

2020

## Stress and Coping Strategies of Female 911 Emergency Telecommunicators

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# Walden University

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This is to certify that the doctoral dissertation by

Briana Kelley

has been found to be complete and satisfactory in all respects,  
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Walden University  
January 2020

Abstract

Stress and Coping Strategies of Female 911 Emergency Telecommunicators

by

Briana Kelley

MS, Walden University 2011

BA, University of Florida, 2007

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Disaster Crisis & Intervention

Walden University

January 2020

## Abstract

The Emergency number 9-1-1 is the most widely known and used telephone number in the United States and Canada, yet turnover, understaffing, and low retention of staff are national concerns in 9-1-1 emergency telecommunication centers. Emergency (9-1-1) telecommunicators are often the “first” first responder in the emergency cycle and are responsible for the collection and dissemination of emergency information to police, fire, and medical units. Resilience theory was utilized to see how some individuals adjust, adapt, and assimilate with presenting environmental stressors and/or conditions. This study of female emergency telecommunicators in a Southern Combined Emergency Dispatch Center explored the stressors and coping strategies from the individual’s perspective. Data were collected using qualitative interviews and focus groups within a Florida Combined Communications Center. This approach was useful in gaining individual perceptions of work stressors and coping strategies of female 9-1-1 emergency telecommunicators. Content analysis was used to code and analyze emergent themes from the interviews and focus groups. Key findings were female 9-1-1 emergency telecommunicators experience stressors similar to other emergency service personnel with additional stressors present to include processing calls for service with verbal indication only, not knowing the closure of calls, and continual public scrutiny. As 9-1-1 emergency centers nationwide face high turnover and low retention, this study contributes to social change by providing insights into stressors faced by female responders and ways they cope with these stressors to reduce job turnover.

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## Dedication

This body of work is dedicated to my family; thank you for being my continual support, encouragement, and reason why. Thank you for reminding me when I was ready to give up that giving up was not an option.

## Acknowledgments

The completion of this dissertation would not have been possible without the help of my dissertation committee, academic staff, work family, friends, and family. Thank you for continually pushing me even when I felt like walking away. I am forever grateful for my family, friends, and coworkers for their patience and support, the kind words of encouragement, stern talks when necessary, and constant motivation in helping me persevere through the toughest of times. I want to thank my dissertation chair Dr. Tina Jaeckle for always being there to help and guide me through the process and for being patient with me. Thanks to Dr. Barbara Benoliel for being the sound voice of reason and redirection when necessary and for always making me dig deeper.

This journey would not have been possible without the patience and support of my family. Thank you for reminding me of my commitment, encouraging me when I felt like giving up, providing feedback, and believing in me. Being part of my Pop Warner family has reminded me of the importance of practicing to get better, not to become perfect; I have learned as much from the children as I have from this process.

I work with some amazing professionals and role models both at SJR State College, Putnam County School District and the Alachua County Sheriff's Office. Perseverance and grit are vital characteristics for eliciting positive social change and are evident in their daily practice. It is my deepest desire that the words contained in this work bring awareness of those who are the "calm voice in the dark night."

## Table of Contents

Chapter 1: Introduction to the Study.....	1
Introduction.....	1
Background.....	2
Problem Statement.....	7
Purpose of the study.....	9
Research Questions.....	10
Definitions.....	10
Assumptions.....	11
Framework.....	12
Limitations.....	14
Scope and Delimitation.....	15
Significance.....	15
Summary.....	17
Chapter 2: Literature Review.....	19
Introduction.....	19
Literature Search Strategy.....	20
Transitioning Work Environment.....	21
9-1-1 Emergency Telecommunicators.....	22
Health and Mental Fitness.....	24
Stressors.....	27
Effects of Stress.....	29



Job Satisfaction .....	32
Burnout .....	33
Vicarious Trauma.....	34
Coping Strategies .....	36
Resilience Theory .....	38
Summary .....	39
Chapter 3: Research Method.....	40
Introduction.....	40
Research Design and Rationale .....	40
Role of the Researcher .....	41
Methodology .....	42
Participant Selection .....	42
Instrumentation .....	42
Procedures for Recruitment, Participation, and Data Collection .....	44
Data Analysis .....	45
Issues of Trustworthiness.....	46
Chapter 4: Results.....	50
Introduction.....	50
Study 51	
Setting 51	
Demographics .....	53
Data Collection .....	53

Data Analysis .....	54
Evidence of Trustworthiness.....	55
Results	56
Summary .....	73
Chapter 5: Discussion .....	75
Introduction.....	75
Interpretation of the Findings.....	75
Limitations of the Study.....	77
Recommendations.....	78
Implications.....	80
Conclusion .....	85
References.....	87
Appendix A: Focus Group Questions .....	103
Focus Group Questions.....	103

## Chapter 1: Introduction to the Study

### **Introduction**

Stafford (2016) recognized the diversity in 9-1-1 emergency call centers, or Public Safety Answering Points (PSAPs), nationwide. The Association of Public Safety Communications Officials International (APCO International) is the oldest and largest public safety communication organization in the world (Hall, 2016). There are a multitude of sizes and disciplines; some may dispatch only law enforcement, others only fire fighters, while others may be a combination of the two (Stafford, 2016). More and more counties are moving toward consolidated and/or combined centers (e.g. with all emergency services dispatched from within one center) as a means of providing a faster response to citizens and working within stringent budget constraints (Stafford, 2016; Vorell & Carmack, 2014).

PSAPs are staffed 24 hours a day, 7 days a week, 365 days a year (Sattler, Boyd, & Kirsch, 2014; Stafford, 2016). APCO conducted a study in 2005, Project RETAINS, to determine the minimum staffing requirements within combined 9-1-1 emergency call centers (Hall, 2016). Emergency 9-1-1 call centers require balance between the quality and quantity of service they provide (Stafford, 2016). This study also identified factors contributing to the high turnover rates nationwide. While this study laid the foundational work for the current industry standards, more and continuous research is necessary (Hall, 2016). Each call must be handled as quickly and efficiently as possible while ensuring that certain time benchmarks are met, all while maintaining a constant level of positive customer service (Sattler et al., 2014; Stafford, 2016). Further, life-or-death decisions are expected to be made in a timely manner to ensure that the

correct resources are sent to the correct locations each and every time (Folwell & Kauer, 2018; Vorell & Carmack, 2014).

An exploration of coping strategies among female Florida 9-1-1 emergency telecommunicators will help to determine which are effective and which are not effective, in terms of resilience and retention. Chapter 1 includes the background of the study, statement of the problem, purpose of the study, research questions, framework for the study, nature of the study, definition of terms, assumptions, limitations, significance of the study, and summary.

### **Background**

In recent years, several studies have explored persistence (i.e., why some individuals thrive under adverse circumstances and others do not) within various populations (Antcliff, Mildon, Baldwin, Michaux, & Nay, 2014; Regehr et al., 2013). While there are several definitions of resilience, resilience comprises “a concept of healthy, adaptive, or integrated positive functioning over the passage of time in the aftermath of adversity” (Büssing et al., 2017; Southwick, Bonanno, Masten, Panter-Brick, & Yehuda, 2014, p.1). Further, resilience can be fluid and applicable to individuals, families, organizations, societies, communities, cultures, and systems; resilience can be taught, fostered, and strengthened (Baek, Meroni, & Manzini, 2015; Southwick et al., 2014). Resilience theory looks at the adjustment and adaptation of individuals to environmental stressors and/or conditions that increase the likelihood that an individual will experience poor overall adjustment or a negative outcome (Antcliff et al., 2014; de Visser, Dorfman, Chartrand, Lamon, Freedy, & Welter, 2016; Sahebjamnia, Torabi, , & Mansouri, 2018; Sonnentag, 2017; Weltman, Lamon, Freedy, & Chartrand, 2014). Common risk factors, according to resilience theory, include traumatic life events, continuous conflict, chronic state of

exhaustion, and chronic exposure to violence and trauma (Antcliff et al., 2014; Cohen, Leykin, Golan-Hadari, & Lahad, 2017; Sheen, Spiby, & Slade, 2016; Sonnentag, 2017; Weltman et al., 2014). Resilience is the successful adaptation of an individual after exposure to an event or stressor that affected him or her (Antcliff et al., 2014; de Visser et al., 2016; Sattler et al., 2014; Sonnentag, 2017). Resilience is not fixed, and an individual who is resilient in one instance may not be in a different context (Antcliff et al., 2014; de Visser et al., 2016; Weltman et al., 2014).

Vulnerability factors tend to increase the effects of risk factors on individuals (Antcliff et al., 2014; de Visser et al., 2016). Increased vulnerability does not indicate a direct link to a negative outcome, but it does increase the intensity of the impact on the individual (Antcliff et al., 2014; Southwick et al., 2014). Coping skills must also be considered as those with lower coping resources are more susceptible to negative effects of stress (Sattler et al., 2014).

Resilience is an important consideration for any population that experiences chronic stress situations (Baek et al., 2015; Chitra & Karunanidhi, 2013; de Visser et al., 2016). Some theorists conclude that the stressor, or threat, is not the direct cause of the individual's stress but, rather, his/her evaluated, or appraised, response to the stressor or threat and his/her ability to cope (de Visser et al., 2016; Kirkegaard & Brinkmann, 2015). In recent years, researchers have found a link between job satisfaction and the psychological wellbeing of the employee; job satisfaction or dissatisfaction has been linked with "spillover effects" in other areas of the employees' life (e.g. relationships) (Cannuscio, Davis, Kermis, Khan, Dupuis, & Taylor, 2016; Chitra & Karunanidhi, 2013; Pezaro, Clyne, Turner, Fulton, & Gerada, 2016; Synard & Gazzola, 2016).

Individuals who have found positive adaptations to extremely stressful conditions are shown to be resilient (Baek et al., 2015; Chitra & Karunanidhi, 2013; de Visser et al., 2016). Further, coping strategies can often differ from one cultural or subcultural group to another; for the purposes of this study 9-1-1 emergency telecommunicators, police officers, paramedics, and firefighters will be viewed as the subcultural group of emergency first responders (Baek et al., 2015; Folwell & Kauer, 2018; Kirkegaard & Brinkmann, 2015; Richardson & James, 2017). Some subcultural groups may utilize individual coping strategies to cope with occupational stressors while others may utilize collective coping strategies (Baek et al., 2015; Burch & Anderson, 2013; de Visser et al., 2016; Folwell & Kauer, 2018). Emergency service personnel (e.g. firefighters, police officers, etc.) have high levels of occupational identity (Richardson & James, 2017; Wagner & O'Neill, 2012). Occupational identity refers to one's identity with the vocation to which they belong; it can provide a greater sense of belonging (Richardson & James, 2017). Collective coping strategies are often encouraged within the emergency first responder community as there are shared values and beliefs established within the group (Baek et al., 2015; de Visser et al., 2016; Folwell & Kauer, 2018; Kirkegaard & Brinkmann, 2015). Emergency first responders work in organized teams while maintaining communication and cooperation to work together in the best interest of the individuals they are assisting. An example of continuum of communication would be the answering of a 9-1-1 call for service, dissemination of responding personnel (e.g. police officers, paramedics, firefighters, etc), and continual updates of the dispatcher; collective coping strategies may be utilized in the form of a debriefing (Baek et al., 2015; Cannuscio et al., 2016; Folwell & Kauer, 2018; Kirkegaard & Brinkmann, 2015; Vorell & Carmack, 2014).

Research on other emergency service personnel illustrates the importance of social support and self-efficacy (i.e. having confidence and commitment to succeeding at a difficult or challenging task) in the promotion of mental health in their field (Cannuscio et al., 2016; Huang, Wang, & You, 2015; Regehr et al., 2013; Sattler et al., 2014; Shakespeare-Finch, Rees, & Armstrong, 2015; Steenbergen et al., 2017; Upadyaya, Vartiainen, & Salmela-Aro, 2016). Shakespeare-Finch, Rees, and Armstrong (2015) looked at the impact of self-efficacy and social support as they relate to post traumatic growth and the symptomology of Post-Traumatic Stress Disorder (PTSD); this study explored only Emergency Medical Dispatchers (EMDs). PTSD is defined by the American Psychiatric Association (APA) in the Diagnostic and Statistical Manual of Mental Health Disorders (DSM); the DSM is currently in its fifth edition and is often referred to as the “DSM-5” (American Psychiatric Association, 2013). Criterion A defines the exposure to the traumatic event (American Psychiatric Association, 2013). Further, Criterion A includes “repeated exposure” to hearing distressing details of an event (American Psychiatric Association, 2013). Criterion B through H discusses the symptoms and diagnosis of PTSD (American Psychiatric Association, 2013). Social support and self-efficacy were shown to significantly positively affect participant wellbeing, while shift work was found to significantly and negatively predict PTSD in participants (Harvey, Milligan-Saville, Paterson, Harkness, Marsh, Dobson, & Bryant, 2015; Leinweber, Creedy, Rowe, & Gamble, 2017; Shakespeare-Finch et al., 2015; Synard & Gazzola, 2016). Further, job dissatisfaction has been shown to affect other areas of an individual’s life (e.g., relationships with spouse, friends, and children) (Chitra & Karunanidhi, 2013; Harvey et al., 2015).

Peer support personnel were given training in psychological first aid and counseling interventions; this article sought to explore peer-to-peer interventions in comparison with past approaches, such as debriefings, which are viewed as controversial (Harvey et al., 2015).

Employee Assistance Programs (EAPs) are useful with helping emergency service personnel and their families with problems and concerns that compromise their wellbeing (Harvey et al., 2015; Synard & Gazzola, 2016). EAPs are vital in developing and maintaining a positive and productive workplace through access to confidential and professional counselling services; EAPs can help employees manage their stressors and ensure these do not negatively affect their job responsibilities.

Additional occupational stressors, such as working holidays, long shifts, irregular working, eating, and sleeping patterns, and the uncertainty of the call type or volume can also adversely affect a 9-1-1 emergency telecommunicator's resilience (Cannuscio et al., 2016; Chitra & Karunanidhi, 2013; de Visser et al., 2016). The rapid cycling of high- and low-stress calls coupled with factors such as frequent overtime, limited breaks, the severity and nature of calls, and constant public scrutiny can take a toll on the telecommunicator's job satisfaction, morale, and effectiveness (Cannuscio et al., 2016; de Visser et al., 2016; Pierce & Lilly, 2013).

EMDs and other 9-1-1 Emergency Telecommunicators must rely on the verbal information provided by the caller, make quick decisions, and monitor the situation to ensure that the field responders have the necessary updates in a timely and efficient manner (Shakespeare-Finch et al. 2015). Communications difficulties, unpredictable, high-stress low-frequency calls, calls involving children, or calls in which the EMD self-identified with the caller or patient were



found to be particularly emotionally taxing to the individual (Coldridge & Davies, 2017; Shakespeare-Finch et al., 2015; Vorell & Carmack, 2014).

Although PTSD symptomology has been reported among emergency service personnel, some individuals also reported positive outcomes such as resilience, compassion satisfaction, and posttraumatic growth (Brunstad, Giske, & Hjälmhult, 2016; Cohen, Leykin, Golan-Hadari, & Lahad, 2017; Pierce & Lilly, 2013; Shakespeare-Finch et al., 2015). Shift work has been identified to be detrimental to emergency service personnel, as it has been shown to reduce sleep quality and amount, disrupt the work/life balance, and negatively affect an individual's social support system (Shakespeare-Finch et al., 2015). This study also found that further exploration, education, and training on social support is necessary to continue to enhance the well-being of the EMD and the replicability of this study for other types of emergency communication personnel (e.g., police and fire telecommunicators) (Shakespeare-Finch et al., 2015; Synard & Gazzola, 2016; Vorell & Carmack, 2014).

