting would be positively related to physical symptoms, but that the strength of this relationship would vary as a function of the interaction partner. Specifically, I predicted that physical symptoms would be more strongly related to surface acting with external targets than with internal targets. With regard to physical symptoms, surface acting with all five targets was significantly and positively related to physical symptoms (ranging from  $r = .17, p < .05$  to  $r = .25, p < .05$ ), which supported the first part of the hypothesis. Further, surface acting with patients and patients' families (both were  $r = .25, p < .05$ ) had significantly stronger relations with physical symptoms than did surface acting with nurses ( $r = .17, p < .05$ ). However, none of the other correlations were significantly different from each other. Therefore, this hypothesis was mostly unsupported.

Hypothesis 6 proposed that deep acting would be positively related to physical symptoms, but that the strength of this relationship would vary as a function of the interaction partner. Specifically, I predicted that physical symptoms would be more strongly related to deep acting with external targets than with internal targets. Deep acting with all five targets was significantly and positively related to physical symptoms (ranging from  $r = .08, p < .05$  to  $r = .14, p < .05$ ), supporting the first part of the hypothesis. In addition, deep acting with both patients and patients' families ( $r = .14, p < .05$ ) had significantly stronger relationship with physical symptoms than did deep acting with doctors ( $r = .09, p < .05$ ) and nurse aides ( $r = .08, p < .05$ ). However, there were no other significant differences in the strength of the relationship of deep acting with physical symptoms, suggesting weak support for Hypothesis 6.

Hypothesis 7 proposed that surface acting would be positively related to turnover intentions, but that the strength of this relationship would vary as a function of the interaction partner. Specifically, I predicted that turnover intentions would be more strongly related to surface acting with internal targets than with external targets. Surface acting with all five targets was significantly and positively related to turnover intentions (ranging from  $r = .23, p < .05$  to  $r = .10, p < .05$ ), supporting the first part of the hypothesis. Consistent with Hypothesis 7, surface acting with patients ( $r = .11, p < .05$ ) and patients' families ( $r = .10, p < .05$ ) both had a significantly weaker relationship with turnover intentions than did fellow nurses ( $r = .22, p < .05$ ) and nurse aides ( $r = .23, p < .05$ ). Also consistent with Hypothesis 7, surface acting with nurse aides had a significantly stronger relationship with turnover intentions than did surface acting with patients' families. However, no significant difference emerged for surface acting with patients. Although not hypothesized, surface acting with fellow nurses was more strongly related to burnout than was surface acting with doctors. Overall, Hypothesis 7 received fairly strong support though not all internal targets had significantly stronger relationships to turnover intentions than the external targets.

Hypothesis 8 proposed that deep acting would be positively related to turnover intentions, but that the strength of this relationship would vary as a function of the interaction partner. Specifically, I predicted that turnover intentions would be more strongly related to deep acting with internal targets than with external targets. Deep acting was not significantly correlated with turnover intentions for any target, failing to support the first part of Hypothesis 8. However, there were some significant differences in the correlations across targets. In particular, deep acting with patients ( $r = -.02, p < .05$ ), patients' families ( $r = -.03, p < .05$ ), and doctors ( $r = -.00, p < .05$ ), had a significantly different relationship with turnover intentions than deep acting with

fellow nurses ( $r = .06, p < .05$ ) and nurse aides ( $r = .03, p < .05$ ). Overall, deep acting with fellow nurses was more strongly related to turnover intentions than any other target, including nurse aides. These results do not support Hypothesis 8 because none of the correlations were significant and the two external targets actually had positive (though nonsignificant) relations with turnover intentions.

### Supplemental Analyses

In an attempt to take a multivariate look at the relationships of surface acting and deep acting for different targets with the three outcomes of burnout, physical symptoms, and turnover intentions, I utilized linear regression with regulation for the different targets as simultaneous predictors of the outcomes (see Table 4). With regard to surface acting, the results demonstrated that the five targets accounted for 16.8% of the variance in burnout, 7.1% of the variance in physical symptoms, and 6.2% of the variance in turnover intentions. Further, surface acting with nurse aides was a significant unique predictor of burnout and turnover intentions, whereas surface acting with nurses was a significant unique predictor of turnover intentions. No other target-based surface acting emerged as having significant unique effects.

