

Emotional Labor in Emergency Dispatch: Gauging Effects of Training Protocols

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ABSTRACT

Introduction: Previous studies of emergency dispatch personnel have established high levels of emotional labor, burnout, and turnover intention among this population of first responders. This study is the first to investigate the effect of emergency dispatch script protocols on workplace outcomes of burnout and turnover intention.

Hypotheses: The study tests two related hypotheses: Greater script comfort among emergency dispatchers will be associated with decreased emotional exhaustion (H1) and decreased turnover intention (H2).

Methods: The study uses multivariate regression to establish baseline models of emotional exhaustion and turnover intention among respondents. Structural equation modeling is then used to explore the direct and mediated relationship between script discomfort and the two outcomes simultaneously.

Results: Dispatchers who express more discomfort with script protocols express elevated levels of emotional exhaustion (H1), but not turnover intention (H2), to a statistically significant degree. This multivariate regression result is validated in a structural equation model (SEM) which solves for both outcome variables simultaneously, and demonstrates the centrality of surface acting in the overall model of both emotional exhaustion and turnover intention.

Conclusions: As script protocols continue to increase in use and complexity, emergency dispatch managers and administrators should be cognizant of potential increases in emotional exhaustion among employees. The overall increases documented in this study are small to moderate in size, but given the high baseline levels of burnout among emergency dispatch personnel, any increase is potentially damaging. This study found no significant increase in turnover intention, which was protected against through dispatchers' increased use of surface acting. However, we did not test for or rule out the potential negative outcomes of poorer physical and mental health, increased absenteeism, and increased substance abuse that have been documented in other emotional labor studies.

INTRODUCTION

Emotional Labor is the summoning of work-appropriate expression, either through suppressing unsuitable felt emotions or conjuring suitable unfelt emotions, where “appropriate” and “suitable” are dictated by professional norms and workplace expectations: emotional labor is that work that requires the engagement, suppression, and evocation of the worker’s emotions to get the job done.¹ Emergency dispatch calltakers are the *first, first responders*² to a crisis; they summon and direct all other first responders, namely firefighters, police, and emergency medical technicians, to the scene. Unlike those first responders who confront and may physically administer care to people in crisis, emergency calltakers engage with callers solely by listening and speaking, all the while soliciting and logging critical logistical information. Emergency dispatchers must build trust relationships, elicit feeling responses, and direct the actions of callers using their voices.³ The operator is tasked not only with managing the emotions of the caller; they must manage their own emotions as well.

The context of all this emotion work is complex. Emergency dispatch operators must continually suppress some types of emotion, express others, and remain calm, nonreactive, and nonjudgmental. They may follow a script and are very aware that all their calls are recorded. Calls vary in their frequency and intensity, and shifts may run as long as 12 and 24 hours. The dispatcher’s knowledge about the caller and the caller’s circumstance is reduced to a single sensory experience—hearing—and the connection to the caller is tenuous; the

caller may hang up at any time. Only in rare circumstances will the dispatcher know the outcome of the caller's crisis. The complex rigors of the job and the emotional labor required to do the job well may result in feelings of detachment and emotional exhaustion, commonly known as burnout.

Background: Emotional Labor in Public Service

Theories of emotional labor are fluid and responsive to the variability of work conditions, professions, employee demographics, social expectations, technology, and evolving research in neuroscience, psychology, organizational behavior, sociology, and economics. In her seminal work, *The Managed Heart*, Arlie Hochschild describes emotional labor as the management and display of emotion as desired or directed by an employer in exchange for a wage.⁴ Incorporating a crucial task of the emergency dispatch operator to manage a caller's emotions in order to keep the caller on the line and get all of the critical information, Mastracci describes emotional labor as eliciting an emotional state in another person and/or managing one's own desired and undesired emotions, all for the purpose of doing one's job.⁵ Emotional labor has also been described as the effort, planning, and control needed to express organizationally-desired emotion during interpersonal transactions.⁶ Within this definition are four dimensions of emotional labor: frequency of appropriate emotional display, attentiveness to required display rules, variety of emotions required to be displayed, and emotional dissonance generated as a result of having to express organizationally-desired emotions not genuinely felt. In other research, emotional labor is defined as the process of regulating both feeling and expressions for the organizational goals.⁷ Grandey and Gabriel propose an integrated model of emotional labor comprised of emotional requirements, emotional regulation, and emotional performance. Emotional requirements or display rules and emotional regulation are considered antecedents to both job satisfaction and burnout and are the focus of the present study of the association of emotional labor to burnout.⁸

