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The Role Emergency Medical Services Organizations Play in Preparing and Supporting Emergency Medical Technicians to Minimize the Effects of Peritraumatic Dissociation

Abstract

The purpose of this qualitative descriptive phenomenological research study was to identify the role of emergency medical services (EMS) organizations in preparing and supporting emergency medical technicians (EMTs) with the effects of peritraumatic dissociation (PD). Specifically, the aim was to gain insight into the shared phenomena of PD and the impact of occupational stress on EMTs and EMS managers, in a county in Central New York State, to identify, from the perspective of a total of eight practicing EMTs and EMS managers, the services, the employee benefits, and the activities that assist in destigmatizing and minimizing the effects of PD. Two major themes developed from the shared phenomena of peritraumatic dissociation and the impact of occupational stress. The essence of the study participants lived experiences culminated in the identification of stress experiences and leadership challenges as the major themes. The recommendation of this study is professional development and policy advocacy to address the stigma of mental health illness in the workplace and EMS organizational advocacy for at-risk employees experiencing cumulative stress or the impact of a traumatic event.

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The Role Emergency Medical Services Organizations Play in Preparing and Supporting
Emergency Medical Technicians
to Minimize the Effects of Peritraumatic Dissociation

By

Stephen Knapp

Submitted in partial fulfillment
of the requirements for the degree
Ed.D. in Executive Leadership

Supervised by

C. Michael Robinson, Ed.D.

Committee Member

Loretta Quigley, Ed.D.

Ralph C. Wilson, Jr. School of Education

St. John Fisher College

December 2020

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Dedication

I am a servant leader. It is my life's goal to serve my family, my friends, my coworkers, my organization, my cohort, and my community. I have touched countless lives as a paramedic. I have delivered infants and struggled to save a dying patient. I have witnessed the power of returning life to a still heart and the torments of a trauma-ridden body where no amount of effort could restore a beat. I will care for anyone, anywhere, at any time.

I am a dedicated husband and father. My family is my life. It is my hope that I am an example of hard work, perseverance, and commitment that my children may look upon and aspire to surpass. I devote myself wholeheartedly to my wife, Dawn. We have built a family and a home together. Our children learn from the standards we have set. The never-ending educational journey is almost complete. Take my hand, dear wife, and walk with me on our life's path, the possibilities are endless.

I wish to acknowledge the help Dr. Robinson and Dr. Quigley gave in *righting my ship* when I almost lost hope. It will never be forgotten. You helped me complete this journey.

The words of my study participants resonate within me. The essence of their lived experiences lurks in me. Norman Maclean, in *A River Runs Through It* (1976), wrote:

Eventually, all things merge into one, and a river runs through it. The river was cut by the world's great flood and runs over rocks from the basement of time. On some of

the rocks are timeless raindrops. Under the rocks are the words, and some of the words are theirs. I am haunted by waters. (p. 161)

Biographical Sketch

Stephen R. Knapp is currently the Executive Director at MAVES, Inc. and was recently appointed Director of SAVES, Inc. He attended Upstate University College from 1992 to 1993 where he obtained his EMT Paramedic certification under the direction and guidance of Mr. Richard Cherry. Mr. Knapp has been an EMT Paramedic for 32 years. He has been a New York State Certified Instructor Coordinator for 18 years and was honored with the Onondaga County EMS Instructor of the Year. Mr. Knapp attended Keuka College from 2007 to 2012 and graduated with a Bachelor of Science degree in Organizational Management in 2009 and a Master of Science degree in Management in 2012. He came to St. John Fisher College in the spring of 2017 and began doctoral studies in the Ed.D. Program in Executive Leadership. Mr. Knapp pursued his research in the effects of peritraumatic dissociation on emergency medical technicians and emergency medical services organizations under the direction of Dr. C. Michael Robinson and Dr. Loretta Quigley and received the Ed.D. degree in 2020.

Abstract

The purpose of this qualitative descriptive phenomenological research study was to identify the role of emergency medical services (EMS) organizations in preparing and supporting emergency medical technicians (EMTs) with the effects of peritraumatic dissociation (PD). Specifically, the aim was to gain insight into the shared phenomena of PD and the impact of occupational stress on EMTs and EMS managers, in a county in Central New York State, to identify, from the perspective of a total of eight practicing EMTs and EMS managers, the services, the employee benefits, and the activities that assist in destigmatizing and minimizing the effects of PD.

Two major themes developed from the shared phenomena of peritraumatic dissociation and the impact of occupational stress. The essence of the study participants lived experiences culminated in the identification of stress experiences and leadership challenges as the major themes. The recommendation of this study is professional development and policy advocacy to address the stigma of mental health illness in the workplace and EMS organizational advocacy for at-risk employees experiencing cumulative stress or the impact of a traumatic event.

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Chapter 1: Introduction

Significant levels of occupational stress can occur during a traumatic event or a critical incident experience (Donnelly, Bradford, Davis, Hedges, & Klingel, 2016). These stressful conditions occur during traumatic professional encounters with patients, and for some emergency medical technicians (EMTs), they can cause extreme emotional stress (Mishra, Goebert, Char, Dukes, & Ahmed, 2010).

EMTs, medically trained individuals working in medical-emergency and nonemergency patient care, are often one of the first healthcare professionals to encounter those who are mentally and/or physically compromised due to illness, injury, accidents, and traumatic events (Drewitz-Chesney, 2012; Geronazzo-Alman et al., 2017; Skeffington, Rees, & Mazzucchelli, 2017). De Soir et al. (2012) described emergency medical services (EMS) as a branch of public safety, providing patient care services in nonhospital environments, typically in an ambulance or in a fire department vehicle. De Soir et al. (2012) noted that ambulance workers, which often include EMTs, are exposed to work-related stressors daily, but traumatic events significantly raise the risk of some EMTs developing more severe mental health disorder symptomology.

The *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*; American Psychiatric Association [APA], 2013) defines traumatic events as situations where an individual has direct or indirect experiences of actual or threatened death, serious injury, or sexual violence. Further, *DSM-5* notes that exposure may be cumulative instead of singular to meet the criteria for contributing to a mental health disorder (APA,

2013). As such, EMTs demonstrate higher work-related incidents of stress that may result in psychological strain and a health-related illness (Sterud, Ekeberg, & Hem, 2006).

Traumatic event exposures can disrupt mental processing of memories that occur in the hippocampus, amygdala, and neocortex of the brain. The mental processing disruptions may form recurring memories of previous distressful events (Liberzon & Abelson, 2016). Exposure to a traumatic event may elicit feelings of intense fear, horror, and helplessness (Fikretoglu et al., 2007; Fitch & Marshall, 2016). Anticipation of a traumatic event may cause an individual who is predisposed to stress to experience peritraumatic dissociation (PD), where the dread of exposure, rather than an actual encounter of a traumatic event, is likely triggered (McDonald et al., 2013).

PD is a protective mental buffering, a coping mechanism, that occurs in the brain as a response to traumatic events that allows one to manage the stimuli presented by exposure (Thompson-Hollands, Jun, & Sloan, 2017). PD is a collection of trauma reactions that include depersonalization and derealization that the *DSM-5* has characterized as a disorder (Kumpula, Orcutt, Bardeen, & Varkovitzky, 2011). The *DSM-5* defines depersonalization-derealization disorder as an individual's persistent detachment from a situation either physically or cognitively (APA, 2013). Thompson-Hollands et al. (2017) described PD "as a complex array of reactions at the time of the trauma that include dissociative amnesia, out-of-body experiences, emotional numbness, and altered time perception" (p. 190). In some people, PD may become a gateway to more serious forms of emotional, mental, and physical deterioration (van Der Velden & Wittmann, 2008). PD events have the capacity to inflict a healthcare worker with recurring intense mental, emotional, or physical disturbances beyond the initial episode

(Liberzon & Abelson, 2016). Short-term and long-term mental health issues resulting from an initial PD event, coupled with reoccurring triggers, may cause anxiety, depression, sleeping disorders, and fatigue (van Der Velden & Wittmann, 2008). Further, PD during an episode of a traumatic event may produce lasting psychological effects including negative beliefs about one's self that may potentiate the association between PD and posttraumatic stress disorder (PTSD) (Thompson-Hollands et al., 2017).

The APA (2013) defines PTSD as a psychiatric disorder that occurs in people who experience or witness a traumatic event (APA, 2013). More specifically, PTSD can have one of four clusters of symptoms including intrusive thoughts, avoiding reminders, negative thoughts or feelings, and arousal or reactive (irritability, behaving recklessly, or self-destructive behavior) symptoms lasting greater than 30 days after the event (APA, 2020). Carleton et al. (2019) posited the development of other mental disorders (panic disorders, anxiety, or depression) may also occur following exposure to traumatic events.

Although PTSD is of significant concern, the primary focus of this study was the organizational effects for EMTs experiencing traumatic event exposures that triggered PD and finding the ways these incidences can be reduced and/or mitigated by the EMT and EMS organizations. The predictive value of PD that leads to PTSD is well documented (Kumpula et al., 2011; Lensvelt-Mulders et al., 2008; Ozer, Best, Lipsey, & Weiss, 2003; Pacella et al., 2011; Thompson-Hollands et al., 2017; van Der Velden & Wittmann, 2008). EMTs experiencing PD, and if left unattended, risk developing PTSD symptomology (Skeffington, Rees, & Kane, 2013). Even more significant, Mattos, Pedrini, Fiks, and de Mello (2016) reported individuals "experiencing peritraumatic

dissociation were 4.12 times more likely to have acute PTSD and 4.86 times more likely to develop chronic PTSD” (p. 1006).

Engelhard, van den Hout, Kindt, Arntz, and Shouten (2003) found that PD has a direct effect on sensory impressions, but fragmented memory and thought suppression can be tied to later PTSD development (Figure 1.1).

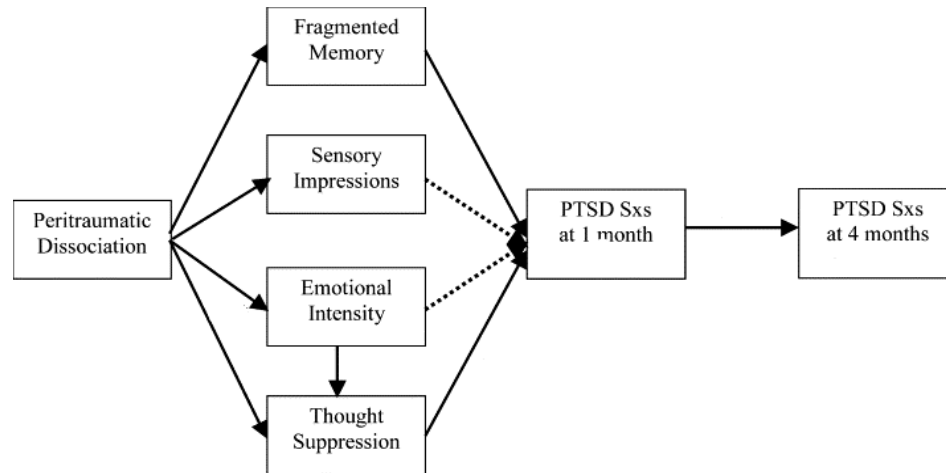


Figure 1.1. Peritraumatic dissociation progression correlating PD and PTSD. Adapted from “Peritraumatic Dissociation and Posttraumatic Stress After Pregnancy Loss: A Prospective Study” by I. Engelhard, M. A. van den Hout, M. Kindt, A. Arntz, and E. Schouten, 2003, *Behaviour Research and Therapy*, 41(1), p. 77. Copyright 2003 by Elsevier.