### **Problem Statement**

The Emergency number 9-1-1 is the most widely known and used telephone number in the United States and Canada, yet turnover, continual understaffing, and low retention are nationwide concerns in 9-1-1 emergency telecommunication centers (Pierce & Lilly, 2013; Stafford, 2016; Vorell & Carmack, 2014). Emergency telecommunicators are responsible for taking emergency and routine calls for service while also dispatching and continually updating police, fire, and medical responders (Shakespeare-Finch, Rees, & Armstrong, 2015). Further, these individuals elicit information from and provide instruction to the caller until field units arrive; there is an additional layer of job stress felt by 9-1-1 emergency telecommunicators as

they must rely solely on the information that is provided by the caller, make decisions quickly, and continually assess the situation with only verbal cues (de Visser et al., 2016; Hu, Schaufel, & Taris, 2017; Shakespeare-Finch et al., 2015; Travis, Lizano, & Mor Barak, 2016). Employees are expected to be competent and engaged while working in the high demand and high stress position; the work is often challenging and unpredictable (Travis, Lizano, & Mor Barak, 2016; Regehr, LeBlanc, Barath, Balch, & Birze, 2013; Rivera, 2015).

Although there have been previous studies that focused on the perceptions of stress from other emergency service professionals (e.g. firefighters, police officers, etc.), I have found limited evidenced-based research focusing on the stress of female 9-1-1 dispatchers. Emergency telecommunicators are exposed to similar psychological, physiological, and emotional stressors as field first responders (Beck, Logiudice, & Gable, 2015; Coldridge & Davies, 2017; de Visser et al., 2016; Pezaro et al., 2016; Pierce & Lilly, 2013; Regehr et al., 2013; Rice & Warland, 2013; Rivera, 2015). Compassion fatigue, burnout, and eventually turnover are true concerns for emergency service personnel, particularly 9-1-1 emergency telecommunicators, yet I have found little research addressing the prevention and reduction of burnout or positive coping skills. Burnout can be attributed to many job-related and personal factors and has been shown to be correlated with employees' concept of work-life balance (Bakker, & Costa, 2014; Bianchi, Schonfeld, & Laurent, 2015; Cohen, Leykin, Golan-Hadari, & Lahad, 2017; Giesbrecht, Wolse, Crooks, & Stajduhar, 2013; Hinderer, Vonrueden, Friedmann, Mcquillan, Gilmore, Kramer, & Murray, 2014; Pezaro et al., 2016; Mollart, Skinner, Newing, & Foureur, 2013; Rice & Warland, 2013; Sheen et al., 2015; Upadyaya et al., 2016; Zwijsen, Gerritsen, Eefsting, Smalbrugge, Hertogh, & Pot, 2015). Burnout can appear as cynicism, chronic exhaustion, and

lack of accomplishment or reduced work competency (Ahola, Toppinen-Tanner, & Seppänen, 2017; Bakker & Costa, 2014; Garcia-Sierra, Fernandez-Castro, & Martinez-Zaragoza, 2016; Giesbrecht et al., 2013; Smoktunowicz, Baka, Cieslak, Nichols, Benight, & Luszczynska, 2015; Travis, Lizano, & Mor Barak, 2016; Zwijsen, et al., 2015). Though similarities exist among all emergency service professionals, the differences remain apparent.

### **Purpose of the study**

The purpose of this study was to examine perceptions of the stressors and coping strategies of female 9-1-1 emergency telecommunicators in one Florida Emergency 9-1-1 Center. A case-study approach was used to explore the lived experiences of female 9-1-1 emergency telecommunicators within a specified North Florida combined emergency 9-1-1 call center. Case studies are useful for preliminary exploration of a subcultural group for the continued development of ‘more structured’ research methodologies (Cruz & Higginbottom, 2013). Further, case studies allow for extensive investigation into a small subgroup that can be applicable to the greater group. Qualitative research approaches, such as case studies, are useful in gaining a better understanding of lived experiences of individuals within a subcultural group, or profession, and the subcultural group’s role in society (Cruz & Higginbottom, 2013; Travis, Lizano, & Mor Barak, 2016; Regehr et al., 2013). Exploring lived experiences of female 9-1-1 emergency telecommunicators is useful in understanding the stressors present, the perception of these stressors, and productive or counterproductive coping skills. This study was designed to collect information that will allow readers to gain a better understanding of the stressful complexities, functionality and role of a 9-1-1 emergency telecommunicator in the emergency-response cycle and how the individuals cope. Exploring coping and resiliency factors leading to

longevity in the career will hopefully be the starting point for improved retention and reduced turnover in the dispatching realm, thus allowing more knowledge and experience to be present on the floor and improving the quality of service provided to the citizens being served.

### **Research Questions**

RQ1: What are the perceptions of work stressors of female 9-1-1 emergency telecommunicators?

RQ2: How do female 9-1-1 emergency telecommunicators describe their coping strategies to manage these stressors?

### **Definitions**

*Call center:* There are differences in size and structure of 9-1-1 emergency call centers; some are combined centers that dispatch police, fire, and medical services while others may dispatch individual services. To continue, there is a difference between 9-1-1 emergency call centers and other commercial call centers. Similar characteristics do exist between 9-1-1 emergency call centers and commercial call centers such as the use of computers and other technology operated by employees. The answering of incoming calls and dissemination of emergency services via a two-way radio communication is an important distinguishing characteristic of 9-1-1 emergency call centers.

*Call taker:* “According to NENA, a call taker is “an agent of a PSAP who answers emergency calls” (NENA, 2010, [www.nena.org](http://www.nena.org)).

*National Emergency Number Association (NENA) standard:* NENA (2010) has developed a standard of answering 90% of incoming 9-1-1 calls within 10 seconds; this standard

corresponds with performance funding and established benchmarks within agencies (NENA, 2010, [www.nena.org](http://www.nena.org)).

*Public Safety Answering Point (PSAP)*: PSAPs are central locations for the answering of emergency calls for service and dissemination of emergency responses (NENA, 2010, [www.nena.org](http://www.nena.org)).

*Public Safety Telecommunicator (PST)*: There are no universally accepted standards or best practices for the 9-1-1 profession as a whole, however, Florida has developed and implemented a Public Safety Telecommunicator (PST) curriculum and certification for 9-1-1 professionals. This curriculum and certification is handled through the Department of Health (DOH) and requires Florida 9-1-1 operators to complete continuing education requirements to ensure their certification is renewed.

*9-1-1 Emergency Call Center*: 9-1-1 Emergency Call Centers are sometimes referred to as 9-1-1 call centers, dispatch centers, or communications centers. They are accessed through the use of 9-1-1 or a non-emergency number and have the sole responsibility of receiving and disseminating emergency first responders to in progress or emergent situations or calls requiring documentation (NENA, 2010, [www.nena.org](http://www.nena.org)).

### **Assumptions**

Assumptions justify that the research problem exists and helped shape the structure of this research study (Leedy & Ormrod, 2010). It is important for social science researchers to be aware of their existing knowledge, their personal and professional biases, their personal and professional experience, and their assumptions prior to beginning the study (Leedy & Ormrod,

2010). Further, social science researchers must remain objective in their gathering and analysis of data.

There is a need for evidenced based research in the field of 9-1-1 emergency telecommunication, more specifically with female employees. This study was limited to a combined communications center in North Central Florida. The results of this study will hopefully lead to positive social change amongst the 9-1-1 profession. I assumed in-depth face-to-face focus groups were appropriate to use to gather information from female 9-1-1 emergency telecommunicators. In addition, observations and information interactions during the focus groups were appropriate to build rapport. This allowed information to be gathered and cross-checked with the self-reported answers to the questions. Further, I assumed that the participants' responses to the questions and participation in the focus groups were truthful and shared their perspectives in their own words. Focus groups were held at a third party location to create a more neutral environment based on the preference of the participants. I assumed that the participants, after review and signing of the informed consent, understood the process of data collection, analysis, and implications to the 9-1-1 Emergency telecommunication profession. Lastly, I assumed that each participant met the identified study criteria of being a female Florida 9-1-1 Emergency Telecommunicator.

### **Framework**

Call centers require continuous balance between the quality and quantity of service they provide (Regehr et al., 2013; Stafford, 2016). Each call must be handled as quickly and efficiently as possible while still ensuring that certain time benchmarks are met all while maintaining a constant level of positive customer service (Regehr et al., 2013; Stafford, 2016). In

recent years, several studies have explored persistence (e.g. why some individuals thrive under adverse circumstances while others do not) within various populations (Antcliff et al., 2014; Baek et al., 2015; Regehr et al., 2013). Resilience theory looks at the flexibility, adjustment, adaptation, and dependency of individuals to environmental stressors and/or conditions that increase the likelihood that an individual will experience poor overall adjustment or a negative outcome (Antcliff et al., 2014). Common risk factors, according to resilience theory, include traumatic life events, continuous conflict, and chronic exposure to violence (Antcliff et al., 2014; Brunstad, Giske, & Hjälmhult, 2016; Davies & Coldridge, 2015; Sheen et al., 2016). Resilience is the successful adaptation of an individual after being exposed to an event or stressor in which he or she has been impacted by (Antcliff et al., 2014; Baek et al., 2015; Brunstad, Giske, & Hjälmhult, 2016; de Visser et al., 2016). Resilience is not fixed and an individual that is resilient in one instance may not be in a different context (Antcliff et al., 2014; Baek, Meroni, & Manzini, 2015; Davies & Coldridge, 2015). Vulnerability factors tend to increase the effects of risk factors on individuals (Antcliff et al., 2014; Davies & Coldridge, 2015; Travis, Lizano, & Mor Barak, 2016; Regehr et al., 2013; Richardson & James, 2017). Increased vulnerability does not indicate a direct link to a negative outcome but does increase the intensity of effect on the individual (Antcliff et al., 2014; Regehr et al., 2013; Richardson & James, 2017; Southwick et al., 2014). Many definitions of resilience address a healthy adaptation after an individual has faced adversity (Baek et al., 2015; Richardson & James, 2017; Southwick et al., 2014).

Resilience is an important consideration for any population that experiences chronic stress situations (Baek et al., 2015; Chitra & Karunanidhi, 2013; de Visser et al., 2016; Upadyaya et al., 2016). In recent years, researchers have found a link between job satisfaction and the

psychological well-being of the employee; individuals that have found positive adaptations to extremely stressful conditions are shown to be resilient (Baek et al., 2015; Chitra & Karunanidhi, 2013; Synard & Gazzola, 2016; Upadyaya et al., 2016). Further, job dissatisfaction has been shown to affect other areas of an individual's life (e.g. marriage) (Chitra & Karunanidhi, 2013; Regehr et al., 2013; Upadyaya et al., 2016). Additional occupational stressors such as working during holidays, long shifts, irregular working, eating, and sleeping patterns, and the uncertainty of the call type or volume can also adversely affect an individual's resilience (Chitra & Karunanidhi, 2013; de Visser et al., 2016; Rice & Warland, 2013; Upadyaya et al., 2016).

### **Limitations**

Limitations to the validity of the study can be both internal and external. A major threat to the internal validity of the participation and response to the semi-structured questions' answers include participants' answers being influenced by multiple factors such as traffic, their shift, fear of identification or retaliation, etc. Further, participants may fear retaliation from their administration and thus minimize or omit statements that could, if read, negatively impact the participant thus the accuracy and objectivity of the participants' responses could place additional limitations on the study.

A potential external validity threat would be the applicability of the results of this study in regard to the larger U.S. 9-1-1 emergency telecommunication population. Only a small number of female 9-1-1 emergency telecommunicators were interviewed from a North Central Florida 9-1-1 emergency call center. The findings of this study could have been affected by differences in location, agency policies and procedures, and agency climate thus impacting the applicability of this study to other 9-1-1 emergency call centers.



There is a gap in universally defined 9-1-1 operator job description and available research within the 9-1-1 profession as a whole. Though the Association of Public-Safety Communications Officials – International (APCO) and the National Emergency Number Association (NENA) have attempt to write industry standards and best practices, there have been none universally accepted amongst the profession. Further, Florida has been one of the few states to implement a 9-1-1 Public Safety Telecommunicator curriculum and certification; this certification has been in existence since 2010 and is governed by the Florida Department of Health. Though this standardized training has been implemented, the interpretation and implementation of the certification differs amongst Florida 9-1-1 emergency call centers. The limited industry standards and academic knowledge available to the 9-1-1 profession, particularly female operators, and places further limitations on the applicability of study to the national industry.

### **Scope and Delimitation**

The scope of this study is limited to female 9-1-1 emergency telecommunicators at one North Central Florida Combined dispatch center. The research design of qualitative case study was chosen to allow the researcher to gather information about female 9-1-1 telecommunicators. A more significant and geographically representative sample from other Florida 9-1-1 Combined dispatch centers would be more desirable; however I was limited by time.

### **Significance**

Emergency telecommunicators (i.e. 9-1-1) are often the public's first contact when initiating a call for service. Emergency telecommunicators are often referred to as the "first" first responders and are subjected to many unique stressors, including irate callers, fluctuating call

volumes, infinite emergency types, varied emergency severities, responding-unit and caller safety, and constant public scrutiny (Pierce & Lilly, 2013; Regehr et al., 2013; Stafford, 2016). Stress from administration, continual turnover, low retention rates, constant understaffing, mandatory overtime, long and often rotating shifts, limited physical outlets for stress, and constant training due to the evolution of society and technology affect 9-1-1 PSAPs (Pierce & Lilly, 2013). Emergency telecommunicators are crucial members of the emergency communication-cycle, yet retention is low within the U.S. (Regehr et al., 2013; Stafford, 2016). The attrition rate is high nationally (Hall, 2016), and while the Project RETAINS study has not been revisited in recent years, understanding the 9-1-1 emergency telecommunication profession from an insider's perspective illuminate the presenting risk and protective factors or coping skills. By identifying the perceptions of stress and coping strategies of female 9-1-1 emergency telecommunicators, policymakers and supervisors can take proactive steps to increase retention, reduce turnover, and provide a more effective work environment (Carleton, Korol, Mason, Hozempa, Anderson, Jones, ... Bailey, 2018; Stacey, Aubeeluck, Cook, & Dutta, 2017).

According to the Bureau of Labor and Statistics Occupational Employment Statistics (2017) there are about 292,000 police, fire, and ambulance dispatchers employed nationally. Of those, 55.7% are women (Bureau of Labor and Statistics, 2017). Data from EMSI revealed that in the 2016-17 year, 56.1% (6,595) of Florida's 9-1-1 emergency telecommunicators were women and 43.9% (5,152) are men (Emsi 2017.1). Police officers and other emergency-service personnel (e.g., 9-1-1 emergency telecommunicators) who work in high-stress occupations are useful groups for studying work stress and its effects on individuals and their work environments (de Visser et al., 2016; Violanti, Owens, Fekedulegn, Ma, Charles, & Andrew, 2018). These

jobs are inherently stressful and can be highly volatile, with stress from the agency's administration and limited organizational support (de Visser et al., 2016; Violanti et al., 2018).

Higher levels of harassment, bias, and discrimination, coupled with a lack of support, are common stressors among female employees (Chu, 2018; de Visser et al., 2016; Violanti et al., 2016). Female police officers experience significantly higher stress levels than male officers in their sample; although this study was done in Nigeria, similar stressors exist among emergency-service personnel in the US (Violanti et al., 2018).

### **Summary**

The purpose of this case study was to examine the perceptions of the stressors and coping strategies of female 9-1-1 emergency telecommunicators. This approach was used to explore the lived experiences of female 9-1-1 emergency telecommunicators within a specified North Florida combined emergency 9-1-1 call center for preliminary exploration of this group for the continued development of 'more structured' research methodologies (Cruz & Higginbottom, 2013). Exploring lived experiences of female 9-1-1 emergency telecommunicators will be useful in understanding the stressors present, the perception of these stressors, and productive or counterproductive coping skills.

Chapter 1 included the introduction to the problem, the background of the problem, statement of the problem, purpose of the study, research questions, theoretical framework, definition of terms, assumptions, scope and delimitations, limitations, significance of the study, and summary. Chapter 2 includes the literature search strategy; theoretical foundation; review of the literature of 9-1-1 emergency communications centers and female employee stressors and coping skills, and a summary and conclusion. Chapter 3 includes the research design and

rationale, research questions, role of the researcher, methodology, issues of trustworthiness, and summary.