With regard to deep acting, including all five targets in the model revealed that deep acting accounted for 5.1% of the variance in burnout, 2.5% of the variance in physical symptoms, and 2.32% of the variance in turnover intentions. Further, only one significant unique predictor emerged, for the relation of nurse deep acting with turnover intentions (see Table 5).

I then utilized linear regression to examine unique effects of all five targets for both surface and deep acting (see Table 6). Regarding both regulation strategies, the results demonstrated that surface acting with all five targets and deep acting with all five targets accounted for 16.9% of the variance of burnout, 7.8% of the variance in physical symptoms, and

8.3% of the variance in turnover intentions. Interestingly, surface and deep acting with fellow nurses were significant unique predictors of turnover intentions, much like the previous test that looked at the regulation strategies independently from each other. Surface and deep acting with nurse aides were significant unique predictors of burnout. No other target-based surface and deep acting emerged as having significant unique effects in this model.

### **Discussion**

The current study is a contribution to the existing emotional labor literature, expanding on the current understanding of surface and deep acting as emotional regulation strategies in relation to the consequential outcomes of burnout, physical symptoms, and turnover intentions. Additionally, this study provided a broad view of emotional regulation across five different targets, representing a dynamic perspective of hierarchical relations that exist in nurses' workplaces. A few noteworthy findings emerged from the results of the analyses.

To summarize, emotional labor with internal targets was measured, though I found that nurses were significantly more likely to surface act and deep act with external targets than targets that are internal to the workplace. That is to say that it does occur, but to a significantly weaker degree. I also explored varying degree to which consequential outcomes were related surface and deep acting. Regarding burnout as a consequential outcome, it was significantly related to surface acting, with no significant target differences, while burnout was also significantly related to deep acting, but with select target differences between internal and external interaction partners. Surface acting with nurse aides was a significant unique predictor of burnout. Physical symptoms were related to both surface and deep acting. Surface acting with external targets had a significantly stronger relationship with physical symptoms than did surface acting with fellow nurses, and deep acting had a significantly stronger relationship with physical symptoms than did



deep acting with doctors and nurse aides, but not fellow nurses. Surface acting with external targets had a significantly stronger relationship with physical symptoms than did surface acting with fellow nurses, and deep acting had a significantly stronger relationship with physical symptoms than did deep acting with doctors and nurse aides, but not fellow nurses.

Measuring emotional regulation with internal targets helped to explain the variance above and beyond emotion regulation with those that are external to the organization, especially regarding turnover intentions. Surface acting with external targets had a significantly weaker relationship with turnover intentions than did surface acting with internal targets, whereas deep acting with none of the targets were significantly related to turnover intentions, but deep acting with fellow nurses had a significantly stronger relationships than the other four targets did. Moreover, surface acting with nurses was a significant unique predictor of turnover intentions, as was deep acting with fellow nurses. Surface acting with nurse aides was a significant unique predictor of turnover intentions. Lastly, surface acting was significantly related to turnover intentions, while deep acting was not. These findings expand upon existing research that did not include deep acting (Diefendorff & Greguras, 2009; Diefendorff et al., 2010) and leave room for future research to explore the nuances that were found in the current study.

### **Implications for Theory**

As previously noted, deep acting was not observed in the work completed by Diefendorff and Greguras (2009) and Diefendorff et al. (2010) in their studies regarding hierarchical emotion regulation. Results of the analyses in the current study suggest that similarly to surface acting, the greatest degree of deep acting occurred during interactions with external targets, though neither deep acting with patients or patients' families was scored significantly higher than the other. Regarding the internal targets, deep acting with doctors had the highest mean, followed by

fellow nurses and nurse aides. This difference is slightly different than the findings for surface acting, where the lowest amount of emotional regulation was used with fellow nurses. The current study highlights these nuances and brings to light the previously unexplored aspects of deep acting as compared to surface acting. Since we know now that there are target differences between surface and deep acting, this relationship can be explored with other samples and participants from various careers.