Fragmented memories are broken recollections of an event that occurs in an individual’s life. Additionally, fragmented memory refers to the torment of the individual’s memories, which are often accompanied by sensory impressions. This means that a PD-affected individual recalls only senses (smells, feelings, or sights) and a portion of the memories that capture the ferocity or emotional intensity of an event, rather than a precise replay of the experience. Engelhard et al. (2003) posited that every exposure to a

distressing event causes the brain to attempt to suppress or minimize these enfolding and tormenting thoughts by activating a PD response that allows an individual time to mentally process the traumatic event. This action can result in a cumulative effect of stress-inducing reactions such as depression or anxiety disorders (Geronazzo-Alman et al., 2017). Thought suppression occurs as a means of self-protection from the mentally distressing effects of an event.

Engelhard et al. (2003) found that the fragmented memory following PD and thought suppression are most strongly correlated with PTSD development; meaning the characteristics of PD become a pathway to PTSD over time. Additionally, findings indicate a link between PD and acute PTSD at 1-month posttraumatic exposure and chronic PTSD at 4-months posttraumatic exposure (Engelhard et al., 2003), which means intervention is critical regarding amelioration and resolution. If after 30 days, with no intervention or mental health services provided, the trauma-exposed individual will devolve into PTSD (Mattos et al., 2016). Engelhard et al. (2003) reported that during the 30-day time period, an opportunity exists to identify PD victims at risk of developing future PTSD symptomology through self-reporting of memory fragmentation and thought suppression using the Peritraumatic Dissociation Events Questionnaire ([PEDQ] Marmar, Weiss, & Metzler, 1997) and the White Bear Suppression Inventory ([WBSI] Wegner & Zanakos, 1994). Additionally, Skeffington et al. (2013) identified a critical opportunity to intervene with PTSD prevention programs toward minimizing or negating the PTSD risk. PTSD is of significant concern, but the organizational effect for EMTs experiencing traumatic event exposure that triggers PD and the ways incidences can be reduced and/or mitigated by the EMT and EMS organization are the primary focus of this study.

Problem Statement

EMS leadership may lack the ability to recognize and/or identify PD and PTSD symptomology of EMT employees, or they may fail to have strategies in place to minimize the effects of posttraumatic events through intervention. EMS leadership has the dual responsibility of understanding the dynamics of PD and PTSD, and as well as taking action toward diminishing the far-reaching ramifications of posttraumatic effects on employees and the organizations they lead (Drewitz-Chesney, 2012; Lilly & Allen, 2015; Regehr & Leblanc, 2017). Left untreated, these chronic stress disorders may have far-reaching implications for organizational well-being and community service best practices (Boland et al., 2018; Donnelly, Chonody, & Campbell, 2014; Ferry et al., 2015).

Without intervention, EMT employees increase the risk of exiting the workplace, developing suicidal ideation, and/or developing other posttraumatic behaviors (Carleton et al., 2018). Kalia (2002) noted that traumatic events and PTSD have a considerable impact on healthcare costs, on individual impairment, and they place a burden society through diminished productivity of the individuals affected. When employees experience stress-related disorders, organizational function and sustainability relating to staffing and finances are compromised (Marciniak et al., 2005). Lopez (2011) posited that having strong social connections and access to healthy-coping strategies greatly increases the likelihood that individuals will use these coping strategies following a traumatic event. Fraser, Richman, and Galinsky (1999) explained, “if we can understand what helps some people to function well in [the] context of high adversity, we may be able to incorporate this knowledge into new practice strategies” (p. 136).

EMS organizations are affected as a result of posttraumatic exposure of first responders to stressful events. These consequences may include staffing gaps due to needed time off of the affected employees, expenditures of additional fiscal resources to cover temporary staffing demands, decreased staff morale, and the inability to meet client needs, resulting in community health risks and fiscal decline for the organization (Regehr & Leblanc, 2017). Drewitz-Chesney (2012) stated that EMS workers underreported the psychological stress associated with traumatic event exposure because of the stigma associated with mental illness. Further, Bennett et al. (2005) estimated that up to 22% of EMS workers would develop PTSD. The costs of substantiating and remediating mental health issues are considerable. Trautmann, Rehm, and Wittchen (2016) reported the indirect costs of mental illness, including PTSD in the United States, was \$1.7 trillion based on 2010 data. Further, these direct healthcare costs and indirect costs productivity and income losses are projected to double by 2030 (Trautmann et al., 2016).

Skeffington et al. (2013) suggested interventions to prevent PTSD, such as coping strategies, stress reduction through skills-based training, and resilience-building techniques, which can have a positive impact on personnel at high risk. According to Donnelly et al. (2016), organizational responsibility to achieve healthy work environments must be mandated by management to mitigate the effect of stress-related disorders such as PD through destigmatizing mental health conditions and by further ameliorating the effects on individuals, organizations, and communities.

Theoretical Rationale

The theoretical rationale that served as the underpinning of this study is the resilience theory, based in child development psychopathology by Norman Garnezy

(1918–2009), and it was expanded by Masten’s (1994) research in risk and resilience development. Resilience is defined as the adaptation or ability to overcome adversity (Bolton, Hall, Blundo, & Lehmann, 2017).

Resilience theory offers a perspective that focuses on the ability to overcome adversity and persevere (Greene, Galambos, & Lee, 2004; Lopez, 2011; Masten & Cicchetti, 2012). Greene et al. (2004) purported that resilience theory can be applied directly to the psychopathology (the study of behavioral and mental illness) of trauma. EMTs may develop resilience as an occupational consequence. Adversity and risk exposure produce unanticipated disturbances that might otherwise result in dissociation in the absence of resilience (Bonanno & Mancini, 2012). Resilience accounts for why some individuals can overcome an event in the face of adversity and others cannot (Lopez, 2011). The strength of an individual is representative of the presence of resilience during an occupational exposure (Lopez, 2011).

Bolton et al. (2017) advanced three principles of resilience theory to include risk factors, protective factors, and vulnerability factors. Risk factors are the mental conditions that develop from adversity following events such as childhood neglect or trauma exposure. Bolton et al. (2017) posited that vulnerability factors include being exposed to mental illness, domestic violence, poverty, and bereavement. Bolton et al. (2017) described protective factors as the mechanisms that shield an individual from developing maladaptive coping strategies. This current study focused on the protective factor principle, outlined by Bolton et al. (2017), to advance resilience theory in EMTs.

EMTs often find themselves vulnerable to high-risk, adverse situations that perpetuate traumatic exposure (Donnelly & Chonody, 2012; Geronazzo-Alman et al.,

2017). Such vulnerability may be derived from various forms of trauma by people who encounter traumatic events such as violence, horrific automobile accidents, various illnesses, as well as child and adult neglect (Donnelly et al., 2016). Vulnerability factors also include personality and environmental characteristics that yield maladaptive coping strategies such as dissociation with peers, alcohol consumption, and social withdrawal. Resiliency may impact one's response to trauma. Lee, Ahn, Jeong, Chae, and Choi (2014) reported resilience as having a protective factor in the development of PTSD by buffering the mental effect of the traumatic event on an individual. Lopez (2011) identified resilience as a stress-resistant personal quality in the face of adversity during occupational functioning.

Greene et al. (2004) found that the application of resilience theory provided the basis for understanding prevention and interventional models to improve outcomes. As a defining theory to understanding the response to adversity, risk, and vulnerability, resilience theory may explain the adaptability or healthy outcomes of individuals in the face of stress, according to Johnson and Wiechelt (2004) and Olsson, Jerneck, Thoren, Persson, and O'Byrne (2015). Johnson and Wiechelt (2004) stressed the importance of promoting emotional strength and psychological capacity in individuals. Emotional strength and physiological capacity are gained by being aware of the impact of adverse situations. Realizing how employees react in adverse situations provides the information necessary to identify risk and vulnerability toward developing prevention and intervention strategies (Johnson & Wiechelt, 2004; Lopez, 2011).

It has been demonstrated that EMTs develop individual resilience in the face of repetitive adversity during occupationally related stresses (Lee et al., 2014; Lopez, 2011).

Lopez (2011) referred to resilience as a stress-resistant characteristic that emboldens individuals to perform their jobs in adverse situations. Lopez (2011) stressed the importance of resilience as an ability to function in occupations when faced with adversity. Further, employees who have occupations that experience adversity with an adaptive response have better outcomes with continued success. Lopez (2011) posited that having strong social connections and access to healthy coping strategies greatly increases the likelihood that individuals would use coping strategies following a traumatic event. Fraser et al. (1999) explained, “if we can understand what helps some people to function well in context of high adversity, we may be able to incorporate this knowledge into new practice strategies” (p. 136). Applying the theoretical rationale for resilience theory in this study may demonstrate the evolution of adversity from occupational stresses experienced by EMTs.

Statement of Purpose

The purpose of this study was to identify the role of EMS organizations in preparing and supporting EMTs from the effects of PD. Specifically, the aim was to identify, from the perspective of practicing EMTs and EMS managers, the services, the employee benefits, and the activities that assist in destigmatizing and minimizing the effects of PD. Findings from this study will support the efforts of EMS organizations to educate and protect their EMTs as well as strengthen the services that the organizations deliver.

This qualitative study adds to the body of knowledge to better understand the lived experience of EMTs and EMS leaders or managers who have experienced symptoms of PD. This study included a pool of approximately 2,300 EMTs and 56 EMS

leaders or managers from fire departments and ambulance agencies. The geographical area of study included several Central New York State counties.

A descriptive phenomenology method, defined as the *pure* description of people's experiences, following the Giorgi (1997) criteria for qualitative studies was employed. The recommended number of participants is three–five from each pool of participants, so that the optimal saturation in each group, namely EMTs and EMS leaders or managers, was achieved (Giorgi, 1997). Semi-structured interviews provide an opportunity to explore the research subject but also gain relevant data that may benefit the study (Peoples, 2020). Clompus and Albarran (2016) stated that semi-structured interview questions (Appendix A) provide the opportunity to relax participants enough to allow them to drop psychological defenses and provide free expression of repressed thoughts and feelings.

A recruitment email was sent to each group of EMTs and EMS managers (Appendix B and Appendix C) inviting participation in this study. The potential participants from each of the two groups who responded to the invitation email formed the sample for each group. Four participants from each group of either EMTs or EMS managers, for a total of eight participants, was interviewed by the researcher.

The researcher sought to illuminate the essence of the participants' lived experiences regarding how PD can be better identified and mitigated by EMS leadership through the identification of organizational strategies and timely interventions (Peoples, 2020). As such, the research questions were designed to explore the phenomenon of PD and to ascertain strategies of mitigation through identifying the potential services and supports that help to alleviate posttraumatic effects in the EMT community.

The researcher was the primary tool for data collection. The semi-structured interviews and transcendental phenomenological design allowed the researcher to explore the lived experiences of the study participants to clarify their descriptions and personal meanings relating to PD (Peoples, 2020).

Research Questions

The following research questions were used to guide this study. The same research questions were directed to both groups of EMTs and EMS manager participants:

1. From the perspective of practicing EMTs and EMS managers, what role should the EMS organization play in preparing and supporting their EMTs for the effects of peritraumatic dissociation, as defined in the study?
2. From the perspective of EMTs and EMS managers, what services, employee benefits, and activities can support and prepare EMTs to minimize the effects of peritraumatic dissociation, as defined in the study, on the employees and the organization?

Potential Significance of the Study

The significance of this study resides in its contribution to the body of knowledge to the EMS community as to the understanding of PD as a response to occupational stress. The purpose of this study was to identify the effects of PD on EMTs and EMS organizations. Specifically, the goal was to destigmatize and mitigate the effects of mental health issues by identifying coping strategies for both the employees and the organizations.

