EMERGENCY COMMUNICATIONS:

A QUANTITATIVE SURVEY ON EMOTION LABOR

by

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A Thesis Submitted in Partial Fulfillment of

the Requirements for the Degree of Master of Sociology

Middle Tennessee State University

March 2020

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ABSTRACT

Both working as a 9-1-1 dispatcher and examining research on emergency communications personnel reveals high levels of emotional labor and associated stress, mental health issues including depression and anxiety, and positive and negative coping mechanisms among these workers. These also have implications for job satisfaction. Using completed survey data from over 550 9-1-1-dispatchers/emergency communication workers across the United States, I examine emotions at work and away from work, levels of emotional labor, and stress along with job satisfaction, mental health indicators, and coping mechanisms. I found that levels of emotional labor are very high among all groups, to the point of almost no variation. As a result, the emotional labor scale was not significant predictor of job satisfaction, but separate scales measuring surface and deep acting were significant. Results point to interesting patterns of variation in types/levels of job satisfaction, emotions at/away from work, mental health indicators, and coping mechanisms. Implications for training and policy are discussed.

ACKNOWLEDGEMENTS

I would like to personally thank my family, friends, and fiancé for their unending love and support while I have worked on this thesis. I would also like to acknowledge Seth Russell, the director of our communications department, and Courtney Drake, the training coordinator for our communications department. Courtney has taught me what it means to be a great and dedicated dispatcher. She has trained me, been my mentor, and has been a constant source of encouragement. Seth has been generous and patient while I have been in school. He has worked with me and is always there to lend a helping hand. Seth and Courtney both have had a huge impact on my life, work experience, and now this thesis. I am forever grateful and appreciative to them both. I would also like to thank all of my professors at MTSU for being so supportive of this project. Lastly, I would like to give a huge thank you to Dr. Meredith Dye, my faculty advisor and thesis committee chair. It has been an honor working alongside Dr. Dye over the course of the last year. From day one, Dr. Dye has been there to help me turn this idea into reality and into a thesis I am so proud of. For that, and the constant support and guidance, I am eternally grateful.

TABLE OF CONTENTS

LIST OF TABLES

INTRODUCTION

"9-1-1, where is your emergency?" is the first question that leads into the

unknown for an emergency communications worker (e.g., call takers and dispatchers).

Approximately 240 million calls are made to 9-1-1 in the United States each year (NENA

2018). No dispatcher can ever be fully prepared for what they will receive when

answering a 9-1-1 call. The call could be anything from an in-progress home invasion, to

a commercial fire, or even a child caller accidentally calling 9-1-1. While some call

takers and dispatchers may thrive in these situations, this feeling of not knowing what is

to come can cause high amounts of stress, demands high levels of emotional labor, and

can lower dispatcher's job satisfaction. Many dispatchers are required to work long hours

including overnight shifts, weekends, and holidays (Tracy and Tracy 1998). Due to the

nature of the job, dispatch has a very high turnover rate (Chen 2019).

While research on public safety primarily concerns first responders and law

enforcement, there is minimal sociological research which examines the emergency

communications field (Klimley et al. 2018). The current study will add to the literature

and use the sociological framework of emotional labor to understand job satisfaction,

mental health consequences, and coping mechanisms among emergency communications

personnel. I hypothesize that emergency communications personnel do a great deal of

emotional labor, which ultimately lowers their levels of job satisfaction and negatively

impacts their mental health (e.g., depression and anxiety). I also hypothesize that the

amount of on-the-job stress, job classification, and how the individuals cope with their

emotions also influences their levels of job satisfaction.

I begin the thesis with a discussion of the background of 9-1-1, emergency communications, and emotional labor. I then proceed by reviewing previous literature on these subjects, which then leads into my methods and findings sections. Lastly, I discuss my findings and how they either differed or matched my original hypotheses.

BACKGROUND

AT&T declared 9-1-1 as the universal telephone number for emergencies in 1968. The very first call placed to 9-1-1 was in Haleyville, Alabama on February 16, 1968 (Police Executive Research Forum 2017). On average, around 240 million 9-1-1 calls are made each year (NENA 2020). This call volume confronted by call takers and dispatchers continues to grow as the general population grows and technology develops. The organizational structure of public safety and emergency communications has developed over time as well.

Calls to 9-1-1 (or nonemergency calls to 311) arrive at and are directed to Public Safety Answering Points (PSAPs). Almost every PSAP in the United States has basic and enhanced 9-1-1 phone systems, and approximately 96% of 9-1-1 calls come in through these systems. The difference between the basic system and the enhanced system is the ability and accuracy of verifying a caller's location. In basic, call takers or dispatchers must verbally verify the caller's address. Enhanced 9-1-1 can provide the caller's location and phone number by pinging the call's nearest cellular tower (NENA 2018). A more recent advancement in technology is an online website called RapidSOS—an emergency interface portal for law enforcement agencies and PSAP's that assists in finding locations

for people who call 9-1-1. The call taker can log in and enter the phone number that

called 9-1-1 into RapidSOS, getting a ping for the phone. This ping shows the radius and

accuracy of where the caller is located as well. This system updates every time the caller

moves locations for up to twenty-five total locations. The most recent advance in

technology, however, is called Next Generation 9-1-1, or NG911. "In an NG911

environment, people will be able to send text messages, photos, and videos to their local

public safety agency, and more generally, to communicate with authorities in many new

ways through mobile apps" (Police Executive Research Forum 2017).

In all of these systems, emergency communications personnel take calls and

dispatch help to those in need. In 2012, the United States Department of Labor defined a

call taker as

> a professional civilian law enforcement employee who receives both emergency
> (9-1-1) and nonemergency (3-1-1) calls from members of the public when help
> from police officers, firefighters, medical emergency personnel, emergency
> animal services, other government services, or any combination thereof are
> required (Bureau of Labor Statistics 2012) (Turner 2015:4).

In comparison, dispatch is a position within the emergency communications field which

is responsible for taking care of the behind the scenes technicalities for the various levels

of public safety, helping law enforcement, fire services, and EMS perform their assigned

duties to the best of their ability (Department of Homeland Security, FEMA 2016). Some

of a dispatcher's tasks may include answering emergency and non-emergency phone

calls, dispatching police, fire, or emergency medical services first responders to calls over

the radio, entering data into law enforcement databases, training, and supervising.

In 2017, 55.3% of dispatchers across the United States were female (Data USA 2017). In this same year, approximately 77% of dispatchers in the United State reported to be Caucasian, 12% reported Black, and less than 10% reported other races (Data USA 2017). Also, in 2017, females reportedly earned an average of $37,177.00 a year and men an average of $46,073.00 per year (Data USA 2017). By 2018, the yearly average salary among all dispatchers was $40,660.00 (Bureau of Labor Statistics 2018). The United States Department of Labor also reported that those classified as first responders in the law enforcement field made an average yearly salary of $64,380.00 (Bureau of Labor Statistics 2017), which is a $23,336.00 difference in salary between first responders and dispatchers. This difference includes dispatchers who are classified as clerical/administrative employees as well as dispatchers who are classified as first responders/public safety employees.

Currently, most communication centers classify their dispatchers as clerical or administrative employees, which often entails lower average yearly salaries for these workers. The United Sates Bureau of Labor Statistics defines the duties of a clerical/administrative employee as the following

> Receive complaints from public concerning crimes and police emergencies. Broadcast orders to police radio patrol units in vicinity of complaint to investigate. Operate radio and telephone equipment to receive reports of fires and medical emergencies and relay information or orders to proper officials (Bureau of Labor Statistics 2001).

In March 2017, United States House Representative Norma Torres introduced House Resolution 1629, known as the "Supporting Accurate Views or Emergency Services Act of 2019," or, "9-1-1 SAVES Act" for short (Library of Congress 2019). This bill

proposes reclassifying dispatchers from their clerical and administrative status to a

protective service occupation status. In the bill, Torres writes

> Recognizing the risks associated with exposure to traumatic events, some
> agencies provide Critical Incident Stress Debriefing (CISD) teams to lessen the
> psychological impact and accelerate recovery for Public Safety
> Telecommunicators and first responders, alike (HR 1629 2019).

The goal of the 9-1-1 SAVES Act is to not only reclassify dispatchers to public

safety/first responders, but to give them recognition, an increase in pay, and more access

to benefits that those already classified as first responders have. As a result, several local

agencies across the United States have adopted the changes proposed by this bill.

This act is important because it reframes to the type of work in which emergency

communication personnel are engaged and the effects this work has on individuals

employed. It recognizes that call takers and dispatchers are the first, first responders

(Mann 2016). Within this act is the notion that these personnel experience high demands

emotionally and psychologically while they perform their work duties, but these

experiences have not been recognized as such. In the same way, they have not been

subject to much scholarly attention as other emergency responders or other types of call

takers (e.g., business call centers).

THEORETICAL FRAMEWORK ON EMOTIONAL LABOR

The United States Department of Labor states that,

Dispatchers must stay calm while collecting vital information from callers to
determine the severity of a situation and the location of those who need help.
They then communicate this information to the appropriate first-responder
agencies (Bureau of Labor Statistics 2018).

Dispatchers must manage their emotions according to job requirements in order to get accurate information from their callers, especially if the call is high priority. This can be challenging and cause peritraumatic stress or posttraumatic stress, even if the dispatcher has extensive training. In addition to mental health effects, dispatchers, faced with high levels of emotional labor, may be less satisfied with their jobs, perform poorly (with grave consequences), or resign their positions.

Within the sociology of emotion, researchers distinguish between emotion management, emotion work (private sphere), and emotional labor (workplace). Sociologist Arlie Hochschild introduced the concept of emotional labor in her book, "The Managed Heart" (1983). Emotional labor is generally defined as the act of expressing organizationally desired emotion during the service transactions, and is caused by the difference between the actual emotional state experienced by the employee and the emotional expression required by the organization's emotional expression norms for effective job performance (Lee et al. 2019). As Hochschild explains, emotional labor is managing one's emotions to match the standards and expectations of their place of employment (Hochschild 1983). Many career fields require employees to do at least some emotional labor. Some careers, such as nurses, flight attendants and 9-1-1 dispatchers, however, require a very high amount of emotional labor from their employees. Hochschild (1979:561) defines emotion work as, "act of trying to change in degree or quality an emotion or feeling." This means to work on the emotions wanting to be displayed. Managing one's emotions happens when an individual is aware of their emotions and how they display their emotions based on the social situation (Hochschild 1983).

In addition, Hochschild (1983) distinguishes between surface acting and deep acting. Surface acting is an individual masking, or pretending, to have certain emotions on the outside in order to fit in with the societal norms of their current situation. People surface act through means of tone of voice, word choice, body language, and facial gestures. Deep acting occurs when an individual makes a conscious effort to modify their feelings in order to show the emotions they want to show. Communication, both verbal and non-verbal expressions, are important for emotional labor, and particularly important for call takers and dispatchers who are often advertised in job posts as "communication specialists" (Grandy and Gabriel 2015; Lee et al. 2019). Verbal expression is communicating through voice, language, and tone. Non-verbal expression is communicating without words through gestures, eye contact, or physical touch (Gayathridevi 2013; Grandy and Gabriel 2015; Lee et al. 2019). Dispatchers are not physically on the scene of a call; therefore they must rely on verbal expressions in order to accurately communicate with their callers.

In addition to requiring both surface and deep acting and the use of verbal and non-verbal cues to present appropriate emotions, emotional labor also involves 'feeling rules.' Feeling rules are, "explicit instructions, formulated by management, about which emotions lower-level workers are expected to display in the workplace, a clear illustration of a power imbalance when it comes to emotions" (Benesch 2018:62). A consequence of these feeling rules is experiencing emotional dissonance. Emotional dissonance is, "a feeling of unease that occurs when someone evaluates an emotional experience as a threat to his or her identity" (Jansz and Timmers 2002:84). This can

ultimately lead to emotional exhaustion, burnout, psychological strain, and stress-like responses (Han et al. 2018).

The key component and main reason for emotional labor is the high demand from society for stellar customer service (Gwartney-Gibbs and Lach 1994; Lee et al. 2019). The demand in customer service continues to grow as the competition among service providers increases (Morris and Feldman 1996). Historically, customer service-related careers have primarily been very gendered and classified as clerical and administrative jobs. There is little formal training, apart from general literacy, and few explicit rules about how work should be carried out within organizations. Rather, a good personality (especially if greeting the public), some initiative, and the ability to juggle lots of little tasks at the same time (typing letters, photocopying, telephone answering, directing clients) seem to be the main criteria for getting and keeping a clerical job (Gwartney-Gibbs and Lach 1994). However, emergency communications personnel—most are classified as clerical workers—must be able to effectively perform in these ways while encountering stressful, traumatic calls which require immediate assistance with life or death outcomes.