## Chapter 2: Literature Review

### **Introduction**

9-1-1 is the most widely known and used telephone number in the United States and Canada, yet turnover, continual understaffing, and low retention are nationwide concerns in 9-1-1 emergency telecommunication centers (Pierce & Lilly, 2013; Stafford, 2016; Vorell & Carmack, 2014). Emergency telecommunicators are responsible for taking emergency and routine calls for service while also dispatching and continually updating police, fire, and medical responders (Shakespeare-Finch, Rees, & Armstrong, 2015). These individuals elicit information from and provide instruction to the caller until field units arrive; there is an additional layer of job stress felt by 9-1-1 emergency telecommunicators as they must rely solely on the information that is provided by the caller, make decisions quickly, and continually assess the situation with only verbal cues (Hu et al., 2017; Shakespeare-Finch et al., 2015).

Although there have been previous studies that focused on the perceptions of stress from other emergency service professionals (e.g. firefighters, police officers, etc.), I have found limited evidenced-based research focusing on the stress of female 9-1-1 dispatchers. The purpose of this study was to examine the perceptions of the stressors and coping strategies of female 9-1-1 emergency telecommunicators in order to reduce burnout and turnover. Emergency telecommunicators are exposed to similar psychological, physiological, and emotional stressors as field first responders (Pierce & Lilly, 2013; Regehr et al., 2013). Compassion fatigue, burnout, staffing shortages, and eventually turnover are true concerns for emergency service personnel, particularly 9-1-1 emergency telecommunicators, yet I have found little research addressing the prevention and reduction of burnout or positive coping skills (Ahola et al., 2017; Büssing,

Falkenberg, Schoppe, Recchia, & Poier, 2017; Folwell & Kauer, 2018; Garcia-Sierra et al., 2016; Giesbrecht et al., 2013; Hinderer et al., 2014; Jacobson, Rothschild, Mirza, & Shapiro, 2013; Mijakoski, Karadzinska-Bislimovska, Basarovsk, Minov, Stoleski, Angeleska, & Atanasovska, 2015; Mollart et al., 2013; Silvestri, Tong, & Brown, 2013; Smoktunowicz et al., 2015; Wang, Huang, & You, 2016; Zwijsen et al., 2015). Though similarities exist among all emergency service professionals, the differences remain apparent.

A case-study approach was used to explore the lived experiences of female 9-1-1 emergency telecommunicators within a specified North Florida combined emergency 9-1-1 call center. A case-study approach is useful for preliminary exploration of a subcultural group for the continued development of ‘more structured’ research methodologies (Cruz & Higginbottom, 2013). Exploring lived experiences of female 9-1-1 emergency telecommunicators will be useful in understanding the stressors present, the perception of these stressors, and productive or counterproductive coping skills. This study was designed to collect information that will allow readers to gain a better understanding of the stressful complexities, functionality and role of a 9-1-1 emergency telecommunicator in the emergency-response cycle and how the individuals cope.

### **Literature Search Strategy**

The following literature review inspects the existing research on work stressors and coping strategies of female 9-1-1 emergency telecommunicators. Research articles were obtained about occupational stressors, burnout, gender differences, and coping strategies from searches on educational research databases that included: Academic Search Complete, SJR State College’s research library, and Walden University’s research library. Searches were conducted using keywords: 9-1-1, telecommunicators, emergency, women in law enforcement, public safety,

firefighter, call centers, EMS, paramedic, and emergency response. Websites for the National Emergency Number Association (NENA) and the Association of Public-Safety Communications Officials – International (APCO) were utilized to collect relevant industry data related to 9-1-1 emergency call centers. This academic literature search did not uncover any specific information regarding women in the 9-1-1 emergency telecommunication realm.

### **Transitioning Work Environment**

The presence of civilians, unsworn personnel, in emergency services has increased rapidly since the 1950s. There are many benefits to organizations in maintaining civilian employees, such as lower pay and fewer days worked annually (Chu, 2013; McCarty & Skogan, 2013). Further, there is a clear divide between the perceptions of sworn and unsworn personnel at various levels within emergency service organizations. Civilian employees may be treated “beneath” sworn personnel (Chu, 2014; McCarty & Skogan, 2013; Regehr et al., 2013; Stafford, 2016).

To continue, many of these positions now filled and maintained by women were traditionally held by men (Chu, 2013; Hu et al., 2017; McCarty, 2013; McCarty & Skogan, 2013; Menard & Arter, 2014). The Equal Opportunity Act (EEOA) of 1972 contributed significantly to the gender composition of United States law enforcement agencies, increasing the presence of women in the workplace from 2% to over 11.7% in 2009 (Chu, 2014; Kingshott, 2013; McCarty, 2013; Menard & Arter, 2014). It is estimated that women occupy about 20% of the emergency service profession (Menard & Arter, 2014). Further, women may be better suited for unsworn and/or civilian positions that require their strengths of problem-solving and communication skills, while men still represent the majority of sworn personnel (McCarty, 2013; Menard &

Arter, 2014; Prenzler & Sinclair, 2013; Regehr et al., 2013). Further, women may face differential treatment, derogatory comments, discrimination, and harassment by their male counterparts (McCarty, 2013; Menard & Arter, 2014; Regehr et al., 2013). In one study, women were found to exhibit significantly higher rates of depression and Post Traumatic Stress Disorder (PTSD) than their male counterparts (Regehr et al., 2013; Sheen et al., 2015).

There is a misconception that call processing is not as complicated or demanding as other emergency service occupations (McCarty & Skogan, 2013). In fact, 9-1-1 emergency telecommunication centers rely heavily on highly skilled employees who must remain professional when dealing with the public and responding units alike (McCarty & Skogan, 2013; Stafford, 2016). Ensuring accuracy while not compromising speed of entry of information and continually remaining abreast of changes in policies, protocols, equipment, and software are essential functions in ensuring a 9-1-1 emergency telecommunicator is best equipped to handle incoming emergencies (Regehr et al., 2013; Stafford, 2016).

### **9-1-1 Emergency Telecommunicators**

According the Bureau of Labor Statistics (2015), police, fire, and ambulance dispatchers are also called public safety telecommunicators, emergency dispatchers, call takers, as well as other titles; in this paper we will refer to them as 9-1-1 emergency telecommunicators. 9-1-1 emergency telecommunicators are responsible for the answering and processing of emergency and nonemergency calls for service. Further, these 9-1-1 emergency telecommunicators are professional civilian (i.e., not sworn) employees in the majority of circumstances (Anshel, Umscheid, & Brinthaup, 2013; Bureau of Labor Statistics, 2015).



Emergency telecommunicators are often the first in the emergency communication cycle. They must elicit information from callers, provide calming techniques when necessary, and ensure the location and information that is being relayed is completed in an accurate, efficient, timely, professional manner. The information obtained by the 9-1-1 emergency telecommunicator often provides the responding units with the preliminary information to begin their investigation. It is vital that these individuals are properly trained and monitored to ensure they are eliciting the most effective information necessary for the responding units to provide the best level of care possible (Stoughton, 2014). Emergency telecommunicators are responsible for the answering and triaging of calls, as well as dissemination and continuous updating of emergency service personnel (e.g., police, fire, and medical units). While responding personnel (e.g. police officers, paramedics, and/or firefighters) are dispatched to one call at a time, 9-1-1 emergency telecommunicators must remain vigilant in handling multiple incoming calls, updates, and radio transmissions simultaneously.

Emergency telecommunicators are exposed to similar psychological, physiological, and emotional stressors as other field first responders, yet they are often unnoticed or excluded from traditions, practices, recognition and/or accolades given to field officers (Pierce & Lilly, 2013). This continual separation of civilian and sworn personnel lends to strained working relationships and environmental separation (Büssing et al., 2017; Chitra & Karunanidhi, 2012; de Visser et al., 2016; Lilly & Allen, 2015). Feelings of resentment, coupled with perceptions of unfairness or differential treatment among staff can affect employees' physical and psychological wellbeing (de Visser et al., 2016; Synard & Gazzola, 2016; Upadyaya et al., 2016).

One example of separation between 9-1-1 emergency telecommunicators and responding units can be observed following a major event, such as an officer-involved shooting or mass-casualty incident. Debriefings typically follow these types of events to give affected personnel access to union representation (when applicable) and psychological services, and to create a positive, supportive environment of their peers. Emergency telecommunicators are often forgotten or not invited to these debriefings (Upadyaya et al., 2016). The exclusion of 9-1-1 emergency telecommunicators from these debriefings reinforces the separation between sworn and civilian employees (Chitra & Karunanidhi, 2012; Regehr et al., 2013; Upadyaya et al., 2016).

Emergency telecommunicators process the calls for service, facilitate the emergency response, ensure effective communication for all responding units (e.g. police, fire, and medical services), update the units as the information continues to develop all the while receiving and processing radio traffic (Lilly & Allen, 2015; Pierce & Lilly, 2012; Vorell & Carmack, 2014). Oftentimes 9-1-1 emergency telecommunicators are processing multiple calls at one time and not solely devoted to one particular call, depending on their availability of resources (Lilly & Allen, 2015; Pierce & Lilly, 2012). Additionally, 9-1-1 emergency telecommunicators are expected to continue working and/or move on to the next call without closure or psychological processing of the previous call (Lilly & Allen, 2015; Pierce & Lilly, 2012; Regehr et al., 2013).

### **Health and Mental Fitness**

An employee's wellbeing and mental fitness is an important component in civilian and military populations. Past studies have found that healthy employees are more engaged and committed to their work (Büssing et al., 2017; Chitra & Karunanidhi, 2012; Synard & Gazzola,

2016). Further, personality, coping, optimism, internal locus of control, and hardiness have all been found to positive characteristics contributing to mental toughness (e.g. how people deal with challenges, stress, and pressure) and less vulnerable to negative effects on stress (Gucciardi, Hanton, Gordon, Mallett, & Temby, 2015; Maran, Varetto, Zedda, & Ieraci, 2015; St. Clair-Thompson, Bugler, Robinson, Clough, McGeown, & Perry, 2015; Stamp, Crust, Swann, Perry, Clough, & Marchant, 2015; Wang, Zheng, Hu, & Zheng, 2014; Ward, St. Clair-Thomas, & Postlethwaite, 2018). Resilience and job satisfaction are relevant to all populations that encounter stress (Baek et al., 2015; Chitra & Karunanidhi, 2012; de Visser et al., 2016; Huang, Wang, & You, 2015; Padhy, Chelli, & Padiri, 2015; Upadyaya et al., 2016; Ward et al., 2018). Emergency telecommunicators spend a great deal of time at work, away from their family and friends; therefore, job satisfaction or dissatisfaction, can have spillover effects on an employee's overall life satisfaction (e.g. relationships, health, etc.) (Büssing et al., 2017; Carleton et al., 2018; Chitra & Karunanidhi, 2012; Padhy et al., 2015; Upadyaya et al., 2016).

Psychological flexibility is an individual's response to situations in an acceptable manner with an open mind and the ability to adapt behaviors objectively (Büssing et al., 2017; Chitra & Karunanidhi, 2012; Lilly & Allen, 2015). One way to increase job satisfaction is to redefine an individual's perception of the job (Büssing et al., 2017; Chitra & Karunanidhi, 2012).

Psychological inflexibility is a contributing factor leading to absenteeism, emotional fatigue, burnout, turnover, and early retirement (Chitra & Karunanidhi, 2012; Giesbrecht et al., 2013; Lilly & Allen, 2015; Mijakoski et al., 2015; Mollart et al., 2013; Sheen et al., 2016; Smoktunowicz et al., 2015; Wang, Huang, & You, 2016; Zwijsen et al., 2015). In other words,

there are employees who are affected by the constant influx of traumatic calls, and there are those who have built resilience.

Burnout, a severe form of compassion fatigue, is defined as the “prolonged response to chronic emotional and interpersonal stress on the job” (Büssing et al., 2017; Cohen, Leykin, Golan-Hadari, & Lahad, 2017; Maricuțoiu, Sulea, & Iancu, 2017; McCarty, 2013, p. 803; Mollart et al., 2013; Smoktunowicz et al., 2015; Upadyaya et al., 2016; Wang, Huang, & You, 2016; Zwijsen et al., 2015). Reduced job satisfaction contributes to burnout which, in turn, contributes to turnover (Anshel et al., 2013; Büssing et al., 2017; Jacobson et al., 2013; Mijakoski et al., 2015; Smoktunowicz et al., 2015; Wang, Huang, & You, 2016; Zwijsen et al., 2015). Burnout develops slowly and tends to affect employees’ health, wellness, interpersonal interactions, and job quality (Büssing et al., 2017; Giesbrecht et al., 2013; Mollart et al., 2013; McCarty, 2013; Smoktunowicz et al., 2015; Synard & Gazzola, 2016; Zwijsen et al., 2015). Employees experiencing burnout may report feelings of anxiety, depression, disturbances in sleep, and physical pain; burned-out individuals may perform more poorly at work, be chronically late, or have excessive absences thus negatively affecting the organization (Bakker & Costa, 2014; Giesbrecht et al., 2013; Maricuțoiu, et al., 2017; Zwijsen et al., 2015). Burnout is preventable, but organizations must take proactive measures to ensure the wellbeing of their employees (Giesbrecht et al., 2013; Jacobson et al., 2013; Maricuțoiu, et al., 2017; McCarty, 2013; Mollart et al., 2013; Smoktunowicz et al., 2015; Synard & Gazzola, 2016; Wang, Huang, & You, 2016; Zwijsen et al., 2015).

## Stressors

Emergency service occupations are inherently stressful and emotionally challenging (Büssing et al., 2017; Chitra & Karunanidhi, 2013; Coldridge & Davies, 2017; de Visser et al., 2016; Menard & Arter, 2014; Regehr et al., 2013). Exposure to traumatic and critical events (e.g. events outside the usual range of experiences that have the potential to overcome one's coping mechanisms), irregular eating and sleeping schedules, long and rotating shifts, limited or no breaks, mandatory overtime, working holidays, loss of time with family and friends, family resentment due to missed holidays, coupled with internal pressures of administration and other external factors lend to the stressors of the job (Brunstad, Giske, & Hjälmhult, 2016; Carleton et al., 2018; Chitra & Karunanidhi, 2013; Coldridge & Davies, 2017; Huang, Wang, & You, 2015; Menard & Arter, 2014; Pelser, Bosch, & Schurink, 2016). Stressors can be ongoing and continuous or they can be a singular event with residual effects (Brunstad, Giske, & Hjälmhult, 2016; Carleton et al., 2018; de Visser et al., 2016; Southwick et al., 2014; Wang, Huang, & You, 2016). Further, lack of support from administration, poor communication among colleagues, disrespect by responding units (e.g. police officers, paramedics, and firefighters), and constant media scrutiny are additional stressors (Anshel et al., 2013; Büssing et al., 2017; Carleton et al., 2018; de Visser et al., 2016; Menard & Arter, 2014; Vorell & Carmack, 2014).

Calls tend to be unpredictable in severity, duration, and volume, requiring the 9-1-1 emergency telecommunicators to be attentive, engaged, and focused on the details (e.g. knowing what pertinent information to include in calls and dispatch communications) while operating within the agency's policies and procedures (Brunstad et al., 2016; Regehr et al., 2013; Stafford, 2016). Emergency telecommunicators are typically sedentary positions that can lead to poor

health conditions, such as obesity (Anshel et al., 2013; Büssing et al., 2017; Carleton et al., 2018). Call centers are composed of large rooms with multiple computer work stations strategically placed for simultaneous operation of multiple computer software systems (Stafford, 2016).

In addition to the above stressors, female employees tend to experience additional stress due to gender discrimination, “macho culture” (e.g. fosters and values masculine traits such as aggressiveness and physical strength), the negative attitudes of their male coworkers, sexual harassment, and night duties that interfere with their life responsibilities (Chitra & Karunanidhi, 2013; Chu & Tsao, 2013; de Visser et al., 2016; Menard & Arter, 2014; Upadyaya et al., 2016; Viljoen, 2015; Waudby & Poulston, 2017; Workman-Stark, 2015). Further, women may be described as “weak or as a hindrance” (Viljoen, 2015). Much of this research has been done with male employees; thus, less is known about the effects of the profession on female employees (Chu, 2018; Menard & Arter, 2014; Viljoen, 2015). Female employees often have to prove themselves as capable and trustworthy as their male counterparts (Chu, 2013; Chu & Tsao, 2013; Haake, 2017; Regehr et al., 2013; Viljoen, 2015). To continue, women are often assigned administrative duties even though they attend, complete, and, sometimes outperform their male counterparts (Viljoen, 2015). Further, less social support, lack of role models and mentors, and more scrutiny add to female employees’ stressors (Chu, 2018; McCarty, 2013; Menard & Arter, 2014; Penzler & Sinclair, 2013; Viljoen, 2015).