This study sought methods to improve EMT and organizational well-being through diminishing employee, financial, and community impacts as well as to reduce the

stigma of mental health issues. Insights gained from this research can contribute to other high-stress and/or trauma-ridden industries whose frontline workers experience many of the same high-stress and/or trauma-ridden work environments.

Definitions of Terms

Amygdala – located in medial temporal lobe of the mammalian brain; it is crucially involved in regulating stress effects on memory (Rooszendaal, McEwen, & Chattarji, 2009).

Dissociative Amnesia – a disorder characterized by retrospectively reported memory gaps. These gaps involve an inability to recall personal information, usually of a traumatic or stressful nature (APA, 2018).

Hippocampus – a region of the mammalian brain involved in spatial learning and memory. It organizes disaggregated bits of information of an episode stored throughout brain systems. It is essential for the function of recent memories (Shobe & Kihlstorm, 1997).

Neocortex – a part of the mammalian brain involved in higher-order brain functioning. This includes sensory perceptions, cognitions, and spatial reasoning (Douglas & Martin, 2004).

Chapter Summary

This chapter defined and described the phenomenon of PD following traumatic event exposure, and it explored resilience theory as a framework for this study. The research questions were structured in a way to acquire a better understanding of EMTs and EMS managers lived experiences of the organizational responsibility to prepare and support staff for the effects of PD. The transcendental phenomenological methodology

was to illuminate the participants' experiences, leading to the development of services, benefits, or activities to mitigate identified PD effects on both the EMTs and the organization.

The review of literature, Chapter 2, examines four areas related to PD and traumatic events experiences that have roles in the progression of occupational stress on EMTs. Specifically, the literature review fell into the four categories: (a) PD and its relationship to PTSD; (b) suicidal ideation, plan, and attempts; (c) economic considerations; and (d) coping strategies.

Chapter 3 discusses the research methodology as well as the study context, participants, data collection approach employed, and the ways in which the data analysis was used in this study. Chapter 4 is focused on the analysis of the data and the findings, and a summary of the findings, conclusions, and recommendations are presented in Chapter 5.

Chapter 2: Review of the literature

Introduction and Purpose

This chapter addresses the systemic review and synthesis of the literature as it relates to PD effects on EMS organizations. The review of literature looks at the relationship between PD and traumatic events, and how EMTs react to those experiences and the effects they have on EMS organizations. Further research literature examines EMS leaders who directly supervise EMTs. It includes the reaction of EMS organizations in response to the effects of PD on EMTs, and the effects and stigma of EMT mental health on organizational finances including absenteeism, productivity, and employment. The review of literature examines four areas relating to PD and traumatic event experiences that have roles in the progression of occupational stress on EMTs. Specifically, the literature review falls into four categories: (a) PD and its relationship to PTSD; (b) suicidal ideation, plan, and attempts; (c) economic considerations; and (d) coping strategies.

PD is a gateway to more serious forms of emotional, mental, and physical deterioration (Sterud et al., 2006). While it is detrimental to the affected individual, organizations are also affected (Boland et al., 2018). The effects of PD on an organization may include staffing gaps due to time off for affected employees, expenditure of additional fiscal resources to cover temporary staffing demands, staff morale, and the inability to meet client needs if there are staffing shortage, etc. EMS managers can play a

pivotal role in destigmatizing mental health conditions and ameliorating the effects on individuals and organizations (Genly, 2016).

The purpose of this study was to identify the effects of PD on EMTs and EMS organizations. Specifically, the goal was to destigmatize and minimize the effects of mental health issues by identifying coping strategies for both the employees and the organizations.

The review of literature provides a better understanding of the lived experience of EMTs suffering PD and its effect on EMS organizations. EMTs may display resilience as an occupational consequence from repeated or chronic exposure to serious illness, injuries, domestic violence, or adult and child neglect. Adversity and risk exposure produce unanticipated disturbances that might otherwise result in PD (Bonanno & Mancini, 2012). The goal is to understand the process of resilience in the context of high adversity and to develop strategies to improve employee mental health following the self-reporting of PD (Fraser et al., 1999). PD has an adaptive function to limit the immediate effects following the traumatizing event, but, left untreated, PD increases the risk of developing PTSD (Mattos et al., 2016; van Der Hart, van Ochten, van Son, Steele, & Lensvelt-Mulders, 2008). Consequently, if barriers to self-reporting PD are unidentified, employees may develop suicidal ideations, depression, or maladaptive coping strategies (Sterud, Hem, Ekeberg, & Lau, 2008).

The cost of mental health illness on an organization can be significant. Trautmann et al. (2016) reported the indirect costs of mental illness, including PTSD for the United States was \$1.7 trillion based on 2010 data. Trautmann et al. (2016) identified direct costs as healthcare expenditures and indirect costs as productivity and income losses.

Coping strategies provide a pathway for highlighting research that suggests methods to address occupational stress and stress-related disorders. The argument for considering coping strategies in the EMS workplace was supported by Ebadi and Froutan (2017) and Essex and Scott (2008). Stress-related disorders and mitigating coping strategies have the potential to improve organizational health (Boffa et al., 2017; Essex & Scott, 2008).

Review of the Literature

The review of literature produced several themes that support the problem statement. The researchers included in this study emphasized the effect of occupational stressors on EMTs (Donnelly et al., 2014; Sterud, Hem, Lau, & Ekeberg, 2011). The implication of these stressors includes studies by various authors: PD (Mattos et al., 2016), suicidal ideation (Boffa et al., 2017; Carleton et al., 2018; Vigil et al., 2019), and organizational economic impact and functional coping strategies (Essex & Scott, 2008; McCrone, Knapp, & Cawkill, 2003). A synthesis of the literature binds the characteristics of the stressors and the development of emotional exhaustion (Boland et al., 2018; Genly, 2016).

PD and its relationship to PTSD. PD—a collection of trauma reactions including depersonalization and derealization—occurs at or near the time of the traumatic event (Kumpula et al., 2011). The *DSM-5* defines depersonalization-derealization disorder as an individual's persistent detachment from a situation either physically or cognitively (APA, 2013).

Kumpula et al. (2011) conducted an ongoing longitudinal study of 532 undergraduate women who witnessed a campus shooting. The study's authors reported

PD and experiential avoidance as core features in the development of PTSD. Experiential avoidance is described as a psychological attempt to avoid unpleasant emotions, feelings, memories, thoughts, or reminders that are associated with a traumatic experience (APA, 2013). Kumpula et al. (2011) posited that PD is a protective mechanism in those affected by traumatic experiences. By being able to avoid aspects of an event and by altering one's perception of an event, an individual can buffer the resulting mental reaction as a way of coping with the experience. The Kumpula et al. demonstrated the protective function of PD in traumatic events.

Researchers have identified correlations between PD and PTSD (Kumpula et al., 2011; Mattos et al., 2016, Mishra et al., 2010). Mishra et al. (2010) reported that EMS employees are in high-risk occupations that predispose them to psychological distress. Similarly supported by Fitch and Marshall (2016) and Skeffington et al. (2017), Mishra et al. found varying rates of PTSD development in EMS employees, from 6 to 22%, reporting the range to be most likely from the stigma of reporting symptoms in this group. The traumatic stressors that EMTs are exposed to place them at risk of mental health illnesses such as depression, anxiety, social impairment, and poor physical health (Mishra et al., 2010).

Mishra et al. (2010) reported a lack of research involving EMTs in his study group in Western Australia. The impact of PTSD and its associated dissociations on EMS organizations is significant (Mishra et al., 2010). Mishra et al. noted that strong social support works as a secondary prevention to PTSD symptomology when the traumatic event occurred more than 3 years prior to symptoms and diagnosis. In the absence of

strong social support systems, early identification and interventional programs can reduce PTSD symptoms (Mishra et al., 2010).

Donnelly et al. (2016) posited that organizational stressors, including exposure to blood-borne pathogens, verbal or physical violence, and witnessing serious injury or deaths in vehicle-related crashes, added to the potential for posttraumatic stress symptomatology (PTSS). As noted previously, Donnelly et al. (2016) found that EMS workers experience significant exposure to a variety of stressors prevalent in the occupation. A total of 145 EMT paramedics were surveyed in a county located in southwestern Ontario, Canada. Donnelly et al. (2016) reported PTSS (a term used alternately to describe PTSD symptoms) was significantly correlated with occupational stress ($p < 0.001$) and critical incident stress ($p < 0.001$). The researchers used the PTSD Checklist (PCL), a standardized 17-item scale that measured PTSS in the EMT paramedic study group. The tool uses a 5-point Likert score to measure a possible score range of 17-85. Donnelly et al. (2016) reported a score 50 or higher indicates possible PTSD. Additionally, the Critical Incident Stress Inventory (CISI) for EMS workers was used to score critical incident stress exposure using a 7-point Likert scale. The possible score range for the CISI was 0-252. Donnelly et al. (2016) found a direct correlation between occupational stress ($p < 0.001$) and PTSS. Three types of workplace stress factors were correlated with PTSS including operational stress (workplace stressors such as high call volume and equipment failures), organizational stress (EMS culture stress such as management disenfranchisement), and critical incident stress (stresses from witnessing the death of child or patients with serious injuries). Donnelly et al. (2016)

demonstrated the significance of stress on the development of PTSD without EMS leader intervention.

Essex and Scott (2008) studied chronic stress and coping strategies in a volunteer EMS study of 139 EMS providers in Suffolk County, New York. The study found a significant percentage of emotional exhaustion (92%), defined as a state of feeling emotionally drained from accumulated stress, and depersonalization (99%), which is listed in *DSM-5* as depersonalization-derealization disorder as an individual's persistent detachment from a situation either physically or cognitively (APA, 2013). Essex and Scott found that chronic exposure to stress affected the EMTs' well-being and physical health. The researchers found few studies within the United States addressing stress exposure to EMS workers.

The Essex and Scott (2008) study used the Maslach Burnout Inventory (MBI), a Human Services Survey for Medical Personnel, to measure signs of burnout, emotional exhaustion, depersonalization, and personal accomplishment in a convenience sample of EMS workers. The MBI is a 22-item short statement tool that scores from 0-6 for responses regarding how a person feels about their work. The findings were significant. Essex and Scott (2008) reported 99.3% ($n = 135$) of the participants scored high for depersonalization and 92% ($n = 129$) of the participants scored high for emotional exhaustion. Additionally, the personal accomplishment score, defined as EMS workers feeling satisfied with the care they provide, was 76.1% ($n = 105$) for the participants (Essex & Scott, 2008).

The significance of the Essex and Scott (2008) study is the high scores for depersonalization and emotional exhaustion in the participant group. The level of stress

on EMS workers is important when discussing the link between occupational stresses and the development of PTSD. As remedies to the development of PTSD, the use of intervention programs and the identification of operational, occupational, and critical stressors, previously noted by Donnelly et al. (2016), and coping strategies discussed by Essex and Scott (2008), offer potential solutions.

Bennett, Williams, Page, Hood, and Woollard (2004) also identified EMS workers in high-risk occupations because of their exposure critical incidents. Bennett et al. (2004) studied 617 EMTs and paramedics from the United Kingdom and found 22% experiencing PTSD. Approximately 200 participants in the sample group reported experiencing intrusive and troubling thoughts, such as suicidal ideation and feelings of guilt, that were work related. Bennett et al. (2004) also reported that 10% of the participants experienced depression, and 22% described being anxious in the same EMS group. The study used the Posttraumatic Diagnostic Scale (PDS) to measure PTSD levels and the Hospital Anxiety and Depression Scale to rate the level of depression and anxiety.

