Emotional Labor Strategies and Depression: The mediating Role of Job Satisfaction and the Moderating Role of Electronic Performance Monitoring

Heung-Jun Jeong
(Visiting Scholar, Rutgers University)

Abstract
This empirical study attempts to analyze the relationship between emotional labor strategies and depression as mental illness. Using data drawn from 152 Korean tellers, this current study examined how surface acting and deep acting directly influence depression. Particularly, this paper investigated the mediating role of job satisfaction and the moderating role of electronic performance monitoring in the relationship between emotional labor strategies and depression. Results indicated that surface acting is positively related to depression, while deep acting is negatively associated with depression. Job satisfaction was significant mediator of the relationship between emotional labor strategies and depression. These results demonstrated how the emotional labor strategies can influence depression. With increased deep acting, employees with high electronic performance monitoring presented lower depression. Differently to hypothesis, however, the moderating role of electronic performance monitoring in the relationship between surface acting and depression was not found. This finding suggests electronic monitoring may become a supportive way to only employees who has deep acting strategy.

Keywords: emotional labor strategies, depression, job satisfaction, electronic performance monitoring
Introduction

As service industries have grown, mental health of workers who conducting emotional labor has long been become interesting topic (Abraham, 1998; Ashforth & Humphrey, 1993; Hochschild, 1983; Johnson & Spector, 2007; Morris & Feldman, 1997). Call center’s employees of increased service occupations are frequently exposed to emotional labor because tellers have to display appropriate emotional expression during each call regardless actually felt feelings (Goldberg & Grandey, 2007; Holman, Chissick, & Totterdell, 2002). Although emotional labor is useful to the organizational bottom-line, prior studies have proposed managing emotions may be detrimental to employees’ well-being (Grandey, 2000; Hochschild, 1983).

Related to the psychological effects of emotional labor, main concern was emotional labor strategy (i.e., surface acting and deep acting) by employee in response to organizational display rules (Grandey, 2000; Hochschild, 1983; Johnson & Spector, 2007). The effects in term of the distinct acting are known by different (Bono & Vey, 2005; Côté, 2005; Judge, Woolf, & Hurst, 2009) and at least, empirical evidences have reported that surface acting is more detrimental to employee than deep acting (Grandey, 2003; Gross & John, 2003; Totterdell & Holman, 2002). In this regard, previous studies have focused on outcome of emotional labor strategy on employees’ mental health such as psychological distress and depression but the results are still inconclusive. Previous studies only focused on emotional discrete, not emotional labor strategy, related to depression (Erickson & Wharton, 1997; King & Emmons, 1990; Puliesi, 1999). Although several studies tried to test the relationship emotional labor strategy and depression, the result was not supported. For instance, Yanchus, Eby, Lance, & Drolliger (2009) reported that emotional labor strategies have not significant
relations with depression. Further, there is little research on the moderating or mediating effects in the relationship between emotional labor strategy and depression. Although recent works attempted to investigate on black box of emotional labor based on Grandey’s (2000) theoretical model, empirically integrated research on both moderation and mediation effect has little conducted.

The current paper addresses research gap in the previous literature on emotional labor strategy and depression. Specifically, the aim of this paper is to examine the relationship between surface acting, deep acting, depression, job satisfaction, and electronic performance monitoring. Particularly, this paper expects that emotional labor strategy has indirect influence depression through job satisfaction because job satisfaction may become the consequence of emotional labor strategy (Judge, Wolf, & Hurt, 2009) and at the same time, be seemed as a predictor of depression (faraghrt, Cass, & Cooper, 2005). Another purpose of this paper is to explore the moderating role of electronic performance monitoring (EPM). Despite performance monitoring using computer equipment is debating issue and pervasive way in service industries, empirical evidence has scared in emotional labor context.

To test the hypotheses, the data draw from 152 workers at call centers in the South Korea. In call center, organizational display rules and negative events with customers are commonly observable factors (Deery, Iverson, & Walsh, 2002; Grandey, Dickter, & Sin, 2004), tellers may provide an appropriate case to analyze the relationship between emotional labor strategy and depression (Batt, 2002; Goldberg & Grandey, 2007). Results showed that surface acting had contrast effects with depression; that is, surface acting was positively associated with depression, while deep acting was negatively related to depression. Also, job satisfaction focusing in this paper had full mediation effect in the relationship between
emotional labor strategies and depression. Interesting result here is the moderating role of electronic performance monitoring. As this paper predict, the negative relationship between deep acting and depression presented stronger under high EPM than low EPM. However, the negative relationship between surface acting and depression was not supported. These results suggest electronic monitoring may become a supportive way to only employees who has deep acting strategy.