Female employees often find themselves juggling their demands of work with their responsibility for family life. In one study, McCarty & Skogan (2012) found that female police officers exhibited higher levels of burnout than male police officers. Conversely, women who

tend to be promoted tend to be more resilient and resistant to the identified gender stereotypes (McCarty, 2013; Menard & Arter, 2014; Regehr et al., 2013). Other studies found no significant difference in levels of burnout based on gender differences (Giesbrecht et al., 2013; McCarty, 2013; Menard & Arter, 2014; Smoktunowicz et al., 2015; Zwijsen et al., 2015). These studies, though applicable to this current study, have limitations, as they focus primarily on the experiences of responding units (e.g. police officers, paramedics, and firefighters).

### **Effects of Stress**

Chronic exposure to these stressors has been shown to have psychological and physical repercussions on emergency service personnel. Though many studies have looked at frontline responders (e.g. firefighters, police officers, and paramedics), few studies have found that 9-1-1 emergency telecommunicators experience similar effects while being exposed to these occupational stressors (Huang, Wang, & You, 2015; Lilly & Allen, 2015). Exposure to potentially traumatic events in the occupational setting has been linked to the presence of Post Traumatic Stress Disorder (PTSD) and Secondary Traumatic Stress Disorder (STSD) in sworn personnel, though the effects on 9-1-1 emergency telecommunicators have been greatly understudied (Beck, Logiudice, & Gable, 2015; Carleton et al., 2018; Coldridge & Davies, 2017; Cohen, Leykin, Golan-Hadari, & Lahad, 2017; de Visser et al., 2016; Kintzle, Yarvis, & Bride, 2013; Kulkarni, Bell, Hartmen, & Herman-Smith, 2013; Pierce & Lilly, 2012; Smoktunowicz et al., 2015; Wang, Huang, & You, 2016; Whitfield & Kanter, 2014). STSD has many names including vicarious trauma, secondary traumatic stress, compassion fatigue, burnout, and countertransference and can impact those who are indirectly exposed to trauma (Beck, Logiudice, & Gable, 2015; Büssing et al., 2017; Carleton et al., 2018; Cohen, Leykin, Golan-

Hadari, & Lahad, 2017; Coldridge & Davies, 2017; Sheen et al., 2015; Smoktunowicz et al., 2015; Vorell & Carmack, 2014; Whitfield & Kanter, 2014).

Pierce and Lilly (2012) explored the connection between duty-related trauma and the prevalence of PTSD potential in 9-1-1 emergency telecommunicators. Though 9-1-1 emergency telecommunicators are physically distant from the scene of the event, they have limited control over the event as it unfolds. Emergency telecommunicators encounter a variety of call types including domestic violence, suicide, parking problems, property calls, assault, medical emergencies, etc. (Lilly & Allen, 2015; Regehr et al., 2013).

PTSD and STSD have similar symptomology (Carleton et al., 2018; Whitfield & Kanter, 2014). They both include emotional numbing, avoidance, hyperarousal, depression, anxiety, etc. (Kulkarni et al., 2013; Sheen et al., 2015; Whitfield & Kanter, 2014). PTSD is linked to a singular event experienced by oneself, while STSD affects those who help those who experience traumatic events directly (e.g., crisis workers) (Carleton et al., 2018; Sheen et al., 2016).

There are four stages of both PTSD and STSD development: the introduction of the stressor, re-experiencing the traumatic event, avoiding or numbing of reminders, and persistent arousal (Carleton et al., 2018; Whitfield & Kanter, 2014). One example of a traumatic event or stressor triggering PTSD or STSD symptomology is a call or radio transmission that falls outside of the normal human experience and is distressing to the general population, such as an officer-involved shooting (Regehr et al., 2013; Sheen et al., 2015; Whitfield & Kanter, 2014). Research suggests those who are repeatedly exposed to traumatic events either display the symptomology of traumatic stress disorders (e.g. re-experiencing of the events through recollections or dreams, avoidance of activities that were once found pleasurable, depression, aggression, or anxiety) or



develop effective coping skills that build their resilience from them (de Visser et al., 2016; Folwell & Kauer, 2018; Thieleman & Cacciatore, 2014). Further, chronic exposure to traumatic events can reduce 9-1-1 emergency telecommunicators' capacity for empathy toward callers and other emergency service personnel (Thieleman & Cacciatore, 2014).

During call processing, callers may cycle in their display of emotion (e.g. calm, distraught, heated excitement, etc.). Emergency telecommunicators must remain in control of their emotions while calmly generating the information necessary to determine an appropriate emergency or nonemergency response (Regehr et al., 2013; Thieleman & Cacciatore, 2014). Further, while gathering, processing, and disseminating the information, 9-1-1 emergency telecommunicators must provide calming techniques and instructions to the callers to ensure their safety (Regehr et al., 2013; Upadyaya et al., 2016).

Additional stressors affecting female employees include the conflicts between work and home responsibilities. Women tend to bear the majority of home responsibilities including childrearing, cooking, and cleaning (Chu, 2018; McCarty, 2013; Regehr et al., 2013). Work assignments and shift changes can affect an employee's work-life balance (McCarty, 2013; Thieleman & Cacciatore, 2014). Further, work assignments, shift designations, and employee availability are subject to change with little or no notice (Regehr et al., 2013; Thieleman & Cacciatore, 2014). Feelings of anger and stress coupled with the feelings of sexism and gender-role differences in the workplace can also generate anger (Regehr et al., 2013; Waudby & Poulston, 2017).

## **Job Satisfaction**

Employees that are highly involved in, identify with and emotionally connected to their work tend to be more actively engaged in their work and perform better (Garcia-Sierra et al., 2016; Kilroy, Flood, Bosak, & Chênevert, 2016). Feelings of positive engagement, dedication, and fulfillment of their work have been used to describe employees that are satisfied with their job (Garcia-Sierra et al., 2016; Huang, Wang, & You, 2015; Regehr et al., 2013). Resiliency and internal locus of control are considered personal resources that can help build optimism, positive self-efficacy and self-esteem leading to increased job satisfaction, persistence, and resilience (Huang, Wang, & You, 2015; Steenbergen, Ven, Peeters, & Taris, 2017). Supportive peers, supervisors, and the ability for professional development are beneficial in creating a positive work environment, fostering positive job satisfaction, and establishing positive coping skills (Folwell & Kauer, 2018; Smoktunowicz et al., 2015; Stacey et al., 2017; Steenbergen et al., 2017; Waudby & Poulston, 2017).

Higher levels of occupational stress have been linked to lower levels of resilience and job satisfaction; research has shown that increased pressure and adversity can lead to employees feeling overwhelmed, frustrated, and inadequate (Büssing et al., 2017; Chitra & Karunanidhi, 2013; Regehr et al., 2013; Stacey et al., 2017; Upadyaya et al., 2016). High levels of stress and burnout are linked with reduced work satisfaction, lack of empathy and compassion, and health problems (Büssing et al., 2017; Giesbrecht et al., 2013; Smoktunowicz et al., 2015; Vorell & Carmack, 2014; Whitfield & Kanter, 2014). Less individual job control coupled with job demands and lack of support from supervisors and peers has also been shown to increase burnout (Kulkarni et al., 2013; Smoktunowicz et al., 2015; Vorell & Carmack, 2014).

The provision of emergency services is an expectation of the general population. Emergency service personnel are expected to provide quality care in a quick and effective manner; however, this responsibility to society is often undervalued (Stoughton, 2014). In addition to the societal perspective of emergency service personnel, there is further division between responding units and 9-1-1 emergency telecommunicators. Though 9-1-1 emergency telecommunicators are not involved in the physical response to the call, they are often the first point of contact for both emergency and nonemergency calls for service (Stoughton, 2014). This division is detrimental to positive working relations and to job satisfaction, due to the constant lack of praise and camaraderie (Regehr et al., 2013; Stoughton, 2014). Continual and prolonged separation or exclusion from the common practices and routines of responding emergency service personnel can lead to feelings of resentment which reinforce the idea of institutional inequality (e.g. being excluded from major incident debriefings) (McCarty & Skogan, 2013).

### **Burnout**

Burnout is a prevalent concern among professions with high demands and low resources; another definition of burnout is an employee's reaction to a chronic job stressor resulting in a state of exhaustion (Garcia-Sierra et al., 2016; Giesbrecht et al., 2013; Hinderer et al., 2014; Huang, Wang, & You, 2015; Jacobson, et al., 2013; Kilroy et al., 2016; Kulkarni et al., 2013; Mollart et al., 2013; Silvestri et al., 2013; Wang, Huang, & You, 2016; Zwijsen et al., 2015). Further, burnout symptomology has been shown to have a direct link with increased job dissatisfaction, decreased commitment to the job, increased absenteeism, and increased turnover (Garcia-Sierra et al., 2016; Kulkarni et al., 2013; Mollart et al., 2013; Silvestri et al., 2013; Smoktunowicz et al., 2015; Steenbergen et al., 2017; Zwijsen et al., 2015). To continue, role

conflict, role overload, role ambiguity, emotional exhaustion, and depersonalization contribute to burnout (Carleton et al., 2018; Giesbrecht et al., 2013; Huang, Wang, & You, 2015; Kilroy et al., 2016; Smoktunowicz et al., 2015; Vorell & Carmack, 2014; Zwijsen et al., 2015).

### **Vicarious Trauma**

Vicarious trauma, secondary traumatic stress, or compassion fatigue are synonyms describing the effects of individuals working with individuals whom have directly encountered the stressor such as 9-1-1 Emergency Telecommunicators (Regehr et al., 2013; Sattler et al., 2014). Several studies have shown that the majority of adults in the US have experienced trauma at some point in their life (Cosden, Sanford, Koch, & Lepore, 2016; Foreman, 2018; Taylor, Bradbury-Jones, Breckenridge, Jones, & Herber, 2016). The frequency and severity of the traumatic event can differ from person to person as can the frequency and severity of the adverse effects (Foreman, 2018; Lewis & King, 2019; Regehr et al., 2013; Taylor et al., 2016). To continue, 9-1-1 emergency telecommunicators are continually exposed to the traumatic experiences of their callers and/or responding personnel (Foreman, 2018; Halevi & Idisis, 2018; Taylor et al., 2016). Vicarious trauma, or secondary traumatic stress, can occur when an individual is empathetically engaged with or negatively affected from hearing about another's traumatic events (Boulanger, 2018; Cosden et al., 2016; Decker, Brown, Ong, & Stiney-Ziskind, 2015; Foreman, 2018; Taylor et al., 2016). Cynicism, withdrawal, anxiety, depression, inability to cope, hyperarousal, and reduced work capacity or effectiveness can be visible in individuals with higher levels of vicarious trauma if left untreated (Cosden et al., 2016; Foreman, 2018; Rivera, 2015). To continue, individuals with better coping skills were shown to handle the effects of vicarious trauma much more effectively than those without a coping or wellness plan

and thus have a better quality of both personal and professional life (Cosden et al., 2016; Folwell & Kauer, 2018; Foreman, 2018; Halevi & Idisis, 2018; Regehr et al., 2013). Variables to vicarious trauma include the employee's supervisory relationships, personnel support (e.g. debriefing room, kitchenette, refrigerators, etc.), job satisfaction or dissatisfaction, peer relationships, social support, lack of training for work related trauma, workload, or work hours (Cosden et al., 2016; Foreman, 2018; Lewis & King, 2019; Vorell & Carmack, 2014).

Vicarious trauma can be avoided or symptoms lessened when individuals have the proper training and coping skills to handle the stressors can aid in building resilience (Boulanger, 2018; Folwell & Kauer, 2018; Lewis & King, 2019; Taylor et al., 2016). Posttraumatic growth can occur following such exposure (Taylor et al., 2016). It is important for agencies to take proactive steps to identify the emotional risks and potential triggers for vicarious trauma, identify training appropriate to reduce the impact on employees, and/or consider a mentoring or formal counseling program (Grise-Owens, Miller, Escobar-Ratliff, & George, 2018; Lewis & King, 2019; Taylor et al., 2016). One arguable factor contributing to vicarious trauma is the exposure or distance an individual is from the traumatic event (e.g. on the phone and not in person) (Taylor et al., 2016). Some argue that this acts as a protective factor while others counter with saying it increases the feelings of helplessness as one is not able to intervene and physically help the situation (Decker et al., 2015; Taylor et al., 2016). Another factor potentially contributing to vicarious trauma is the necessity to remain calm and in control while being exposed to the stressor (e.g. taking a call that would evoke a strong emotional response such as one involving a child) (Taylor et al., 2016). Emergency telecommunicators must remain neutral, empathetic, and caring while processing calls for service; their personal experiences, beliefs, relationships, and

values must not be considered while processing the call for service (Taylor et al., 2016). Much more research is available on professions that are physically exposed rather than those that are emotionally exposed (Regehr et al., 2013; Taylor et al., 2016).

### **Coping Strategies**

Coping skills and strategies are developed over time, thus employees with experience tend to have the abilities to handle stressors in a more efficient manner, however more studies are needed in this area (Chitra & Karunanidhi, 2013; Folwell & Kauer, 2018; Huang, Wang, & You, 2015; Sattler et al., 2014). Coping is defined as one's ability to manage stressful thoughts and feelings and to deal with unpleasant events from which those feelings come (Anshel et al., 2013; de Visser et al., 2016; Folwell & Kauer, 2018). When one cannot change their circumstances or the events they are faced with, having effective coping skills can support improved job satisfaction (Anshel et al., 2013; Carleton et al., 2018; de Visser et al., 2016; Folwell & Kauer, 2018; Kilroy et al., 2016; Sattler et al., 2014; Steenbergen et al., 2017; Vorell & Carmack, 2014). Personal competence, tolerance of negative work environment, positive acceptance of change, adaptability, etc., lend to one's ability to cope in stressful conditions (Chitra & Karunanidhi, 2013; Upadyaya et al., 2016; Rivera, 2015). Further, support from family, friends, coworkers, and administration has been found to increase job satisfaction and to reduce the negative effects of the exposure to these stressors (Carleton et al., 2018; Upadyaya et al., 2016; Vorell & Carmack, 2014). Additionally, racial and ethnic minority employees were found to have lower levels of burnout than their Caucasian counterparts (Kulkarni et al., 2013; McCarty, 2013; Regehr et al., 2013).

There are both positive and negative coping skills and strategies (Anshell et al., 2013; de Visser et al., 2016; Folwell & Kauer, 2018). We cannot eliminate 9-1-1 telecommunicators stressors, thus, we must teach them how to effectively manage their stress (Anshell et al., 2013; de Visser et al., 2016; Regehr et al., 2013). “Approach coping” is the process of gathering information and evaluating the identified threat; planning, monitoring, venting, and strategizing are also examples (Anshell et al., 2013; de Visser et al., 2016; Folwell & Kauer, 2018; Sattler et al., 2014). Avoidance coping, conversely, consists of physically removing oneself from the perceived threat (Anshell et al., 2013; Carleton et al., 2018; de Visser et al., 2016; Folwell & Kauer, 2018). Exercising, walking away, determining the relevance of information, and distancing oneself from the stressor are examples of avoidance coping (Anshell et al., 2013; de Visser et al., 2016; Folwell & Kauer, 2018). “Approach coping” is the primary coping skill among law enforcement, although avoidance coping can be used also (Anshell et al., 2013; de Visser et al., 2016; Folwell & Kauer, 2018). One is not better than another, they are just different (Anshell et al., 2013; de Visser et al., 2016; Folwell & Kauer, 2018). Additional positive coping skills include: exercise, nutritional eating, visiting friends, and engaging in or learning a hobby. Positive social support, internal locus of control, and an engaging environment have been shown to have positive effects on the reduction of job dissatisfaction (Garcia et al., 2016; Folwell & Kauer, 2018; Huang, Wang, & You, 2015; Regehr et al., 2013). Negative, or maladaptive, coping skills include: smoking, drinking, violence, engaging in risk-taking behavior, and isolating oneself from others (Anshell et al., 2013; de Visser et al., 2016; Folwell & Kauer, 2018).