Bennett et al. (2005) reported consistent PTSD prevalence in another study group that parallels the Bennett et al. (2004) study, which was conducted the following year. The researchers found PTSD rates of 20-21% but with a significantly higher anxiety (38%) and depression (31%) rate (Bennett et al., 2005). These researchers reported EMS workers were more likely to encounter critical incident situations that trigger emotional responses on a regular basis. Bennett et al. (2005) noted emotional responses include PD, which may contribute to the development of PTSD. Halpern, Maunder, Schwartz, and Gurevich (2012) defined critical incidents as “stressful workplace incidents that evoke

acute distress and impair functioning in the short- or long-term” (p. 1). The critical incidents noted by Halpern et al. (2012) provide a strong link of the characteristics that exist to prompt a dissociative response.

Halpern et al. (2012) conducted a retrospective critical incident study of EMTs and paramedics ($N = 223$). It was reported that personal and situational characteristics were most frequently associated with PD, prolonged social withdrawal, and current posttraumatic symptoms. It was noted that situational exposure (e.g., threat to ambulance crew and call details) and personal characteristics (e.g., helplessness and a feeling of being overwhelmed) are the primary factors in critical incidents that induce PD, acute stress, and PTSD symptoms (Halpern et al., 2012).

The Halpern et al. (2012) retrospective study was used to survey a large urban EMS organization with 960 employees. The study examined two time periods, which began when the participants recalled when a critical incident occurred, and it continued until the situation subsided. The second time period started when the critical incident situation subsided, and the second time period ended when the survey was completed. The survey participants were self-selected. The researchers developed a 36-item, critical-incident-characteristic list based on research literature and focus groups. The list offered the participants a 4-point scale, from 0-4, to rate “what degree it made the situation you are describing troubling” (Halpern et al., 2012, p. 3).

PD was found to be strongly correlated with the characteristic list for situational and personal endorsement for critical incident exposure (Halpern et al., 2012). The stresses experienced by the EMTs during traumatic events or critical incidents required mental processing. PD provides the delay to mentally process the event by activating

depersonalization and derealization as a buffering gateway between the trauma exposure and cognition (the mental process of understanding thoughts, experiences, and senses) (Liberzon & Abelson, 2016).

A meta-analysis conducted by Ozer et al. (2003) postulated that PD is a significant factor in the development of PTSD when compared to other anxiety variables. Ozer et al. conducted a meta-analysis on 2,647 PTSD studies that produced 476 candidates. The researchers identified 68 studies that met their criteria of seven anxiety predictors for PTSD (Ozer et al., 2003). The 68 studies that Ozer et al. analyzed produced a weighted effect size ($r = .35$) for PD. Ozer et al. (2003) determined that PD is the strongest predictor of PTSD of the seven anxiety predictors selected for inclusion in the meta-analysis.

The link between PD and the development of PTSD is further supported in several studies citing PD's predictive value (Lensvelt-Mulders et al., 2008; Thompson-Hollands et al., 2017; van Der Velden & Wittmann, 2008). What can be described as a characteristic of PD, the expectancy of physical threat, appears in several studies (Fikretoglu et al., 2007; McDonald et al., 2013). The literature demonstrates a connection between what occurs when a traumatic event happens and how the brain processes the reaction. A traumatic event may trigger a panic response, which may play a role in disrupting cognitive functioning (learning, understanding, reasoning, problem solving, decision-making, and attention), that induces dissociation (Fikretoglu et al., 2007).

The Fikretoglu et al. (2007) study provided a mediational model between peritraumatic fear, helplessness, and horror—physical and cognitive panic reactions—and PD. The model captured the assertion that the connection of peritraumatic fear and PD is

mediated by physical panic symptoms. The researchers used the Peritraumatic Distress Inventory, a 13-item questionnaire, using a 4-point Likert scale to measure peritraumatic fear, helplessness and horror, and peritraumatic panic in a sample of 709 police officers. The Peritraumatic Dissociative Experiences Questionnaire (PDEQ) – Self-Report Version was administered to the study participants to measure dissociative experiences after recalling a critical event. The 10-item PDEQ is scored on a 5-point Likert scale.

Fikretoglu et al. (2007) reported physical and cognitive panic symptoms mediate peritraumatic fear and PD in the study sample. Additionally, these researchers found a relationship between fear, helplessness and horror, and PD at the time of a traumatic event. Further, Fikretoglu et al. found panic may be moderated by personality traits in police officers during critical incidents.

It has been demonstrated that PD is associated with exposure to a critical incident or traumatic event. PD has been cited as a potential predictor of PTSD (Lensvelt-Mulders et al., 2008; Pacella et al., 2011; van Der Hart et al., 2008). McDonald et al. (2013) studied the level of PD when the expectancy of a threat is perceived by an individual. McDonald et al. (2013) posited that if a person anticipates an event or the dread of an imminent accident, they are more likely to experience PD, rather than someone who is an unexpectant victim of such event or accident.

McDonald et al. (2013) used structured interviews of trauma victims at trauma centers, asking them about the expectancy of the event that resulted in their hospital stay. The researchers asked a question about how much warning the victim had before the injury occurred. Also, the PDEQ – Self-Report Version was administered to the study participants to measure dissociative experiences after recalling a critical event. The 10-

item PDEQ is scored on a 5-point Likert scale. The questionnaire examines impaired awareness and depersonalization-derealization disorder (APA, 2013).

The findings indicate that the longer the time before the event occurred, the greater the chances of increased arousal inducing derealization (McDonald et al., 2013). *DSM-5* defines derealization as part of the dissociative disorders, and it contains detachment from a situation/environment, and the events seem unreal and there is a feeling that people they know are strangers (APA, 2013).

The McDonald et al. (2013) study helps to characterize the development of PD and the effect of time from a perceived threat until a traumatic event occurs. The research involved trauma survivors, which limited the findings. The study advances the theory that perception of a threat is a precursor to the development of PD (McDonald et al., 2013).

The Thompson-Hollands et al. (2017) study had the strongest evidence of the association between PD and PTSD. The researchers found a strong correlation between PD and negative beliefs about self ($R^2 = 0.6$, $p < .001$), which is associated with the severity of PTSD. The study recruited trauma-exposed adults ($N = 169$) who were given the Clinician-Administered PTSD Scale (CAPS-5) and the Life Events Checklist for *DSM-5* (LEC-5). The study instruments provided a classification of the participants who experienced trauma and those whose total score met depersonalization/derealization criteria. As in other related studies, the PDEQ was used to assess for PD. Similar to the Fikretoglu et al. (2007) model, Thompson-Hollands et al. (2017) developed a mediation model to demonstrate the strong association between PD, negative self-views, and PTSD symptoms.

van Der Velden and Wittmann (2008) reviewed 53 empirical studies and supported the association between PD and PTSD. van Der Velden and Wittmann (2008) reported 34 out of 53 studies demonstrated a positive relationship between PD and PTSD.

A qualitative study conducted by Mattos et al. (2016) interviewed 13 urban violence victims, selecting eight as participants. Mattos et al. reported PD data consistent with an ineffective synthesis of the conscience producing an alternate awareness. This alternate awareness acts as a buffering mechanism to a traumatic event, like the findings of Thompson-Hollands et al. (2017). The Mattos et al. (2016) study design was strong and the sample size moderate, but the purposive sampling of the study and limit to urban violence victims weakened the overall rating.

De Soir et al. (2010) conducted a phenomenological data analysis. They examined the core disaster-related events following exposure to critical incidents. The study consisted of 77 EMS personnel, 22 men and 55 women, who were followed using purposive sampling. De Soir et al. employed two self-report questionnaires at 4 months and 14 months after the event. De Soir et al. (2010) found that the EMS workers had cognitive and emotional experiences of disconnection from reality.

PD disorder prospective studies are often conducted too long after the event to provide validity (van Der Velden & Wittmann, 2008). Mattos et al., (2016) resolved the delay variable with a data collection immediately following a violent episode. van Der Velden and Wittmann (2008) postulated that PD recollection during, or shortly after, an event is influenced by the psychological condition of the individual. The psychological state of the individual may bias the outcome, producing PTSD symptomology (van Der Velden & Wittmann, 2008).

A number of researchers cite the meta-analysis conducted by Lensvelt-Mulders et al. (2008) that reported the significant positive relationship between PD and posttraumatic stress (PTS). The meta-analysis examined 59 independent studies. A positive effect correlation in 34 studies of .36 was reported, and they were similar to previous meta-analysis studies (Lensvelt-Mulders et al., 2008). Building on the Lensvelt-Mulders et al. (2008) study, van Der Hart et al. (2008) similarly conducted a critical review of 53 articles including a review of the bibliographies to support the former researchers' findings that a positive relationship exists between PD and PTS. The finding of this review agreed with the heterogeneous relationship between PD and PTSD, reported by Ozer et al. (2003) and the former study by Lensvelt-Mulders et al. (2008).

The PD path analysis-to-PTSD model presented in Chapter 1 (Figure 1.1) demonstrates the link between PD onset and PTSD development in 30-days and 4-months posttraumatic exposure (Engelhard et al., 2003). Engelhard et al. found that PD has a direct effect on sensory impressions, but fragmented memory and thought suppression were tied to later PTSD development. The broken memory process affects the cognitive mental function that allows for memories to be stored for later retrieval (Liberzon & Abelson, 2016). Engelhard et al. (2003) developed the PD path analysis-to-PTSD model after studying pregnancy loss and suffering PTSD symptoms. Engelhard et al. (2003) reported fragmented memories and thought suppression mediated the PD-PTSD relationship.

Engelhard et al. (2003) reported that PD is the result of a perceived threat while dissociative reactions are related to hyperarousal symptoms. Further, researchers have

found several personal characteristics enhanced the susceptibility of PD in trauma (Engelhard et al., 2003; Fikretoglu et al., 2007; McDonald et al., 2013).

The model developed by Engelhard et al. (2003) provides an excellent representation of the progression of PD to PTSD with the mediating effects of fragmented memories and thought suppression leading the weight for effect. The inclusion of the model aids the reader with a visual understanding of the PD-to-PTSD pathway. Engelhard et al. also found that fragmented memories caused an increase in emotions that encourage thought suppression, which perpetuates the cycle of intrusive thoughts upsetting normal cognitive processing.

Bedard-Gilligan, Jaeger, Echiverri-Cohen, and Zoellner (2012) found that traumatic experiences and stress induces the release of cortisol, a steroid hormone found in the adrenal glands. Cortisol is associated with *hippocampal dysfunction* in the brain where traumatic experiences, in the form of explicit memories, are normally stored. Bedard-Gilligan and Zoellner (2012) further posited that hippocampal dysfunction is linked to memory fragmentation. The Liberzon & Abelson (2016) study noted that strong emotional memories are assigned significance in the amygdala of the brain. The amygdala's memory processing method can lead to PTSD symptomology by creating a memory-triggering panic or fear response when a similar event exposure solicits a feeling response. Additionally, Thompson-Hollands et al. (2017) reported that PD potentiates PTSD by blocking normal memory processing and that memory disruption inhibits the recovery mode, further perpetuating PTSD symptomology and behavioral dysfunction.

When PD and, ultimately, PTSD is left untreated, the resulting mental health illness puts EMTs at risk of further mental health deterioration. When an employee feels

alone, or if mental health access barriers exist, depression and anxiety may lead to suicidal ideation, plans, and attempts (Carleton et al., 2018; Stanley, Boffa, Hom, Kimbrel, & Joiner, 2017). EMS leadership shares the imperative that the stigma of mental illness and the effects of occupational stressors require consideration (Sterud et al., 2008).