**Literature review and hypotheses**

**Emotional labor strategies**

Emotional labor has been defined as “the management of feeling to create a publicly observable facial and bodily display” (Hochschild, 1983, p. 7). Research on emotional labor is closely related to service industry growth. Such industrial change has increased attention on emotional management. At the same time, employees managing feelings also become one of important factors to service organizational survival (Ashforth & Humphrey, 1993; Diefendorff & Gosserand, 2003; Goldberg & Grandey, 2007). Although managing emotions of employee contribute to maintain customers, there is a different viewpoint that emotional labor may harmful for employee’s well-being (Hochschild, 1983).

Emotional labor is triggered by expressing appropriate display rule (Ekman, 1973). Organizational display rules include best ways to meet customers’ needs and thus display rules are separate from employee’s genuine feelings (Hochschild, 1983; Grandey, 2000). In
this regard, display rules are encouraged by employer. From display rules, emotional labors frequently experience to express appropriate emotion in specific situation, and thus employees were forced to express positive emotions and suppress negative emotions (Wharton & Erickson, 1993). Important point here, felt emotion during working may be distinct with organizational expectation. Therefore, employees experience emotional dissonance through this mismatch (Abraham, 1998; Morris & Feldman, 1997) and this discrepancy increase psychological strain at service works (Hochschild, 1983).

According to control theory, employees conducting service works use emotional labor strategy to diminish negative consequences by emotional dissonance (Diefendorff & Gosserand, 2003). If there is difference between felt emotion and display rules, employees are likely to try to regulate emotion toward reducing the discrepancy. The prior studies identified two different emotion strategies of employees, one is surface acting which means employee superficially provide services to customer in terms of display rule regardless employee’s actually feelings. The other is deep acting which modifies emotion in order to incorporate felt feelings into display rules. Both emotional labor strategies contribute to perform given roles in response to organizationally desired emotions (Brotheridge & Lee, 2002; Morris & Feldman, 1997).

While both surface acting and deep acting create values added for organization through emotion management, the effects of surface and deep acting on employee is blurred. On the one hand, both surface and deep acting can be fatal to employees (Hochschild, 1983) because both emotional strategies demand a considerable investment of individual resources (Brotheridge & Lee, 2002; Hobfoll, 1989). In this regard, surface acting itself may be positively associated with deep acting (Brotheridge & Lee, 2002). On the other hand,
focusing on emotional labor strategies is able to restrict the possibility that workers are spontaneously able to accept appropriate emotions (Ashforth & Humphrey, 1993) because different forms of emotion regulation can make different psychological outcome (Gross, 1998). At least, empirical studies have pointed that surface acting is more positively related to depersonalization than deep acting (Brotheridge & Grandey, 2002; Bono & Vey, 2005; Judge, Woolf, & Hurst, 2009; Totterdell & Holman, 2003). For instance, the empirical studies have continuously demonstrated that the effect of surface acting is more deleterious than that of deep acting. Further, recent research suggested that both surface and deep acting as compensatory strategy are distinguished with natural emotions (Diefendorff, Croyle, & Gosserand, 2005). Although surface and deep acting may be stressful to employee, the consequences of emotional labor strategies may be different. Thus, this paper predicted that there is a difference between effects of surface acting and deep acting on depression.

Emotional labor strategies and depression

Because being required to modify the felt emotion often lead to emotional dissonance, performing of display rules have been expected to influence on the psychological health of workers (Schaubroeck & Jones, 2000). Indeed emotional regulation process may be detrimental to physical health as well as psychological health (Gross, 1998). For instance, King & Emmons (1990) found that ambivalence of emotion was positively related to psychological distress. More specifically, Schaubroeck & Jones (2000) reported that demands to express positive emotion was more likely to be associated with physical symptoms. In this context, several studies predicted that emotional labor strategy may positively link to depression (Pugliesi, 1999; Pugliesi & Shook, 1997; Wharton, 1996).
As Gross (1988) pointed out, different emotional strategy can make different consequences. Surface acting refers to managing emotion without changing inner feelings and employee attempt to manipulate their emotions to adjust the given situations. For example, faking a smile front of customers is one of surface acting. In contrast, deep acting encompasses the modification of inner feeling and this strategy is related to cognitive change for understanding others. Therefore, surface acting and deep acting may yield different outcomes related to employee’s mental health. Although both surface acting and deep acting facilitate employees to express organizationally expected display rules (Bono & Vey, 2005), surface acting emphasize the displayed emotion itself whereas deep acting focuses modified feelings as well as displayed emotions (Cheung, Tnag, & Tang, 2011). For instance, Pugliesi (1999) suggested that surface acting was positively linked to depression beyond job stress. Further, Johnson and Spector (2007) found that surface acting was positively linked job distress but deep acting does not significant with distress. From these backgrounds, this paper predicts following hypotheses.