Emotion suppression or evocation can happen before an expression-demanding event—antecedent-focused emotion regulation⁹—or after an event has begun—response-focused emotion regulation. Scholars of emotional labor refer to antecedent-focused emotional regulation as *Deep Acting*, which involves psyching oneself up (or calming oneself down) in anticipation of an expression-demanding work-related event (or avoiding it altogether, which is not always possible at work). Response-focused emotional regulation is referred to as *Surface Acting*, which involves the attempt to stuff the genie back in the bottle after an expression-demanding work-related event has already begun. Deep Acting is less taxing than Surface Acting. Deep Acting is not correlated with burnout, while Surface Acting is directly correlated with burnout.^{2,4}

Gross' typology of antecedent- and response-focused emotion regulation defines the action by *when* it occurs in the process, while Hochschild's dramaturgical deep- and surface-acting metaphor emphasizes *how* the worker regulates emotion.^{4,9} Whether before or during an expression-demanding event, emotional labor "requires that workers suppress their

private feelings in order to show the 'desirable' work-related expression ... the focus is on an emotional performance that is bought and sold as a commodity."² The cost of effective emergency response is emotional labor: the effort to suppress or elicit emotions in oneself and/or patients and clientele. Emotional suppression draws resources away from cognitive tasks, which means that mistakes can be made. Emotional labor suffuses care work: "Human services [is comprised of] high emotional-labor occupations with an associated high risk of burnout."¹² This underscores the importance of identifying the organizational measures necessary to support public servants and minimize burnout and turnover: if poorly managed, emotional suppression taxes cognitive capacity and working memory and can result in on-the-job mistakes, and poorly-managed emotional labor can result in burnout.

Evidence from earlier research on emotional labor in public service informs the scholarship on emergency dispatchers by clarifying the concept of emotional labor and identifying how public servants engage in it. The goal of the present project is to capture aspects of work that can inform human resource management practices and provide organizational support for emotional laborers. Organizations can recruit for emotional intelligence, or the capacity to engage in emotional labor, and take steps to enhance employee self-awareness and empathy by emphasizing the interrelatedness of tasks. Self-Care programs and CISDs help care workers develop healthy boundaries so that they may engage in emotional labor without their work becoming all-consuming.²

Emotional labor entails managing emotions to conform to display rules. Display rules are standards for how emotions should be expressed or suppressed in order to accomplish stated work goals. Tracy and Tracy suggest that when employees sincerely agree with display rules they internalize them and make the rules part of their ordinary expression, thereby collapsing any distinction between feeling rules and expression rules.¹¹ Whether commitment to display rules does or does not come easily, Morris and Feldman suggest that the greater the attention paid to display rules, the greater the psychological energy and physical effort employees will expend to do their jobs.⁶ Adherence to display rules is a kind of professional goal that employees "labor" to attain, in addition to being a means to achieving other goals, such as adeptly assisting a person who has called 911 in crisis.

Surface Acting

Employees regulate emotional displays through surface acting and deep acting. Surface acting is a process of suppressing emotion, often negative feelings, and displaying an outward affect that is consistent with display rules. In the case of the emergency dispatch calltaker, emotion—real or faked—must be "displayed" using only the voice. In surface acting, the employee fakes the organizationally desired emotion, but the felt emotion remains unchanged. When a worker perceives strain between her or his interior and exterior experience, this cognitive dissonance can produce feelings of alienation from the self, poor health, decreased job satisfaction, relational problems, and an increased risk of burnout.^{4,12}

Hochschild theorized that display rules and the emotional displays demanded of employees are characterized by “rules of mass production,” where the product is the emotional labor. The product here is the “smile, mood, feeling, relationship” and “comes to belong more to the organization and less to the self.”¹⁴ Hochschild’s research focused, primarily, on the negative effects of emotional labor in the private sector. When considering display rules assigned to emergency dispatch operators (for example, directives to be calm, friendly, unperturbed, rational, non-reactive, etc.) the product, or in this case, the purpose, of the work is the safety and welfare of the public and the first responders whom dispatchers will direct to the crisis. Emotional labor, in this instance, is a practice, a professional performance that facilitates an outcome desired by the employee, the organization, and the public.