## **Resilience Theory**

Resilience theory is a relatively new theoretical framework that has also been scrutinized (Van Breda, 2018). Some view resilience theory as a 'fad' or 'band wagon' phenomenon (Garrett, 2016; Van Breda, 2018). Others support the development of resilience through repeated exposure and positive coping skills (Folwell & Kauer, 2018; Upadyaya et al., 2016). For the purposes of this study, I will use resources supporting and accepting the theoretical framework of resilience theory. Though there are many definitions of resilience, most agree that resilience is the successful adaptation of an individual following a traumatic event or stressor; an individual that continues to function positively and remain effective though facing adversity is found to be resilient (Antcliff et al., 2014; Baek et al., 2015; Bonanno & Diminich, 2013; Brunstad, Giske, & Hjälmhult, 2016; de Visser et al., 2016; Pack, 2014; Southwick et al., 2014; Van Breda, 2018; Wang, Huang, & You, 2016). Resiliency can be either inherent or learned and researcher have found supporting evidence for both; further, resilience can be taught, developed, and enhanced through education, practice, feedback, and support (Carleton et al., 2018; Stacey et al., 2017). Researchers have found that though individuals may be vulnerable and experience similar traumatic events, there is no universal and/or definitive outcome; some individuals are able to continue functioning in a normal capacity, some may be momentarily affected and then return to their 'normal' state of functionality, and others may be significantly negatively affected by the traumatic event (Theron, 2016; Van Breda, 2018).

Resilience is not fixed and an individual who is resilient in one instance may not be in a different situation (Antcliff et al., 2014; Baek et al., 2015; Carleton et al., 2018; Davies & Coldridge, 2015; de Visser et al., 2016). On the other hand, individuals exposed to the same



stressor or trauma may not experience the trauma in the same severity or context as another (Antcliff et al., 2014; Carleton et al., 2018; Davies & Coldridge, 2015; de Visser et al., 2016; Van Breda, 2018). Research on resilience has found that when individuals utilize their personal strengths in conjunction with their environmental resources (e.g. social support, EAPs, etc.) positive adaptation is facilitated (Huang, Wang, & You, 2015; Marcatto, Colautti, Filon, Luis, Di Blas, Cavellero, & Ferrante, 2016; Yuen, Wong, Holroyd, & Tang, 2014).

### **Summary**

Chapter 2 explored the available literature related to female 9-1-1 telecommunicators, job satisfaction, stressors, coping skills, and resiliency theory. Though research exists in the area of many public safety occupations (i.e. police officer, firefighter, paramedic, etc.), I was unsuccessful in finding much information about 9-1-1 emergency telecommunicators, specifically female 9-1-1 emergency telecommunicators. Chapter 3 will address qualitative research methodology and design in relation to the identified research questions. Further, the specific research design of case study, the identified sample and data collection techniques, the method of analysis, and autonomy will be discussed in Chapter 3.

## Chapter 3: Research Method

### **Introduction**

This study examined the perceptions of the stressors and coping strategies of Florida's female 9-1-1 emergency telecommunicators in one combined communications center. Case studies are useful in gaining a better understanding of lived experiences of individuals within a subcultural group, or profession, and the subcultural group's role in society (Cope, 2015; Rivera, 2015; Yazan, 2015). Exploring lived experiences of female 9-1-1 emergency telecommunicators will be useful in understanding the stressors present, the perception of these stressors, and productive or counterproductive coping skills (Cope, 2015; Folwell & Kauer, 2018; Regehr et al., 2013; Rivera, 2015; Yazan, 2015). This study was designed to collect information that will allow readers to gain a better understanding of the stressful complexities, functionality and role of a female 9-1-1 emergency telecommunicator in the emergency-response cycle and how the individuals cope.

### **Research Design and Rationale**

The nature of this study was a qualitative case study. Exploring the lived experiences of female 9-1-1 emergency telecommunicators can shed light on this uniquely bound group of individuals thus a case study approach was utilized (Cope, 2015; Regehr et al., 2013; Rivera, 2015; Yazan, 2015). Collecting data from individuals at one Florida 9-1-1 emergency call center allowed for information to be gathered in a neutral setting and allowed the participants to express themselves in an open and honest forum (Habibi, Mukminin, Riyanto, Prasajo, Sulistiyo, Sofwan, & Saudagar, 2018; Marcatto et al., 2016; Pelser et al., 2016; Taylor & Thomas-Gregory, 2015; Yazan, 2015). This instrumental case study allowed for collection of information from the

perspective and interpretation of the participants in one Florida Emergency 9-1-1 center. Case studies allow for close inspection of a “single or small number of “cases,” set in their real-world context (Cope, 2015; Habibi et al., 2018; Taylor & Thomas-Gregory, 2015; Yazan, 2015). This was good starting point for future research to identify themes within this one case that can be applicable to other emergency call centers (Cope, 2015).

### **Role of the Researcher**

I was an observer-participant in the collection of data through this case study. I built rapport with the participants through informal conversation and semi-structured focus groups,. The choice of case study, allowed the researcher a flexible design to adjust the research approach based and guided data collection (Cope, 2015; Habibi et al., 2018; Pelsner et al., 2016; Yazan, 2015). I have no conflict of interest as I have no connection with this location.

I have worked continuously, either full or part time, in the realm of 9-1-1 Emergency Communications Centers since June 2003. The Alachua County Sheriff’s Office Combined Communications Center was eliminated from the possibilities of research sites as I have worked (and continue to work) there for the last sixteen years. Further, I have worked closely with and presented research and trainings at many public safety conferences including the Florida Criminal Justice Information Services (CJIS) Annual Training Symposium, Florida APCO/NENA and APCO International Conferences, and IAED NAVIGATOR Conferences. I made sure that participants understood that my role will be that of a researcher and not as a colleague for the purposes of this study.

## **Methodology**

This section includes participant selection, instrumentation, procedures, and planned data analysis.

### **Participant Selection**

The case study research design includes in-depth, semi-structured questions and focus groups as the primary data collection instrument. The targeted purposeful sample population for this study was female 9-1-1 emergency telecommunicators from a North Florida combined emergency communications center. A purposeful sampling was utilized to gain an understanding of the perceptions of stress of female 9-1-1 emergency telecommunicators and their coping mechanisms. The targeted sample population was composed of female participants aged from 18 – 65 who are certified through the Florida Department of Health Public Safety Telecommunications Program and are considered “solo” in their employment status (e.g. the participant can work the position without a trainer). Participation in the study was voluntary.

### **Instrumentation**

Individuals were invited to a focus group at a neutral location away from the emergency communication center. Interaction and observation allowed for the opportunity to sit with the participants, build rapport, and gather information through an informal semi-structured approach; focus groups often foster a more organic and natural conversation than interviews (Arcelay-Rojas, 2018; Pelsler et al., 2016). Focus groups allowed for discussions among participants to explore their perceptions of the topic. The group consisted of female Florida 9-1-1 telecommunicators from one Florida Emergency Telecommunications center, thus the group members share certain characteristics (e.g. gender, certification, profession, etc.) while each

participant still maintained her own identity (Arcelay-Rojas, 2018; Habibi et al., 2018; Pelsler et al., 2016). Throughout the discussion, I acted as a moderator to guide the discussion, redirect or clarify when necessary (Arcelay-Rojas, 2018; Habibi et al., 2018). As the participants exchanged their perspectives and experiences through interaction, the moderator was able to further explore reasons and outcomes (Arcelay-Rojas, 2018; Habibi et al., 2018; Pelsler et al., 2016). There were two proposed focus groups to allow for members of all shifts to attend however only one focus group was needed due to the responses of those that participated. The focus group was composed of six and 120 minutes. See Appendix A for focus group questions.

Semi-structured questions are an effective instrument for social science researchers to gather information about the lived experiences of the participants in a case study. Semi-structured interviews with a representative group of female 9-1-1 telecommunicators who have successfully completed the training requirements and are considered “solo” operators were conducted. In-depth questions were developed to explore the lived experiences and perceptions of the participants in this study to gain insight of their stressors and coping skills. See Appendix A for the questions. The interview consisted of ten open-ended questions exploring job stress (e.g. job burnout, workplace stressors, and external stressors) and coping methods. The semi-structured questions were open-ended and delivered in a face-to-face format. Follow up questions were used only if the participants’ response required further clarification. It was understood that the process could be altered during the interview as the participants began to discuss their perspectives. Demographic information was collected such as age, positions worked, length of service, and educational level completed by each participant. The focus groups were personally transcribed accurately, utilizing the tape recordings, continually categorized, and

organized according to identified patterns and direct interpretation (Cope, 2015; Habibi et al., 2018; Taylor & Thomas-Gregory, 2015). An excel table was utilized to track themes and code the finding appropriately.

### **Procedures for Recruitment, Participation, and Data Collection**

I followed Walden University's research ethics and compliance guidelines for data collection. I did not conduct any questions or speak with any participants until I acquired IRB approval. After receiving approval from the IRB and clearing my plans with my dissertation committee, I conducted face-to-face semi-structured focus groups with the identified 9-1-1 emergency telecommunicators at a neutral location.

I sent a flyer to the manager of the communications center inviting individuals to participate in this study. I asked the manager of the communications center to post the flyers and email the invitation to the staff. There was an explanation of process, purpose, and goal of the study.

An informed consent form was given to each participant. Participants were asked to read the informed consent form and confirm their understanding of the process. The consent forms included a brief description of the purpose of the study, background information, explanation of the data collection process, explanation of the voluntary nature of the study, risks and benefits of participating in the study, confidentiality, interview questions, and a statement of consent which allowed the researcher to record the interviews and focus-group discussions. The site was chosen based on accessibility and willingness to participate in the study. Further requirements were answering of 9-1-1 calls and dissemination of police, fire, and medical resources.

## **Data Analysis**

Raw Qualitative data is analyzed best when the researcher transcribes his/her own data from the audio recordings; this allows the researcher to ensure the context and accuracy of the information available (Cope, 2015; Taylor & Thomas-Gregory, 2015). I transcribed the focus-group discussions via the audio-recordings. I chose to transcribe the focus-groups to provide a view at the group dynamics during the exchange of information. I utilized field notes in addition to the transcription to ensure that the emotions and actions are accurately captured; field notes provided an area to record non-verbal cues such as facial expressions, emotions, and my experience in collecting the data (Pelser et al., 2016). I assigned a unique code to each participant to ensure their privacy is protected and maintain confidentiality. The code consisted of a number and a letter, for example, 1D. In this example, the number represents the focus group the participant was a part of (i.e. Group 1). The letter represents the corresponding participant in Group 1.

I utilized an Excel spreadsheet to organize and analyze data and identify themes associated with the research questions. I continuously examined, analyzed, categorized, and coded data during the data collection process to look at identifying themes, trends, and patterns amongst the participants' responses (Arcelay-Rojas, 2018; Cope, 2015; Habibi et al., 2018; Taylor & Thomas-Gregory, 2015). This allowed me to begin analyzing my data from the first focus-group session. Each focus group was kept in a separate spreadsheet with the questions, coded responses based on the above created code, and my comments. After all of the responses were captured, I created a spreadsheet to group, organize, and sort the responses to each question while ensuring the code as identified above. I read all of the responses and looked for the most

frequent answers, words, or trends among the participants. As the themes emerged, I consolidated the data into categories and subcategories. Looking at the data to identify common themes, words, descriptions, etc. was useful in utilizing a system of axial coding (Pelser et al., 2016). I looked at the frequency a topic is brought up, the impact of the stressor on the participant (e.g. how she describes the severity of the stressor), and lastly, unique characteristics or anomalies. A personal log or journal was kept to record my ideas, observations or connection to existing theories (Pelser et al., 2016).

### **Issues of Trustworthiness**

#### **Threats to Validity**

To ensure that research is valid and reliable, steps were taken to ensure that the data collected and the conclusions drawn are relevant to the purpose of the study (Cope, 2015; Taylor & Thomas-Gregory, 2015). Threats to validity can be both internal and external and can compromise the study making the findings irrelevant to the study (Cope, 2015; Taylor & Thomas-Gregory, 2015). It is important that I sought safeguards to ensure my approach, data collection, and analysis procedures were appropriate for their identified research goals (Pelser et al., 2016).

Obtaining, interpreting, and sharing participants' experience is both a great privilege and great responsibility thus it is vital that I took proactive steps to consider credibility, transferability, and dependability (Pelser et al., 2016). Data triangulation was used with the focus groups to verify the information collected during the interviews (Pelser et al., 2016). Researcher triangulation will be used by discussing the focus groups with my dissertation chair and committee to ensure that I accurately interpreted and represented the data (Pelser et al., 2016).



**Credibility (Internal Validity)**

Case studies provide an opportunity for the researcher to explore and understand the perspectives of the participants in the study (Cope, 2015; Taylor & Thomas-Gregory, 2015). Internal validity, as it relates to social science research, is the truthfulness and reliability of the data collected and inferences drawn (Cope, 2015; Taylor & Thomas-Gregory, 2015). The experiences, perceptions, and emerging trends found through the study should positively contribute to the scientific body of knowledge and make a positive social change on the identified population. Further, it is necessary to understand my prior knowledge and experience as well as my role in the research being performed.

**Transferability (External Validity)**

External validity of this study includes the ability to apply the findings to other populations, in other circumstances, or at other times (Cope, 2015; Taylor & Thomas-Gregory, 2015). Additionally, participants may have altered or withheld information while answering questions or being observed for fear of retaliation from their superiors. This research study may be suited for individuals with similar experiences or in similar occupational settings (i.e. telenursing).

**Dependability**

It is important for studies to be dependable, reliable, and able to be replicated (Cope, 2015; Taylor & Thomas-Gregory, 2015). To continue, studies should contribute to positive social change and the existing body of knowledge available (Cope, 2015; Taylor & Thomas-Gregory, 2015). Study design and methodology, research topics, and the ability to expand the

existing knowledge are vital components for researchers to consider when designing research studies.

### **Ethical Procedures**

It is vital to protect and do no harm to human participants in social science research. Further, ethical practices and procedures helped to ensure that the study is valid and reliable. It is important for researchers to be open, honest, and aware of how their previous knowledge and experiences help shape their perspective and/or biases. I sought additional training on experimentation of human participants as well as guidance from my dissertation committee before and during information gathering. I acted in compliance with local, state, and national rules and regulations. I informed all participants of the voluntary nature of the study as well as confidentiality guidelines.

### **Summary**

This case study involved exploring the lived experiences of female 9-1-1 emergency telecommunicators at one North Florida 9-1-1 Emergency call center. It is my hope that this study helps to contribute to the scientific body of knowledge available on the stressors and coping skills of female 9-1-1 Emergency telecommunicators. I conducted semi-structured focus groups to obtain data. I then transcribed and analyzed the data to look for common words and/or themes and coded them accordingly. A Microsoft Excel spreadsheet was used for organizing and storing the data. The study followed Walden University's IRB procedures to ensure ethical practices with the research participants. Consent forms were distributed, understood and confirmed before beginning the study. I audio recorded the focus group which lasted 120 minutes and was conducted away from the 9-1-1 emergency call center. After completing the

focus group, the participants will be given my contact information and as well as the contact information for my dissertation committee chairperson. At the conclusion of the study I will provide the participants with a summary of the research findings.

Chapter 3 includes the research design and rationale, the role of the researcher, methodology, participant selection, instrumentation, ethical procedures, and summary. Chapter 4 includes a discussion of the demographics of the participants, a description of the call center setting, data collection, data analysis, results, evidence of trustworthiness, and a summary. Chapter 5 includes the findings, limitation of the study, recommendations for change, and conclusion.

## Chapter 4: Results

### **Introduction**

The purpose of this qualitative case study was to identify and explore stressors and coping strategies of female 9-1-1 emergency telecommunicators in Florida. The general problem surrounds the unknown aspects of the 9-1-1 profession, more specifically the identification of the stressors and coping of 9-1-1 operators. 9-1-1 is used throughout the United States and Canada, yet continual understaffing, high turnover, and low retention are nationwide concerns (Pierce & Lilly, 2013; Stafford, 2016; Vorell & Carmack, 2014).