H1. Surface acting will be positively associated with depression

H2. Deep acting will be negatively associated with depression

The mediating effect of job satisfaction

Depression has severely and negatively influences on long-term outcomes during lifetime (Pirraglia, Rosen, Hermann, Olchanski, & Neumann, 2004). In the workplace, similarly, the negative effect of employees with depression has frequently been observed. For instance, total productivity of employees with depression was reported less than that of
employees of without depression (Stewart, Ricci, Chee, Hahn, & Morganstein, 2003). One of main cause increased depression at the workplace is job stress. Stress has been defined as physical, mental, and emotional reaction related to environmental tensions, conflicts, and pressures (Fontana & Abouserie, 1993; Newbury-Birch & Kamali, 2001). Stresses during work have been identified as being a potentially fatal factor for mental health. Prior studies suggested that job stress was significantly and positively associated with depression (Pflanz & Ogle, 2006). Emotional labor without changing inner feelings may disturb interesting of works and enhance job stress. Therefore, negative job satisfaction may be triggered from surface acting. However, because deep acting is likely to associate with individual accomplishment (Brotheridge & Lee, 2002) or well-being (Grandey, 2003; Judge, Woolf, & Hurst, 2009) modifying felt emotions into particular situations may make positive responses on works. Consistent with this view, recent research have suggested that surface acting strategy is more negatively linked to job satisfaction than that of deep acting (Cheung & Tang, 2010; Cheung, Tang, & Tang, 2011).

Likewise, there is growing evidence that job satisfaction as work-related reaction or overall evaluation about job also directly influence the physical and mental health of employees (Bluen, Barling, & Burns, 1990; Faragher, Cass, & Cooper, 2005; Newbury-Birch & Kamali, 2001). For example, Falaghrt, Cass, & Cooper (2005) demonstrated that job satisfaction is closely related to mental health through a meta-analysis of almost 500 studies. Employee with low job satisfaction is likely to experience burn-out related to emotional exhaustion, depersonalization, and thus raise levels of depression. Indeed new customer service using technological advances are changing the nature of works. Although employees are used to conduct their works to meet organizational expectation, tasks assigned are
sometimes beyond employee’s capacity. In contrast, employee with high job satisfaction may be less influenced by depression because these employees can maintain a positive psychology from given goal accomplishment. Further, because job satisfaction has a contribution to reduce job stress, there is a considerable relationship between job satisfaction and mental health.

In the context of emotional labor, particularly, employee often suppresses or modifies felt feelings in terms of display rules and regulated emotion leads to strain and finally affect individual attitude (Hülsheger, Lang, & Maier, 2010). Therefore, emotional labor strategies have been proposed as predictor of job satisfaction (Grandey, 2000). Furthermore, we predict that job satisfaction may impact on depression. Along together, the mediating role of job satisfaction in relationship between emotional labor strategies and depression is more plausible than the direct effect of emotional labor strategies on depression. Depression as mental illness is unlikely to seem immediate shock. Rather employees with depression have a possibility to be exposed to unsatisfied situation for long-time. Based on above theoretical approaches, following hypotheses were established.

H3. The relations of surface acting with depress will be mediated by job satisfaction.

H4. The relations of deep acting with depress will be mediated by job satisfaction.

The moderating role of electronic performance monitoring

Electronic performance monitoring (EPM) is defined as “the observation or recoding of employee work related behaviors with technological assistance” (Stanton, 2000). Although
there is little doubt that performance monitoring is extensive in service organization, the
debating surrounding use of performance monitoring is also continuous. In the critic respect,
using performance monitoring is dehumanizing, increases job stress, and decreases
employee’s well-being. Advocates of electronic performance monitoring, however, have
argued that performance monitoring is beneficial to organization performance through
improving customers’ satisfaction (Chalykoff & Kochan, 1989). Specifically, previous study
showed that EPM such immediately feedback is positively related to employee’s well-being
(Holman, Chissick, & Totterdell, 2002). This evidence was consistent with neutral idea that
EPM can offer a win-win strategy to both employers and employees (Adler, 1998).

Despite monitored employees have been found to have high stress and dissatisfaction
(Aiello & Kolb, 1995; David & Henderson, 2000), the effect of electronic performance
monitoring on mental health may heavily rely on job characteristics and individual evaluation
on monitoring. When EPM is applied as social support, it may little negatively affect
employees’ mental health. Works with customer in service industries are generally conducted
through one to one contact in where employee’s rights are vulnerable compared to customer’s
demands. However, when EPM for coaching exists, performance monitoring can play a role
of organizational support. Likewise, if employee evaluates monitoring as positive instrument
to improve given works, EPM is negatively associated with depression. For instance, positive
cognition regarding performance monitoring was positive related to well-being (Holman,
Chissick, & Totterdell, 2002).