Deep Acting

When employees try to actually feel, or conjure, the organizationally desired emotions dictated by display rules, the process is called deep acting.^{2,4} In situations where the employees’ felt emotions diverge from or are in conflict with organizational standards, employees will use emotional regulation strategies to bring their emotions in line with the display rules. Where, in surface acting, the strain between “real” and “displayed” can result in cognitive dissonance, in deep acting, the distance from the “real” to the required emotion is mediated through emotional regulation. Emotional regulation is the conscious and unconscious effort to change one’s emotional state. The goal of emotional regulation is to establish consonance between emotion felt and emotion expressed. With consonance, deep acting requires minimal psychological and physical effort and is associated with employee satisfaction, positive work outcomes and performance, increased job involvement, and low risk of burnout.

Amidst this discussion about the strain of emotional labor, it is important to note that emotional labor can be an enjoyable and gratifying experience. Lumsden and Black profiled emergency calltakers who characterized the emotional labor of their jobs as “well spent” and described feeling energized and having an “adrenaline-related buzz” after a full day of “crazy” and “horrific” calls.¹³ Just as Tracy and Tracy discovered in their 1998 study of 911 calltakers, Lumsden and Black found that humor, often about the stresses of the job itself, was “a form of emotion work that acted as catharsis for the staff.”^{11,13} Dark humor saves lives.¹⁴

Burnout

Burnout is alternately described as a stress-related syndrome, a developmental process, and a disintegration.¹⁵ Maslach and Jackson identify three types of employee burnout: Emotional exhaustion, depersonalization, and diminished personal accomplishment. These are, respectively, feeling emotionally depleted, appearing detached from others, and experiencing low work productivity.¹⁶ There is, however, disagreement as to whether work productivity or, put another way, personal accomplishment or fulfillment is a third indicator in a sequential process of burnout or a consequence of burnout, or something

else entirely. Some researchers assert that accomplishment is a separate dimension of burnout, with different predictors than emotional exhaustion and depersonalization.¹⁵ Others concede that it is not yet clear whether feelings of diminished personal accomplishment are actually a component of burnout or should be viewed as an outcome of burnout.¹⁷

Burnout is often associated with work in the “caring” professions, such as nursing and social work. Brotheridge and Grandey studied the emotional demands of work and their relationship to burnout among a diverse cohort of human services workers (nurses and social workers, sales, managerial, and clerical personnel, and physical laborers). The researchers found no significant difference in levels of emotional exhaustion among human services workers compared to office, business, and physical laborers. They also found lower levels of depersonalization among human service workers than among sales/service, managers, clerical, and physical laborers. Personal accomplishment was highest for human services workers. At the conclusion of the study, human service workers reported the “highest levels of frequency, variety, intensity, and duration of emotion display and expectations for control over emotional expressions.”¹⁵

In addition to work demands predicting burnout, researchers have studied the emotional antecedents of burnout: a 2013 study examined how the valence (positive or negative quality) and the regulation (i.e. faking, suppression, or genuine expression) of discrete emotions (e.g. anger or joy) predicted professional burnout. Researchers noted a significant correlation between suppressing negative emotions and emotional exhaustion.¹⁸ However, the expression of genuine emotion, whether positive or negative, predicted burnout more than the faking or suppressing of positive and negative emotion. Packell and Narayan concluded that “the experience and direction of an emotion is highly important for understanding the emotional underpinnings of burnout.”¹⁸