I used the following research questions to identify and explore perceived stressors and coping strategies of female 9-1-1 emergency telecommunicators.

RQ1: What are the perceptions of work stressors of female 9-1-1 emergency telecommunicators?

RQ2: How do female 9-1-1 emergency telecommunicators describe their coping strategies to manage these stressors?

This chapter presents an analysis of the data collection process, data analysis techniques, and the results from the focus groups. The purpose of this case study was to identify stressors and coping skills of female 9-1-1 telecommunicators at one combined communications center in Florida. Face-to-face focus groups allowed me the opportunity to gather information, both verbally and nonverbally, from the participants. Further, focus groups allowed for the exchange of information between the participants and me, as well as the participants to one another. I was then able to analyze data from the participants and identify emerging themes associated with their experiences.

## **Study**

The study was conducted at a combined communications center in North Central Florida. Invitational letters were sent through the United States Postal Service and email communications to five different agencies asking for voluntary participants. Participants opting into the study responded to the email and the data collection site was chosen based on the largest number of responses from one agency. Each participant was assigned a study identification number to ensure their information was kept private. Six of the fourteen female 9-1-1 emergency telecommunicators agreed to participate in the study.

## **Setting**

The study was conducted within one rural county's combined communications centers in Florida, which serves nearly 1000 square miles and has a population of approximately 75,000 people. The center is staffed twenty-four hours a day, seven days a week and operates on twelve-hour shifts from 6:00 am to 6:00 pm and 6:00 pm to 6:00 am. There are twenty-six fulltime positions budgeted for the center, however there are currently five fulltime openings. To compensate for this, there are four part-time employees. There are fourteen fulltime female and seven fulltime male telecommunicators, with three female part-time and one male part-time telecommunicators. The center is 65% Caucasian, 23% African-American, and 11.5% Hispanic or other nationality. There are currently four telecommunicators in training.

After hire, the telecommunicators go through a two-week orientation/classroom phase before being placed with a Certified Training Officer (CTO) on shift. The agency tries to start all new hires at the call taking position, and then each radio position is considered a promotion. Training occurs with the promotion and based on the needs of the center. The required

Department of Health Public Safety Telecommunication course is delivered to new hires via a third-party online state college program, after individuals have passed certain preliminary steps in their training.

Each shift is composed of call takers, two law-enforcement radio operators, a teletype operator, and a fire/EMS radio operator. All 9-1-1 calls for the county are answered at the center and emergency services are disseminated from the center. The teletype position is responsible for running wants and warrants checks, drivers' license checks, stolen items checks, and confirmations. The law enforcement radio operators are split, with one working the sheriff's office radio and the other dispatching all the smaller municipal police agencies. All fire and EMS calls are dispatched by the fire/EMS radio operator.

The dispatch center is located in the center of a building and housed at the sheriff's office with other public safety entities. The room is well equipped with lights, however, the lighting is often determined by the preference of those working, per one participant. The work consoles are grouped according to the position being worked (e.g. law enforcement radio operators are in the same 'pod' as their teletype operator and all call takers are seated together. The work console is composed of six computer screens: one for the phone system, one for administrative processes (e.g. running local warrants), three for the computer aided dispatch, and one for the radio. The desks can raise or lower based on the employee's choice to sit or stand. The room is relatively cool in comparison to other parts of the building as a means to keep the computers cool enough to work properly. Employees are not allowed to utilize personal heaters for fear of power malfunction or fires.

### **Demographics**

Six female telecommunicators, aged nineteen to sixty-four, with multiple levels of experience (six months to twenty-one years), agreed to participate in the focus group. The communications center chosen was a combined communications center. All 9-1-1 calls are answered here; most law enforcement, and all fire services are dispatched from this center. Upon hire, employees start at the call taking position; each position learned after is considered a promotion. The increase in position workability comes with additional responsibility and additional pay.

The participants that volunteered were all Caucasian. All were full-time employees and worked two –three positions (e.g. calls, law enforcement radio, and one was a supervisor who worked all positions); all female employees were invited, however only call takers and some law enforcement operators chose to participate. It would have been advantageous to the research if fire/rescue dispatchers had shared their experiences, but that was not the skill set of any of the voluntary participants.

### **Data Collection**

After receiving permission from the Institutional Review Board (IRB), an invitation letter for participation was sent via email and US Postal Service to five combined communications centers in North Central Florida. After a participant agreed to participate, an email was sent with an invitation to a focus group. The focus group was arranged around the shift of the employees. All participants were currently assigned to dayshift, making it conducive to hold a focus group from 7:00 pm to 9:00 pm. The focus group was held at a neutral location separate from the

communications center. I facilitated the focus group and ensured the collection of demographic information, as well as questions connected to stress and coping strategies.

Before beginning the discussion, the consent form was reviewed. It was explained to all participants that participation was voluntary and that they could withdraw from the study at any time. Participants were given ten minutes to review the consent form and ask questions. Participants were asked eight semi-structured questions. They were informed that the focus group would be recorded and that I would be taking notes during the process. The focus group lasted two hours. The focus group was audio recorded using a digital audio recorder and transcribed for further analysis by myself into a Microsoft Word document. I was then able to utilize Microsoft Excel to group information. All participants agreed to the audio recording of the focus group. Pseudonyms were assigned to participants to protect their privacy; I made sure to exclude any identifiable data.

### **Data Analysis**

The focus groups were digitally audio recorded and translated verbatim. Continual comparative analysis was used to identify reoccurring themes from the transcription of the focus group. Phrase categories were identified and similar topics grouped together (Folwell & Kauer, 2018; Vorell & Carmack, 2014). After all data was collected, the responses were grouped according to the interview question (e.g. all responses to Question 1 were grouped with Question 1). I then went through the responses, line by line, to look for repeated words, phrases, or ideas. Words such as stress, shiftwork, salary, staffing, training, family, support, and decision making were used frequently by the participants. Notes were made on the transcriptions as potential codes were inductively identified in reference to the stressors and coping strategies. Further notes



were made as to any connections between identified phrases (Folwell & Kauer, 2018; Vorell & Carmack, 2014).

A code spreadsheet was created to identify, define, and track each theme and the rationale for inclusion of the theme. Responses were grouped under the reoccurring themes and ideas. Examples were also identified in the spreadsheet and the transcribed record. The transcriptions were reviewed again to verify the analysis of the categories and confirm that data had been labeled and sorted properly.

### **Evidence of Trustworthiness**

Through participant identification, data collection, and data analysis, steps were taken to ensure the trustworthiness of the findings via the establishment of credibility, transferability, and dependability (Folwell & Kauer, 2018). Credibility was established by recording and transcribing the focus group discussion. My dispatch experience was helpful in understanding the experiences and terminology used by the participants. Further, my past experience helped to establish rapport and create a comfortable environment for the exchange of information with participants. To continue, several participants shared similar experiences, emotions, and stressors. To enhance credibility, participants were provided a summary of the findings and initial interpretation of the data to confirm that their viewpoints and experiences were accurately represented (Folwell & Kauer, 2018). A detailed description of the participants, the communications center, and the county were included to deepen transferability; understanding the participants, context, and setting of the study is helpful in developing future studies (Folwell & Kauer, 2018). To deepen dependability, focus group protocol was established and utilized as

was the protocol established and utilized during the process of documentation and data analysis (Folwell & Kauer, 2018).

## Results

This study sought to understand the stressors and coping strategies of women in Florida 911 emergency call centers. The following table describes the major categories and recurring and emerging themes from the data collection and analysis process.

Table 1 *Major Categories from Open Coding of Focus Groups*

Major Categories	Recurring Themes
Category 1: Perception of Stress	1.1 Positive Stress 1.2 Neutral Stress 1.3 Negative Stress
Category 2: Professional Stressors	2.1 Salary 2.2 Administrative Decisions 2.3 Work Environment Stress 2.4 Training and In-services 2.5 Community Awareness
Category 3: Work/Life Balance	3.1 Shiftwork 3.2 Staffing
Category 4: Coping Mechanisms	4.1 Family/Peer Support 4.2 Faith 4.3 Exercise 4.4 Emotional Awareness 4.5 Stress Reduction Techniques

The first research question in the study asked the following: What are the perceptions of work stressors of female 9-1-1 emergency telecommunicators? The responses were broken down into three main themes: perception of stress, professional stressors, and work/life balance.

## Perception of Stress

The responses to the research question yielded that six out of six participants experienced stress on a daily basis. Each of the participants described job duties and events that were either positive stress, neutral stress, or negative stress.

**1.1: Positive Stress.** Two respondents advised that working through the stress reminds them daily of why they chose the profession. One respondent advised ‘people don’t call 9-1-1 on good days. They call when they need help and we are here to answer their call.’ The participants agreed that being able to serve those in need at their time of need was internally rewarding. Further, participants advised that utilizing their problem solving skills to help responding units complete calls was a positive attribute to this profession.

**1.2 Neutral Stress.** All respondents advised that they either sought this profession or remained in this profession due to the variable nature of the job (e.g. days are never the same). Three participants expressed excitement when working multiple calls at a time and having to strategically manage units to ensure all citizens were served well. Further, the participants advised that on a busy night, continual working of calls allows them to remain engaged and more alert finding that the balance of the positive and negative stress contributed to their ability to thrive in the profession.

One participant described the “adrenaline rush” as something that helped her get hyper focused and handle the call effectively. The continual and unexpected nature and frequency of calls, requires 9-1-1 emergency telecommunicators to continually be ready to process whatever comes in. Further, 9-1-1 emergency telecommunicators, often, do not know the outcome of the calls which can also lead to an increase in stressful emotions per one participant. A third

participant described knowing callers and having to keep one's emotions 'in check' while processing a call. "Citizens call 9-1-1 for help. Sometimes the citizen calling is your relative. We have to be ready for that and handle the call. We can freak out later."

During the discussion, participants discussed being understaffed and feeling stressed. One participant's view is as follows.

Sometimes we need to get up and walk around and we just can't because there is no one to work our position. We might not have time to calm down or decompress between calls; you just have to suck it up and keep answering the phones. Sometimes I might threaten to throat punch a deputy but I am mostly kidding. I can usually feel if I need to 'blast off' and then my supervisor, when possible, will come and relieve me so I can step out for a moment. Usually after walking around, I have regained my composure and can come back in and do my job. It's important to remain objective and not let my personal biases and feelings affect how I handle the incoming calls.

One participant discussed daily adversity as a major external stressor.

Citizens, supervisors, command staff, and even the media always have something to say about what we can do better. We can do everything right and then one time we make a mistake and that is what everyone wants to talk about. Talk about scrutiny. We get criticized by people that don't even know how to do our job.

Another participant discussed external stressors and reaction to stress associated with the fluctuation of call intensity and conflicting information.

You think the call will go one way and then as you are taking the call things change.

When the units get there, it is a totally different situation than what they said on the

phone. I took a call one time and I just knew that the caller was the victim. She went on and on about how her husband had beaten her. I just knew when they got there she was going to be barely hanging on for her life. When they got there and advised they were 10-15 (police ten code to mean arrested) on an adult female, I was shocked. I asked the road unit to call in. Turns out she had beaten her husband in his sleep with a frying pan. He was in a coma for about three weeks. It was crazy.

Another participant describes how a stressful call can make time feel it has stopped. She gave an example of a call in which a deputy needed assistance and the backup unit was coming from far away. She advised that it 'felt like forever' for the second unit to arrive on scene, all while the first unit was engaged in a physical fight with the suspect.

Participants continued with how employees showed stress. One participant attributed her ulcers and 'tummy issues' to being work related. Another participant described the work-related ailments affecting the rest of the shift in a negative way. One participant gave an example of employees having documented Family Medical Leave Act (FMLA) documentation and the 'holes in the schedule' this created. "We are already understaffed. When someone calls out all the time, we really have no chance for breaks." Sleep interruptions were also discussed as well as feelings of continual fatigue amongst participants.

**1.3: Negative Stress.** Participants advised that staff are often not given training on how to manage stress from daily work life. Further, all participants acknowledged the ebb and flow of calls for service; 'sometimes it is busy and sometimes there are no calls.' Another participant advised that some calls are routine calls for service such as a parking lot fender bender while others may be much more intense such as an armed robbery. 9-1-1 emergency

telecommunicators are continually exposed to traumatic experiences that others not working in the emergency services profession would be exposed to and would have difficulty understanding. One participant advised that they have experienced negative medical effects of stress in the form of ulcers. One participant acknowledged that her mother did not understand her 'potty mouth' until she herself took a job working in the jail. Another participant discussed the balance of work stress with that of home stress; she continued with the explanation of people not in the profession not understanding when she processed a bad call or could not attend her child's school function due to work demands.

All participants agreed that they were more cautious of people than and not as trusting as before they entered into this profession. Further, participants agreed that their tolerance of 'unimportant' things was significantly decreased since working in this profession. When I asked for clarification, one participant advised that most people [outside of the emergency service profession] 'freak out' about stuff that 'isn't important.' To continue, one participant expressed frustration with citizens 'not being educated on 9-1-1 call processing.'

### **Professional Stressors**

Professional stressors related to the causes of stress from working as a 9-1-1 emergency telecommunicator. Five themes emerged from this primary theme: (2.1) Salary, (2.2) Administrative decisions, (2.3) Work Environment Stress, (2.4) Training and In-service and (2.5) Community Awareness.

**2.1 Salary** 9-1-1 emergency telecommunicators salaries are below the average salaries of their sworn counterparts; at this agency the starting salary is \$12.76 per hour, twenty-eight cents less than the starting salary of a local fast food restaurant. During the focus group, one

participant advised that she left the profession for a higher paying job but returned because she did not enjoy the other job. Another participant stated, 'I did not choose this job for the money, that's for sure.' County officials have promised salary increases for the last several years but there has been no follow through on this, although one participant felt that this would be addressed this year. All of the participants agreed that salary was a major stressor. Two participants work second jobs in addition to their overtime assignments as a means to support their families. Overtime and second jobs must be worked either before or after one's scheduled twelve hour shift or on one's day off thus taking away more time from personal and family time.

**2.2 Administrative Decisions** All participants conveyed varying levels of mistrust for administration. The reasons for the mistrust ranged from management not understanding the job requirements to management treating individuals unequally. Sworn personnel make up three tiers of the communications command structure above supervisor. Participants all agreed that there was a significant difference in how management viewed and treated them however all agreed that road personnel and communications personnel shared good comradery; while we were in the focus group, three different deputies stopped in. All agreed that this was a stressor for them but all agreed that it was compensated for because 'their guys trusted [them] and appreciated what [they] did for them on a daily basis.'

One participant discussed the lack of consistency and lower standards imposed on training staff from management.

She came in and asked me what I could do to make them (the trainees) pass. I told her you made us take the bottom three of five applicants; I can't work miracles. She lowered

the passing test score from an 85% to a 70% and asked me how I am going to make her pass.

Another participant voiced her concerns with keeping trainees that did not meet the established criteria or adjusting the rules so the trainee can remain employed. Participants expressed concerns with being sued for negligent training and retention.

Someone is going to get hurt. We have one trainee that makes up stuff in calls. I do not have time to figure out if what she is saying is true. I need her to do her job and do it right the first time. Management is going to pass them through no matter how big of a mistake they make. Last week, a trainee processed a stolen vehicle. She upgraded the call and I had units right there pretty quickly. She was right in that the man took a car but she left out the part that it was his car (emphasis placed on this from the participant). They had the man laid out at gunpoint and it was his own car! When the road supervisor called in to ask what happened, I (the supervisor) explained. When I went to speak with the trainee she was rude to me and told me no one got shot. I spoke to management and nothing happened.

Another participant voiced concerns with management misunderstanding the PST requirements as they relate to sworn personnel becoming certified. The supervisor confirmed management had made a decision to move from having two primary law channels to having one primary law channel. This reduced the required law dispatcher requirements from four per shift to two per shift. Though, in theory, this was beneficial to an understaff shift, upper management permanently reallocated the salaries of those eight positions to another department. 'Now that



they took the positions, we won't ever be able to get them back. We are short staffed as it is, but the city continues to grow. What are we supposed to do?'