Performance monitoring through computer may be predicted to have the moderating
role in relations of emotional labor strategies with depression. Because the loss or gain of
organizational support is seems one of factors that moderate the between emotional labor
strategies and depression. In contrast to traditional perspectives, EPM at service sector such call center may become a unique organizational support in regard with most employees were lonely workers with lack of autonomy. For example, customer verbal abuse such as sexual harassment and aggressive expression is more frequent than organizational insiders (Grandey, Kern, & Frone, 2007). Therefore, monitoring for appropriate coaching and prompt feedback may become an effective social support. In this context, this paper predicted that the relationship between emotional labor strategies and depression may be different in terms of the levels of EPM and established the following hypotheses.

H5. Electronic performance monitoring will moderate the relationship of surface acting with depression, so that the relationship will be weak when electronic performance monitoring is higher than when electronic performance monitoring is lower.

H6. Electronic performance monitoring will moderate the relationship of deep acting with depression, so that the relationship will be strong when electronic performance monitoring is higher than when electronic performance monitoring is lower.

Methods

Sample

Call center workers are frontline service providers requiring high levels of control over their emotions (Chau, Dahling, Levy, & Diefendorff, 2009). For instance, main activities of call center tellers are to communicate with customers, and their works almost called on to display warmth and confidence (Zerbe, 2000). Since teller works require being sensitive to
others’ needs and feelings and being personally connected with others on the job, most tellers are easy to hurt their mind during calling to customers. These work situations related specific work suggest that call center workers are an excellent sample for investigating emotional labor.

A total of 152 call center tellers from financial organizations such as bank, insurance firms, and credit card companies in the South Korea participated in this study. Women made up 96 per cent of the sample. Approximately 63.8 per cent of respondents was 30s, 33.5 per cent were 40s, and the remaining 2.6 per cent classified 20s. Average present job tenure was approximately 26 months. About 48.0 per cent of participants graduated high school and remaining 52.0 per cent had a bachelor’s degree. Average temporary agency workers of total sample were about 69.7 per cent.

Procedure

Before the start of data collection, all 1,000 tellers in the three financial organizations were randomly chosen and we described the purpose of the study and methods for accessing the survey. During the data collection period, approximately 31 per cent of the tellers (N=310) participated in survey, which included measures of surface and deep acting, job satisfaction, and depression and respondents’ demographic questions.

Measures

Unless otherwise noted, all variables were assessed with a five-point Likert-type response scale with ranging from 1 strongly disagree to 5 strongly agree.

Surface acting
Surface acting was measured with the four items, which originated with Kruml and Geddes (2000) and Brotheridge and Lee (2003). The items assess the extent to which employees fake unfelt emotions and/or suppress felt emotions. Sample items include “I put on an act in order to deal with customers in an appropriate way” and “I provide a good service with smile regardless my present emotions.” Cronbach’s alpha was .877.

Deep acting

Deep acting was measured with the four-item scale reported in Diefendorff, Croyle, & Dosserand. (2005). These items were adapted from Kruml and Geddes (2000), and Brotheridge and Lee (2002). Sample items include “I work at developing the feelings inside of me that I need to show to customers” and “I work to feel the emotions that I understand their needs in customers’ positions.” Cronbach’s alpha was .919.

Job satisfaction (JS)

Job satisfaction was measured with five items used in Fryxell & Gordon (1989). Five items assess with job security, wage, fringe benefit, the sense of accomplishment by a job, and overall job satisfaction. Cronbach’s alpha was .851.

Electronic Performance Monitoring (EPM)

Electronic performance monitoring was measured with 3 items and each items was assessed using dummy variables (exist = 1, non-exist = 0). Examples of items are “Do your company has a real-time work monitoring using computer systems?”, “Do your company has a recording system to listen a conversation during calling?”, and “Is there individual coaching using electronic monitoring system” Cronbach’s alpha was .758.
Depression

Depression was measured by 21 item scale developed by Beck, Ward, Mendelson, Mock, & Erbaugh’s (1961) 5-point response scale. BDI (Beck Depression Index) has become one of the most popular instruments for assessing the intensity of depression in normal populations during 25 years (Piotrowski, Sherry, & Keller, 1985; Steer, Beck, & Garrison, 1986). The 21 questions were composed: (a) Mood, (b) Pessimism, (c) Sense of failure, (d) Lack of satisfaction, (e) Guilt feelings, (f) Sense of punishment, (g) Self-dislike, (h) Self-accusation, (i) Suicidal wishes, (j) Crying, (k) Irritability, (l) Social withdrawal, (m) Indecisiveness, (n) Distortion of body image, (o) Work inhibition, (p) Sleep disturbance, (q) Fatigability, ® Loss of appetite, (s) Weight loss, (t) Somatic preoccupation, and (u) Loss of libido (Beck, Steer, & Garbin, 1988). Depression is scored by summing the rating given to each item and ranged from 21 to 64 points. Cronbach’s alpha was .886.