LITERATURE REVIEW

The questions central to this thesis research intersect in three areas: emotional labor, job satisfaction/stress, and emergency communications. While emotional labor and job satisfaction are areas that have deep and varied scholarship alone and in combination, the research is limited as it directly relates to emergency communications personnel

(dispatchers). In this literature review, I provide a brief overview of the important conclusions of relevant research studies in these areas, but I focus specifically on emotional labor, job satisfaction, and other outcomes (e.g., depression, anxiety, stress, coping) as related to dispatchers.

Job Satisfaction

Job satisfaction is defined as, "an individual's emotional response to his or her current job condition" (Stankovska et al. 2017:160). The emotional response includes, "the amount of favorableness or unfavorableness with which an employee views his/her job. It hence refers to how positive/negative or happy/unhappy an individual is in his/her job" (Ashan et al. 2009; Coetzee et al. 2019:77). One of the earliest studies on job satisfaction is Lawler's 1973 four-fold theory: *The Fulfillment Theory*, *The Discrepancy Theory*, *The Equity Theory*, and *The Two-Factor Theory* (cited in Celik 2011). Each theory focuses on a different component related to job satisfaction including differences in wants, needs, and happiness; perceptions of salary fairness; and reasons for job fulfillment. For example, this theory examines the balance of positives and negatives of the job which result in how satisfied employees are with specific aspects of their jobs such as wages or benefits (Lawler 1973). In 1985, Spector, a psychologist, created the Job Satisfaction Survey (JSS), a 36-item scale, that measured job satisfaction in relation to pay, promotion, supervision, benefits, contingent rewards, operating procedures, coworkers, nature of work, and communication (Spector 1985). Originally created to measure job satisfaction among human service organizations, this survey is now widely used for organizations in both the private and public sector.

People are most satisfied in jobs that offer them acceptable salaries, positive

relationships, a strong organizational climate, limited stress, and opportunities for

promotion (Doyle 2019). According to Doyle (2019) the 15 careers with the highest

reports of job satisfaction include clergymen and clergywomen, chief executives,

chiropractors, conservation scientists, dentists, firefighters, human resources managers,

medical and health services managers, nurses, physical therapists, physicians,

psychologists, software developers, surgeons and teachers. The 10 careers with the lowest

job satisfaction in 2019 include taxi drivers, logging workers, newspaper reporters, retail

salespersons, enlisted military personnel, correctional officers, disc jockeys, nuclear

decontamination technicians, advertising salespersons, and broadcasters (Wilkie 2019).

In recent empirical research, job satisfaction is shown to influence people's

emotions at work and outside of work. Celik (2011:13) writes: "happiness of people in

work life is the same thing with the happiness in social life. Because an employee

returning from work happy, will reflect this happiness to his family, friends and also his

social environment." Other studies add, though, that one of the most important factors of

maintaining maximum job satisfaction and positive emotions is the atmosphere of the

workplace (Sypniewska 2014). Other important factors include stability of employment,

relationships with coworkers, relationships with supervisors, and effective

communication with management (Sypniewska 2014). High turn-over is often an

outcome of low job satisfaction (Flowers and Hughes 1973).

Positive and negative emotions impact job satisfaction; resources impact job satisfaction as well. "Job resources seem to play a motivating role, fostering the learning, growth, and development of employees. Numerous studies have confirmed the more positively employees perceive the organizational climate, the more satisfied they are" (Pecino 2019:3). In addition, organizational climate or, "the shared meaning organizational members attach to the events, policies, practices, and procedures they experience and the behaviors they see being rewarded, supported and expected" (Schneider et al. 2010; Pecino 2019:2), seem to matter for job satisfaction. The organizational climate is specific to each organization (Moslehpour et al. 2018). Factors that influence the organizational climate include, but are not limited to, manager-employee relationships, working conditions, wages, and work allocation (Mafini 2016). Research shows organizations with a positive organizational climate and leadership team positively and significantly influence employee's levels of job satisfaction (Moslehpour et al. 2018).

Emotional labor and job satisfaction

As the service industry and demand for customer service increases, these employees must engage in high amounts of emotional labor (Jeung et al. 2018). Emotional labor can be positive to an extent. However, if there is too much emotional labor required from the employee's organization, it can have negative effects on the employee and the organization (Lee et al. 2019). According to Lee et al. (2019: np), too much emotional labor can lead to emotional exhaustion, which is defined as, "exhausted and depleted emotions due to work and is a chronic response to work stress situations that

are associated with conceptually high levels of human contact (Ryan 1971; Maslach 1982; Mikolajcak et al. 2007; Zhao et al. 2018)." When an employee experiences emotional exhaustion caused by required emotional labor, they often have lower job satisfaction and the organizations often have increased turnover rates (Lee et al. 2019).

Studies of emotional labor have focused on a variety of occupations including flight attendants (Hochschild 1983), teachers (Näring et al. 2006; Kinman et al. 2011), healthcare and social workers (Martínez-Iñigo et al. 2007; Chul-Young Roh 2016;), hotel workers (Chen et al 2012), bank tellers (Zapf 2001), and retail salespersons (Godwyn 2006), to name a few (see also Scott and Barnes 2011; Hsieh et al. 2012; Scott et al. 2012; Matteson et al. 2015; Sharma et al. 2015). While not all of the studies of emotional labor examine job satisfaction specifically, (some examine related outcomes such as burnout, depersonalization, and well-being), among those which do, findings suggest that emotional labor can influence job satisfaction both positively and negatively depending on the type of emotional labor the employee is engaging in. Those who engage in surface acting often experience more burnout and lower job satisfaction (Jin and Guy 2009). Deep acting, on the other hand, often increases employee's job satisfaction while also giving them a sense of pride (Jin and Guy 2009). Deep acting can also enhance an employee's well-being, efficiency, and create a sense of community (Ashforth and Humphry 1993; Shuler and Sypher 2000; Jin and Guy 2009).

Other factors related to job satisfaction

      Anxiety, stress, and burnout can all have an impact on how satisfied employees are in their respected fields. Burnout is defined as, "exhaustion of physical or emotional strength or motivation usually as a result of prolonged stress or frustration" (Merriam-Webster 2020). There are three dimensions of burnout. These dimensions include emotional exhaustion, depersonalization, and personal accomplishment- which was later changed to reduced personal accomplishment (Maslach and Jackson 1981; Myers and Powers 2019). *Emotional exhaustion* is when an employee experiences a lack of physical and emotional energy due to interpersonal interactions with their clients/callers/patients (Bakker 2014; Maslach 2001; Myers and Powers 2019). *Depersonalization* occurs when the employee begins to feel detached emotionally from their jobs and clients/ callers/patients (Bakker 2014; Maslach 2001; Myers and Powers 2019). Lastly, *reduced personal accomplishment* is when an employee experiences feeling of incompetence, or not making any progress in the workplace or with their clients/callers/patients (Cordes and Dougherty 1993; Bakker 2014; Maslach and Jackson 1981; Myers and Powers 2019).

      When trying to understand burnout, researchers often examine the role of anxiety. According to the Mayo Clinic (2018:np) "anxiety is a normal part of life. However, people with anxiety disorders frequently have intense, excessive and persistent worry and fear about everyday situations." Experiencing discomfort and anxiety on a day to day basis within the workplace can not only lead to job burnout but can also lead to depression. Depression is defined as, "a mood disorder that causes a persistent feeling of

sadness and loss of interest" (Mayo Clinic 2018:np). These factors are often the reason for high job turnover (Chen 2019).

A solution many companies integrate for work-related stress and job burnout is an employee assistance program, or EAP. Employee assistance programs are used for employees who seek therapeutic services due to work-related stress. These programs can also be used for general counseling services, help with benefits, and other services based off the company's needs. After a traumatic incident in the public safety field, law enforcement officers, firefighters, and emergency medical services personnel are often required to schedule an appointment with their EAP for debriefing. Dispatchers do not always get this privilege. Communication centers can usually share these services, but it is much harder to get an appointment scheduled to use the EAP (Toulouse et al. 2015).

Job satisfaction and dispatchers

Among emergency communications personnel, when job satisfaction is not high for dispatchers, they experience burnout (Burke 1995). Dispatchers experience job satisfaction when they, "perceive a sense of achievement and accomplishment" (Burke 1995:15) and experience dissatisfaction when, "their present occupation report an uncaring attitude towards the people they serve" (Burke 1995:15). Other factors that impact job satisfaction among dispatchers include agency size, low pay, poor training, high turnover, and inadequate equipment (Simmons et al. 1997; Byrd et al. 2000; Burgess 2005). These factors often subject dispatchers to emotional exhaustion and burnout (Golding et al. 2017).

Many communication centers across the United States are understaffed, putting pressure and stress on the dispatchers who are working in the centers (Berkeley City Auditor 2019). When communication centers are understaffed, the need for mandatory overtime increases. Increased overtime results in fatigue, lowering job performance as well as job satisfaction (Berkeley City Auditor 2019). However, "experts have found that workplace satisfaction reduces the cost of employee turnover and sick leave while increasing performance and productivity" (Berkeley City Auditor 2019:21).

Emotional Labor and Dispatchers

Most 9-1-1 dispatchers represent their city or county's fire department, police department, or emergency medical services department. Through training and department standards and expectations, dispatchers must act in a professional and informative manor when speaking to the public, managing their emotions, stress, and remaining calm while taking calls. These expectations encompass surface acting, which can be difficult in this aspect due to not everyone having the same views on job standards, or callers being uncooperative on an emergent phone call.

Dispatchers are not just responsible for managing their own emotions, they are also responsible for managing their caller's emotions. Tracy and Tracy (1998) write, "One of the most stressful parts of the call-taker job is dealing with the caller's hysteria in high priority cases such as robberies, intruders, suicides and domestic violence" (Tracy and Tracy 1998:396). Within this article, Tracy and Tracy also narrated a 9-1-1 call between a dispatcher and a citizen. The citizen is screaming and cursing towards the dispatcher. The dispatcher is asking the necessary questions but is unable to get accurate

information from the caller. A high stress situation makes it understandable for callers to be in distress on the other end of the phones. However, dispatchers also must answer to rude or degrading callers. No matter who is on the other line of the phone, the dispatcher must try and manage their emotions so they can try and help manage the caller's emotions. The way they do this is by taking control of the call (Morris and Feldman 1996; Shuler and Sypher 2000). To do this, dispatchers often try to speak in a neutral tone of voice and have neutral opinions when on the line with callers in order to "convey dispassionate authority and status" (Morris and Feldman 1996:991; Shuler and Sypher 2000).

Depending on the nature of the call, it can be difficult to not become emotionally invested. It is very common for dispatchers to struggle with emotions such as anxiety, stress, sadness, and irritation (Tracy and Tracy 1998). The strongest emotion felt, according to Tracy and Tracy (1998), is powerlessness. The authors write,

> Powerlessness seems to be a complex combination of guilt, anger, sadness and stress. Because of the separation between call-taking and dispatching rules, the call-takers have little power over the outcome of the calls. They do not know how long it will take the police to arrive at the scene, and only rarely do they learn the final outcome of a call they handle. This "not knowing" leads to experiences of powerlessness (Tracy and Tracy 1998:399).

Feeling powerless can also occur where the dispatcher is unable to gain control over the call and get the accurate information needed for dispatch (Forslund et al. 2004). This feeling of powerlessness is why most communication centers train their dispatchers to disconnect and only show certain emotions, even if that is not truly how they feel.

There are seven main techniques that call-takers are trained to do to manage their emotions and their caller's emotions. These techniques include nonverbal expression, giving the caller advice, changing the priority of the call, self-talk, evaluative talk, joking, and storytelling (Tracy and Tracy 1998). Nonverbal expression usually occurs when the call-taker is upset, irritated, or humored by a caller and cannot verbally express that emotion to the caller due to their communication center's standard operating procedures. Giving the caller advice helps the dispatcher to feel as if they have more control over the call. Changing the priority of a call also allows dispatchers to feel like they have more control over the situation. For example, if a dispatcher feels as though what would normally be an average priority call needs quicker police dispatch, they can make the priority higher. Next, dispatchers may take a moment to think about their emotions and how they should portray their emotions by using self-talk. Evaluative talk is the verbal expression after a call where the dispatcher empathizes or criticizes their caller. Lastly, joking and storytelling occur the most often, and happens so that the dispatchers can emotionally cope in a more positive way (Tracy and Tracy 1998).

Dispatchers face numerous emotions all at once and have different ways to cope with these emotions. In order to do their job correctly, they must have confidence in their emotions and decision making, which can lead to high levels of stress (Forslund et al. 2004). To work through these emotions and stress, dispatchers rely on coping strategies, which "are considered conscious choices to cognitively or behaviorally act in response to a stressful or distressing situation" (Folkman and Lazarus 1980; Allen et al. 2016:688).