Script Use

Research conducted in the public and human services sectors suggests that the use of a script can serve to protect and conserve the degree of emotional labor required to engage with the public. Leidner, who studied call-center workers in the private sector, observes that “under some conditions, scripted emotional labor can help workers enforce their will over others, protect them from mistreatment, bolster their confidence in their abilities, or at least offer them some psychological distance from disagreeable interactions.”¹⁹ A script, like that used by many emergency dispatchers, can serve as a bulwark against emotional over-reach and as a tool to support a calltaker’s concentration on work objectives and goals. However, the mandate to use a script could be perceived as a restriction on personal autonomy, and less autonomy is associated with work stress and burnout. Employees with high job autonomy are less likely to experience negative effects of emotional labor than employees with low job autonomy, and self-regulation—a kind of autonomy—is associated with job satisfaction.¹⁵

With respect to the emergency dispatch population, research has demonstrated that 911 emergency dispatchers report higher

rates of acute stress disorder, secondary traumatic stress, and occupational burnout than the general working population.²⁰ Emergency dispatchers suffer Post-Traumatic Stress Disorder (PTSD) at higher rates than the average working population.^{11,21,22} While 911 calltakers suffer PTSD differently, they remain comparable to combat veterans.²³ Human resource management interventions work in this population.²⁴ Work conditions such as mandatory overtime, rotating shifts, and weekend shifts may exacerbate occupational stress, so addressing these issues can mitigate stress.²⁵ Even emergency dispatchers' dedication to their important work can increase occupational stress, and human resource management interventions such as mindfulness-based stress management techniques can lower occupational stress scores.² In this study, we borrow from research in the private sector on the use of scripts to mitigate the effort of surface acting^{19,26,27} to test whether such an intervention could support emergency dispatchers.

METHODS

Only one component of burnout—emotional exhaustion—is used in this analysis because it is considered the most fundamental aspect of burnout.¹⁶ The association of burnout and turnover intention and the association of comfort with script use and burnout and turnover were also tested to provide managers with information about retention and compliance with industry protocols. Based on relationships among workplace phenomena and worker characteristics—specifically findings related to script use in call centers—we hypothesize:

- H1: Greater comfort with scripted protocols reported by emergency dispatchers is associated with reduced burnout.
H2: Greater comfort with scripted protocols reported by emergency dispatchers is associated with reduced turnover intention.

Results from testing both hypotheses will inform public-sector human resource management. To test these hypotheses, we surveyed individuals working in emergency dispatch. The January 9, 2018, IAED newsletter was sent to 337 email recipients and posted to 393 social media followers. The number of unique individuals to whom the survey link was sent ranges from 393 to 730. The minimum number of unique recipients would be 393 if there were complete overlap between the two audiences—newsletter distribution list and social media followers—and 730 with no overlap between email recipients and social media followers. Most likely, there is some overlap between the two audiences. Using the most conservative estimate that all recipients were unique individuals (N=730), we received data from 418 respondents, representing a 57.26 percent response rate.

RESULTS

Individuals in the study reported a range of emotional labor tactics and organizational characteristics (Table 1). Discomfort with script protocols is low. Using a Likert scale to denote levels of agreement with survey statements, survey respondents generally agreed with the statement, "I am comfortable using a scripted protocol." Survey respondents also generally agreed that their employers expect them to express friendliness and confidence and suppress negative emotions: both Suppress and Express mean values are above the neutral value of 4 on a scale of 1 to 7. Less support was reported for Surface Acting and Deep Acting; while the mean value on Surface Acting was right at 5, Deep Acting—the expectation to really feel what the display rules demand—is at the middle of the range. On average, supervisor support is higher than support respondents perceive from their agencies. That Surface Acting is reported as more applicable than Deep Acting is consistent with practice: Surface Acting is the prevailing approach to emotional labor among emergency calltakers because they cannot anticipate the "correct" reactions to have, given that they do not know the nature of each call until they answer the phone. The incidence of burnout is slightly higher than average, and turnover intention is

Variables & Constructs	Mean (Std. Dev.)	Cronbach's Alpha (latent variables only)
Discomfort with Scripted Protocols	1.93 (1.35)	n/a
Express	5.50 (1.21)	0.6763
Suppress	6.08 (1.49)	0.9432
Surface Acting	4.98 (1.45)	0.6954
Deep Acting	4.11 (1.80)	0.9002
Supervisor Support	4.59 (1.93)	0.9683
Organizational Support	4.12 (1.84)	0.9690
Turnover Intention	2.95 (1.85)	0.6719
Emotional Exhaustion	4.22 (1.74)	0.8132
Years of Experience	12.57 (9.00)	n/a