Suicidal ideation, plan, and attempts. A strong argument for addressing public safety providers (PSPs), including dispatchers, EMTs/paramedics, firefighters, and police officers, as having one of several mental health disorders is reported in a study of Canadian PSPs (Carleton et al., 2018). A significant number of EMS workers and allied public safety personnel had reported symptoms associated with occupational stress (Carleton et al., 2018). The most serious of these symptoms is suicidal ideation that Sterud et al. (2008) identified as a planned suicide attempt. The large sample size of the Canadian study ($N = 5,148$) provided adequate saturation to identify the risk to PSPs for suicide ideation, plans, and attempts (Carleton et al., 2018). The researchers reported a significant portion of the study participants experienced, respectively, past-year and lifetime suicidal ideation (10.1% and 27.8%), planning (4.1% and 13.3%), and attempts (0.3% and 4.6%). These data portray a growing concern for understanding the behaviors that induce ideation and planning in the PSP population (Carleton et al., 2018).

The strength of the Sterud et al. (2008) study lies in the correlates of suicidal ideation and suicide attempts that were reported to be moderate when compared to other occupations. The Sterud et al. (2008) quantitative correlational study is the only one to report lifetime prevalence and past-year suicide attempt data in a nationwide sample ($N = 1,286$). The authors identified the dependent variable as “serious suicide ideation reported as [a] lifetime prevalence” (p. 408). Sterud et al. (2008), identified 14

independent variables. These included “age, neuroticism, extroversion, control, reality weakness, low self-esteem, depression symptoms, anxiety symptoms, somatic complaints, emotional exhaustion, depersonalization, personal accomplishment, job dissatisfaction, and bullying at work” (p. 409).

The results of the Sterud et al. (2008) study identified emotional exhaustion and bullying at work as factors in occupational stress that may influence suicidal ideation. Donnelly et al. (2016) noted organizational stressors as predictors of posttraumatic stress symptomology (PTSS), whereby Thompson-Hollands et al. (2017) established a correlation between PD and PTSD.

Vigil et al. (2019) identified the mortality odds ratio of suicide for Arizona EMTs at 5.2%, while non-first responders mortality odds ratio of suicide was at 2.2%, with a total of 350,998 deaths during their 2009-2015 study. The mortality odds ratio defines the statistical probability for a given group to die from a given cause. These data raise significant concern for the cause and effect of suicide in the EMT population. Stanley, Home, and Joiner (2016) reported that occupational stress increased the risk of suicidal tendencies and PTSD symptomology in a review of 63 empirical articles examining first responders (EMTs, firefighters, and police officers). Stanley et al. (2016) found that few studies evaluated the suicidal tendencies in the EMS community. The researchers indicated their concerns for the lack of EMS studies regarding suicidal ideations and mental health behaviors leading to suicidal tendencies. Stanley et al. (2017) discussed the higher risk posed by exposure to critical incidents in the EMT population; but closely related to EMTs, the firefighters examined in the study were noted to have EMS

experience and could, therefore, be grouped with the EMT segment. Firefighters were found to have a 6-times greater propensity to have attempted suicide in their lifetime.

Similarly, Boffa et al. (2017) studied the firefighter population and shared comparable results to the Stanley et al. (2016) article review. These data of 893 U.S. firefighters demonstrated a greater risk of suicide ideation and prior attempts in relation to PTSS (Boffa et al., 2017). The participants completed a web-based self-reporting questionnaire using the Depressive Symptom Inventory–Suicidality Subscale (DSI-SS), a four-item, 4-point Likert scale with a score range of 0-12. Additionally, Boffa et al. (2017) administered a 20-item Center for Epidemiologic Studies Depression Scale (CES-D) measuring depression symptom severity. The Self-Injurious Thoughts and Behaviors Interview–Short Form (SITBI-SF), a 72-item interview form that ranked suicidal thoughts, plans, and behaviors, was used. The final evaluative tool was the 17-item Self-report Posttraumatic Stress Disorder Checklist–Civilian Version (PCL-C) was used to assess past-month PTSS severity.

Boffa et al. (2017) reported that firefighters suffered from reexperiencing (flashbacks, bad dreams, or frightening thoughts) events and numbing, which predisposed them to suicidal ideation. But reexperiencing was strongly related to suicide attempts, and PTSD was associated with suicidal behaviors. Firefighters have an occupational risk of recurrent exposure to traumatic events that is implicated in reexperiencing symptoms (Boffa et al., 2017). Firefighters' careers closely parallel EMTs' occupation, making study result comparable.

The EMS organizational cost of mental health illness from loss of productivity, absenteeism, and staffing shortages has implications on finances and morale (Genly,

2016). Likewise, the effect of PD and PTSD on EMS organizations can be measured in the economic impact on EMS organizations' finances (Ferry et al. 2015).

Economic considerations. Trautmann et al. (2016) measured the economic cost of mental disorders including anxiety, depression, and substance abuse. The researchers reported the indirect costs (productivity and income losses) of mental illness, including PTSD for the United States was \$1.7 trillion based on 2010 data. Further, the direct U.S. healthcare costs of \$0.8 trillion and the indirect costs of U.S. healthcare costs of mental illness of \$1.7 trillion are projected to double by 2030.

Specific data regarding the economic influence of occupational stress is inadequate, and there have been limited studies examining these costs (Ferry et al., 2015). Kalia (2002) discussed the burden that anxiety disorders placed on the individual and on society when compared to healthcare costs. The study revealed that stress, at that time, cost the United Kingdom 3 billion pounds (Kalia, 2002). Further, Kalia noted that traumatic events and PTSD had a considerable impact on healthcare costs, individual impairment, and on society burdened through diminished productivity.

In their 2003 study, McCrone et al. examined the cost-benefit analysis (CBA) and its application to policy or treatment. The cost comparison to benefit is weighed to determine the feasibility of promoting its use. If the benefits outweigh the costs, then the policy or treatment CBA is affirmed (McCrone et al., 2003). McCrone et al. discussed the alternative to CBA by describing the use of disability-adjusted life years (DALYs). DALYs combine data for the number of life years lost from PTSD illnesses with the number of years with the disability (McCrone et al., 2003). The use of DALYs aids in comparing illness groups. Ferry et al (2015) posited that the economic impact from

psychological illnesses needs to be weighed against the humanitarian goals in a society to improve quality of life for individuals and families). The seriousness of PTSD symptomology on an individual and that individual's organization weighs heavily on EMS and government leadership (Mishra et al., 2010).

EMS leadership can have a role in mitigating the economic burden of stress-related disorders on organizational health by employing coping strategies (Ebadi & Froutan, 2017). These strategies strengthen the mental capacity of the EMTs when they are confronted with occupational stress.

Coping strategies. A study performed by Essex and Scott (2008) assessed EMS personnel for chronic stress and the effect of coping strategies on their mental health. The findings of the quantitative study found a significant percentage of emotional exhaustion (92%) and depersonalization (99%) amongst the participants. The convenience sample of participants ($N = 138$) consisted of 71 males and 67 females in Suffolk County, New York. The researchers used ANOVA multivariate analyses to correlate the results of the MBI subscales (emotional exhaustion, depersonalization, and personal accomplishment) with the administered Coping Methods Checklist (CMC). Essex and Scott reported the CMC provided a list of eight coping strategies for dealing with chronic stress. The researchers added six additional strategies that targeted specific EMS behaviors.

Essex and Scott (2008) reported three dependent variables of the study: emotional exhaustion, depersonalization, and personal accomplishment; and 14 independent variables from the CMC, in addition to age, gender, and years of service, were analyzed using ANOVA. Essex and Scott (2008) found an association with depersonalization ($R^2 = 9.6\%$, $p = 0.001$) with CMC as "have an alcoholic beverage" ($F = 9.72$, $p = 0.002$)

and “do the bare minimum” ($F = 10.95, p = 0.001$). Essex and Scott (2008) reported no statistically significant association with emotional exhaustion and coping strategies of “thinking about outside interests” and “do the bare minimum required to stay an active member of your company” (p. 73) as factors. The large effect size and significance of this study supports inclusion in the research of the problem-coping strategy path.

Essex and Scott (2008) reported high scores on the MBI for depersonalization and emotional exhaustion in the survey sample. The results of the CMC indicated that the participants used some positive coping strategies for chronic stress, but the researchers noted a concerning high number of unhealthy coping methods. An elevated level of burnout was reported that was linked with less than half the participants using mental health services that were provided as a coping strategy.

Ebadi and Froutan (2017) conducted a qualitative study of 28 prehospital providers in Mashhad, Iran. The purposive sample provided data from one-on-one, semi-structured interviews, observations, and field notes. The researchers concluded that positive coping strategies diminish stressful situations. The authors discussed the findings that “led to four main concepts, including work engagement, smart capability, positive feedback, and crisis pioneering” (p. 3577).

The work engagement feature outlined by Ebadi and Froutan (2017) created a stronger bond of loyalty, which empowered the employees. This empowerment provided positive coping strategies for stress, which improved the workplace. Ebadi and Froutan discussed additional concepts of building smart capabilities, positive feedback, and crisis pioneering that strengthened coping characteristics and could diminish occupational stress. Donnelly et al. (2016) posited that unaddressed workplace stressors lead to PTSS.

The exposure to traumatic events that invoke PD is a strong predictor of PTSD symptomology (Thompson-Hollands et al., 2017). Pacella et al. (2011) discussed avoidant coping as a mediator to PD and PTSD.

Continuing with the established association of PD as a predictor of PTSD, Pacella et al. (2011) pursued avoidant coping, a passive emotion that does not allow the individual to mentally process the traumatic experience and the acute phase of PTSD. Pacella et al. established a commonality between PD and avoidant coping that results in fragmented and disorganized memories (Bedard-Gilligan & Zoellner, 2012; Engelhard et al., 2003). Pacella et al. (2011) posited that avoidant coping occurs when significant PD has been experienced that disrupts the normal cognitive processing, so the individual never fully recovers from the traumatic event. As a maladaptive coping mechanism, avoidant coping blocks the ability to mentally process an experience and, instead, the individual avoids the memories or thoughts allowing further escalation of PTSD symptoms (Pacella et al., 2011).

The need for positive coping strategies was discussed by Akbar, Elahi, Mohammadi, and Khoshknab (2015) in their study of 18 nurses working in hospitals. The researchers discussed job stress as physical, psychological, and social events that have the potential to cause mental harm. Further, Akbar et al. (2015) found that 30% of absences in nursing were rooted in the effect of job stress in the healthcare industry. Akbar et al. reported the healthcare field lost 300-400 million dollars in absenteeism and productivity losses from job stress.

Akbar et al. (2015) defined coping as a “cognitive and behavioral attempt to control the internal and external demands in encountering the surrounding environment”

(p. 56). Using a qualitative interview study, Akbar et al. found a variety of positive coping strategies that controlled job stress. Nurses reported job stress caused medication errors, physical pain, mental fatigue, and diminished empathy for patients under their charge (Akbar et al., 2015). The need for positive coping strategies in the EMS industry provides a conduit for further investigation (Ebadi & Froutan, 2017; Essex & Scott, 2008).

Additionally, the argument for coping strategies in the EMS workplace is supported by Ebadi and Froutan (2017) and Essex and Scott (2008). In these studies, the connection between the research problems and study findings demonstrates a need for continued investigation. Stress-related disorders and mitigating coping strategies have potential to improve organizational health (Ebadi & Froutan, 2017).

Barriers to mental health. Stanley et al. (2017) reported that the barriers to mental healthcare in U.S. firefighters results in a significant increase in depression, anxiety, suicide ideation, and alcohol consumption. Similar to the Boffa et al. (2017) study of firefighters, EMTs share a common function as emergency responders experiencing the same occupational stresses. Therefore, studies involving firefighters can be applied to EMTs.