One of the most common forms of coping among dispatchers is to use humor and storytelling (Tracy and Tracy 1998).

Dispatcher stress, mental health, and burnout

Pierce and Lilly's (2012) study of dispatcher's experience with stress examined three types of stress: potentially traumatic events and calls, a posttraumatic stress diagnostic scale (PDS), and a peritraumatic distress inventory (PDI). Posttraumatic stress disorder (PTSD) is defined as, "a mental health condition that's triggered by a terrifying event — either experiencing it or witnessing it. Symptoms may include flashbacks, nightmares and severe anxiety, as well as uncontrollable thoughts about the event" (Mayo Clinic 2018). They found that types of 9-1-1 calls (i.e., "worst calls") affected dispatchers' emotions and triggered short term symptoms of trauma and posttraumatic stress. Calls which involved harm to a child and calls that involved police, emergency medical technicians, and firefighters (personal/professional connections), resulted in high level of stress, intense fear, helplessness, and horror. They estimated that in an average of 32% of calls telecommunicators experiences these stressful emotions (Pierce and Lilly 2012). In the extreme, dispatchers may attempt or commit suicide (Pierce and Lilly 2012).

Addiction is also a possibility among dispatchers due to the trauma they are exposed to on the job (Lamplugh 2017). There is minimal research on emergency dispatchers and addiction, but there is extensive research on first responders and addiction. For example, "first responders are at an even greater risk of developing an

alcohol addiction following "critical incidents" such as witnessing death (including the deaths of citizens and fellow personnel)" (Berzrutcyk 2019). Witnessing death over the phone can be traumatic for dispatchers just like witnessing death in person is traumatic for first responders and could potentially lead to addiction for dispatchers.

Dispatch, Emotional Labor and Job Satisfaction

There is limited research specifically on dispatcher's emotional labor and job satisfaction, although several recent theses and dissertations are available online (Tracy and Tracy 1998; Deselms 2016; Turner 2015). Consistent with these recent studies and existing empirical research on emotional labor in general, Shuler and Sypher (2000) argue that dispatchers who struggle in performing and engaging in emotional labor have lower job satisfaction. However, they also argue emotional labor can be positive and positively impact dispatcher's job satisfaction. Shuler and Sypher (2000:52) write, "emotional labor is also intrinsically connected with the best and most rewarding parts of the job." This rewarding aspect of emotional labor is due to dispatchers understanding the emotional labor as comic relief, a fix, or an altruistic service (Shuler and Sypher 2000).

A major contributor to low job satisfaction among emergency dispatchers is lack of control. Golding and colleagues (2017:17) writes, "Operatives' lack of control was exacerbated by excess workloads, role conflict, being monitored, and by a lack of understanding of their role by outsiders." This feeling of lack of control causes increased levels of stress and emotional exhaustion (Golding et al. 2017). Emergency dispatchers are required to manage their emotions in order to be in control of their calls. Dispatchers

must remain calm and collected when interacting with their callers, and often must surface act to portray emotions that will help the call go more smoothly, overtime resulting in burnout and lower job satisfaction (Golding et al. 2017).

Research Questions and Hypotheses

From what I have learned through studying the literature and from my personal experience working in dispatch, I find there are gaps in the literature on emotional labor and job satisfaction among dispatchers. This thesis research aims to help fill that gap by examining the following research questions:

1. How satisfied are dispatchers with their jobs? To what extent are they satisfied with different aspects of the job?

2. To what extent does emotional labor affect job satisfaction?

> Hypothesis 1: There will be a negative correlation between emotional labor and job satisfaction.

3. Do emotions felt at work and emotions not at work affect job satisfaction?

> Hypothesis 2: Those who have negative emotions at work will have more positive emotions when not at work.

> Hypothesis 3: Those who have positive emotions at work will continue to have positive emotions when not at work.

4. What other factors (such as demographics, job indicators, mental health, emotions felt at work and not at work, stress, and coping mechanisms) affect emotional labor and job satisfaction?

Hypothesis 4: High levels of emotional labor engagement will have a negative

correlation with mental health.

Hypothesis 5: On-the-job stress will have a negative correlation with job

satisfaction and mental health.

Hypothesis 6: Those who use coping mechanisms to understand and work

through their emotions and work-related stress will have a positive correlation

with job satisfaction.

METHODOLOGY

Data Sources

To examine my research questions and hypotheses, I conducted an original,

survey online using Qualtrics. My target population was based on anyone 18 years or

older who had previously or currently worked as an emergency communications

dispatcher/telecommunicator. Knowing that the "9-1-1 Saves Act" by Norma Torres has

brought tremendous attention to dispatchers across the United States, I wanted to share

my survey with as many people who wanted to participate as possible. My recruitment

involved two approaches: social media and a gatekeeper at the local police department

where I currently work as a dispatcher.

In the first approach, I relied on groups of dispatchers connected on Facebook,

specifically the "9-1-1 Dispatchers-Headset Heroes," (21,506 members), "9-1-1

Dispatchers United," (over 11,000 members), and, "9-1-1 Dispatchers: Misfits of

Emergency Services," (16,500 members). After an initial poll indicated high levels

interest, I shared a recruitment post along with a link to the online survey.

My next form of recruitment was working with the communications department at

my current place of employment, a city police department in Middle Tennessee. I

scheduled a meeting with the emergency communications director two months before I

distributed my survey to discuss the study. In this meeting, the director gave me

permission to use themselves as a point of contact for communication centers across the

state of Tennessee, as well as the a few locations in surrounding states. The

communications director also wrote a letter of support and agreement to assist with

recruiting various departments to participate in the study.

After receiving approval from the IRB on January 16, 2020 (see Appendix C), I

opened my survey on Qualtrics. No one was compensated for participation, the survey

was completely online, anonymous, and voluntary, and participants could stop the survey

or refuse to respond to any questions without penalty. Then, the communications director

at my current place of employment acted as my gatekeeper and used my recruitment

email and the informed consent to send to a group email to PSAP's who then forwarded

the survey and the information to 23 various departments across the states of Tennessee

and Kentucky. The survey was officially closed as of February 3rd, 2020 with 894

surveys. There were 552 of those that were fully completed surveys.

Variables

      The dependent variable for this analysis was job satisfaction. Job satisfaction was measured in three ways. First, I asked a general question regarding how satisfied respondents felt working in the emergency communications field. The response choices were based of a Likert scale and allowed them to choose anywhere from completely satisfied to extremely dissatisfied. Second, I measured job satisfaction by using an eight-item scale adapted from Spector (1994), modified slightly to correspond to my sample. The scale included items such as satisfaction with relations with co-workers, flexibility of hours, chances for promotion, benefits and recognition. Each of the eight items in the scale were measured from 1-3, with 1 being most satisfied and 3 being least satisfied. Lastly, I combined the general question with the eight-item scale to create a nine-item scale measuring job satisfaction. For all of the scale items, respondents were also given a "decline to answer" option if they did not feel comfortable answering the question. Using listwise deletion of missing cases, the job satisfaction scale had a Cronbach's alpha of .764, which indicates strong reliability. (see Table 2 in Appendix A).

      The independent variables consisted of emotional labor, emotions at work and emotions not at work, anxiety and depression, and coping mechanisms. To measure emotional labor, participants responded to 12 items measured on a 5-point Likert scale from very true (meaning more emotional labor) to very false (less emotional labor). This scale was adapted from scales used by Castor, Curbow and Agnew (2006) who examined emotional labor among nurses and their patients and also among young workers. I modified the language in the scale items to better represent the job of dispatchers. The

scale contained measures of both surface and deep acting. The full scale had strong

internal reliability (Cronbach's alpha=.779). The items from the scale are presented in

Table 3 in Appendix A.

I also asked about the frequency of specific emotions, both while on the job and

off the job (Glomb and Tews 2004). On a 1 to 5 scale, respondents were able to choose

from never experience said emotion (1) to experience said emotion many times a day (5).

Some of these were positive emotions and others were negative emotions. I created four

categories from these measured: positive emotions at work, positive emotions not at

work, negative emotions at work, and negative emotions not at work. The positive

emotions at work and not at work included contentment, happiness, liking, and

enthusiasm (Cronbach's alpha at work =.839; Cronbach's alpha not at work =.872). The

negative emotions at work and not at work included concern, anxiety, irritation, sadness,

disliking, aggravation, fear, distress, hate, and anger (Cronbach's alpha at work =.878;

Cronbach's alpha not at work =.899). All four scales had strong consistency and good

reliability. Chronbach alphas ranged from .840 to .899 (see table 4).

In addition to emotions, I examined self-reported mental health, specifically

anxiety and depression, I used the Hopkins Symptom Checklist, commonly referred to as

the Brief Symptom Inventory (BSI) (Derogatis and Mellisaratos 1983). This checklist

includes a series of 21 questions which ask each respondent the extent to which they

experienced these feeling within the last seven days. Response categories ranged from 1

to 5 scale with 1 being not at all and 5 being extremely. These 21 items were summed to

create a mental health scale (Cronbach's alpha=.923; see Table 5 in Appendix A).

Last, I measured job stress and how dispatchers cope with their emotions such as stress. Job stress was simply measured by asking whether respondents experience stress on the job (no, sometimes, or yes). I then used a 12-item Likert scale adapted from the "COPE Inventory" (Carver 2013) to examine coping strategies. I once again modified questions to better represent dispatchers. This scale asked individuals to choose what they normally do when they experience stress. Example strategies included turn to substitute activities, make jokes/use humor, and sleep. For all of the twelve options, respondents were able to choose from, "I usually do not do this at all" to, "I usually do this a lot."

The control variables I examined were related to respondent demographics as well as job specific measures. This included race, gender, age, job classification, hours per week, shift (first, second, third, and rotating), salary, and time working in the field. Gender and race were both nominal measures while age was measured in actual years. Job classification was also a nominal variable with response options clerical/administrative, public safety/first responder, or other. Hours, salary, and time in the field were measured at the ordinal level. Response options for hours included less than 40 hours per week, 40 hours per week, more than 40 to less than 60 hours, and more than 60 hours per week. Salary was categorized in increments of $10,000 with the highest response option being more than $50,000. Years working in the field included five options: 0-1 year, 1-3 years, 3-5 years, 5-8 years, and more than 8 years.

For descriptive purposes, I also asked respondents questions about staffing, types of calls and average number of calls received, shift responsibilities, along with other

detailed questions about calls and responsibilities; and if they had an employee assistance program available at their department. The importance of these questions was to better understand what goes on in a communications center as well as the existing resources and those needed in communication centers.

Analysis

Descriptive analyses were conducted for all the variables to check for missing cases or outliers, sample distributions, and recoding needs. Next, several types of bivariate analyses were conducted including correlations, one-way analysis of variance, and independent samples t-test Correlations were the appropriate analysis for all of the scales: job satisfaction, emotional labor, positive/negative emotions at work/not at work, and the self-reported mental health scale. ANOVA's and t-tests were appropriate for mean comparisons of these scale variables (job satisfaction, emotional labor, positive/negative emotions at work/not at work, the self-reported mental health scale) and demographic (gender and race) and job-related variables (classification, stress, EAP, salary, and hours/week, years working in the field). Last, a series of OLS regression models were performed. Model 1 regressed demographic and job-related variables on job satisfaction. Model 2 added the measure of self-reported mental health and job stress to the regression along with an indicator for access to an EAP. The final models (Model 3 and 4) incorporated the emotional labor scale and the set of variables related to positive/negative emotions at work/not at work. (shown in Model 3). Model 4 differed from Model 3 by substituting the surface and deep acting scales from the full emotional

labor scale. Listwise deletion of missing cases resulted in 516 total valid and completed cases.

RESULTS

Description of Sample

The majority of the sample (85.9%) was female and Caucasian (94.2%). Only 5.7% were Black or another race. The average age of dispatchers in the sample was 40 years. Age ranged from 18 to over 65 but was normally distributed around the mean. Over half (53.6%) had worked in the emergency communications field for over eight years, 22.7% stated they had been working between three to eight years, and 23.7% less than three years. Almost 90% currently work in the emergency communications field; 10% did so previously. Average annual salary was evenly distributed between the categories with a lower percentage earning between $15,000 and $30,000 than higher salary ranges. Looking at job classification, 61.1% reported that they were classified as clerical/administrative employees, while 33.7% were classified as first responders/public safety and 4.3% were classified as other. The majority of the dispatchers worked between 40 and 60 hours per week, with roughly 10% working over 60 hours each week. They worked a variety of shift, either days or overnight, with about 13% regularly rotating day and night shifts (e.g., 2 on days, 2 off, 2 on nights).