Table 1. Descriptive statistics (n=415)

Independent Variable	(1) Effect on Emotional Exhaustion	(2) Effect on Turnover Intention
Script Discomfort	0.167***	-0.01
Express	0.08	-0.08
Surface Acting	0.07	-0.15**
Deep Acting	0.06	0.07*
Supervisor Support	-0.24***	-0.43***
Years of Experience	0.02*	-0.04***
Constant	3.84***	6.58***
Number of Obs.	363	362
R-squared (Adj. R2)	0.1062 (0.0911)	0.2424 (0.2296)
Model F	7.05***	18.93***

*p<0.10; **p<0.05; ***p<0.01

Table 2. Results from multiple regression

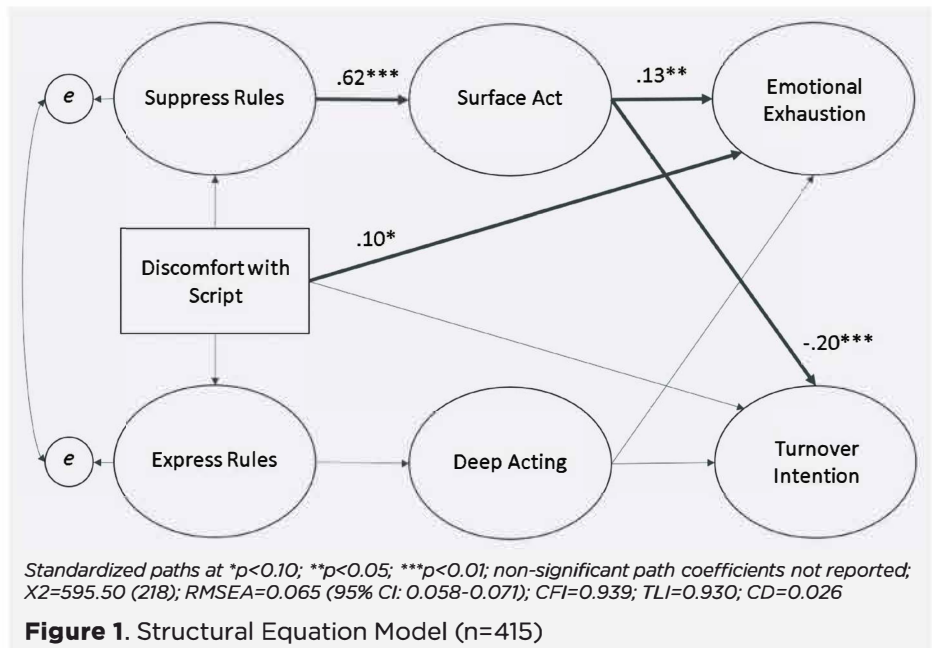
low. These are revealed by the lower-than-neutral turnover intention mean value and slightly higher-than-neutral emotional exhaustion. Respondents averaged about 12.5 years of experience, ranging from less than one year to more than 40 years.

We first examine the relationships between display rules, emotional labor, and workplace outcomes using multiple regression analysis. Because we have two workplace outcomes—emotional exhaustion and turnover intention—we run two separate models with each outcome as a dependent variable. Table 2 lists the effect of each independent variable on these dependent variables as well as model goodness-of-fit statistics. Column (1) shows results on the dependent variable emotional exhaustion, and column (2) provides results when the dependent variable is turnover intention.

Greater discomfort with script use is associated with higher levels of emotional exhaustion, controlling for other factors that affect burnout, and this effect is statistically different from zero. Deep Acting is not associated with emotional exhaustion, and this is consistent with the literature on emotional labor. The effect of Surface Acting is no different from zero, and this is not consistent with the literature. Supervisor support is associated with decreased burnout. With respect to turnover intention, the effects of script use and display rules are not statistically significant. Surface Acting is associated with reduced turnover intention, which contradicts the literature, but emergency dispatchers may use Surface Acting as a coping mechanism. Deep Acting is associated with increased turnover intention: although small in magnitude, this effect is statistically different from zero and also contrary to previous research. However, the effects of supervisor and organizational support and years of experience are consistent with previous research: all are linked to lower turnover intention. Regression results support the first hypothesis but not the second hypothesis, for the effect of script comfort on Turnover intention could have arisen by chance; that is, it is not statistically significant.