Stanley et al. (2017) found that the high-risk environment in which firefighters operate increases the propensity to experience traumatic events. Further, exposure to critical events posed a significant risk of experiencing depression, substance abuse, sleep disruptions, and PTSS. The toll on one's mental health causes an increase in suicidal ideation and attempts; more importantly, the stigma of mental health treatment produces barriers to prevention and service access (Stanley et al., 2017). The study focused on the

difference in access between career firefighters and volunteer-based firefighters, but the study can be aptly applied to the EMS field. Stanley et al. (2017) found greater barriers to mental healthcare and high rates of suicidal symptoms including suicide ideation, plans, and attempts in volunteer-based firefighters. There were equally reported levels of sleep disturbances, substance abuses, and stigma-related barriers to mental healthcare between the career and volunteer firefighter groups (Stanley et al., 2017).

Chapter Summary

This chapter addressed the systemic review and synthesis of the literature relating to PD effects on EMS organizations. The review of literature presented the relationship between PD and traumatic events, and how EMTs react to experiences and the effect their reactions have on their organizations. Further, the research literature examined EMS leaders who directly supervised EMTs. It included the reaction of EMS organizations in response to the effect of PD on EMTs. The stigma of EMT mental health has effect on organizational finances including absenteeism, productivity, and employment. The review of the literature examined four areas relating to PD and traumatic event experiences that have roles in the progression of occupational stress on EMTs. Specifically, the literature review fell into four categories: PD/PTSD, suicidal ideation, economic considerations, and coping strategies.

Chapter 3 presents the descriptive phenomenological methodology used in this research study. The lived experience of EMTs and the effect on EMS organizations were investigated. The purpose of this study was to identify the effects of PD on EMTs and EMS organizations. Specifically, the goal was to destigmatize and ameliorate the effects

of mental health issues by identifying coping strategies for both the employees and organizations.

Chapter 3: Research Design Methodology

General Perspective

The purpose of this study was to identify the role of EMS organizations in preparing and supporting EMTs with the effects of PD. Specifically, the aim was to identify, from the perspective of practicing EMTs and EMS managers, the services, the employee benefits, and the activities that assist in destigmatizing and minimizing the effects of PD. Without intervention, EMTs may experience an increased risk of poor mental health, they may exit the workplace, and develop suicidal ideation and other posttraumatic conditions (Carleton et al., 2018). Kalia (2002) noted that traumatic events and PTSD have a considerable impact on healthcare costs, on individual impairment, and on society through diminished productivity.

When employees experience stress-related disorders, such as PD or PTSD, the organizational functioning and sustainability relating to staffing and financial issues are compromised (Marciniak et al., 2005). EMS leadership may lack the ability to recognize and/or identify PD and PTSD symptomology in EMT employees and/or fail to ameliorate the effect of posttraumatic events through intervention or professional development. EMS leadership has a dual responsibility to understand the dynamics of PD and PTSD as well as acting toward diminishing the far-reaching ramifications of posttraumatic effects on employees (Drewitz-Chesney, 2012; Lilly & Allen, 2015; Regehr & Leblanc, 2017).

This study had two investigative phases. The first phase included four EMTs in a county in Central New York State who met the selection criteria. The second phase

included four EMS managers in the same county in Central New York State who also met the selection criteria.

The research questions that guided this study included:

1. From the perspective of practicing EMTs and EMS managers, what role should the EMS organization play in preparing and supporting their EMTs for the effects of PD, as defined in the study?
2. From the perspective of EMTs and EMS managers, what services, employee benefits, and activities can support and prepare EMTs to minimize the effects of peritraumatic dissociation, as defined in the study, on the employees and the organization?

Overall Study Design

This study used a qualitative descriptive phenomenological research design, which is defined as the *pure* description of people's experiences, following the Giorgi (1997) criteria for a qualitative study. Creswell (2018) said qualitative research allows the participants' voices to be heard and the participants to feel a sense of ownership over their experience of a given phenomenon. Peoples (2020) advanced the notion that qualitative research pursues a phenomenon through an interpretation of the descriptions participants assign to an experience.

Phenomenological research differs from other modes of qualitative inquiry in that it attempts to understand the essence of a phenomenon from the perspective of the participants who have experienced it (Eddles-Hirsch, 2015). The focus, then, in phenomenological research, is not on the participants themselves or the world that they inhabit, but rather, the focus is on the meaning or essence of the relationship between the

individual and the workplace environment being studied (Merriam, 2014; Peoples, 2020). Eddles-Hirsch (2015) stressed that the task of a phenomenological researcher is to uncover the essence of the phenomenon that one is attempting to study.

Giorgi (1997) stated that the phenomenological method must include specific criteria, including a descriptive format, within phenomenological reduction to seek the most invariant meanings for a context or essence of the meaning. Giorgi explained that descriptive phenomenology is the communication of what individuals offer as the description events from their perspective and as they see it. The researcher is required to be a neutral, unbiased observer and record only participants' responses. This unbiased observation is referred to as *bracketing*, a phenomenological reduction of knowledge, experience, or opinion of the studied phenomenon (Giorgi, 1997). Therefore, Giorgi (1997) assigned reduction as a way of bracketing the researcher's knowledge, experience, and opinion of the phenomenon from the participants' description and for the researcher to become immersed in the participants' experience. Giorgi noted that the researcher should seek the essence or invariant meaning of the participants' experience in the researched phenomenon. The researcher needed to be open to the new information or opinions from the participants (Creswell, 2018). The interviews offered an opportunity for the researcher to gain important insight into the lived experiences of the studied phenomenon (Giorgi, 1997).

Morse (2015) explained that it is not the events themselves that offer meaning to a phenomenon but the interpretation or response of the participants to the event that holds meaning. This study therefore used the descriptive phenomenological design, the pure description of the participants' understanding, to investigate the lived experiences of the

EMTs. Further, the interviews, through the EMTs' lived experiences, sought to understand self-reporting and the EMS managers' role in providing services, benefits, or activities that could minimize the effects of PD. In the event that a participant decided to withdraw from the interview, the data would be discarded, and the selection process for another participant in that group would begin again. This did not occur during the eight interviews conducted for this study.

Research Context

This study was conducted in a county in Central New York State. Coverage included participants who actively worked in EMS agencies in that geographical location in New York State. The county of study, in 2019, contained approximately 460,000 residents (U.S. Census Bureau, 2019).

Research Participants

The participant pool consisted of approximately 2,300 EMTs, with varying levels of training with an active employment status, and 56 EMS managers who were employed at one of 56 fire departments or ambulance agencies located in the study county in Central New York State. The participant selection criteria was that each individual should be 18 years or older, have a minimum of 1-years' experience as an EMT, and be actively work in the county included in the study. There were two separate groups of research participants. The first group were EMTs from the Central New York State county, and the second group were EMS managers who were also located in the same county in New York State.

Giorgi (1997) recommended the number of participants to be three to five for descriptive phenomenological methodology from each pool of participants to reach

optimal saturation in each group, namely the EMTs and EMS managers. For the purposes of this study, four EMTs and four EMS managers were selected to participate in semi-structured, noncontact interviews using a virtual meeting application (Marmar et al., 1997). The email addresses of potential participants were obtained from the chairman of the county ambulance directors' database. A recruitment email was sent to each group of EMTs (Appendix B) and EMS managers (Appendix C) as an invitation to participate in this study. The potential participants from each of the two groups who responded to the invitation email formed the sample for each group.

The respondents who wished to participate in the study and who met the selection criteria were emailed the informed consent form (Appendix D), which was to be electronically signed and returned to the researcher. The electronically signed informed consent forms are maintained in an encrypted, password-protected electronic file on the researcher's computer.

A random purposeful sampling is employed when a specific sample is selected to achieve representation of a population (Creswell, 2018). Two separate sample groups were constructed, one for the EMTs and one for the EMS managers, resulting in a total of 75 potential participants. The sample list for the EMTs and EMS managers was used to identify a random starting point in the individual list. The random starting point formula was for every third participant to be selected from the sample list of EMTs and EMS managers list until a total of eight participants was achieved. All eight potential participants electronically signed and returned the informed consent form. The four selected participants from the EMT list and the EMS managers list were contacted and asked to participate in one-on-one, semi-structured, noncontact interviews using a virtual

meeting application (i.e., Zoom, Google Meet, Skype). Once the four participants from each of the EMT and EMS manager groups were interviewed, Giorgi (1997) stated that optimal saturation was met and the interviews could be stopped.

The respondents who were not selected received an email thanking them for their interest and informing them they were not selected for the study. The respondents were advised that they would receive an electronic notification with a link to the results of the study. Following publication of this study, the study data will be kept for 3 years, and it will be electronically destroyed using secure file shredding software. The signed consent forms from the participants will be retained under lock and key for 3 years after publication of this study, and they will physically be destroyed by shredding.

Instruments Used in Data Collection

The primary tool for data collection for this study was the researcher and one-on-one, semi-structured, noncontact interviews using a virtual meeting application. The purpose of this data collection instrument was to gather evidence of the presence of PD in the study sample. EMTs who had not experienced PD during their career were not the focus of this study, therefore, they were not included in the random purposeful sample.

Interviews. The participants were, at the time of their interviews, practicing career EMTs and EMS managers with a minimum of 1-year EMS experience, and they were selected from ambulance services located in a Central New York State county. The EMTs and EMS managers were required to be least 18 years old. The selection criteria ensured that the participants who had experience in the EMS field had exposure to the services, the employee benefits, and activities that could prepare EMTs for the effects of

PD. Two separate sample groups, one for the EMTs and one for the EMS managers were formed by the researcher from the respondents.

The interviews were conducted in private, using a virtual meeting application to ensure confidentiality, and the interviews were conducted for approximately 30 to 60 minutes. The one-on-one interviews were digitally audio recorded to capture the essence, characteristics, and nuances of the studied phenomenon. The digital audio recordings were electronically transcribed using the Transcribe (Pro version) application software for later data analysis. The digital audio recordings and transcripts are kept confidential and they are secured using electronic file encryption.

The use of handwritten field notes detailing specific expressions, body language, and participant attitude were used to supplement the digital audio recordings. The theoretical framework for resilience was also observed and elicited during the interviews. This study focused on the protective factor principle, outlined by Bolton et al. (2017), to advance resilience theory in EMTs. Bolton et al. (2017) advanced three principles of resilience theory to include risk factors, protective factors, and vulnerability factors. Risk factors are the mental conditions that develop from adversity following events such as childhood neglect or trauma exposure. Bolton et al. (2017) described protective factors as the mechanisms that shield the individual from developing maladaptive coping strategies, and Bolton et al. (2017) also posited that vulnerability factors include being exposed to mental illness, domestic violence, poverty, and bereavement.

The following interview questions were posed to the EMT study participants:

1. From your perspective, what occupational stresses have the most effect on the EMT's career?
2. Considering occupational stress, what impact does it have on the ability of EMTs to do their job?
3. To your knowledge, do EMTs self-report occupational stress experiences to their manager?
4. From your perspective, does experiencing occupational stress or exposure to traumatic experiences affect EMTs' outlook on their careers?
5. What kind of services, employee benefits, or activities are you aware of that are offered during EMTs' careers?
6. What services, employee benefits, or activities would be helpful to an EMT to ensure physical and mental health well-being?
7. Do you know if a stigma is associated with those EMTs experiencing mental health issues while working in EMS?

If so, what are the stigmas and by whom are they assigned?
8. Do EMTs consider themselves resilient? Can you give some examples of how EMTs demonstrate resilience?

Table 3.1 provides a correlation between the research questions and the interview questions for the EMTs.