Control variables

Seven control variables were input which may have account for some variations in the depression at the individual level. First, we controlled respondents’ individual characteristics such as gender (Johnson & Spector, 2007; Warton & Erickson, 1993; Cheung & Tang, 2010), age (Dahling & Perez, 2010), educational level, marriage, and divorce in context of emotional labor and job outcomes. In particular, marriage of them may considerable affect depression. For instance, married women (or men) are less stressful than a single person because spouse may help with the housework and others (Ross, Mirowsky, & Huber, 1983). Further, the relationship between marital status and depression are significant because divorce may bring many emotional problems as well as economic difficult
(Menaghan & Lieberman, 1986). Related to measures, gender (male = 1, female = 0), marital status (married = 1, single = 0), divorce (divorce = 1, otherwise = 0), and education (more than graduate college = 1, less than high school = 0) were measured as dummy variables. Three categorical variables were constructed as age groups: 20s, 30s, and 40s were measured as discrete categorical variables.

Second, we controlled tenure and work arrangement as job characteristics which may affect depression in proposed models (Schaubroeck & Jones, 2000; Bluen, Barling, & Burns, 1990). Tenure had negative correlation with depression (Bluen, Barling, & Burns, 1990). In particular, work arrangement (i.e., nonstandard work) groups may affect significantly depression because more professional and stable works tend to have less depression (James & Lawrence, 1998). Tenure was calculated as the total working month in present firm and outsourcing as work arrangement grade as “outsourcing” (coded 1) or “otherwise” (coded 0).

Table 1 presented descriptive statistics and correlations for variables. Likewise prior studies, depression as dependent variable was significantly negatively correlated with men ($\beta = -.16, p < .05$). However, depression was positively correlated with education ($\beta = .26, p < .01$) and negatively linked with electronic performance monitoring ($\beta = -.31, p < .01$). Although educational level was less associated with stress, there is the positive relations education and stress in emotional labor workplace. Further, effect of electronic performance monitoring on employees has known as negative but the correlation of this study was contrast to the common sense.

-----------------------------------
Insert Table 1 about here
-----------------------------------
Results

Tests of model fit

This paper conducted confirmatory factor analyses on the study variables to determine the validity of our measures. First, The author assessed the fit of a five-factor model for face acting, deep acting, job satisfaction, electronic performance monitoring, and 

$$\chi^2 = 1.026.44, df = 619, p < .001; \text{root-mean-square error of approximation [RMSEA]} = .05, \text{comparative fit index [CFI] = .90}. \text{This model demonstrated acceptable fit to the data (Hox, 2002; Hu & Bentler, 1999). Next, this study compared the fit of the nine-factor model to that of a four-factor model where the surface acting and deep acting were combined as emotional labor strategy. This model fit significantly worse than that of the nine-factor and demonstrates validity for the dimensionality of emotional labor strategy (} \chi^2 = 1.501.25, df = 623, p < .001, \text{RMSEA} = .07, \text{CFI} = .77; \Delta\chi^2 = 474.81, \Delta df = 33). \text{In addition, this paper compared the Akaike Information Citerion [AIC] of the five-factor model (AIC = 1268.44) to that of a four-factor model (AIC = 1735.25). There is the difference of AIC (} \Delta\text{AIC} = 461.81) \text{in between default model and alternative model, Therefore, the research model fit significant better than the four-factor model. This comparison provides evidence that there is a distinction between surface acting and deep acting.}

Tests of hypotheses

Table 2 presented multi-variables regression results. To test proposed Hypotheses, we controlled seven variables all model. Model 1 of Table 2 shows that Surface acting of emotional labor was positively associated with depression ($\beta = .13, p < .10$). To the contrast,
in Model 2, deep acting was negatively significantly related to depression ($\beta = -.15, p < .10$). These results were supported H1a and H1b respectively. Hypothesis 2 suggests that negative association between job satisfaction and depression. Model 3 shows that job satisfaction was negatively and significantly related to depression ($\beta = -.27, p < .01$). Therefore, H2 was also supported.