Respondents, who voluntarily named their location, were from across the United States, a few were from Canada, and one was from Australia. In the United States, the states with the highest number of respondents include Tennessee with 47 respondents,

California with 36 respondents, Texas with 35 respondents, and Ohio with 28 respondents.

From the survey, respondents also reported taking a range of call volume each shift. On the lowest end, 13.7% reported taking 0-20 calls per shift while 21.7% reported taking over 80 calls per shift. Over 40% of dispatchers worked in centers either alone or with 1-2 other dispatchers on shift. The larger centers (about 10%) had centers with more than 12 dispatchers on shift. Respondents were responsible for a variety of tasks while on shift. Most reported they answer non-emergency and emergency phone calls, dispatch for police, fire, and emergency medical services radio. They also enter information into various crime databases and perform as communication training officers or supervisors. Over three-quarters of respondents (77.5%) stated they answer emergency/9-1-1 calls, 78.2% answer non-emergency, 70.9% answer administrative and general question calls, and 35.1% reported they answer other types of phone calls as well.

In addition, of the individual types of calls the respondents take on shift, 58.3% of them stated they receive general questions/public related calls, 39.7% stated they receive administrative calls, 58.3% take medical related calls, 48.2% receive property crime related calls, 24.8% receive violent crime related calls, and 52.2% said they receive domestic related calls. Over 75% reported that assault was the most frequently taken violent crime call while over half stated that theft and larceny were the most frequently taken property crime calls on their shift.

Job satisfaction

To the question "How satisfied are you with working as an emergency communications employee?" 80.6% reported they were anywhere from very to slightly satisfied, 7.1% reported they were neither satisfied nor dissatisfied, and 12.4% reported they were anywhere from slightly dissatisfied to extremely dissatisfied. The mean for this item was 1.87 (SD=1.29; range 1-6). Overall, job satisfaction was relatively high among this sample of dispatchers.

Of the specific measures of job satisfaction, respondents reported that they were most satisfied with their relationships with coworkers (63% satisfied), flexibility of hours (63% satisfied), and the benefits from the job (83.5% satisfied). However, 55% of respondents reported they were dissatisfied with their chances for promotion, 57.8% were dissatisfied with the amount of recognition they receive, and 51.6% were dissatisfied with the amount of on-the-job stress they experience. Likewise, 38.9% of respondents reported that they were dissatisfied with the amount of money they earn, whereas only 25.2% of respondents felt dissatisfied with the amount of work required of them while on the job. The relative means for each of these items was also consistent with the percentage distribution. As shown in Table 2 (Appendix A), the lowest scores (most satisfied/least dissatisfied) were benefits, co-workers, and flexibility while the highest scores (least satisfied) were promotion, recognition, and job stress. Combining the overall question and these eight items, the job satisfaction scale ranged from nine (most satisfied) to 30 (least satisfied). The scale's mean was 19.25 (SD=4.13).

Job stress

Of all the respondents, only eight individuals (1%) reported they experienced absolutely no stress while on the job. More common, though, 30.6% of respondents reported they sometimes experienced, and 68.3% of respondents reported they experience stress on the job often.

Respondents were also asked to choose what categories of calls result in their on-the-job stress. This question allowed people to "select all that apply" when choosing different categories of calls that result in stress. The most common calls that result in stress for dispatchers are violent crime calls followed closely by domestic violence calls. The third highest category was medical related calls. Three categories resulted in the relatively lower amounts of stress: administrative, general questions and property crime calls.

Individuals were also asked to "select all that apply" in response to which responsibilities cause on-the-job related stress. The responsibility that produced stress for the majority of dispatchers was answering emergency phone calls (n=449). Dispatching for police radio (n=275) was more stressful in comparison to fire (n=157) and emergency medical radio calls (n=161). Non-emergency phone calls and training responsibilities were stressful for some dispatchers (about half the sample n= 202 responses). The least stressful responsibilities were entering data into local, state, and/or federal databases (n=131) and supervising (n=129).

Emotional labor

Overall, dispatchers' responses to items in the emotional labor scale were quite similar indicating that dispatchers engage in high levels of emotional labor. As shown in Table 3, the overall mean score on the emotional labor scale was 23.25 (SD=6.26; range 12-44). For individual items (scaled 1 to 5), mean scores ranged from 1.26 (handling calls and remaining calm) to 2.62 (acting like nothing bothers them). Almost 81% of respondents felt the statement, "I want my callers to think I am always able to handle things," was very true; only 0.5% felt this statement was somewhat false to very false. Similarly, 76.1% of respondents said it was very true that they want their callers to always think they are calm, while 0.6% felt this statement was somewhat false to very false. When asked "I make an effort to be interested in my callers' concerns," roughly half (45.8%) reported feeling this statement was very true. However, 49.8% still reported this statement to be either mostly true or somewhat true while 4.5% of respondents felt this statement was either somewhat false or very false. In contrast, almost 20% reported the statement "I feel I must act in the ways others believe a person in my field should act" as false. Even still, 30.5% and 53% of respondents reported this statement to be very true or somewhat to mostly true. The statement with highest reports for somewhat false or very false was, "I act like nothing bothers me, even when a caller makes me mad or upset." While approximately 77% of respondents reported feeling this statement was somewhat true to very true, a relatively sizable percentage (22.5%) reported somewhat false or very false.

Respondents were also asked to rate statements regarding not only the callers, but those around them. Approximately 92% of respondents felt it was anywhere from very true to somewhat true that a big part of their job is keeping others happy, while 8% of respondents felt this statement was false. Almost 95% of the respondents felt that in order to give advice or make suggestions they must do so in a polite way. To the statement "When something goes wrong at work, I feel like I should try to make other people feel better," 86% of people felt this statement was somewhat to very true.

In analyzing the specific types of emotion, respondents showed similarities in the frequency of emotions felt whether at work or not at work. For example, those who felt anxiety, sadness, or contentment, felt these generally, at work and not at work. Mean scores for the frequency of these emotions are compared in Table 4. As shown, on the 1 to 5 scale, anxiety was reported at a mean of 2.94 at work and 2.61 not at work; contentment was 3.11 at work and 3.66 not at work. Fear and hate were least common of all fourteen emotions, regardless of whether these emotions were felt at work or away from work. Interestingly, happiness was reported as more frequent when respondents were not at work (3.47 at work and 4.08 outside of work). On balance, respondents experienced positive emotions more frequently than negative emotions; positive emotions more often when not at work than at work; and negative emotions of aggravation, irritation, and frustration when at work compared to not at work. Respondents also report relatively high levels of concern while at work.

Mental health: depression and anxiety

The mean score on the summed mental health checklist was 42.63 (SD=13.73; range 21-93). The most common symptoms included feeling annoyed or irritated, feeling self-conscious, and feeling people cannot be trusted. Over the past seven-day time period, 85.5% of respondents reported feeling easily annoyed or irritated and 83.5% reported feeling that they could not trust most people around them. The highest percentage of respondents who reported "extremely" for any option was 12% who indicated that they felt self-conscious. Roughly 5.4% of respondents reported feeling extremely lonely over the past seven-day period. The lowest percentages for the "extremely" option were respondents having thoughts of ending their life at 0.5% feeling fearful at 0.7%. The mean scores for these items were also the lowest of the mental health indicators ranging from 1.46 to 1.50 (not at all distressed end of scale). Mean scores for all 21 items are presented in Table 5 in Appendix A.

Coping mechanisms

As shown in Table 6, the most common coping mechanisms used by dispatchers to deal with job stress include trying to make the situation more positive, process how to best handle the problem, and accepting the reality of the fact the situation happened (over 90% of respondents reported using these strategies). In fact, the highest mean score among the coping strategies was to make jokes or use humor about the situation. Approximately 91% of respondents reported using jokes or humor about the situation. However, respondents also reported they substitute activities to take their minds off

things. More than 80% of respondents reported they turn to substitute activities to take their minds off things either a little bit, a moderate amount, or a lot.

Only 5.4% of respondents reported that they usually get upset and let their emotions show a lot; 34.3% of respondents reported they do not do this at all. The statement, "I discuss my feelings with other people in my life," had a more even distribution of responses with 15.9% reporting doing this a lot, 21.5% doing this a moderate amount, 37.7% doing this a little bit, and 24.9% not doing this at all. Another statement with a moderately even distribution of responses, on the other hand, was, "I sleep more than usual," with 21.9% of respondents stating they do this a lot, 23% do this a moderate amount, 24.3% do this a little bit, and 30.8% do not do this at all. Over half of respondents reported they never give up on trying to reach their goal, with only 3.4% stating they do this a lot. Approximately 54% of individuals reported expressing their emotions a little bit to a moderate amount, while 5% reported doing this a lot, and 41% stating they never do this. The statement, "I put aside other activities in order to concentrate on this," showed almost identical responses to the statement about expressing emotions. 53% of respondents doing this either a little bit or a moderate amount, 5% reported doing this a lot, and 42% stated they never do this. The last statement was, "I act as though it has not happened," with 6% of respondents reporting doing this a lot, 37% doing this either a little bit or a moderate amount, and 57% not doing this at all.

Another way dispatchers cope with stress at an organizational level is participating in their employee assistance program (EAP). Over 75% of respondents

indicated their workplace had an EAP. However, about 23% of the respondents with an

EAP have used the resource. Of those who have used the EAP, about 60% viewed the

program as effective from them.

Bivariate Analyses

As shown in the correlation matrix in Table 7, the emotional labor scale was not

significantly correlated with job satisfaction, specific emotions, or mental health. Also,

correlations for the emotional labor scale and individual measures of job satisfaction were

not statistically significant (correlations not shown).

Types of emotions experienced by dispatchers were significantly correlated with

job satisfaction and mental health, and these relationships were in the expected directions.

Those who experienced positive emotions (at work and not at work) evidenced a

moderate negative correlation with job satisfaction ($p < .01$), meaning those who report

positive emotions more frequently are more satisfied with their job (lower scale scores).

Negative emotions had the opposite relationship with job satisfaction. Those who

frequently experienced negative emotions were less satisfied with their job (higher scale

scores). The moderately strong positive correlation for negative emotions at work ($r =

.538; p < .01$) is especially interesting in comparison to both positive emotions and

negative emotions away from work and their correlations with job satisfaction. Those

who experienced negative emotions at work were significantly less likely to experience

positive emotions at work ($r = -.244; p < .01$). We can also see from these moderate

positive correlations that dispatchers who tended to experience positive emotions while at

work also experienced positive emotions away from work. A similar correlation in both direction and magnitude was seen for negative emotions at/not at work.

Job satisfaction was also significantly correlated with self-reported mental health ($r = .388; p < .01$). Although the order of the relationship is likely reciprocal, dispatchers who scored higher on the mental health scale (worse outcomes), scored higher on the job satisfaction scale (least satisfied). Mental health scores were also significantly correlated with specific emotions. Negative emotions especially those experience when not at work evidence a strong positive correlation with depression and anxiety reports ($r = .606; p < .01$). Frequency of positive emotions was significantly correlated with mental health, but the correlation was much weaker than negative emotions (e.g., -.2 versus .5).

Although none of the specific measures of job satisfaction were significantly correlated with the emotional labor scale, specific items gauging emotional labor were correlated with job satisfaction. Table 8 presents the significant correlations. As shown by the negative correlations, those least satisfied with their jobs displayed high emotional labor consistent with acting as they should as dispatchers (surface acting). Dispatchers were more satisfied with their job when they were engaged in emotional labor (evidenced by positive correlations) such as keeping a positive mood, appearing calm, dealing with people (callers or co-workers), and making an effort to be interested and concerned about callers. When dispatchers actively worked to display these emotions (deep acting, or genuine emotions), they were more satisfied with their jobs. While statistically significant, most of these correlations were very weak in magnitude. Based on the patterns demonstrated by these correlations, we created two sub-scales measuring

emotional labor. As shown in this same table, the surface 3 items) and deep acting (4 items) scales mirror these findings. More surface acting equated to less job satisfaction while more deep acting was correlated with more job satisfaction. In addition, those who engage in deep acting had more positive emotions and less negative emotions both at work and away from work. This was not the case with surface acting. However, surface acting appeared to have an impact on mental health (worse mental health) while deep acting was correlated with better mental health scores.