Table 3.1

Research Question and Interview Question Alignment for EMTs

Research Question	Interview Question
1. From the perspective of practicing EMTs and EMS managers, what role should the EMS organization play in preparing and supporting their EMTs for the effects of peritraumatic dissociation, as defined in the study?	1. From your perspective, what occupational stresses have the most effect on the EMT's career? 2. Considering occupational stress, what impact does it have on the ability of EMTs to do their job? 3. To your knowledge, do EMTs self-report occupational stress experiences to their manager? 4. From your perspective, does experiencing occupational stress or exposure to traumatic experiences effect EMTs' outlook on their careers?
2. From the perspective of practicing EMTs and EMS managers, what services, employee benefits, and activities can support and prepare the EMT to minimize the effects of peritraumatic dissociation, as defined in the study, on the employees and the organization?	5. What kind of services, employee benefits, or activities are you aware of that are offered during EMTs' careers? 6. What kind of services, employee benefits, or activities would be helpful to an EMT to endure physical and mental health well-being? 7. Do you know if a stigma is associated with those experiencing mental health issues while working in EMS? If so, what are the stigmas and by whom are they assigned? 8. Do EMTs consider themselves resilient? Can you give some examples of how EMTs demonstrate resilience?

The following interview questions were posed to the EMS manger study participants:

1. Are you aware of the term peritraumatic dissociation?
If yes, what is your perception of its effect on employees?
2. Think back to a time when an employee or member told you they experienced occupational stress or exposure to traumatic events:
 - a. What was your initial reaction?
 - b. What actions were taken?
3. Considering the aftermath of employee(s) who experienced occupational stress or exposure to traumatic events, what effect did it have on staffing, finances, services, or the organization as a whole (including staff morale)?
4. If an employee experienced occupational stress or exposure to traumatic events, are you aware of how it affected their outlook on their career?
5. Based on your observations of others, what are some of the effects of experiencing occupational stress or exposure to traumatic events and who is affected?
6. In what ways might EMS leadership intervene or assist when an employee is impacted by stress or mental health disorders?
7. Do you know if a stigma is associated with those experiencing mental health issues?
If so, what are the stigmas and by whom are they assigned?

Table 3.2 provides a correlation between the research questions and the interview questions for the EMS managers.

Table 3.2
Research Question and Interview Question Alignment for EMS Managers

Research Question	Interview Question
1. From the perspective of practicing EMTs and EMS managers, what role should the EMS organization play in preparing and supporting their EMTs for the effects of peritraumatic dissociation, as defined in the study?	1. Are you aware of the term peritraumatic dissociation? 2. Think back to a time when an employee or member told you they experienced a traumatic event a. What was your initial reaction? b. What actions were taken? 3. Considering the aftermath of employee(s) who experienced occupational stress or traumatic events, what effect did it have on staffing, finances, services, or the organization as a whole (including staff morale)? 4. If an employee experienced occupational stress or exposure to traumatic events, are you aware of how it affected their outlook on their career? 5. Based on your observations of others, what are some of the effects of experiencing occupational stress or exposure to traumatic event and who is affected?
2. From the perspective of practicing EMTs and EMS managers, what services, employee benefits, and activities can support and prepare the EMT to minimize the effects of peritraumatic dissociation, as defined in the study, on the employee and the organization?	6. In what ways might EMS leadership intervene or assist when an employee is impacted by stress or mental health disorders? 7. Do you know if a stigma is associated with those experiencing mental health disorders? If so, what are the stigmas and by whom are they assigned?

Procedures for Data Collection and Analysis

The purpose of this study was to identify the role of the EMS organizations in preparing and supporting EMTs for the effects of PD. Specifically, the aim was to

identify, from the perspective of practicing EMTs and EMS managers, the services, the employee benefits, and the activities that assist in destigmatizing and minimizing the effects of PD. The findings from the study will support the efforts of EMS organizations to educate and protect EMTs as well as strengthen the services that the organizations deliver.

The researcher used one-on-one, semi-structured, noncontact interviews, lasting approximately 30 to 60 minutes to collect the data for this study. The semi-structured interview questions provided the opportunity to relax the participant enough to drop their psychological defenses and provide free expression of repressed thoughts and feelings (Clompus & Albarran, 2016). The interview was conducted using virtual meeting applications in a private room to ensure confidentiality. If a participant had decided to withdraw from the interview, their data would have been discarded and the selection process for the participants in that group would begin again. This did not occur during the interview process.

The interviews allowed the researcher to study the lived experience of EMTs who had been exposed to traumatic events and had gained insight into their perception of the role of the EMS organization to prepare and support employees who have experienced PD. Further, the participation of the EMS managers in the same geographical region provided insight into the response and effect PD had on various EMS organizations.

The theoretical framework of resilience was explored during the interview. Greene et al. (2004) purported that the resilience theory can be applied directly to the psychopathology of trauma. EMTs display resilience as an occupational certainty, referring to the nature of the EMS occupation and the likelihood of exposure to high-

stress incidents (Clompus & Albarran, 2016; Lee et al., 2014). The relationship of resilience and the effect of PD was explored using the interview questions to probe the participants' definition, interpretation, and knowledge of experience with resiliency.

Data analysis of the digitally audio-recorded and transcribed interviews was conducted to find the essence or meaning units described by the participants (Giorgi, 1997). The data analysis followed the guidelines established by Giorgi (1997) and Creswell (2018) that include a descriptive format within phenomenological reduction and to explore the most invariant meanings for a context or essence of meaning. The data were further subjected to categorizing during three cycles of coding to establish themes, ideas, interpretations, and commonality with the participants (Creswell, 2018; Elliott, 2018).

Summary

This chapter defined the descriptive phenomenological methodology used in this research study. The lived experiences of EMTs and the effect on EMS organizations was investigated. This study contributes to the knowledge base for PD in the EMS population and the phenomenon from the perspective of EMTs and EMS managers.

The qualitative research study examined the phenomenon and lived experiences through contributions of the EMTs who had experienced occupational stress. Also, the effect of traumatic events experienced by the EMTs on the EMS organizations through the lens of the EMS managers was explored during the interview process. The essence of the lived experience defines the phenomenological methodology (Giorgi, 1997). The goal of this study was to better understand the lived experience of PD and the stigma

associated with mental health in EMS. The data attest to the effects of occupational stress and traumatic on both EMTs and EMS organizations.

Chapter 4: Results

Introduction

This research study explored the lived experiences of EMTs and EMS managers through descriptive phenomenological analysis. The research problem examined EMS leadership and their ability to recognize or identify PD and PTSD symptomology. The study illuminates the lived experiences of EMT employees and the failure to have strategies in place to minimize the effect of posttraumatic events through intervention. EMS leadership has the dual responsibility of understanding the dynamics of PD and PTSD, as well as taking action toward diminishing the far-reaching ramifications of posttraumatic effects on employees and the organizations they lead (Drewitz-Chesney, 2012; Lilly & Allen, 2015; Regehr & Leblanc, 2017).

Data Analysis and Findings

The researcher used one-on-one, semi-structured, noncontact interviews, lasting approximately 30 to 60 minutes, to collect the data for this study. The semi-structured interview questions provided the opportunity to relax the participants enough to drop their psychological defenses and give the free expression of repressed thoughts and feelings (Clompus & Albarran, 2016). The interviews were conducted using virtual meeting applications in a private room to ensure confidentiality.

The interviews allowed the researcher to examine the lived experience of EMTs who had been exposed to traumatic events and gain insight into their perception of the role of the EMS organization to prepare and support employees who had experienced PD.

Further, the participation of EMS managers in the same geographical region provided insight into the response and effect of PD on various EMS organizations.

The theoretical framework of resilience was explored during the interview. Greene et al. (2004) purported that the resilience theory can be applied directly to the psychopathology of trauma. EMTs display resilience as an occupational certainty, referring to the nature of the EMS occupation and the likelihood of exposure to high-stress incidents (Clompus & Albarran, 2016; Lee et al., 2014). This study explored the relationship between resilience and the effects of PD using the interview questions to probe the participant's definitions, interpretations, and knowledge of experiences with resiliency.

Data analysis of the digitally audio-recorded and transcribed interviews were conducted to find the essence or meaning units described by the participants (Giorgi, 1997). Data analysis followed the guidelines established by Giorgi (1997) and Creswell (2018) that include a descriptive format within phenomenological reduction, and it explored the most invariant meanings for a context or essences of meaning. Data categorizing during the three cycles of coding established themes, ideas, interpretations, and commonality with the participants' answers (Elliott, 2018).

The first step of analysis was reading the EMTs' and EMS managers' interview transcripts to gain insight into their lived experiences. The reading produced an initial meaning unit from the participants' transcripts. (Giorgi, 1997) discussed the creation of meaning units to better understand the essence of a phenomenon. It was necessary to follow up with several participants to get a better understanding of their experiences.

The second step of the three-cycle coding included reanalysis of the participants' interviews and a follow-up transcript to identify commonalities and begin forming themes and subthemes from the data. The final step produced the emerging themes and subthemes. The definition of the emerging themes and subthemes with in vivo participant statements outlined the meaning and expectations assigned by the individuals. The use of in vivo statements provided an unfiltered view of the study's inquiry. The description of the experiences illuminated the understanding of the phenomenon (Peoples, 2020). The semi-structured interviews gave the participants the opportunity to fully express and describe their own interpretation of their lived experiences.

Demographics. The study included a total of eight participant interviews. The participants were actively working at an EMS agency or fire department in a county in Central New York State. Four participants had varying EMT training levels, and four participants were EMS managers. A pseudonym was assigned to each participant to ensure confidentiality. The EMTs were assigned the pseudonym *E* and a number, and the EMS managers were assigned the pseudonym *EM* and a number. Table 4.1 and Table 4.2, respectively, display the demographic information for the EMT and EMS participants who were interviewed for this research study.

Table 4.1

Demographic Background of EMT Participants

Participant	Age	Gender	Years of Service
E1	32	Male	8
E2	28	Male	7
E3	21	Female	3
E4	26	Male	5

Table 4.2

Demographic Background of EMS Manager Participants

Participant	Age	Gender	Years of Service
EM1	51	Male	35
EM2	31	Male	13
EM3	24	Female	5
EM4	44	Male	12

Research Questions

The data examined and reported in this section was obtained during the interview process to address the following research questions:

1. From the perspective of practicing EMTs and EMS managers, what role should the EMS organization play in preparing and supporting their EMTs for the effects of peritraumatic dissociation, as defined in the study?
2. From the perspective of EMTs and EMS managers, what services, employee benefits, and activities can support and prepare EMTs to minimize the effects of peritraumatic dissociation, as defined in the study, on the employees and the organization?

The semi-structured interviews explored the lived experiences of the EMTs and EMS managers to gain insight into the effects of PD from occupational stress, and to understand what the effects of traumatic experiences have on EMS organizations. The data produced the leading themes and subthemes from individual perceptions and experiences in EMS. The emergence of themes and subordinate themes is an essential step in understanding the collective phenomenon (Peoples, 2020). Table 4.3 represents the development of the major themes from the emergent themes and subthemes for both

the EMT and EMS manager participant groups. The coding was combined (Appendix E) to emphasize the consistent essence shared by both groups of participants.

Table 4.3

Theme Development for EMTs and the EMS Managers

Major Theme	Emergent Themes	Subthemes
Stress Experiences	Psychological Effects	Workplace Home
	Maladaptive Coping Mechanisms	Alcohol Smoking Drugs Risky behaviors
	Protective mechanisms	Avoidance Absence Compartmentalizing
	Emotions	Self-loathing Anger Low self-esteem Sorrow
Leadership Challenges	Knowledge limitations	Lack of education Not knowing
	Poor Leadership	Lack of management Poor guidance
	Emotional experiences	Reliving Anxiety Anger

Major Theme Identification

The two major themes that developed from the emergent themes and subthemes were *stress experiences* and *leadership challenges*. The explication of the emerging ideas and subthemes illuminated the lived experience of the study EMTs and EMS managers. The EMTs and EMS managers, individually and subconsciously, assigned meaning units to their experiences. The meaning units define the essence of their lived experience. The data uncovered a connection between the meaning units of the EMTs and the EMS managers.