Related to the mediating role of job satisfaction, we established that the variable job satisfaction may mediate the relationship between surface acting (Or deep acting) and depression. To test Hypothesis 3a and 3b, we followed Baron and Kenny’s (1986) procedures for the mediation test. Three conditions were satisfied: (1) a significant effect of surface acting or deep acting on job satisfaction; (2) when surface or deep acting are controlled, job satisfaction has a significant effect on depression; and lastly, (3) the coefficient value of surface or deep acting as independent variables on depression must decrease (partial mediation) or do not significant (perfect mediation). Model 4 and 5 present condition (1) and Model 6 and 7 show condition (2) and (3). Specifically, when surface acting was negative to job satisfaction ($\beta = -.25, p < .01$) and deep acting was positive to job satisfaction ($\beta = .15, p < .10$). Therefore condition (1) was satisfied. Then, the effect of both surface acting and deep acting on depression does not significant. Thus, job satisfaction has perfectly mediation effect between emotional labor and depression and H3a and H3b were supported.

To test the moderating role of electronic performance monitoring proposed in Hypothesis 4a and 4b, we first conduct mean centering and thus independent and moderation variables in this paper were centered (Aiken & West, 1991). Because the regression analyses of moderation effect include interaction term, the effect of independent variable and product terms may be highly correlated (Cohen & Cohen, 1983). To reduce multicollinearity between
variables, variables need to be changed as centered. In addition, we check variance inflation factor (VIF) for multicollinearity in each regression model. All scores were below 1.2, and thus multicollinearity was not a serious in this paper.

Our results for Hypothesis 4a and 4b show in Model 8 and 9. When we add electronic performance monitoring and product term (surface acting × electronic performance monitoring) in Model 1, the change $R^2$ increased .01 ($\Delta R^2 = .01$) but coefficient value is not significant. Likewise, we input electronic performance monitoring and product term (deep acting × electronic performance monitoring) in Model 2, the change $R^2$ increased .01 ($\Delta R^2 = .01$) and coefficient is also significant ($\beta = -.13, p < .10$). Therefore, H4a was not supported but H4b was supported. Specifically, we examined the direction of the interaction and the regression line was presented in Figure 1. As Figure 1 was shown, the slope of high EPM (+1 SD) increased more than that of low EPM (-1 SD). Thus, proposed the moderating effect of electronic performance monitoring on the relationship deep acting and depression was supported.

Insert Figure 1 about here

Insert Table 2 about here
Discussion

Despite the variety of literature on emotional labor strategy, there is little evidence regarding systematical literature involving process and condition on the effects of emotional labor strategies on mental health. The purpose of this study was to examine how emotional labor strategy is linked to depression as individual well-being. Our results largely supported our hypotheses. First, we investigated whether emotional labor is directly related to depression, and more specifically, whether surface and deep acting have different effects on depression. Thus, consistent with prior theory (Brotheridge & Grandey, 2002; Bono & Vey, 2005; Judge, Woolf, & Hurst, 2009) our results provide evidence that the emotional labor strategies adopted by employees have contrast effects on individual depression.

Second, we examined job satisfaction as a mediator of relationship emotional labor strategy and depression. As such, we try to fill a limitation in the previous literatures that has only focused antecedents and consequence of the emotional labor strategy. We found that surface acting had an indirect, positive effect on depression through job satisfaction. We also found that deep acting had a negative, indirect effect on depression through job satisfaction. Consistent with our predictions, proposed model showed full mediation effect of job satisfaction in the relationship emotional labor strategies and depression. These current findings mean that different emotion strategy indirectly influence depression through job satisfaction. In other words, repetitive job satisfaction (or dissatisfaction) as a consequence of deep acting (or surface acting) affects employees’ mental health positively (or negatively).

Third, we examined electronic performance monitoring as a moderator of the relationship between emotional labor strategy and depression. To our knowledge, this study is
the first trial to examine the link the relationship emotional labor strategy, depression, and electronic performance management. With increased deep acting, employees with high EPM presented lower depression than their low EPM counterparts. Contrary to our prediction, however, the moderating role of EPM was not found in the relationship between surface acting and depression. These results show that surface acting resulting in emotional dissonance may have negative impact on individual mental health regardless existence of performance monitoring as organizational support.

Implications for future research

Our results are seemed to support suggestion by past theoretical model (e.g., Grandey, 2000). Although we explored way to reduce emotional labor strategies’ negative effects on individual outcomes, EPM has little statically and positively effect in relations surface acting with depression. Consequently, there is room for future research that could expand on our findings. For example, specific social support such as coworkers’ helping behavior and supervisors’ substantive supports may decrease the negative effect of surface acting on depression. Another meaningful complement to this study would be to replicate our findings with different samples using our model. For example, there are so many emotional labors in service industry such as hospital, hotel, and sales employee. Those with more display roles on their works are more likely to experience emotional labor strategy than others for adaptation. Therefore, future research needs to involve more participants of other service sector in order to generalization.