Considering burnout, there have been many studies that suggest that surface acting is related to various ill-effects on well-being, including burnout (Côté & Morgan, 2002; Ozcelik, 2012; Gabriel et al., 2015; Goodwin et al., 2011). The results of the current study found that surface acting was related to burnout for each of the five targets, but contrary to my initial expectations, there were no significant differences in the magnitude of the relationship that each target had with burnout. This is surprising, considering that the five targets accounted for as much as 16.8% of the variance in burnout. Furthermore, surface acting with nurse aides was the only significant unique predictor of burnout. Perhaps this is because of the display rules that nurses must adhere to (Erikson & Grove, 2008b) along with the fact that nurses interact with nurse aides for extended period of time.

Physical symptoms have previously been linked to long-term emotional regulation in work published by Maslach and Jackson (1986). The current study supports these findings, as surface acting with all five targets was significantly related to physical symptoms. The same was found for deep acting with all five targets, therefore building off of the current emotional regulation literature. Surface acting with external targets had a significantly stronger relationship to physical symptoms than surface acting with nurses, but no other targets were significantly different than each other. Deep acting with external targets, however, had a significantly stronger

relationship to doctors and nurse aides, but not with fellow nurses. There were no significant unique predictors of physical symptoms across both of the models used to analyze the data. Overall, there was weak support for the targeted differences for both surface and deep acting in relation to physical symptoms. Though it is an unexpected finding, perhaps the hierarchical differences in emotion regulation are not as meaningful when considering physical symptoms as an outcome variable.

### **Implications for Practice**

Specifically regarding the extent to which individuals engaged the different regulation strategies, our results concluded that nurses are significantly more likely to engage in surface acting with external targets than with internal targets, thus supporting previous research (Diefendorff & Greguras, 2009; Diefendorff et al., 2010). Looking deeper into the relationships of the targets and the degree to which surface acting was used, surface acting occurred with the least frequency while interacting with fellow nurses, as hypothesized. This could, in part, be due to the solidarity between nurses and also the relative lack of power distance between nurses, as suggested by Diefendorff et al. (2010). Regarding external targets, surface acting with patients' families occurred to a significantly greater extent than with any other target. Perhaps this may be because there is a certain degree to which a nurse is expected to act due to display rules (Erikson & Grove, 2008b) and there may be instances in which patients' families might be in charge of making sure that the patient receives proper care (e.g., if the patient is a child or unable to make decisions for themselves for various other reasons).

Surface acting with all five targets was significantly and positively related to turnover intentions, thus supporting past research (Chau, Dahling, Levy & Diefendorff, 2009; Goodwin, Groth, & Frenkel, 2011). Furthermore, as hypothesized, surface acting with external targets had a

significantly weaker relationship with turnover intentions than did surface acting with internal targets. Also, surface acting with fellow nurses had a significantly stronger relationship with turnover intentions than did surface acting with doctors. These hierarchical differences support the findings of Diefendorff and Greguras (2009). Interestingly, surface acting with fellow nurses and nurse aides were significant and unique predictors of turnover intentions. Perhaps an explanation for these findings might be that individuals might not expect to heavily regulate their emotions with others that they work with, and when they do engage in this emotional regulation over long periods of time, their feelings of commitment to the workplace diminish. Given the nature of this relationship, this effortful regulation of concealing one's emotions over long periods of time may lead to the depletion of emotional resources, and lead to higher levels of turnover intentions.

### **Limitations and Future Research**

Considering again the nuances of the degrees to which surface and deep acting occurring at the differing hierarchical levels, we are left with a bit of uncertainty. Perhaps this might be due to the fact that deep acting involves an effort to feel the emotions that are being displayed (Hochschild, 1983), and thus, it might be slightly more important for nurses to try to feel the emotions that they display to fellow nurses than with nurse aides due to aspects of authenticity. Once again, this is not an area that has been as thoroughly researched, and therefore, might be an area for future research to expand upon. Especially regarding physical symptoms, an outcome variable that did not have any significant unique predictors with surface or deep acting.

Deep acting with all five targets was significantly related to burnout in the current study supporting previous research conducted by Bono and Vey (2005). Moreover, deep acting with patients had a significantly stronger relation to burnout than deep acting with doctors and nurse

aides, but not fellow nurses, whereas deep acting with patients' families had a significantly stronger relation to burnout than deep acting with all internal targets. It is particularly interesting that deep acting had differences in significance between targets, whereas surface acting did not in the current study. Also, deep acting with patients was not more strongly related to burnout than deep acting with fellow nurses. These nuances in the findings leave room for future research to explore the outcomes of deep acting more thoroughly. Considering these findings, it is interesting to note that the lack of differences in the magnitude of the correlations with surface acting and burnout, whereas deep acting and burnout demonstrated more evidence for differing outcomes based off of whom the individual regulates their emotions with.