One participant explained how management does not take into consideration the employee when considering shift preference; individuals are placed wherever management sees fit and are unable to change unless another employee agrees to an equal exchange (e.g. one employee replaces another of equal qualifications on the shift). Another participant described a situation in which an employee attempted to change shifts to match that of her husband, a road deputy, and was denied. The employee was told, per the participant, to find a job that was more conducive to her life.

Creation, delivery, implementation, and adherence to policy and procedure were another major stressor for the participants.

Management creates rules without having to work within them. They don't understand how the rules they are implementing affect us. Just tonight we got yelled at for doing a unit check on a unit that did not have any activity for an hour. This has been the rule for as long as I have worked here. The road supervisor called and asked why we unit checked the deputy. I explained to him of the policy and he told me that they were not doing that anymore. No one told us that this policy changed and CAD is set up to remind us to check on them so if something changed, someone needs to tell us something.

Another participant described how continual understaffing had long term effects on managerial decisions related to the identified needs of the center.

We used to have four law enforcement radio operators. Two operators would work the west side of the county and two would work the east side of the county. We would take

hourly turns being the primary operator while the other operator was the backup operator.

Then we had a lot of turnover and we had to reduce the shift down to only having two law enforcement operators per shift. Management came in and took our other two terminals. They took the positions and moved the salaries to the jail. Now we can't ever have them back. It can get really busy and now we don't have room to grow and adjust.

One participant compared her experience working at this center with that of her experience working at another 9-1-1 center.

Over the past twenty-one years I have worked at three different 9-1-1 centers. All of them are different in functionality and requirements. This was actually the first center I started at. I would leave and then come back one I realized that other places were worse and I already knew the bad I had to overcome here. There is a really big difference in training requirements and also in comradery between road units and dispatch. Here the Sheriff and Under Sherriff will come in, sit down, and talk to us. They have even grabbed a radio and helped out a few times. Now I will tell you that some in our chain-of-command will not do that and some of our employees don't know who they are. We had one commander come down and one of the long term dispatchers was like 'who are you?' He got really offended but, hey, if you don't show your face, no one will know you. I get it; everyone gets busy. For command staff to take a moment and just swing through the center can mean so much for the dispatchers. I will say that every quarter we have briefings of the whole staff. Everyone goes to a neutral location, usually a church, and we can just really talk about the stuff that needs to be fixed.

Another participant provided a second example from last night.

Apparently this shift [referring to the road units] was told they are no longer allowed to complete property checks. No one told us that this changed. The policy involving these property checks was established in 2001. So now this shift has been told one thing and we don't know it. If they don't check out on property checks and we don't know where they are or what they are doing, someone can get hurt and we won't know where they are. That adds more stress to us.

**2.3 Work Environment Stress** The focus group participants are shift mates. They seemed to have good comradery amongst themselves but told me that other shifts are not like this one.

The focus group discussed the differences in call volume and type per shift. The type of calls received cannot be predicted thus participants cannot prepare themselves completely for what maybe received. Participants all agreed that the emotions throughout the shift vary in range and intensity depending on the type of calls and frequency of the call.

Night shift usually is slower but has way more high priority calls than day shift. I like to work night shift, though, because I can do my homework when nothing is happening, and then when stuff does happen it is 'real stuff.' People call 9-1-1 for dumb stuff all the time. It is hard sometimes though to take an armed robbery followed by a cardiac arrest and then someone calls because their cat is stuck in a tree. I try to sound like I care but sometimes I really want to ask them if they called their husband first.

The participants continued with an explanation of having adapted to calls for service on a call-by-call basis.

Sometimes we take calls and the caller just does not listen. We always have to be fluid and flexible in our approach to make sure that we are meeting the caller where they are and getting the information that we need to help them. Sometimes a caller may sound super calm and there will be a true emergency; other times the caller will sound hysterical and it won't even be a big deal. We have to adjust our tone, voice inflection, and sometimes, even our rate of speech, to a point where they [the callers] hear us and we can control the call to get the information needed to help them. You also have to think quickly on your feet. If you ask a caller a question and they do not understand, you have to be able to ask it in a different way to get the information you need to ultimately help them. This can be very frustrating and take a lot of time that you, sometimes, don't have.

Another participant added insight from the dispatch perspective.

I agree with everything she said about having to adapt to the caller. We, as dispatchers, have to adapt to the road units also. Sometimes the deputies forget we have other units and callers to deal. They can catch an attitude real quick and sound very demanding. On top of that, we worry about their safety and have to make sure that everyone is accounted for. We have to get it right, the first time, and every time.

Participants addressed additional stressors of responding units not utilizing their Mobile Computer Terminals (MCTs), which are computers in their vehicle, when they should be. One participant discussed, in depth, the cleanliness of the center. She advised me that not having access to disinfectant wipes, especially during flu season was especially problematic. The participant continued by explaining that employees getting sick and not coming to work placed

more stress on their already short shifts while also increasing stress at home. 'If you are sick, stay home. I don't want to bring that stuff to my parents and children.'

**2.4 Training and In-service** The Communications center typically has two law enforcement radio operators, two fire operators, two call takers, one Florida Crime Information Center (FCIC)/National Crime Information Center (NCIC) operator, and one supervisor per shift. The center tries to cross train employees as this adds to the ability to properly staff a shift. Most trainees attend the online PST class through Florida State College of Jacksonville. Trainees can access their online classroom from the communications floor but do not have to be actively taking calls or dispatching at this time. They are provided three hours a day to complete their curriculum completely 'unplugged.'

There are two individuals responsible for training on each rotation; this PSAP designates them as "Training Sergeants." Each Training Sergeant is responsible for both the day shift and night shift training on their shift rotation. They must ensure that trainees are making 'adequate progress' towards becoming a solo operator. This includes the PST training as well as reviewing the daily observation reports (DORs). The Training Sergeant acts as liaison between the training pair (e.g. the trainer and the trainee) as well as the liaison and the commander over the communications center.

All participants agreed that in order to remain effective at their positions continual training and in-service was necessary. They continued with the expression of the need for formal training and education in various areas and all felt this was a systemic agency concern. To continue, all reported learning from each other via sharing information and experiences and sometimes via trial and error.

**2.5 Community Awareness** Participants expressed lack of community education on 9-1-1 call processing citing that callers often do not understand the processing of 9-1-1 calls and thus can be difficult to gather information from inadvertently. One participant expressed the belief that citizens do not use online reporting, agency websites, social media, or other resources because they do not know about them. Further, all agreed that more agency led public education would be helpful in improving the effectiveness of the use of 9-1-1.

### **Work/Life Balance**

Work/life balance discussed the internal and external stressors that affected the participants. Participants were diverse in years of service and job expertise. The discussion of stress included both the daily job stress and the presenting symptomology. Participants also discussed the long term and short term effects of stress. Participants also discussed the positive and negative attributes of stress, explaining that the continual change of the day-to-day activity is often what leads them to choose this profession in the first place.

**3.1: Shiftwork.** The center must be staffed twenty-four hours a day, seven days a week, 365 days a year. The shifts are twelve hours in length. There are four shifts that work in a rotational schedule from 6:00 am to 6:00 pm and vice versa. The two week schedule is as follows: work two days, off two days, work three days (weekend), off two days, work two days, off three days (weekend off). The inflexible schedule and irregular work hours seem to be one of the most challenging aspects of the 9-1-1 profession. Some participants did acknowledge that they preferred the twelve hour shift rotation to the eight hour shift rotation as they had more days off.

All of the participants happened to be single mothers who struggled to find child care around the irregular hours of the shift schedule. The inclusion of all participants being single mothers was not planned and only coincidental in the voluntary nature of the participation in this study. 'Depending on where an employee lives in relation to the dispatch center dictates the time that a child must be dropped off or picked up. If you don't have family, it is very difficult to work here.' Additionally, most people work "normal hours" of a 9-to-5 work day making it difficult for others outside of this profession to understand the shift constraints associated with this profession. Missing family functions (e.g. dinners, homework, family vacations, etc.), children's school activities (e.g. first day of school, plays, meet the teacher, etc.), birthdays, etc. is a 'necessary part of the profession.' Often family and friends do not understand the constraints of the profession and this can lead to familiar issues.

Management acknowledged the difficulty and strain of twelve hour shifts. During the discussion of shiftwork and managerial decisions, one participant discussed the open positions and the additional strain placed on employees to compensate for the staffing shortages. Another participant explained that employees are often required to attend depositions or court proceedings in reference to the calls they process. Though they do get paid for this, this additional time does not count towards their overtime hours on the floor.

**3.2: Staffing.** Due to the amount of current staffing holes, telecommunicators are required work overtime to compensate for the staffing shortages. Overtime is first volunteered for and then mandated based on who has the lowest number of overtime hours in a particular pay period. Participants advised that they work, on average between twenty-five and thirty hours per pay period (e.g. every two weeks).

Only one person is allowed to request personal leave per shift. One supervisor advised that she usually does not have to deny leave but does ask all to be cognizant of others' requests. Employees are allotted one forty-five minute break and two fifteen minute breaks per shift. Sometimes, if staffing is too compromised, breaks are reduced or do not happen at all. One participant advised that the supervisors will try to allow the employees to walk around the room or step out when necessary. Supervisors are trained on all positions and are able to relieve for breaks or step in and help out if the shift becomes too busy.

### **Coping Mechanisms**

Coping Mechanisms explored four subthemes: family and peer support, faith, exercise, and emotional awareness. All participants responded to the focus group questions supporting *RQ2: How do female 9-1-1 emergency telecommunicators describe their coping strategies to manage the identified stressors?*

Responses were divided into five subthemes: (4.1) Family/Peer support, (4.2) Faith, (4.3) Exercise, (4.4) Emotional awareness, and (4.5) Stress Reduction Techniques.

**Subtheme 4.1: Family/Peer Support** Three participants discussed coping with each other, expressing how speaking with their coworkers, both those within communications and road personnel, makes them feel better following a traumatic call. They all were in agreement that emergency service personnel understood the job, their feelings, and their reactions without judgement.

We have great comradery here. The deputies and paramedics stop in to put a face with a voice. When they aren't on calls, they hangout in here. Heck, some even stop by when they get off work.



Two expressed feelings of judgement when discussing traumatic experiences with people outside of the profession.

Most of my friends work here; they are as weird and quirky as I am. We can vent to each other and then not think we are nuts. My mom never understood why I talked like I talk until she started working at the jail. She would say that I have changed so much since I started working here. That was really the first time she understood where this ‘toilet mouth’ came from or why I get ‘excited’ over a dog bite. People outside this profession just don’t get it. Cussing helps you relieve the pain and stress. Swearing a lot helps me relieve stress and I think people who swear are more truthful. Heck, my psychiatrist told me I was blunt and this was the perfect position for me. I do try to hold it together, but sometimes it is hard.

All were in agreement that discussing the traumatic work events usually reduced the transfer of emotions into their personal lives.

**Subtheme 4.2: Faith** One participant discussed her faith as a means to cope with stress. She expressed how praying through hard calls often helps her refocus and continue to be effective at her job. Another participant spoke of her transition from the road and into communications. She was injured while working on the road and expressed how she prayed through the entire ordeal. She then explained how after she was hurt she didn’t know what she would do to support her children. When her commander offered her communications, she felt like it was an answer to her prayers. A third participant described how this profession allowed her to serve others, something she valued highly.

**Subtheme 4.3: Exercise** Four participants confirmed that they exercise to relieve stress. This agency supports dispatchers utilizing the gym while on duty, however, the deputies are not allowed to do so. One participant discussed the need to get up and walk around following a difficult or emotionally charged call for service in great depth. ‘Sometimes I just feel so anxious and the only way to get back ready for the next call is to walk around the building.’ Another participant discussed the ergonomics of the dispatching center and the necessity of physical movement to prevent weight gain and stiffness. ‘We work twelve hour shifts scrunched over the computer. Our shoulders and arms can feel the tension and sometimes our hips just need to be stretched.’ All were in agreement that eating healthy and exercising were necessary to remaining healthy and maintaining an overall good mental and physical wellbeing.

**Subtheme 4.4: Emotional Awareness** Two participants expressed remaining emotionally aware as an important component for managing stress. One participant recognized the journey that she has gone through to recognize when she is getting stressed, deescalate herself before she become too stressed or burnt out, and resources (e.g. EAP) to reach out to should she need it. Yearly in services focus on recognizing and managing stress as mandated by DOH. One participant expressed the ‘culture shift’ in asking for help. ‘In the past, it was considered weak to ask for help. Now it seems like our commanders understand that we deal with heavy things and might need help processing the feelings.’ All participants agreed that there was not one set of stressors and coping for all. Some individuals may be affected differently than others and severity of the affect can also differ from participant to participant.

**4.5 Stress Reduction Techniques** Theme 5 explored stress reduction and coping techniques different from Theme 4. Participants included counseling services, holistic practices

(e.g. yoga), and group interaction (e.g. anger management). Participants advised that counseling services, groups, and holistic practices were helpful in managing stress. One participant 'felt comfortable' utilizing the EAP at the agency because information never got back to the agency which she had previously been very concerned about. She continued to explain her fear of retaliation, being isolated, or viewed as weak if her coworkers or superiors had known that she sought counseling. One participant described attending classes with other emergency service personnel such as anger management. She described the sense of family in detail and explained how the safety of the group allowed her to fully express herself. One participant uses yoga and meditation. She described how this allows her to 'calm her mind' and has 'helped with her sleep disturbances.' This focus group had an unintentional consequence of being a therapeutic intervention. Participants entered with their guard physically up (e.g. crossed arms, sharing minimal information) and left laughing and expressing feelings of relief.

### **Summary**

Chapter 4 provided a description of the dispatch center (setting), demographics of the participants, explanation of the data collection, explanation of the data analysis, discussion of trustworthiness, and explanation of the evolution of themes and subthemes that emerged from the research. Data was collected from the focus groups, transcribed, and sorted via spreadsheets. The spreadsheets helped in organizing, analyzing, and identification of the five themes. The focus group questions yielded insight into the stressors and coping of female 9-1-1 emergency telecommunicators at one agency in Florida. Past research has presented minimal data on the 9-1-1 profession. This study served as a starting point for the identification of the stressors and coping skills within the profession.

Chapter 5 will include the interpretation of the findings, limitations of the study, recommendation for future studies, implications from the study, conclusion of the study, and recommendations for future research concerning 9-1-1 emergency dispatchers.

## Chapter 5: Discussion

### **Introduction**

The purpose of this qualitative case study was to examine the perceptions of the stressors and coping strategies of female 9-1-1 emergency telecommunicators through the lived experiences of the participants identified within a specific North Florida combined emergency call center. Although studies have explored persistence and resilience in various emergency service occupations, such as police officers and paramedics, there is limited information on 9-1-1 emergency telecommunicators (Baek et al., 2015; Folwell & Kauer, 2018; Kirkegaard & Brinkmann, 2015; Richardson & James, 2017). This study was conducted to provide insight and add to the literature available on the stressors and coping strategies of female 9-1-1 emergency telecommunicators.

Chapter 5 contains a summary of this study, which encompasses a discussion of the five main themes that emerged from the focus groups. This study found that emergency telecommunicators experience a variety of stressors, both internally and externally of the profession. Further, this study found there are a variety of coping strategies for this population as well. There is not a one-size-fits-all approach to the stressors or coping strategies for this subcultural group. The identified stressors and coping strategies are comparable to that of other emergency service personnel with the addition of some unique to the 9-1-1 emergency telecommunication profession (e.g. processing a call with verbal information only).

### **Interpretation of the Findings**

The data revealed five recurring themes: perception of stress, causes of stress, impact of stress, coping mechanisms, and stress reduction techniques. The findings of this study

corresponded to similar occupational stressors identified by other emergency service personnel such as police officers and paramedics. This study added new information on the 9-1-1 emergency telecommunication realm by establishing scholarly literature on female 9-1-1 emergency telecommunicators' perceptions of stress and coping strategies.

The research findings in this study revealed that 9-1-1 emergency telecommunicators perceive varying levels of stress. Further, the perception of stress was further classified as positive stress, neutral stress, or negative stress and the causes of stress subcategorized as related to shiftwork, salary, managerial decisions, work environment, staffing, and training and in-services. Participants agreed that there was stress both internally and externally and related that to the coping mechanisms most often used (e.g. family/peer support, faith, exercise, and emotional awareness. Participants revealed that the view and how they managed stress was different passed on past work-related and personal experiences and trainings. Some participants also discussed external stress reduction techniques such as participation in groups and holistic approaches such as yoga.