Implications for practice

Our findings have several implications for managers. Prior research indicates that US
employee with depression costs excess of $31 billion per year compared with those without depression (Stewart, Ricci, Chee, Hanhn, & Morganstein, 2003). The results of this study show that service organizations can reduce individual suffering by discouraging surface acting and encouraging deep acting. These findings consists that deep acting may be more efficacious than surface acting for the organizational performance and individual well-being (Totterdell & Holman, 2003). Therefore managers need to design specific programs for employees to appropriately modify their emotional management.

Our results also suggest that high EPM encourage the negative effect of employees’ deep acting on depression. This finding implies that appropriate coaching and training using advanced technology may desire employees who try to fill a gap between felt emotion and express emotion through emotional modification (Holman, Chissick, & Totterdell, 2002). However, it seems likely that EPM facilitates is less useful employees to choose specific emotional labor strategies such surface acting. Therefore, managers have to develop effective methods to prevent emotional exhaustion before employees are depressed.

Limitations

Although our findings have important implications for emotional labor research and managerial practice, there are several limitations. First, our sample did not include various occupations. Although the sample was collected from financial industry, which limits the extent to which the findings can be generalized. Additional research is needed to replicate these findings on a more diverse sample, including more service sectors. In addition, most of our variables drawn from self-report and this method can introduce the potential for common method variance to our findings (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Although
we collected EPM data from a different, future research should attempt to collect with a various sources.

Conclusion

The present study represents the test of the relationship between emotional labor and depression measured by BDI. Our results indicate that the specific strategy of emotional labor used by employees has different consequences to depression. Moreover, our finding shows that job satisfaction play a mediating role in relation emotional labor strategy and depression. Another main finding is moderating role of EPM in relation deep acting and depression. These findings have the potential values to help service organizations shape emotional labor in ways that may reduce both employees’ mental health.

References


Electronic Performance Monitoring (EPM)

Depression

Deeping acting

EPM High
EPM Low
<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>S.E</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td>.04</td>
<td>.20</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Age_20</td>
<td>.03</td>
<td>.16</td>
<td>.18*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Age_30</td>
<td>.64</td>
<td>.48</td>
<td>.08</td>
<td>-.22**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Age_40</td>
<td>.34</td>
<td>.47</td>
<td>1.14</td>
<td>-.12</td>
<td>-.94**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Education</td>
<td>.48</td>
<td>.50</td>
<td>.01</td>
<td>.01</td>
<td>-.04</td>
<td>.04</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Marriage</td>
<td>.55</td>
<td>.50</td>
<td>-.23</td>
<td>-.10</td>
<td>-.13</td>
<td>.16*</td>
<td>.07</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Divorce</td>
<td>.04</td>
<td>.20</td>
<td>-.04</td>
<td>-.03</td>
<td>-.06</td>
<td>.07</td>
<td>.08</td>
<td>-.23**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Tenure</td>
<td>25.64</td>
<td>22.12</td>
<td>-.16</td>
<td>-.04</td>
<td>-.12</td>
<td>.14</td>
<td>-.07</td>
<td>-.05</td>
<td>.01</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Outsourcing</td>
<td>.70</td>
<td>.46</td>
<td>-.01</td>
<td>.02</td>
<td>-.02</td>
<td>.01</td>
<td>-.08</td>
<td>-.07</td>
<td>.06</td>
<td>-.02</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Surface acting</td>
<td>3.78</td>
<td>.70</td>
<td>.15</td>
<td>.10</td>
<td>.04</td>
<td>-.07</td>
<td>.03</td>
<td>.00</td>
<td>.09</td>
<td>-.02</td>
<td>.07</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Deep acting</td>
<td>3.79</td>
<td>.69</td>
<td>.09</td>
<td>.02</td>
<td>.04</td>
<td>-.05</td>
<td>-.03</td>
<td>-.06</td>
<td>.04</td>
<td>-.80</td>
<td>-.03</td>
<td>.42**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Job Satisfaction (JS)</td>
<td>2.97</td>
<td>.60</td>
<td>.20*</td>
<td>-.03</td>
<td>-.06</td>
<td>.07</td>
<td>-.02</td>
<td>.03</td>
<td>-.01</td>
<td>-.15</td>
<td>.03</td>
<td>-.21**</td>
<td>.17*</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Electronic Performance Monitoring (EPM)</td>
<td>2.26</td>
<td>1.03</td>
<td>.11</td>
<td>.08</td>
<td>.11</td>
<td>-.14</td>
<td>-.03</td>
<td>.02</td>
<td>.01</td>
<td>-.00</td>
<td>-.21*</td>
<td>.16</td>
<td>.08</td>
<td>.07</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>14. Depression</td>
<td>34.78</td>
<td>9.14</td>
<td>-.16*</td>
<td>-.15</td>
<td>.08</td>
<td>-.04</td>
<td>.26**</td>
<td>-.04</td>
<td>.15</td>
<td>.09</td>
<td>-.04</td>
<td>.11</td>
<td>-.16</td>
<td>-.31**</td>
<td>.03</td>
<td>1</td>
</tr>
</tbody>
</table>