In addition, although there was no significant correlation between mental health and the emotional labor scale, specific types of emotional labor were correlated with mental health (correlations not shown). For example, "I have to act the way people think a person in my job should act" showed a significant negative correlation with mental health ($r = -0.120$; $p < .01$). Similar in direction and magnitude, the more dispatchers worked to keep others happy, make others feel better, and thought they were judged by others as more/less caring, mental health scores worsened (lower mental health scores=less emotional labor). In contrast, significant positive correlations between mental health and emotional labor were evident for other items such as trying to stay in a positive mood in the workplace, acting like nothing bothers dispatchers, even when a caller makes them mad or upset, wanting their callers to think they are always calm, learning how to deal with others, and making an effort to be interested in the callers' concerns. All of these correlations were statistically significant but were relatively weak ranging from .092 to .134. The significance, direction and magnitude of the correlations

resembled a pattern similar to that of job satisfaction and these measures of emotional labor.

Additional bivariate analyses: demographics and job-related variables

As shown in Table 9, women were significantly more likely to experience positive emotions (at work and not at work) than were men. However, no differences based on race or ethnicity that were meaningful were identified. The number of cases in races other than White were too small (7 cases).

Significant mean differences in emotional labor and positive emotions at work were found for years in field and salary. Those who had worked longer in the field (5-8 years and > 8 years) and those with salaries over $50,000 had significantly higher scores on emotional labor and significantly lower scores on positive emotions at work than those with less experience and lower salaries. This means that more experienced dispatchers engage in less emotional labor and report positive emotions at work less frequently. Dispatchers who had access to an Employee Assistance Program had higher mean scores on emotional labor, meaning they were more less to engage in emotional labor, compared to those without access to an EAP. These were the only variables significantly associated with emotional labor. None of these variables were significantly associated with job satisfaction.

Job classification, hours worked per week, and job stress were significantly associated with job satisfaction. Dispatchers classified as clerical workers as opposed to public safety were less satisfied with their job (evidenced by higher scale scores). These

dispatchers also reported significantly greater frequency of negative emotions at work compared to dispatchers classified as public safety. Likewise, dispatchers who worked more hours each week, especially those working 60+ hours were less satisfied with their job, and they experienced less positive/more negative emotions while at work. Dispatchers who reported experiencing job stress more than just sometimes were less satisfied with their job, experienced positive emotions at work less frequently, negative emotions at work more frequently, and interestingly, negative emotions away from work more frequently and higher reports of mental health distress. All of these mean differences were statistically significant. Overall, job stress was the best predictor of job satisfaction, specific emotions at/not at work, and mental health, but not of emotional labor.

Regression Analysis

Results from the series of OLS Regression models are shown in Table 10. Model 1 examined control variables of age and gender along with job-related measure of classification (public safety), hours/week (>60), years in field (>5 and > 8). Salary and years in field operated exactly the same in the models and were therefore redundant. We focused instead on experience overall and weekly hours. Age was a significant predictor of job satisfaction. A one unit increase in age (1 year) decreased the job satisfaction scale score by .071 (p < .01), meaning job satisfaction was greater among older compared to younger dispatchers. Both years of experience and hours per week were significant positive predictors of job satisfaction. Dispatchers who worked longer hours each week

and who had more years of experience in the field of dispatch reported lower job satisfaction. The strongest predictor of job satisfaction in Model 1 was job classification. Related to dissatisfaction with recognition and promotion, clerical/administrative employees were significantly more dissatisfied with their job than public safety employees (b=-2.079; p < .001).

Model 2 incorporated the self-reported mental health scale, job stress, and EAP. Age, years, and hours were accounted for in this model and no longer statistically significant predictors of job satisfaction. EAP were also not a significant predictor. Job classification remained a strong predictor of job satisfaction in this model, although the effect was attenuated slightly. Both mental health and job stress evidenced significant positive relationships with job satisfaction. As job satisfaction scores increased (more dissatisfied), the presence of mental health issues and stress increased.

Full models are shown in Models 3 and 4, which differed only in the comparison of the overall Emotional Labor Scale, and two sub-scales of surface acting and deep acting. Both models included the frequency scales for positive and negative emotions at work/not at work. In both models, job stress was accounted for by the emotion measures. Job classification and mental health remained significant predictors of job satisfaction and operated the same in both models. Job satisfaction was significantly related to positive and negative emotions at work as well as negative emotions experiences when not at work. Consistent with the bivariate analyses, job satisfaction is correlated with positive emotions at work as well as negative emotions whether at work/not at work. In Model 3, the emotional labor scale which include all 12 items measuring emotional labor

was not statistically significant and evidenced no relationship with job satisfaction. However, in Model 4, as all other predictors remained the same, both surface acting and deep acting forms of emotional labor were significant predictors of job satisfaction. Each operated differently: surface acting moved in the opposite direction as job satisfaction, but job satisfaction and deep acting together. Dispatchers who engaged in more surface acting were less satisfied with their job while those who engaged in deep acting (or genuine emotions) were more satisfied. As the bivariate correlations indicated, separating these measures of emotional labor, informed the analysis more so than the overall emotional labor scale. Different types of emotional labor matter for job satisfaction among dispatchers (and mental health as well). The fully specified regression model (Model 4) produced an adjusted R square of .42.

Coping Strategies, Emotional Labor and Job Satisfaction

The findings from the bivariate and regression models are further explained by examining how dispatchers cope with job stress. The idea is that it is not the stress or amount of stress, or the levels of emotional labor required, but the perception of and response to these job requirements that makes a difference. Table 11 summaries the findings from a series of bivariate correlations between specific coping strategies (positive and negative), emotional labor, and job satisfaction. It is evident from these analyses that a constellation of factors had an impact on dispatcher job satisfaction. Clear patterns were discernable. Dispatchers who engaged in problem-solving, accepted realities, talked to someone, and put forth a positive perspective had more satisfaction in

their job. They also engaged in more deep acting. In comparison, dispatchers with lower

levels of job satisfaction seemed to rely on coping strategies in response to surface acting

demands on them. These included expressing both negative emotions (being upset and

giving up) and joking/humor. They also slept more, ignored stress, or denied experiences

with stress. As a result, they were less satisfied with their job.

DISCUSSION

Overall, as seen from the results, my initial hypothesis was that dispatchers would

have lower job satisfaction due to high levels of emotional labor. Initially the hypothesis

found no support. Dispatchers scored extremely high on each emotional labor scale item

to the point where there was minimal variation to have any correlation with the other

variables. However, when breaking down the emotional labor scale into sub-scales of

surface acting statements and deep acting statements, there was a significant association

between emotional labor and job satisfaction, supporting hypothesis 1. Results showed

that dispatchers who engaged in more surface acting on the job have lower overall job

satisfaction. Dispatchers who engaged in deep acting on the job were more satisfied with

their jobs. These findings are consistent with Jin and Guy's (2009) study on emotional

labor influencing workers pride, job satisfaction, and job burnout.

In analyzing specific emotions, I had originally predicted that those who had more

negative emotions at work would have more positive emotions outside of work.

Respondents who reported high negative emotions at work also reported similar amounts

of negative emotions while not at work. The same correlation goes for those who experience positive emotions at work- they also experience more positive emotions outside of work. Those who reported having more negative emotions at work had a positive significant correlation with job satisfaction, showing they were less satisfied with various aspects of their jobs. Those who reported having more positive emotions at work had a negative significant correlation with job satisfaction, showing they were more satisfied with the various aspects of their jobs.

Work-related stress can result in a negative organizational climate as well as emotional exhaustion for the employees, ultimately lowering levels of job satisfaction (Ryan 1971; Maslach 1982; Mikolajcak et al. 2007; Zhao et al. 2018; Lee et al. 2019). Respondents who reported high levels of on-the-job stress in this study also reported having less job satisfaction. This stress also resulted in respondents having fewer positive emotions in the workplace as well as poor mental health. Stress also appeared to be a result based on what dispatchers do on the job. For example, dispatchers reported answered emergency 9-1-1 phone calls causing them stress.

Previous literature shows that using joking and humor is extremely common for coping with stress (Tracy and Tracy 1998). I had predicted this would be the case for dispatchers, and the data supports that prediction. Coping using humor was associated with the surface acting statements and more job dissatisfaction among those use this form of coping. It may be that dispatchers use of jokes/humor is another form of surface acting as they deal with job stress and other forms of emotional labor (with callers). However,

findings also showed that looking for other things to keep respondents minds busy was a very common way of coping or simply avoiding the stress. For example, turning to substitute activities, using humor and joking, and trying to find a way to make the situation more positive all had higher scores than giving up, being upset, venting negative emotions. Knowing from personal experience and previous research the turnover rates in dispatch, I was surprised to find that over half of the respondents reported giving up on their goals due to stress from work (Rouan 2018). Many of the respondents reported they cope with their stress by discussing their feelings with their coworkers or peers, and work to find a way to best sort through the problem they are faced with. These forms of coping were associated with deep acting and resulted in respondents having higher job satisfaction.

A resource many communication centers across the United States have for coping with on-the-job stress is an employee assistance program (EAP). Out of the completed surveys, 75% of dispatchers stated they have access to an EAP. However, less than 25% of those individuals stated that they use the EAP. Literature shows that employees in communication centers with access to EAPs often have a difficult time trying to schedule an appointment to use the services due to the EAP's main focus being on law enforcement officers, firefighters, and emergency medical technicians needs (Toulouse et al. 2015). However, I did find that those who reported having access to an employee assistance program showed having stronger mental health and less engagement in emotional labor. A recommendation for future researchers would be to interview the

dispatchers who have access and use their EAPs to see how it assists them in coping and managing their emotions.

Overall, dispatchers claimed to be satisfied with their jobs, but when looking at specific parts of the job, people were not nearly as satisfied. Dispatchers showed to be the most satisfied with the relationships they have with their coworkers, amount of work required of them, and the benefits from the job. The number of hours dispatchers worked showed a significant correlation with job satisfaction, as well as time in the field, salary, and job classification. Working over 60 hours a week and working in the field for longer than five years were more dissatisfied than those working less.

However, the most interesting to me and the strongest predictor of job satisfaction reported was job classification. Those who stated they were classified as public safety, or first responders had drastically higher levels of job satisfaction opposed to those classified as clerical or administrative employees. Knowing that classification relates to dissatisfaction with lack of recognition, chances for promotion, salary, and access to resources, is not surprising given the 9-1-1 Saves Act. More than half of the dispatchers reported that they are classified as either a clerical or administrative employee. However, almost 100% of respondents reported they felt that dispatchers should all be classified as either public safety or first responder employees rather than clerical/administrative.

A curiosity I have is how different communication centers function depending on if they are classified as clerical/administrative or public safety/first responders. The "9-1-1 Saves Act" is being passed in various state legislatures and local governments across

the country. This is a huge step in recognizing dispatchers for the work they do. However, it is unknown how this policy is being implemented in different communication centers. It might take some centers longer to increase their salaries for their employees, or maybe only emergency medical services dispatchers are being recognized in some areas and not police dispatchers. It is possible that call volume could result in some communication centers not being reclassified to public safety/first responders, or it could depend on if the dispatcher is a full-time or part-time employee. The possibilities of what affects this bill already has and will have are endless and are going to vary from city to city and state to state. The findings from this study, though, indicate that this Act, the effects of reclassification, can influence job satisfaction among dispatchers.

Going into this study solely from my own personal experience and through research (Gwartney-Gibbs and Lach 1994), I knew dispatch was a gendered field. That the majority of dispatchers to take the survey would be Caucasian women in their 30s-50s was supported. In fact, 94% of respondents reported to be Caucasian, 86% female, and averaged at forty years of age. These findings warrant questions as to why this field so extremely gendered? Is it because of the clerical/administrative classification, or is there an underlying social problem in the emergency communications field? Even if this is the case, why are women and men equally satisfied with their jobs?

Limitations

Though I ended up with a large sample of dispatchers from all over the United States, the sample ultimately is still a convenience sample and will not fully generalize to the total population of dispatchers. Due to the survey being shared via Facebook, it is also possible that a snowball effect could have influenced the data. For instance, previous literature and data show a normal distribution of male and female dispatch employees (Data USA 2017). However, almost 86% of my respondents reported to be female. This could have been due to women in the Facebook groups sharing with other women dispatchers. Another limitation is with survey being completely online, many dispatch centers might not have allowed access to Qualtrics for everyone to complete the survey.

A major limitation I faced was deciding which questions were the most important to ask. My goal was to get as much information as possible that showed a need for sociological research among dispatchers. Because of this, I was unable to ask all the questions I wanted to ask. For example, I did not ask about addiction in the coping scale because I felt that would have done better in a qualitative study. I also could have changed some of the questions in the survey to better represent the dispatchers. An example of this is my question regarding which shift each respondent works. Instead of creating choices for dispatchers to choose from, I had them type out which shift they work. This added extra time when trying to interpret the data through SPSS.