A multiple-regression approach to testing these hypotheses involves a couple of shortcomings, however. First, we cannot include both types of display rules—Suppress and Express—because the Pearson's correlation coefficient between those two independent variables is very high ($r=0.8089$). While multicollinearity does not violate the assumptions underpinning least-squares analysis, redundancy among the independent variables prevents a unique solution from arising. Supervisor and organizational support are highly correlated as well ($r=0.7693$). Second, multiple regression cannot find solutions for two dependent variables. Testing hypotheses using SEM allows us to use a model specification that accommodates more than one dependent variable. SEMs can account for multicollinearity among variables, as well, and determine the unique contribution of highly collinear input variables on the outcome of interest. We simplified the model above and estimated path coefficients

using SEM, estimating the full model using full-information maximum likelihood estimation. Figure 1 depicts these relationships and our results.



Display rules that tell workers to suppress emotion have a large effect on Surface Acting. The 0.62 standardized path coefficient from suppress to Surface Act is positive and statistically different from zero. The standardized path coefficient from Surface Act to emotional exhaustion is 0.13, which is considered a small effect, but it, too, is positive and statistically different from zero. Surface Acting also appears to be a coping mechanism because it decreases turnover intention. The statistically-significant standardized path coefficient is -0.20 , which is between a small and moderate effect. Direct implications for human resource management are found between discomfort with script use and emotional exhaustion. Greater discomfort with scripted protocols is associated with greater burnout. Although the effect is small (0.10), it is statistically different from zero at the 90 percent level and is therefore unlikely due to chance. Model fit statistics are found below Figure 1, and the most commonly relied upon measures of model fit, root mean square error of approximation (RMSEA), and comparative fit index (CFI), both assess the model fit at the good, even marginally excellent. The model chi-square assessment and Tucker-Lewis index (TLI) both assess the model as adequate, although they are sensitive to sample size and model complexity. Overall, we assess the model fit as good.

The relatively low coefficient of determination ($CD = .029$) indicates that there are likely to be unmodeled covariates that are associated with both outcomes. This is a limitation of SEM models, which prioritize maximum likelihood rather than minimum model error. The regression findings reported earlier indicate some significant effect from years of experience and supervisor support, both of which were not modeled in the SEM portion of the study. The robust, parsimonious relationship between surface acting and script comfort on burnout and turnover intention is demonstrated through the use of both regression and SEM methods.

Bolstering calltakers' confidence with scripted protocols is associated with lower burnout. Although Surface Acting is used as a coping mechanism and reduces turnover intention, it has been found to increase burnout in other samples and therefore may have negative long-term consequences. Results from SEM analysis support the first hypothesis but not the second hypothesis. Comfort with scripted protocols is associated with lower levels of emotional exhaustion, and this effect is statistically significant. The relationship between a calltaker's comfort with protocols and turnover intention is not statistically different from zero.

CONCLUSION

This study provides evidence to support human resource management efforts to decrease emergency dispatcher discomfort with using scripted protocols. Comfort with scripted protocols is linked to reduced emotional exhaustion.

Emergency dispatch operators studied by Tracy and Tracy described feeling powerless, helpless, and horrified by some of their experiences with callers.¹¹ Just as police officers experience peri-traumatic stress and the potential for PTSD via their work as first responders, so too can the mental health of emergency dispatch operators be vulnerable to vicarious traumatization. Burnout precedes PTSD and deserves attention in the literature as well. The effects of witnessing trauma, not the experience of emotional labor, may be predictive of burnout among emergency dispatch operators.¹¹ The association of traumatic stress to burnout may explain why supervisor support was shown to mitigate emotional exhaustion, assuming that support involves debriefing, concern, and encouragement. Unique characteristics of emergency dispatch, like call frequency, intensity, unpredictability, and lack of closure contribute to the unprocessed experience of trauma. Further study is needed to support these skilled and highly committed employees in their important, and lifesaving, work.

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