All participants agreed that stress was part of this profession and all were in agreement that was part of them choosing this profession. It is noteworthy to discuss two resounding causes of stress being created by managerial decisions and the work environment. Results of this study found that participants lacked trust in managerial decisions; many discussed decisions being made without management understanding the effects on the employees or the service that is provided to the citizens being served. Participants discussed the lack of effective communication and information sharing that occurred at an organizational level and sighted several examples in which they had to defend their actions after policies had been changed and they were not notified

of the changes. Participants further described the work environment stressors of the cleanliness of the center, short staffing, and inconsistencies amongst shifts.

The research study revealed several factors, such as shiftwork, salary, staffing, training and in-services having an impact on 9-1-1 emergency telecommunicators' stress. Participants reported a variety of recognition of stressors and coping strategies within the group. Further, participants discussed job satisfaction and customer service and how they managed this component internally. Participants made sure to point out the differences in the shifts and the comradery that existed amongst coworkers, citing that this was different on other shifts. This study extended the knowledge on the impact of dispatcher stress and revealed the recognition of emotional awareness and the utilization of techniques used to handle both short-term (e.g. stress of a call or bad shift) and long-term (e.g. stress of the profession) stressors.

The coping mechanisms identified from this study include family and peer support, faith, exercise, and emotional awareness. Some participants discussed the participation in external groups such as anger management and more holistic approaches such as yoga as being helpful in mitigating the effects of stress. This could be an avenue in future research on stress reduction and management in this profession.

### **Limitations of the Study**

The current study was conducted in a combined communications center in North Florida. 9-1-1 emergency telecommunicators in other regions may offer different perspectives. Further, the inclusion of male participants could alter the generalization of the study results. Future research is needed in similar settings to verify the transferability of the findings.

The results of this research study are limited due to the number of participants, restriction of only including females, and location. This study had a sample size of six participants. The perspectives of six 9-1-1 emergency telecommunicators may not represent the overall opinion of the participating center, their male counterparts, or other 9-1-1 emergency telecommunicators nationwide. To continue, all of the participants happened to be single mothers, a unique characteristic. Further, this study only included 9-1-1 emergency telecommunicators from a combined center and not their law enforcement or fire dispatcher counterparts. The inclusion of male participants and dispatchers of other skill sets may have offered a different perspective with potential differences in stressors and coping strategies.

### **Recommendations**

Emergency Communications Centers come in many different makeups and structures. Some are combined while others maintain their separation. The 9-1-1 emergency communication climate is continually changing and requires administrators and front line telecommunicators to be fluid, flexible, and continually adaptable. Consideration from both internal and external stakeholders is vital in a communications center's ability to continue to evolve to meet the needs of the public being served. Internal stakeholders include administrators and front line telecommunicators. External stakeholders can include the general public, responding units (e.g. police officers, paramedics, firefighters, etc.), board of commissioners, community partners, etc. Developing and cultivating a relationship is a necessary component to effective communication. Continual evaluation of what is working, what is not, and ways to improve is required to continue to meet the needs of the ever evolving society being served.



This current study revealed that 9-1-1 emergency telecommunicators face both internal and external stressors. During the focus group, participants expressed origins of stress both internally and externally of the communications center. Participants discussed the inherent parts of the profession (e.g. some level of stress, salary, and shiftwork) while also discussing the additional components of managerial decisions, work environment stress, and staffing shortages. Further, participants expressed concerns with external sources to include family obligation.

As communications centers try to find more cost-effective ways to operate, improve overall efficiency, remain up-to-date with the most current technology available, it is important that they address the personnel challenges as well. Communication Center administration must familiarize themselves with the ever evolving needs of the personnel and society that they serve. Administration needs to find ways to meet the needs of employees while also meeting the needs of the center is vital in combating turnover and ensuring that the best possible service is available for the citizens. To continue, administration must make active efforts to ensure open communication exists to connect frontline telecommunications, road personnel, management, and the public. Communications Centers have viable, intelligent, thinkers, and doers that can contribute good input to better the work environment of the center, if given the chance. Further, with the reduction of turnover, more global experienced employees will be employed on the floor, ready to answer calls for service.

### **Future Research**

This case study examined six female 9-1-1 emergency telecommunicators' perspectives from a combined communications center in North Central Florida. Future research studies should be conducted in different environments (e.g. rural, urban, large and small cities, etc.).

Additionally, this study solely focused on the experiences of six female 9-1-1 emergency telecommunicators. The inclusion of male participants in future studies will allow for their experiences to be shared. To continue, comparison studies of female versus male counterparts could help identify potential similarities and differences in identified stressors and coping strategies.

### **Implications**

The diversity in 9-1-1 emergency call centers nationwide is vast; although several entities have tried to standardize the training and standards of the 9-1-1 profession, they are not yet agreed upon at any level (e.g. national, state, local) (Hall, 2016; Stafford, 2016). Since 2010, Florida has implemented a standard training and continuing education for all 9-1-1 telecommunicators. Though there is much diversity amongst 9-1-1 Emergency Call Centers, this study focused on Combined Communications Centers (e.g. those that dispatch police, fire, and medical services from one center). A combined center is more cost effective and often provides a faster response to citizens as many of the communication barriers are removed (Stafford, 2016; Vorell & Carmack, 2014).

This study provided an implication for social change via the identification of stressors and coping strategies of female 9-1-1 telecommunicators at one of Florida's combined communications centers. This foundational study helped identify potential factors contributing to high turnover rates at one center (Hall, 2016). Recent studies have explored persistence, vulnerability, resilience, and positive adaptation in various populations yet little focus has been placed on 9-1-1 emergency telecommunicators (Antcliff et al, 2014; Büssing et al., 2017; Regehr et al., 2013). The identification and exploration of internal and external stressors, management

styles, work environment, and coping practices can lead to better job satisfaction and performance and providing better service to the citizens (Folwell & Kauer, 2018; Hall, 2016; Sattler et al., 2014; Stafford, 2016, Vorell & Carmack, 2014). Resiliency and vulnerability are situational; for the purposes of this study, I sought to identify the stressors and coping strategies of female 9-1-1 emergency telecommunicators at one combined communications center (Southwick et al., 2014). Vulnerability factors can increase the effects of risk factors on individuals; there is not a direct link between increased vulnerability factors and negative impacts on individuals, however (Antcliff et al., 2014; de Visser et al., 2016; Southwick et al., 2014). Resiliency, the healthy adaptation to adverse situations, can be taught and strengthened (Baek et al., 2015; Southwick et al., 2014). Resiliency is not fixed; an individual that who is resilient in one situation may not be resilient in another (Antcliff et al., 2014; de Visser et al., 2016; Weltman et al., 2014). Emergency telecommunicators often work long shifts, have irregular working, eating, and sleeping patterns, spend a lot of time away from their family, and have a diverse and uncertainty of call type and volume per shift (Cannuscio et al., 2016; Chitra & Karunanidhi, 2013; de Visser et al., 2016). Those who found positive adaptations to stressful conditions showed increased resiliency and a more diverse array of coping strategies (Baek et al., 2015; Chitra & Karunanidhi, 2013; de Visser et al., 2016). Recent studies have linked job satisfaction with the psychological wellbeing of the employee and job dissatisfaction has been linked with “spillover effects” in other parts of the employee’s life (Cannuscio, Davis, Kermis, Khan, Dupuis, & Taylor, 2016; Chitra & Karunanidhi, 2013; Pezaro, Clyne, Turner, Fulton, & Gerada, 2016; Synard & Gazzola, 2016). Compassion fatigue and burnout are contributing factors to job satisfaction and turnover yet more research is needed within this population

(Smoktunowicz et al., 2015; Upadaya et al., 2016; Wang, Huang, & You, 2016; Zwijsen et al., 2015).

Emergency telecommunicators experience similar psychological, physiological, and emotional stressors as other first responders yet they are often overlooked or unnoticed in the communication cycle (Büssing et al., 2017; Chitra & Karunanidhi, 2012; de Visser et al., 2016; Lilly & Allen, 2015). To continue, emergency telecommunicators must rely solely on verbal cues from the callers to disseminate information to the responding units. Emergency telecommunicators often handle multiple calls simultaneously with little or no downtime in between. Emergency telecommunicators can be seen as a subcultural group, sharing similar characteristics of other emergency first responders yet maintaining their own professional (occupational) identity (Baek et al., 2015; Folwell & Kauer, 2018; Kirkegaard & Brinkmann, 2015; Richardson & James, 2017). The utilization of individual and collective coping strategies was visible in the 9-1-1 emergency telecommunicators that participated in this study (Baek et al., 2015; Burch & Anderson, 2013; de Visser et al., 2016; Folwell & Kauer, 2018). Emergency first responders, including 9-1-1 emergency telecommunicators, work long hours, often in organized teams (Folwell & Kauer, 2018; Kirkegaard & Brinkmann, 2015). Stronger bonds and a more collective identify often forms (Baek et al., 2015; Folwell & Kauser, 2018; Kirkegaard & Brinkmann, 2015). The greater sense of belonging and stronger bonds with each other helped in the development of a collective culture in which their shared values, beliefs, and coping strategies emerged and were routinely utilized (Richardson & James, 2017; Wagner & O'Neill, 2012).

In exploring the differences between male and female employees, participants confirmed there were additional condition to prove themselves as capable as their male counterparts (Chu, 2018; Menard & Arter, 2014; Upadyaya et al., 2016). The participants also confirmed the difficulties in juggling work and family life (McCarty & Skogan, 2012). To continue, participants addressed the perception of positive and negative stressors while also acknowledging that the job, itself was inherently stressful; some participants suggested the diversity of calls as being a drawing factor to and for remaining in the profession (Menard & Arter, 2014; McCarty & Skogan, 2012).

The social change implication begins with bringing awareness to frontline telecommunicators, then to management, then administration, then road units, and finally the community at large (Harvey et al., 2015; Leinweber et al., 2017; Shakespeare-Finch et al., 2015). 9-1-1 emergency telecommunicators take emergency and nonemergency calls for service, often while dispatching and continually updating responding units with incoming information (Shakespeare-Finch et al., 2015). To continue, eliciting information, providing instructions to the caller, and continually updating their peers are vital components of the communications cycle. Peer and social support and self-efficacy were shown to positively impact a participant's wellbeing while shift work was found to have negative impacts on participants (Harvey et al., 2015; Leinweber et al., 2017; Shakespeare-Finch et al., 2015). Employees are expected to be engaged and not make any mistakes while processing high stress calls for service with limited resources (Travis, Lizano, & Mor Barak, 2016; Regehr, LeBlanc, Barath, Balch, & Birze, 2013; Rivera, 2015). Reducing the negative stigma surrounding stress and finding effective ways to address the uniqueness of this subculture is vital in expanding the longevity of a 9-1-1

emergency telecommunicator's career (Harvey et al., 2015; Leinweber et al., 2017; Shakespeare-Finch et al., 2015). Teaching coping strategies and offering other trainings to combat stress would allow 9-1-1 emergency telecommunicators to continue to add tools to mitigate stress and reduce burnout (Harvey et al., 2015; Leinweber et al., 2017; Shakespeare-Finch et al., 2015). Further, management should work closely with the training staff and administration to support these changes and provide training to both veteran and newly hired 9-1-1 emergency telecommunicators (Harvey et al., 2015; Leinweber et al., 2017; Shakespeare-Finch et al., 2015). Global communication and collective working together of all stakeholders to ensure all voices are heard and all needs are met can begin to shift the negative perspective on stress (Harvey et al., 2015; Leinweber et al., 2017; Shakespeare-Finch et al., 2015).

To continue, administration and management can begin to build open lines of communication in which frontline telecommunicators can voice concerns, brainstorm solutions, and evaluate agency initiatives to create a successful working environment and reduce turnover (Pierce & Lilly, 2013; Regehr et al., 2013; Stafford, 2016). More lines of communication are necessary to build trust from administration to management and management to frontline telecommunicators (Pierce & Lilly, 2013; Regehr et al., 2013; Stafford, 2016). Administration and management must be open and willing to hear and address the needs of telecommunicators, the agency, and the public (Pierce & Lilly, 2013; Regehr et al., 2013; Stacey et al., 2017; Stafford, 2016). This study showed that many frontline telecommunicators feel that lack of communication contributes significantly to their ability to do their job, their job satisfaction, and their ability to serve the public which was comparable with other emergency first responders perspectives (Pierce & Lilly, 2013; Regehr et al., 2013; Stafford, 2016). Listening, addressing,

and changing the stigma associated with stress within the emergency service realm is essential in changing the culture and helping to ensure that the best service available for the community is available.

### **Conclusion**

This research increased the existing documented body of knowledge and provided insight through the lived experiences of six female 9-1-1 emergency telecommunicators in one combined communications center in North Central Florida in regards to stressors and coping skills. Past research studies have focused on various forms of stress in a multitude of other emergency service professions. The purpose of this study was to discover stressors and coping strategies of female 9-1-1 emergency telecommunicators.

This study is unique as it brings awareness to a profession that has minimal documented research. This research exposed stressors and coping strategies of this unique subculture. Further, this study brought to light potential venues of improvement to identify, train on, and reduce burnout within the profession. Proactive methods and continued research and training need to take place in addition to community awareness training to improve job satisfaction and overall community trust. Administrative and management styles should continue to be evaluated for effectiveness and continue to evolve to meet the ever changing needs of employees and the community being served.

This study laid the foundation in gathering information on the perspective of female stressors and coping strategies within this profession via the lived experiences of the participants. A thorough discussion of stressors and coping strategies were presented in this study. Recommendations were made to assist in the identification of stressors, training on managing

stressors, increasing coping strategies, and increasing administration and management communication and effectiveness in this profession. When employees function effectively, there is increased potential for better job satisfaction, less turnover, better relationship between road units and communication, and better service to the community. When all work together to establish effective communication the potential to reduce the impact to stressors and increase coping is amplified.



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## Appendix A: Focus Group Questions

The research seeks to explore how female 9-1-1 emergency telecommunicators identify and perceive work stressors and coping strategies.

### Focus Group Questions

1. What does a typical shift look like for you?
  - Potential Follow up questions:
    - What position do you work?
    - Do you get a break?
      - When do you take your break?
      - How long is your break?
    - Who is your backup?
      - How effectively do you guys work together?
    - What type of calls did you handle last night?
      - Do any of them stand out as being more stressful than others?
2. What stressors do you feel are associated with the 9-1-1 profession?
  - Potential Follow up questions:
    - These can be either work or personally related (e.g. childcare, shift selection, staffing, time off being denied, administrative support, social support, workload and staffing level, overtime, sense of accomplishment, lack of resources, lack of control, appreciation, staffing, closure, feedback, sharing knowledge, scheduling and shift pick, etc).
3. Tell me about the daily stress of the job.
4. What key strategies do you find helpful to manage stress during your shift?
5. Tell me about the career stressors of the job.
6. What key strategies do you find help to manage stress through your career?
7. Do you or have you experienced any stress symptoms?
  - Potential Follow up questions:
    - Can you tell me about it?
    - How long did the symptoms last?
8. What was most memorable about this event?
  - Potential Follow up questions:
    - What went well?
    - What could have been done differently?
    - What was most memorable about this event?
9. As a whole, what do you perceive to be the biggest stressor for you within the 9-1-1 profession and why?
10. How do you cope with stress?
  - Potential Follow up questions:

- What tools, resources or strategies do you use to mitigate stress?
11. What resources are available from your agency?
- Potential Follow up questions:
    - Do you have access to a gym or the ability to walk during your lunch break to burn off stress?
    - Do you have training on skills to learn different coping strategies?
    - Do you have access to professional counselors or EAP?
    - Do you have peer support?
    - Are there quiet rooms within workplace for you to debrief?
12. What would you like to see offered to help prevent or manage stress more effectively?
- Potential Follow up questions:
    - What could your peers do?
    - What could your supervisors do?
    - What could you do?
13. In what ways has this job positively impacted your life?
14. In what ways has this job negatively impacted your life?
15. What else would you like to share related to stress or coping?