Contributions

There is limited sociological research about emergency communications dispatchers. There is even more limited sociological research on emotional labor in the

emergency communications field and how it relates to job satisfaction, even though dispatching is a crucial position, and society holds very high expectations for dispatchers. The intention of this study was to better understand how satisfied dispatchers are working in the emergency communications field and if emotional labor has a positive or negative affect on their job satisfaction. However, the ultimate goal of this thesis was to simply address the sociological need for research on this field. This study is important because even though it had its limitations, it has created a baseline for the start of extensive sociological research in the emergency communications field.

My recommendation is for sociologists to take this information and dive deeper, adding to the sociological framework about emergency communications. Taking a qualitative approach in future research would allow for a deeper, more rich understanding of the emotional labor dispatchers do. I took the quantitative approach in hopes of having a large sample size to show the need for sociological research in this field. Though this survey has provided mass data regarding emergency communications, it is important for future researchers to have that personal interaction to really study the field and the people working in the field. Another study that could be done is an observation field study-actually sitting in with a dispatcher and listening to the calls that come in, observing how radio traffic operates, and seeing the ins and outs of computer aided dispatch and the crime databases. This alone would provide important information about the emotional labor involved with dispatching.

The information I gathered suggests that emotional labor measures extremely high among dispatchers. Dispatchers experience stress, anxiety and depression in their line of work. They work to manage their emotions and cope with their stress on the job and off the job. The emotions these dispatchers experience on the job are often heightened when they are off the job. While respondents were overall satisfied with their jobs, each of these key independent variables, except for emotional labor, influenced specific parts of the job satisfaction they felt. Something that I did not specifically measure in this study was job burnout. It is possible that dispatchers who have worked in the field longer are experiencing job burnout, which could impact the amount of emotional labor dispatchers engage in. Burnout could also be a strong predictor of job satisfaction among dispatchers. The next step is to continue doing sociological research on why dispatchers have such high emotional labor and the ways it can and cannot predict job satisfaction including specific aspects of emotional labor such as surface acting and deep acting.

CONCLUSION

In conclusion, this study found that overall, dispatchers appear to be mostly satisfied with their jobs. It is aspects of the job such as long hours, on-the-job stress, chances for promotion, and amount of recognition received that dispatchers are the most dissatisfied. Regardless of how satisfied they are with their jobs, dispatchers reported engaging in high levels of emotional labor. Although there was not a significant correlation between the emotional labor scale and job satisfaction, there were significant differences in surface acting and job satisfaction and deep acting and job satisfaction. I

found that dispatchers who use surface acting on the job have less job satisfaction, while those who use deep acting on the job have more job satisfaction.

Similarly, for dispatchers who reported experiencing negative emotions at work and carrying those same negative emotions outside of work, were least satisfied with their job and reported worse mental health scores. However, the dispatchers who reported experiencing positive emotions at work did report experiencing those same positive emotions outside of work. This relationship was also significantly related to job satisfaction.

Looking at the correlation between mental health and job satisfaction showed that dispatchers who were more satisfied with their jobs were mentally healthy. Having an employee assistance program also influenced mental health, showing those who had access to an EAP had stronger mental health. While dispatchers used a variety of coping mechanism, more positive approaches were significantly related to job satisfaction, less job stress, and specific types of emotional labor. The survey also showed that even though many dispatchers have access to an employee assistance program, many of them do not use it.

Overall, this survey has given insight into the emergency communications field and how it relates to job satisfaction and emotional labor. There is room for improvement and further studies on the subject. 9-1-1 dispatching is an important, necessary, and lifesaving job. This study has shown much of what goes on in emergency communications—a constellation of different types of emotional labor, experienced

emotions, stress, and coping strategies—and why there is a need for further sociological

research.

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APPENDICES

APPENDIX A – TABLES

Table 1. Description of Emergency Communications Sample (N=552)

	Percent or Mean (SD)/Range
Gender	
Female	84.9%
Age (years)	40 (11.56)/18-65+ years
Race	
White	94.9%
Education	
H.S. or GED only	38.6%
College Degree (2 year)	12.1%
College Degree (4 year)	15.0%
Graduate Degree	3.0%
Other (e.g., H.S. and technical training)	38.3%
Military	2.6%
Average Annual Salary	
Between $15,000 and $29,999	10.9%
Between $30,000 and $39,999	23.4%
Between $40,000 and $49,999	26.2%
More than $50,000	37.6%
Years Working in the Field	
0-1 year	6.5%
1-3 years	17.2%
3-5 years	12.7%
5-8 years	10.0%
> 8 years	53.6%
Job Classification	
Clerical/Administrative	61.6%
Public Safety/First Responder	34.0%
Hours/Week	
< 40 hours	8.1%
40 hours	36.2%
>40 and <60 hours	47.2%
>60 hours	9.6%
Shift	
Days (1st)	35.6%
Midday/Evening (2nd)	16.8%
Midnight (3rd)	34.1%
Rotating	13.2%
Job Stress	
No	1.1%
Sometimes	30.6%
Yes	68.3%
Employee Assistance Program (% yes)	75.7%
Use EAP (% yes)	23.3%
EAP Helpful (% yes)	60.0%

Table 2. Job Satisfaction Scale Distribution and Mean Scores Reported by Dispatcher (N=552)

Job Satisfaction	Mean (SD)/ Range	
Overall satisfaction	1.87 (1.29) / 1-6	
Benefits	1.82 (0.69) / 1-3	▲
Relationship with coworkers	1.84 (0.64) / 1-3	Satisfied
Number of hours required of you	1.97 (0.73) / 1-3	
Flexibility of hours	2.18 (0.73) / 1-3	
Amount of money earned	2.19 (0.74) / 1-3	
Chances for promotion	2.39 (0.75) / 1-3	
Amount of on-the-job stress	2.46 (0.59) / 1-3	Dissatisfied
Recognition you receive	2.48 (0.66) / 1-3	▼
Job Satisfaction Scale (9 items)	19.25 (4.13) / 9-30	

Cronbach's alpha=.764

Scale 1-6: 1=Very Satisfied, 6=Extremely Dissatisfied

Scale 1-3: 1= Most Satisfied, 3= Least Satisfied (Higher scores=less satisfied)

Table 3. Emotional Labor Items and Scales Reported by Dispatchers (N=552)

Emotional Labor	Mean (SD) / Range	
I want my callers to think I am always able to handle things	1.26 (0.587)	▲
I want my callers to think I am always calm[a]	1.29 (0.574)	More
Part of the training for this job requires learning how to deal with people[a]	1.47 (0.914)	
I make an effort to be interested in my callers' concerns[a]	1.79 (0.885)	
I work hard to keep myself in a positive mood at work[a]	1.87 (0.910)	
To give advice, I have to make sure I say it in a positive way	1.88 (0.941)	
To make suggestions, I make sure I make them in a polite way	1.94 (0.904)	
[a]Deep Acting Scale (4 items)	6.61 (2.42) / 3-15	
A big part of my job is keeping others happy[b]	2.02 (1.039)	
When something goes wrong at work, I feel like I should try to make other people feel better[b]	2.26 (1.129)	
I have to act the way people think a person in my job should act[b]	2.34 (1.196)	
People judge me by how caring I am	2.54 (1.183)	Less
I act like nothing bothers me, even when a caller makes me mad or upset*	2.62 (1.118)	▼
[b]Surface Acting Scale (3 items)	6.42 (2.21) / 4-14	
Emotional Labor Scale (12 items) *Cronbach's alpha = .779*	23.25 (6.26) / 12-44	

*12 items each measured on scale 1-5: 1= Very true, 5= Not true at all (Lower scores=more emotional labor)

Table 4. Types of Emotions Experienced by Dispatchers (N=552)

How often do you experience these emotions while…?*	At Work	Not at Work
	Mean (SD) / Range	**Mean (SD) / Range**
(Positive Emotions)		
Contentment	3.11 (1.307)	3.66 (1.196)
Happiness	3.47 (1.163)	4.08 (1.029)
Enthusiasm	3.09 (1.190)	3.53 (1.131)
Liking	3.44 (1.117)	3.95 (1.035)
(Negative Emotions)		
Anxiety	2.94 (1.217)	2.61 (1.205)
Distress	2.45 (1.154)	2.09 (0.942)
Anger	2.73 (1.157)	2.32 (0.900)
Irritation	3.75 (1.050)	2.73 (0.957)
Sadness	2.34 (0.916)	2.36 (0.906)
Concern	3.36 (1.150)	2.68 (1.060)
Disliking	3.15 (1.284)	2.20 (0.936)
Aggravation	3.52 (1.154)	2.61 (0.983)
Hate	1.89 (1.149)	1.74 (0.840)
Fear	1.87 (0.991)	1.81 (0.939)
Positive Emotions Scale (4 items) *Cronbach's alpha at work =.839* *Cronbach's alpha not at work =.872*	13.11 (3.83) / 4-20	15.24 (3.73) / 5-20
Negative Emotions Scale (10 items) *Cronbach's alpha at work =.878* *Cronbach's alpha not at work =.899*	28.08 (7.78) / 12-50	23.08 (7.05) 10-47

*Measured on Scale 1-5: 1=Never, 5= Many times a day

Table 5. Dispatcher's Self-Reported Mental Health Indicators for Anxiety and Depression (n=552)

During the past 7 days, how much were you distressed by …?*	Mean (SD) / Range
Feeling afraid in open spaces	1.46 (0.90)
Having thoughts of ending your life	1.16 (0.52)
Suddenly feeling scared for no reason	1.47 (0.83)
Feeling fearful	1.48 (0.81)
Thoughts of death or dying	1.50 (0.83)
Feeling of worthlessness	1.89 (1.15)
Feeling others are to blame for your troubles	1.74 (0.97)
Feeling hopeless about the future	1.87 (1.10)
Feeling of guilt	1.84 (1.03)
Difficulty in making decisions	1.99 (1.08)
Feeling no interest in things	2.30 (1.19)
Feeling lonely	2.31 (1.19)
Having to check and double check your work	2.31 (1.15)
Feeling blue	2.29 (1.06)
Having trouble concentrating	2.37 (1.09)
Your mind going blank	2.41 (1.08)
Feeling that most people cannot be trusted	2.70 (1.23)
Feeling self-conscious	2.77 (1.24)
Feeling easily annoyed or irritated	2.82 (1.06)
Mental Health Scale (21 items)	42.63 (13.73) /
Cronbach's alpha = .923	21-93

*21 items measured on Scale 1-5: 1= Not at all, 5=Extremely

Table 6. Coping Mechanisms Used by Dispatchers when they Experience Stress (n=552)

Choose what you usually do when you experience stress:*	Mean (SD)
I act as though it has not happened	1.67 (0.904)
I just give up trying to reach my goal	1.60 (0.779)
I put aside other activities in order to concentrate on this	1.83 (0.858)
I feel a lot of emotional distress and I find myself expressing those feelings a lot	1.85 (0.873)
I get upset and let my emotions show	1.92 (0.841)
I sleep more than usual	2.36 (1.135)
I discuss my feelings with other people in my life	2.28 (1.010)
I try to see it in a different light, to make it seem more positive	2.51 (0.908)
I turn to substitute activities to take my mind off things	2.61 (0.959)
I think about how I might best handle the problem	2.84 (0.888)
I accept the reality of the fact that it happened	2.99 (0.902)
I make jokes/use humor about the situation	3.07 (1.027)

*Items measured on 1 to 4 Scale: 1= I usually do not do this, 4= I usually do this a lot

Table 7: Bivariate Correlations for Job Satisfaction, Emotional Labor, and Mental Health

	1.	2.	3.	4.	5.	6.
1. Job Satisfaction Scale						
2. Emotional Labor Scale	.003					
3. Positive Emotions (at work)	-.388**	-.037				
4. Negative Emotions (at work)	.538**	.079	-.244**			
5. Negative Emotions (not at work)	.238**	.007	-.051	.552**		
6. Positive Emotions (not at work)	-.134**	-.003	.530**	-.089*	-.281**	
7. Mental Health Scale	.388**	-.048	-.202**	.543**	.606**	-.264**

Note: higher values on job satisfaction scale indicate dissatisfaction (worse outcomes).

Lower values on emotional labor indicate more emotional labor.

*$p < .05$; ** $p < .01$

Table 8: Significant Bivariate Correlations among Job Satisfaction Scale and Specific Measures of Emotional Labor

	Pearson r
Least satisfied with job:	
A big part of my job is keeping others happy	-.095*
When something goes wrong at work, I feel like I should try to make other people feel better	-.089*
I have to act the way people think a person in my job should act	-.166***
Surface Acting Scale	-.165***
Most satisfied with job:	
I work hard to keep myself in a positive mood at work	.206***
I want my callers to think I am always calm	.091*
Part of the training for this job requires learning how to deal with people	.152***
I make an effort to be interested in my callers' concerns	.162***
Deep Acting Scale	.233***

Note: higher values on job satisfaction scale indicate dissatisfaction (worse outcomes); lower values on emotional labor indicate more emotional labor.