Contrary to my expectations, deep acting was not significantly correlated with turnover intentions for any of the five targets, though this finding supports previous work by Goodwin, Groth, and Frenkel (2011). Building off of their findings, there were significant target differences found in the current study, and hierarchical differences were not accounted for in their study. I found that deep acting with fellow nurses had a significantly stronger relationship to turnover intentions than did deep acting with the other targets, as well as being a significant unique predictor. Overall, none of the correlations were significantly related to turnover intentions, so further future investigation may be warranted to explain this in more depth.

Considering the current sample, the current study was comprised of mostly females, which would not allow for us to fully account for gender differences. Additionally, while this study is beneficial in the efforts to understanding dynamics in a nurse's workplace, the unique nature of the position might not allow for generalizability to other types of positions.

## **Conclusions**

Considering all of the findings, note that Hülshager and Schewe (2011), had claimed that deep acting was generally unrelated to well-being outcomes, but the current study would argue otherwise, therefore proving to be a valuable addition to the current research in the literature. Though not all hypotheses were confirmed, this study contributes to the literature by further exploring the consequential outcomes of targeted emotional regulation strategies, including deep acting, which has not been investigated thoroughly at this point, especially in unison with surface acting.

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**Table 1: Correlations Between Variables**

Variable	Mean	SD	SA Patient	SA Family	SA Doctor	SA RN	SA Staff	DA Patient	DA Family	DA Doctor	DA RN	DA Staff	Burnout	Physical Symptoms	Turnover Intentions
SA Patient	2.95	.79	1												
SA Family	2.99	.80	.93**	1											
SA Doctor	2.66	.77	.58**	.57**	1										
SA RN	2.44	.74	.42**	.42**	.71**	1									
SA Staff	2.54	.76	.51**	.51**	.70**	.79**	1								
DA Patient	2.89	.91	.42**	.42**	.34**	.26**	.30**	1							
DA Family	2.89	.89	.40**	.42**	.33*	.27**	.30**	.98**	1						
DA Doctor	2.64	.86	.28**	.29**	.44**	.36**	.35**	.80**	.82**	1					
DA RN	2.63	.85	.27**	.27**	.38**	.42**	.37**	.74**	.76**	.88**	1				
DA Staff	2.61	.85	.29**	.29**	.39**	.37**	.40**	.78**	.79**	.91**	.94**	1			
Burnout	3.29	1.04	.36**	.36**	.30**	.31**	.34*	.21**	.21**	.16**	.17**	.15**	1		
Physical Symptoms	2.18	.65	.25**	.25**	.20**	.17**	.19**	.14**	.14**	.09*	.09*	.08*	.48**	1	
Turnover intentions	1.94	.68	.11**	.10**	.17**	.23**	.23**	-.02	-.03	-.00	.06	.03	.37**	.15**	1

Note. N = 729. \*\* indicates that correlation is significant at  $p < .01$ , \* indicates that correlation is significant at  $p < .05$

**Table 2. Repeated Measures One-Way ANOVA and Planned Comparison Results for Surface Acting and Deep Acting with External and Internal Targets**

	<i>F</i>	Partial $\eta^2$	External Targets						Internal Targets			
			Patients (A)		Families (B)		Doctors (C)		RN (D)		Staff (E)	
			Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Surface Acting	278.52***	.27	2.94 <sup>b,c,d,e</sup>	.80	2.99 <sup>a,c,d,e</sup>	.80	2.65 <sup>a,b,d,e</sup>	.78	2.44 <sup>a,b,c,e</sup>	.75	2.54 <sup>a,b,c,d</sup>	.76
Deep Acting	170.21***	.19	2.89 <sup>c,d,e</sup>	.90	2.89 <sup>c,d,e</sup>	.89	2.64 <sup>a,b,e</sup>	.86	2.63 <sup>a,b</sup>	.85	2.61 <sup>a,b,c</sup>	.85