*: p < .05, **: p < .01 (two-tailed test), Gender (male = 1, female = 0), Education (graduate college = 1, graduate high school = 0), marriage (married = 1, single = 0)
<Table 2>

<table>
<thead>
<tr>
<th>Model</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Depression</td>
<td>Depression</td>
<td>Depression</td>
<td>JS</td>
<td>JS</td>
<td>Depression</td>
<td>Depression</td>
<td>Depression</td>
<td>Depression</td>
</tr>
<tr>
<td>Gender</td>
<td>-.17**</td>
<td>-.14*</td>
<td>.09</td>
<td>.26***</td>
<td>.21**</td>
<td>-.10</td>
<td>-.09</td>
<td>-.16*</td>
<td>-.13</td>
</tr>
<tr>
<td>Age_20</td>
<td>-.14*</td>
<td>-.13*</td>
<td>-.15*</td>
<td>-.04</td>
<td>-.06</td>
<td>-.15**</td>
<td>-.15*</td>
<td>-.14*</td>
<td>-.13*</td>
</tr>
<tr>
<td>Age_40</td>
<td>-.09</td>
<td>-.10</td>
<td>-.07</td>
<td>.09</td>
<td>.11</td>
<td>-.07</td>
<td>-.07</td>
<td>-.09</td>
<td>-.09</td>
</tr>
<tr>
<td>Education</td>
<td>.26***</td>
<td>.26***</td>
<td>.25***</td>
<td>-.03</td>
<td>-.03</td>
<td>.25***</td>
<td>.25***</td>
<td>.25***</td>
<td>.28***</td>
</tr>
<tr>
<td>Marriage</td>
<td>-.07</td>
<td>-.06</td>
<td>-.04</td>
<td>.08</td>
<td>.06</td>
<td>-.05</td>
<td>-.05</td>
<td>-.06</td>
<td>-.07</td>
</tr>
<tr>
<td>Divorce</td>
<td>.10</td>
<td>.12</td>
<td>.12</td>
<td>.03</td>
<td>-.01</td>
<td>.11</td>
<td>.12</td>
<td>.10</td>
<td>.12</td>
</tr>
<tr>
<td>Tenure</td>
<td>.09</td>
<td>.08</td>
<td>.05</td>
<td>-.13</td>
<td>-.12</td>
<td>.05</td>
<td>.05</td>
<td>.09</td>
<td>.09</td>
</tr>
<tr>
<td>Temporary work</td>
<td>-.04</td>
<td>-.03</td>
<td>-.02</td>
<td>.04</td>
<td>.03</td>
<td>-.03</td>
<td>-.03</td>
<td>-.03</td>
<td>-.02</td>
</tr>
<tr>
<td>Surface acting</td>
<td>.13*</td>
<td></td>
<td></td>
<td>-.25***</td>
<td></td>
<td>.07</td>
<td>.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deep acting</td>
<td></td>
<td>-.15*</td>
<td></td>
<td>.15*</td>
<td></td>
<td>-.11</td>
<td></td>
<td>-.15*</td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td></td>
<td>-.27***</td>
<td></td>
<td>-.26***</td>
<td></td>
<td>-.26***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.01</td>
<td>.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surface × EPM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deeping × EPM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.13*</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.16</td>
<td>.17</td>
<td>.21</td>
<td>.13</td>
<td>.10</td>
<td>.22</td>
<td>.22</td>
<td>.17</td>
<td>.18</td>
</tr>
<tr>
<td>ADJ R²</td>
<td>.11</td>
<td>.11</td>
<td>.16</td>
<td>.08</td>
<td>.04</td>
<td>.16</td>
<td>.17</td>
<td>.11</td>
<td>.12</td>
</tr>
<tr>
<td>F</td>
<td>3.02***</td>
<td>3.11***</td>
<td>4.27***</td>
<td>2.43**</td>
<td>1.72*</td>
<td>3.91***</td>
<td>4.07***</td>
<td>2.61***</td>
<td>2.87***</td>
</tr>
</tbody>
</table>

N=152, *: p < .10, **: p < .05, ***: p < .01 (two-tailed test), standardized β