*$p < .05$; *** $p < .001$

Table 9: Results of Bivariate Analyses for Selected Variables (Mean scores and statistical significance reported)

	Job Satisfaction Scale	Emotional Labor Scale	Positive Emotions (at Work)	Negative Emotions (at work)	Positive Emotions (not at work)	Negative Emotions (not at work)	Mental Health Scale
Gender							
Male	19.29	23.23	11.99	27.25	13.87	22.53	40.07
Female	19.24	23.25	13.33	28.17	15.50	23.15	42.97
			$t =$ -2.837**		$t =$ -3.59***		
Years Working in the Field							
0-1 year	18.21	22.22	14.58	26.76	15.63	25.24	45.73
1-3 years	19.46	21.41	13.53	27.49	15.36	23.13	43.94
3-5 years	19.17	22.93	14.09	27.25	15.62	22.01	41.81
5-8 years	19.59	23.56	12.64	28.38	15.53	23.57	44.68
> 8 years	19.25	23.96	12.73	28.48	15.07	22.95	41.54
		$F =$ 3.232*	$F =$ 3.471**				
Average Annual Salary							
$15K to <$30K	19.50	22.48	13.64	27.94	15.09	22.90	43.75
$30K to <$40K	19.15	22.62	13.91	27.95	15.57	23.51	45.52
$40K to <$50	19.57	22.94	13.19	28.11	15.51	23.12	41.83
> $50K	19.28	24.11	12.53	28.13	14.99	22.84	40.88
	$F = 2.113$	$F = 3.757*$					$F =$ 3.283*
Job Classification							
Clerical	19.79	23.33	13.15	28.76	15.48	23.07	42.89
Public Safety	18.18	23.07	13.03	26.61	14.88	22.86	42.49
	$t =$ 4.150***			$t =$ 2.921**			
Hours/Week							
<40	17.74	21.68	14.41	25.80	15.73	23.69	40.63
40	18.26	23.57	13.35	26.92	15.46	22.34	39.73
>40 and <60	20.06	23.40	12.97	28.77	14.38	23.34	44.43
>60	19.95	22.39	11.98	30.57	15.25	23.70	46.43
	$F =$ 9.163***		$F =$ 3.345*	$F =$ 4.864**			$F =$ 5.614***
Job Stress							
No	17.20	23.50	14.20	17.60	17.00	14.33	26.50
Sometimes	17.38	23.46	14.22	23.37	15.54	20.89	37.37
Yes	20.07	23.15	12.65	30.17	15.09	24.12	45.05
	$F =$ 25.34***		$F =$ 9.512***	$F =$ 55.367***		$F =$ 17.43***	$F =$ 23.094***
EAP							
Yes	19.04	23.71	12.95	27.95	15.13	23.00	41.66
No	19.58	21.77	13.24	28.24	15.49	23.32	45.50
		$t =$ 2.801**					$t = -$ 2.57**

*$p < .05$; **$p < .01$; ***$p < .001$

Table 10: Results of Multivariate OLS Regression Models Predicting Job Satisfaction (*B* (SE) repored)

	Model 1	Model 2	Model 3	Model 4
Age (years)	-.071 **	-.029	-.025	-.022
	(.023)	(.022)	(.020)	(.019)
Gender (male=1)	-.353	.226	-.241	-.318
	(.562)	(.519)	(.473)	(.463)
Years in Field (<5 years reference)				
5-8 years	.546	-.080	-.454	-.601
	(.750)	(.691)	(.620)	(.606)
>8 years	1.323	.806	.087	.045
	(.540) *	(.500)	(.457)	(.442)
Public safety/1st Responder=1	-2.079 ***	-1.781 ***	-1.556 ***	-1.531 ***
	(.425)	(.393)	(.356)	(.347)
>60 hours/week (reference <60 hours)	1.626 *	.843	.019	.104
	(.716)	(.662)	(.595)	(.585)
Job Stress (Yes=1)		1.633 ***	.746	.629
		(.426)	(.395)	(.387)
Mental Health Scale		.093 ***	.045 **	.083 *
		(.014)	(.016)	(.016)
EAP (yes=1)		-.472	-.548	-.490
		(.441)	(.402)	(.390)
Positive Emotions at work			-.338 ***	-.325 ***
			(.056)	(.055)
Negative Emotions at work			.198 ***	.186 ***
			(.030)	(.030)
Positive Emotions not at work			.080	.096
			(.058)	(.056)
Negative Emotions not at work			-.075 *	-.072 *
			(.033)	(.032)
Emotional Labor Scale			.001	
			(.026)	
Surface Acting Scale				-.224 **
				(.074)
Deep Acting Scale				.256 **
				(.082)
(Constant)	21.934 ***	15.675 ***	18.025 ***	18.012 ***
	(.803)	(1.146)	(1.666)	(1.598)
Adjusted R^2	.08	.23	.40	.42

Table 11: Relationship of Coping Strategies to Job Satisfaction and Emotional Labor

Choose what you usually do when you experience stress:*
Least Satisfied with Job, More Surface Acting/Less Deep Acting, Stress
I act as though it has not happened (denial)
I just give up trying to reach my goal (defeat)
I put aside other activities in order to concentrate on this (obsess)
I feel a lot of emotional distress and I find myself expressing those feelings a lot (express feelings)
I get upset and let my emotions show (express feelings)
I sleep more than usual (sleep)
I make jokes/use humor about the situation (humor)
I turn to substitute activities to take my mind off things (ignore)
Most Satisfied with Job, More Deep Acting/Less Surface Acting, Less Stress
I discuss my feelings with other people in my life (talk to someone)
I try to see it in a different light, to make it seem more positive (perspective)
I think about how I might best handle the problem (solve)
I accept the reality of the fact that it happened (accept)

*Items measured on 1 to 4 Scale: 1= I usually do not do this, 4= I usually do this a lot

APPENDIX B – SURVEY INSTRUMENT

Emergency Communications: A Survey on Emotional Labor

Emergency Communications: A Survey on Emotional Labor
Informed Consent
Primary Investigator- Katherine L Rowe: Department of Sociology and Anthropology
Faculty Advisor- Dr. Meredith Dye: Department of Sociology and Anthropology
Protocol ID: 20-2089

We are interested in understanding the effects of emotional labor among emergency communications personnel. You will be presented with information relevant to emergency communications and asked to answer some questions about it. This research project is designed to study the effects of emotional labor among dispatchers. The project specifically examines self-reported depression, anxiety, job stress, and job satisfaction as related to emotional labor of dispatchers as well as the ways dispatchers manage emotions and stress on/off the job. A self-report, online survey is used to collect this information. The survey is voluntary and anonymous.

 The study should take you around 20-30 minutes to complete depending on your responses.☐☐ Your participation in this research is voluntary. You have the right to withdraw at any point during the study, for any reason, and without any prejudice. If you would like to contact the Principal Investigator in the study to discuss this research, please e-mail Katherine Rowe at klr5t@mtmail.mtsu.edu, or contact the faculty advisor Dr. Meredith Dye at meredith.dye@mtsu.edu or at (615)-898-2690. You can also contact the MTSU Office of Compliance at compliance@mtsu.edu or at (615)-494-8918].☐

 There is no compensation for participating in this survey. However, your responses will be used in a graduate research study looking at the positive and negative effects of emotional labor among emergency communications personnel. Your responses will be beneficial to current and future research about dispatchers. There are minimal to no risks associated with taking this survey. However, some questions may cause some stress or anxiety. If you do not feel comfortable answering, please feel free to skip or end the survey at any time. Please be assured that your responses will be kept completely confidential.☐☐

 By clicking the button below, you acknowledge that your participation in the study is voluntary, you are 18 years of age, you have or are currently working in the emergency communications field, and that you are aware that you may choose to terminate your participation in the study at any time and for any reason.

Please note that this survey will be best displayed on a laptop or desktop computer. Some features may be less compatible for use on a mobile device.

○ I consent, begin the study (1)

○ I do not consent, I do not wish to participate (2)

Q3 I am 18 years of age or older

○ Yes (1)

○ No (2)

Q4 The research procedures are clear to me

○ Yes (1)

○ No (2)

Q5 I am aware of the potential risks taking this survey might have

○ Yes (1)

○ No (2)

Q6 I am currently or have previously worked in the emergency communications field

○ Yes I currently work as an emergency communications employee (1)

○ Yes I have previously worked as an emergency communications employee (2)

○ No (3)

End of Block: Informed Consent

Start of Block: Emergency Communications

Q45 The first set of questions will be asking about the work you do as an emergency communications employee.

Q12 On average, how many hours do you normally work each week? Please answer with a numerical value (Example, 37; 40; 25)

_____

Q15 Approximately how many other emergency communications personnel are working during your assigned shift?

○ 0-2 (1)

○ 3-5 (2)

○ 6-8 (3)

○ 9-12 (4)

○ More than 12 (5)

Q14 What shift do you work? Example (Time of shift and what that shift is called-midnight, days, etc.)

Q16 What are you responsible for during your shift? Select all that apply

Answering emergency phone calls (1)

Answering non-emergency phone calls (2)

Dispatching for police radio (3)

Dispatching for fire radio (4)

Dispatching for emergency medical services radio (5)

Entering information into local/state/federal crime databases (6)

Training (7)

Supervising (8)

Other (9)

Q19 Approximately how many calls do you take on your assigned shift?

○ 0-20 (1)

○ 21-40 (2)

○ 41-60 (3)

○ 61-80 (4)

○ More than 80 (5)

Q17 What kind of calls do you take? Select all that apply

Emergency/911 (1)

Non-emergency (2)

Administrative (3)

Other (4)

Q18 What category of calls do you receive the most on your assigned shift? Select all that apply

Domestic related calls (1)

Violent crime calls (2)

Property crime calls (3)

Medical calls (4)

Administrative calls (5)

General questions/public calls (6)

Other (7)

Q20 Which type of violent crime call do you receive the most on your assigned shift?

○ Rape (1)

○ Homicide (2)

○ Assault (3)

○ Robbery (4)

○ Other (5)

Q21 What type of property crime calls do you receive the most on your assigned shift?

○ Burglary (1)

○ Theft/larceny (2)

○ Motor vehicle theft (3)

○ Arson (4)

○ Fraud (5)

○ Cybercrime (6)

○ Other (7)

Q22 Do you experience stress on the job?

○ Yes (1)

○ No (2)

○ Sometimes (3)

○ Decline to Answer (4)

Q23 Which category of calls result in your stress? Select all that apply

Domestic related calls (1)

Violent crime calls (2)

Property crime calls (3)

Medical calls (4)

Administrative calls (5)

General questions/public calls (6)

Other (7)

Decline to answer (8)

Q24 What are you responsible for on the job that causes you stress? Select all that apply

Answering emergency phone calls (1)

Answering non-emergency phone calls (2)

Dispatching for police radio (3)

Dispatching for fire radio (4)

Dispatching for emergency medical services radio (5)

Entering information into local/state/federal databases (6)

Training (7)

Supervising (8)

Other (9)

Decline to answer (10)

Q25 Do you have an employee assistance program at your place of employment?

○ Yes (1)

○ No (2)

○ I do not know (3)

○ Decline to answer (4)

Q26 If you answered yes to the previous question, do you use the employee assistance program to help manage work-related stress?

○ Yes (1)

○ No (2)

○ Not Applicable (3)

○ Decline to answer (4)

Q27 If you answered yes to the previous question, was the employee assistance program helpful with managing work-related stress?

○ Yes (1)

○ No (2)

○ Not applicable (3)

○ Decline to answer (4)

Q46 This next section is a series of questions to evaluate the effects of emotional labor among emergency communications personnel

Q29 How often do you experience these emotions while at work?	Never (1)	A few times a month (2)	A few times a week (3)	A few times a day (4)	Many times a day (5)	Decline to answer (6)
Irritation (1)	○	○	○	○	○	○
Anxiety (2)	○	○	○	○	○	○
Contentment (3)	○	○	○	○	○	○
Sadness (4)	○	○	○	○	○	○
Concern (5)	○	○	○	○	○	○
Disliking (6)	○	○	○	○	○	○
Aggravation (7)	○	○	○	○	○	○
Fear (8)	○	○	○	○	○	○
Happiness (9)	○	○	○	○	○	○
Distress (10)	○	○	○	○	○	○

	Never (1)	A few times a month (2)	A few times a week (3)	A few times a day (4)	Many times a day (5)	Decline to answer (6)
Liking (11)	○	○	○	○	○	○
Hate (12)	○	○	○	○	○	○
Anger (13)	○	○	○	○	○	○
Enthusiasm (14)	○	○	○	○	○	○

Q30 How often do you experience these emotions while NOT at work?