Note. N=729. DF=1,748 (Surface Acting) and 1,747 (Deep Acting). Superscript letters indicate means that are significantly different from each other at  $p < .05$

\*\*\* $p < .001$

**Table 3: Fisher's R-to-Z Comparisons of Pearson Correlations Among the Targets**

Dependent Variables	Regulation strategy									
	Surface Acting					Deep Acting				
	Patients (A)	Families (B)	Doctors (C)	RN (D)	Staff (E)	Patients (A)	Families (B)	Doctors (C)	RN (D)	Staff (E)
Burnout	.36	.36	.30	.31	.34	.21 <sup>c,e</sup>	.21 <sup>c,d,e</sup>	.16 <sup>a,b</sup>	.17 <sup>b</sup>	.15 <sup>a,b</sup>
Physical Symptoms	.25 <sup>d</sup>	.25 <sup>d</sup>	.20	.17 <sup>a,b</sup>	.19	.14 <sup>c,e</sup>	.14 <sup>c,e</sup>	.09 <sup>a,b</sup>	.09	.08 <sup>a,b</sup>
Turnover Intentions	.11 <sup>d,e</sup>	.10 <sup>c,d,e</sup>	.17 <sup>b,d</sup>	.22 <sup>a,b,c</sup>	.23 <sup>a,b</sup>	-.02 <sup>d,e</sup>	-.03 <sup>d,e</sup>	.00 <sup>d,e</sup>	.06 <sup>a,b,c,e</sup>	.03 <sup>a,b,c,d</sup>

*Note.* N = 729. Correlations greater than  $|\text{.08}|$  are significant at  $p < .05$ , superscript letters indicate means that are significantly different from each other at  $p < .05$

**Table 4: Linear Regression Statistics for Predictor Variables with Surface Acting**

Predictors	Burnout		Physical Symptoms		Turnover Intentions	
	$\beta$	$t$	$\beta$	$t$	$\beta$	$t$
SA Patients	.15	1.56	.13	1.30	.11	1.04
SA Patients' Families	.12	1.27	.08	.80	-.13	-1.23
SA Doctors	-.02	-.43	.03	.43	-.01	-.17
SA RN	.10	1.73	.05	.71	.14	2.27*
SA Staff	.14	2.30*	.03	.44	.13	2.10*
$R^2$	.168		.071		.062	

*Note.* N = 729. \* Indicates that values are significant at  $p < .05$

**Table 5: Linear Regression Statistics for Predictor Variables with Deep Acting**

Predictors	Burnout		Physical Symptoms		Turnover Intentions	
	$\beta$	$t$	$\beta$	$t$	$\beta$	$t$
DA Patients	.24	1.40	.21	1.22	.16	.88
DA Patients' Families	-.00	-.003	-.01	-.05	-.27	-1.50
DA Doctors	-.01	-.082	-.04	-.45	-.16	-1.63
DA RN	.22	1.96	.15	1.36	.31	2.77**
DA Staff	-.24	-1.90	-.18	-1.44	-.03	-.21
$R^2$	.051		.025		.023	

*Note.* N = 729. \*\* Indicates that values are significant at  $p < .05$

**Table 6: Linear Regression Statistics for Predictor Variables – Surface and Deep Acting Simultaneous**

Predictors	Burnout		Physical Symptoms		Turnover Intentions	
	$\beta$	$t$	$\beta$	$t$	$\beta$	$t$
SA Patients	.14	1.43	.12	1.16	.08	.81
SA Patients' Families	.10	.96	.06	.56	-.08	-.74
SA Doctors	-.03	-.45	.04	.63	.04	.63
SA RN	.07	1.07	.02	.32	.09	1.39**
SA Staff	.19	3.06**	.06	.93	.15	2.30
DA Patients	.10	.59	.09	.49	.11	.61
DA Patients' Families	.03	.17	.03	.16	-.21	-1.13
DA Doctors	.05	.49	-.04	-.36	-.18	-1.78
DA RN	.20	1.80	.15	1.24	.26	2.23**
DA Staff	-.34	-2.75**	-.22	-1.63	-.09	-.66
$R^2$	.169		.078		.083	

*Note.* N = 729. \*\* Indicates that values are significant at  $p < .05$