	Never (1)	A few times a month (2)	A few times a week (3)	A few times a day (4)	Many times a day (5)	Decline to answer (6)
Irritation (1)	○	○	○	○	○	○
Anxiety (2)	○	○	○	○	○	○
Contentment (3)	○	○	○	○	○	○
Sadness (4)	○	○	○	○	○	○
Concern (5)	○	○	○	○	○	○
Disliking (6)	○	○	○	○	○	○

	Not at all (1)	A little bit (2)	Moderate (3)	A lot (4)	Extremely (5)	Decline to answer (6)
Aggravation (7)	○	○	○	○	○	○
Fear (8)	○	○	○	○	○	○
Happiness (9)	○	○	○	○	○	○
Distress (10)	○	○	○	○	○	○
Liking (11)	○	○	○	○	○	○
Hate (12)	○	○	○	○	○	○
Anger (13)	○	○	○	○	○	○
Enthusiasm (14)	○	○	○	○	○	○
Q28 During the past 7 days, how much were you distressed by these items?	Not at all (1)	A little bit (2)	Moderate (3)	A lot (4)	Extremely (5)	Decline to answer (6)
Feeling others are to blame for your troubles (1)	○	○	○	○	○	○

Feeling easily annoyed or irritated (2)	○	○	○	○	○	○
Feeling afraid in open spaces (3)	○	○	○	○	○	○
Having thoughts of ending your life (4)	○	○	○	○	○	○
Feeling that most people cannot be trusted (5)	○	○	○	○	○	○
Suddenly feeling scared for no reason (6)	○	○	○	○	○	○
Feeling lonely (7)	○	○	○	○	○	○
Feeling blue (8)	○	○	○	○	○	○
Feeling no interest in things (9)	○	○	○	○	○	○
Feeling fearful (10)	○	○	○	○	○	○
Difficulty in making decisions (11)	○	○	○	○	○	○

Having to check and double check your work (12)	○	○	○	○	○	○
Feeling inferior to others (13)	○	○	○	○	○	○
Your mind going blank (14)	○	○	○	○	○	○
Feeling hopeless about the future (15)	○	○	○	○	○	○
Having trouble concentrating (16)	○	○	○	○	○	○
Thoughts of death or dying (17)	○	○	○	○	○	○
Feeling self-conscious (18)	○	○	○	○	○	○
Others not giving you proper credit (19)	○	○	○	○	○	○
Feeling of worthlessness (20)	○	○	○	○	○	○
Feeling of guilt (21)	○	○	○	○	○	○

Q31 Choose what you usually do when you experience stress:	I usually do not do this at all (1)	I usually do this a little bit (2)	I usually do this a moderate amount (3)	I usually do this a lot (4)	Decline to answer (5)
I turn to substitute activities to take my mind off things (1)	○	○	○	○	○
I get upset and let my emotions show (2)	○	○	○	○	○
I make jokes/use humor about the situation (3)	○	○	○	○	○
I discuss my feelings with other people in my life (4)	○	○	○	○	○
I just give up trying to reach my goal (5)	○	○	○	○	○
I try to see it in a different light, to make it seem more positive (6)	○	○	○	○	○
I sleep more than usual (7)	○	○	○	○	○

I think about how I might best handle the problem (8)	○	○	○	○	○
I feel a lot of emotional distress and I find myself expressing those feelings a lot (9)	○	○	○	○	○
I accept the reality of the fact that it happened (10)	○	○	○	○	○
I act as though it has not happened (11)	○	○	○	○	○
I put aside other activities in order to concentrate on this (12)	○	○	○	○	○

Q32 Rate how each statement defines you:	Very true (1)	Mostly True (2)	Somewhat true (3)	Mostly false (4)	Very false (5)	Decline to answer (6)
I act like nothing bothers me, even when a caller makes me mad or upset (1)	○	○	○	○	○	○
I have to act the way people think a person in my job should act (2)	○	○	○	○	○	○
I want my callers to think I am always able to handle things (3)	○	○	○	○	○	○
I work hard to keep myself in a positive mood at work (4)	○	○	○	○	○	○
I want my callers to think I am always calm (5)	○	○	○	○	○	○

A big part of my job is keeping others happy (6)	○	○	○	○	○	○
Part of the training for this job requires learning how to deal with people (7)	○	○	○	○	○	○
I make an effort to be interested in my callers' concerns (8)	○	○	○	○	○	○
To give advice, I have to make sure I say it in a polite way (9)	○	○	○	○	○	○
People judge me by how caring I am (10)	○	○	○	○	○	○
To make suggestions, I make sure I make them in a polite way (11)	○	○	○	○	○	○

| When something goes wrong at work, I feel like I should try to make other people feel better (12) | ○ | ○ | ○ | ○ | ○ | ○ |

Q47 The next 4 questions ask about your job satisfaction working as an emergency communications employee.

Q35 Are you classified as clerical/administrative or public safety/first responders?

○ Clerical/administrative (1)

○ Public safety/first responders (2)

○ Other (3)

○ Decline to answer (4)

Q36 Do you feel that all emergency communications employees (call takers/dispatchers) should be classified as public safety/first responders instead of clerical/administrative employees?

○ Yes (1)

○ No (2)

○ I do not know (3)

○ Decline to answer (4)

Q33 How satisfied are you with working as an emergency communications employee?

○ Very satisfied (1)

○ Slightly satisfied (2)

○ Neither satisfied nor dissatisfied (3)

○ Slightly dissatisfied (4)

○ Moderately dissatisfied (5)

○ Extremely dissatisfied (6)

○ Decline to answer (7)

Q34 Please rate your level of job satisfaction

	Completely satisfied (1)	Somewhat satisfied (2)	Dissatisfied (3)	Decline to answer (4)
Your relations with coworkers (1)	○	○	○	○
Flexibility of hours (2)	○	○	○	○
The amount of work that is required of you (3)	○	○	○	○
Your chances for promotion (4)	○	○	○	○
The amount of money you earn (5)	○	○	○	○
Benefits from the job (6)	○	○	○	○
Recognition you recieve (7)	○	○	○	○
Amount of on-the-job stress you experience (8)	○	○	○	○

End of Block: Job Satisfaction

Start of Block: Demographics

Q48 The final set of questions are demographic questions. These questions are used for statistical purposes only. There will be no identifiable information collected. These questions are all optional.

Q37 How long have you been working in the emergency communications field?

○ 0-1 year (1)

○ 1-3 years (2)

○ 3-5 years (3)

○ 5-8 years (4)

○ More than 8 years (5)

Q38 What is your gender?

○ Male (1)

○ Female (2)

○ Other (3)

○ Decline to answer (4)

Q39 What is your race?

○ White or caucasion (1)

○ Black or African American (2)

○ Asian or Asian American (3)

○ Native Hawaiian or Pacific Islander (4)

○ American Indian or Alaska Native (5)

○ Other/Race not listed (6)

○ Decline to answer (7)

Q40 What is your ethnicity?

○ Hispanic or Latino/Latina (1)

○ Non-Hispanic (2)

○ Ethnicity not listed (3)

○ Decline to answer (4)

Q41 What is your age? Please choose a numerical value or write "Decline to answer"

▼ 18 (1) ... Decline to answer (50)

Q42 What is your level of education? Select all that apply

High school diploma/GED (1)

Technical/Vocational/Trade school (2)

Continuing education training (3)

Associates degree (4)

4 year university degree (5)

Graduate degree (6)

Military training (7)

Other (8)

Decline to answer (9)

Q43 What is your average annual salary?

○ Between $15,000 and $29,999 (1)

○ Between $30,000 and $39,999 (2)

○ Between $40,000 and $49,999 (3)

○ More than $50,000 (4)

○ Decline to answer (5)

Q44 This question is completely optional and will only be used for data purposes. Please only answer if you feel comfortable doing so.
Without naming the PSAP you work at, what state do you work in?

_____

End of Block: Demographics

Start of Block: Block 5

Thank you for taking the time to participate in this survey. Your survey responses will be used for a graduate thesis looking at the effects emotional labor has among dispatchers and highlighting the importance of emergency communications.

Should you have any questions regarding this survey or the study, please contact Katherine Rowe at klr5t@mtmail.mtsu.edu, Dr. Meredith Dye at meredith.dye@mtsu.edu (615)-898-2690, or the MTSU Office of Compliance at compliance@mtsu.edu or (615)-494-8918

If available to you, I encourage you to contact your Employee Assistance Program point of contact if you experience any stress or anxiety after taking this survey.

End of Block: Block 5

APPENDIX C – INSTITUITONAL REVIEW BOARD APPROVAL

IRB
INSTITUTIONAL REVIEW BOARD
Office of Research Compliance,
010A Sam Ingram Building,
2269 Middle Tennessee Blvd
Murfreesboro, TN 37129

**MIDDLE
TENNESSEE
STATE UNIVERSITY**

IRBN001 - EXPEDITED PROTOCOL APPROVAL NOTICE

Thursday, January 16, 2020

Principal Investigator	**Katherine Rowe** (Student)
Faculty Advisor	Meredith Dye
Co-Investigators	NONE
Investigator Email(s)	*klr5t@mtmail.mtsu.edu; meredith.dye@mtsu.edu*
Department	Sociology and Anthropology
Protocol Title	***Emergency communications: A survey of emotional labor and its effects among dispatchers***
Protocol ID	**20-2089**

Dear Investigator(s),

The above identified research proposal has been reviewed by the MTSU Institutional Review Board (IRB) through the **EXPEDITED** mechanism under 45 CFR 46.110 and 21 CFR 56.110 within the category *(7) Research on individual or group characteristics or behavior*. A summary of the IRB action and other particulars in regard to this protocol application is tabulated below:

IRB Action	APPROVED for ONE YEAR		
Date of Expiration	<mark>1/31/2021</mark>	Date of Approval	1/16/20
Sample Size	350 (THREE HUNDRED AND FIFTY)		

Participant Pool	Target Population:
	  Primary Classification: **General Adults (18 or older)**
	  Specific Classification: **Work experience at an Emergency Communications Center**		

Exceptions	Online consent followed by Qualtrics survey		
Restrictions	**1. Mandatory active informed consent.** **2. No identifiable data/artifacts that include audio/video data, photographs, handwriting samples, and etc., can be collected. If such data were accidentally recorded, then they must be destroyed imediately.** **3. Mandatory Final report (refer last page).**		
Approved Templates	MTSU templates: Online informed consent; and Email recruitment Non-MTSU Templates: Social media recruitment script		
Comments	NONE		

Post-approval Actions
The investigator(s) indicated in this notification should read and abide by all of the post-approval conditions related to this approval (*refer Quick Links below*). Any unanticipated harms to participants, adverse events or compliance breach must be reported to the Office of Compliance

Institutional Review Board   Office of Compliance   Middle Tennessee State University

by calling 615-494-8918 within 48 hours of the incident. All amendments to this protocol, including adding/removing researchers, must be approved by the IRB before they can be implemented.

Continuing Review   (**The PI has requested early termination**)
Although this protocol can be continued for up to THREE years, The PI has opted to end the study by 1/31/2021   The PI must close-out this protocol by submitting a final report before 1/31/2021   Failure to close-out may result in penalties including cancellation of the data collected using this protocol.

Post-approval Protocol Amendments:
Only two procedural amendment requests will be entertained per year. *In addition, the researchers can request amendments during continuing review. This amendment restriction does not apply to minor changes such as language usage and addition/removal of research personnel. .*

Date	Amendment(s)	IRB Comments
NONE	NONE.	NONE

Other Post-approval Actions:

Date	IRB Action(s)	IRB Comments
NONE	NONE.	NONE

Mandatory Data Storage Requirement: All research-related records (signed consent forms, investigator training and etc.) must be retained by the PI or the faculty advisor (if the PI is a student) at the secure location mentioned in the protocol application. The data must be stored for at least three (3) years after the study is closed. Additional Tennessee State data retention requirement may apply (*refer MTSU policy 129*). Consult with Subsequently, the data may be destroyed in a manner that maintains confidentiality and anonymity of the research subjects.

The MTSU IRB reserves the right to modify/update the approval criteria or change/cancel the terms listed in this letter without prior notice. Be advised that IRB also reserves the right to inspect or audit your records if needed.

Sincerely,

Institutional Review Board
Middle Tennessee State University

Quick Links:
- Post-approval Responsibilities: http://www.mtsu.edu/irb/FAQ/PostApprovalResponsibilities.php
- Expedited Procedures: https://mtsu.edu/irb/ExpeditedProcedures.php
- MTSU Policy 129: Records retention & Disposal: https://www.mtsu.edu/policies/general/129.php