The major theme of stress experiences developed through the repeated references to the effects occupational stress and traumatic experiences had on the individual. The

impact on work, home, and emotions was most substantial at showing the need for preparing and supporting EMTs. The maladaptive coping mechanisms shared by the study participants demonstrate the need to address stress in the workplace. Because of exposure to peritraumatic events, some employees developed protective mechanisms to shield themselves from occupational stress. Some of the participants used avoidance as a protective mechanism. The use of compartmentalization appeared to further protect the study participants from the effects of occupational stress.

Leadership challenges developed as another significant theme. The four EMS managers shared lived experiences that deeply affected their outlook on occupational stress and traumatic experiences. The participants assigned meaning units that emerged as themes and subthemes to their phenomenon. Leadership challenges were identified as the difficulties most of the participants expressed in providing an appropriate response to employees experiencing occupational stress. The participants felt the lack of knowledge in stress management, formal training, and program development were the leading causes of the EMS managers responding inappropriately to crises. The programs and services discussed by EM4 demonstrated a positive outcome when employee needs are satisfied. EM4 stated, "I was in a bad place mentally, but my agency offered a program that helped me overcome my demons. Without it I don't know where I would have ended up." The programs discussed by EM4 included Employer Assistance Programs (EAP) offering mental health services and Alcoholics Anonymous.

Emergent Theme Narratives

Emergent themes are developed through the coding of research participant interview data. The themes provided the conceptual interpretation of the participants lived experiences and highlight the meaning assigned by the participants.

Psychological effects. All the participants reported experiencing *psychological effects* from occupational stress and traumatic experiences during their careers.

Psychological effects are defined as experiences that impact one's interactions in the workplace or home. Some of the participants reported that their experiences had affected their ability to think, relax, communicate, or sleep, such as E2 described: "push things down. I can't disconnect, and I could have done more," or E3 used the words "death, talking, and suppress" to describe the psychological stress experienced in the workplace. EM 3 stated, "Everything we see just impacts you at work, at home, in my social life; it's like having a ghost following you around every day reminding you of that day."

Maladaptive coping mechanisms. All participants reported some form of *maladaptive coping mechanisms* for adjusting to stress and traumatic experiences. An individual uses maladaptive coping (i.e., tobacco use, participation in risky activities) as a psychological separating activity from a stressful event or impending exposure to traumatic experiences. EM2 stated, "I use alcohol too much." E3 explained:

It bothers you; it's in there, and there is no one to talk to, so I go do stupid shit, and sometimes I get hurt or drink too much, or I'll get cancer from smoking too much. I don't mind getting hurt; it means I don't have to go to work. . . . There is no one to talk to, so I drink and smoke. . . . If you don't want to think about stuff, you need to hide it, so I use [drugs] to hide it. (E3)

E2 revealed,

I go out a lot after work; I hook up with the wrong woman and do crazy things that kind of bury what I have seen or what I could see, because it never really goes away; its waiting for you when you're back on shift.

Protective mechanisms. Each of the study participants described the *protective mechanisms* used to shield themselves from stress and traumatic event exposures. The protective mechanisms included avoiding calls, calling into work, not discussing events, and compartmentalizing the stress or trauma exposures as a way of dealing with them or by separating themselves emotionally. E3 explained with, "When it happens, death and bad calls, we shut down mentally, stuff it way and just do it." E4 said, "I can put myself in a little box, so I can do my job. E1 described dealing with the trauma exposures:

Avoiding the radio when you hear a bad call coming in is how I've tried to get around traumas. I've seen others do it, so I do the same. You know it's bad, and you don't want to have that in your head, so you avoid it as much as possible.

(E1)

EM1 stated, "I know when it happens, and you zone out. That way, you're not really there, and it's not getting in there, you know, [into] your thoughts, your memories." E3 explained:

When I was a street provider, I used to call in a lot. Sometimes it's better not to be at work, so you don't have the potential to see the things, bad things, that happen to people, the stupid things people do, or the sick or injured kids. (E3)

Emotions. The participants all experienced emotional experiences or emotional impacts that affected them at the workplace, at home, or in social settings. *Emotions* were

the experiences that the participants assigned to stressful events, such as feeling inadequate, being angry at others or themselves, having empathy during death and dying, or crying uncontrollably or at inappropriate times. EM3 spoke of the struggle, “At work, I’m expected to lead people and not be emotional, but how can I not get that way when I’ve been where they are after one of those calls?” E3 explained that,

I cry for no reason. I get back to my place after a long shift, and something stupid comes on the TV, and I just start crying. I know it sounds dumb, but it’s like an emotion faucet you can’t shut off. (E3)

EM1 talked about the job:

Seeing the things we do, just get at you. I argued with my ex-wife for no reason; it just felt good sometimes to let out whatever is bothering you. I’d get mad for the dumbest reasons; the kids left out toys, dinner sucks, the dog knocked over my beer. But I’m a supervisor; I’m not supposed to let things bother me. (EM1)

E4 stated, “I feel like I’m not good enough to do this job,” and E1 talked of the struggle for an EMT:

People are dying, and I’m trying to find the right words to talk to the family.

These people had lived, and now they’re dead. What if I didn’t do enough? What if that was me lying there? Then it’s on to the next one, and you really haven’t processed this one. (E1)

Knowledge limitations. Six of the study participants experienced *knowledge limitations* that led to self-loathing or feelings of inadequacy. The need to be viewed as superhuman was illustrated from the various meaning units. When providers felt they lacked knowledge, they became insecure, or they questioned their role during patient

care. E4 stated, “I wouldn’t know who to talk to or where to go.” E3 explained that, “the managers just don’t know what the hell they are talking about, so we need to have someone else come in and talk to us; I would talk if given the opportunity. EM4 said that, “people don’t know where to go or how to address stress issues in the workplace. EM3 spoke of the training:

The training we get doesn’t tell us what to do when someone sees something horrible. We aren’t taught to deal with stress and trauma. But you want to be a good supervisor, so you just act like you know what to do. (EM3)

EMI talked about the frustration:

I don’t know what to [do] with these guys who get it; so I just avoid the topic and tell them they can talk to someone. But I know they interpret that as “I don’t know what to do, so get over it,” and they just go on answering calls. But it’s a lie, and I don’t want to look stupid. (EM1)

Poor leadership. The emergent theme developed from five participants was the reporting of the characteristics of *poor leadership*. The use of meaning units to describe inadequate management or leadership qualities defined this theme. EM1 explained with “If I don’t have the tools, how can I lead. We are failing employees if we don’t know what we’re supposed to be doing when they report stress and bad calls.” EM2 also described feeling helpless, by saying, “It’s too bad I can’t help these guys, but there is CISD [critical incident stress debriefing] that they can turn to. I’ve participated in those sessions, they help. E1 expressed feelings that “no one cares about what you’re seeing; only you can understand it. Supervisors are ignorant of what we need out there. They

could use management training to make them better at responding to stress.” E4 seemed to have the same feelings as E1 regarding supervision:

You can report it, but if the supervisors don’t know what to do, how can they help you deal with it? They can barely understand their job, let alone our stress. . . .

The director just can’t lead. If he can’t lead, how can he be expected to know how to manage employees with problems. (E4)

Subtheme Narratives

Subtheme narratives develop through the continuous process of analysis, coding, and meaning unit assignment given by the research participants. In vivo statements highlight the essence of the participants lived experience. The subtheme narrative refines the meaning of the participants lived experience.

Workplace. Many of the participants described the effects of stress on the job. The results were specific to the participants’ career outlook or future in EMS.

EM3 told that, “my relationships fall apart because I can’t get disconnected from work,” and EM3 stated, “I can’t do this forever because it eats you up inside; this job sucks sometimes.” E2 spoke of the challenge, “Going into shift is like having a weight on your shoulders.”

Home. The participants also described the effect on their home lives. The meaning units assigned by the participants represent relationship breakdowns and their inability to socialize with nonwork peers.

E1 explained, “I can’t go home and talk about work.” E2 expressed, “I just didn’t like to be around people; they don’t understand your day or night.” EMI said, “I can’t relax at home; I’m always on edge, and E3 revealed, “My marriage failed because I don’t

share things. She always said I need to talk about things that bother me, but that means having to acknowledge the dark things, bring home the job when I just left it there.”

Alcohol. Seven of the study participants admitted to alcohol use. This subtheme links to the emergent theme of maladaptive coping mechanisms that the participants described as numbing and hiding from their problems.

EM2 confessed, “I use alcohol too much. I’m probably an alcoholic; it’s a numbing substance, but I don’t use it at work. E3 stated, “There is no one to talk to, so I drink and smoke.” EMI expressed, “You know how they say it’s a crutch [alcohol]? It’s true, that’s why I use it, a lot, probably too much.” E3 revealed, “I’ve had partners crawl in a bottle and never come out.”

Smoking/tobacco use. Seven participants described smoking or tobacco use, such as chewing tobacco, as a maladaptive coping mechanism. One participant took several breaks during their interview to smoke, stating, “I just needed that.” E3 stated that, “I didn’t smoke as much when I was young, and now I’m smoking two or three packs a day.” EM2 explained that, “when I get stressed, which is a lot, I chain smoke,” and EMI said, “I use ‘chew,’ so I get a constant flow of nicotine; I know it’s bad.”

Drug use. Another coping strategy used by five participants was their use of prescription or illegal drugs. E2 told that, “I’ve gotten trapped by pain medications after hurting myself. Sometimes it’s just hard to let go of things that hide your emotions,” and EM3 spoke of relaxing with drugs, “I chill at home with a glass of vino and a joint.”

Risky behavior. Several participants described their involvement in acts characterized as *risky*. These included angle climbing and extreme off-road biking. E3 express that, “I ride my bike on these unmarked trails at high speeds to get that thrill. I’m

surprised I haven't been killed." The participants also identified risky non-sport activities, such as illicit relationships. EM2 explained, "When I go out [to a bar] after work, I pick up whoever, that way I don't have to be involved permanently."

Avoidance. This subtheme of *avoidance* developed from the description the participants used to assign meaning to their self-protective actions, such as E1 saying, "I avoid the radio like I didn't hear it." E3 explained: "I used to go out all the time when I was young. Now I hide in my little apartment with my cat." E2 revealed that, "You can't show your emotions," and EM1 expressed: "If I don't acknowledge the situation, I don't have to deal with it. Hiding from it is stupid, but that's all I got."

Absence. The participants who described calling into work or not engaged in their personal, social, or work relationship categorized in the subtheme of *absence*. EM3 spoke of the past:

When I was a street provider, I used to call in a lot. Sometimes it's better not to be at work, so you don't have the potential to see the things, bad things that happen to people, the stupid things people do, or the sick or injured kids. (EM3)

E4 said, "I can't connect with people, so I check out mentally," and E3 stated, "When I did get hurt, I didn't have to go to work."

Compartmentalizing. The participants who identified with "*deal with it*" or "separate myself" comprised the subtheme of *compartmentalizing*. This subtheme is defined as a mental walling off of the current situation to separate oneself from a stressful situation, and therefore, allowing the person to function during an event.

EM2 explained that, "It's an inanimate object, the patient, and I have to fix it. That way, you can deal with it." E2 stated, "You pull up the bootstraps and deal with it."

E3 said, “We shut down mentally, stuff it away, and just do it.” E4 acknowledged, “I can put myself in a little box so I can do my job,” and EMI said that, “We never dealt with it; we just did our job.”

Self-loathing. When the participants described an experience where they felt as if they were not worthy or they despised their actions, these statements were categorized under *self-loathing* subtheme. EM4 explained that, “Employees sometimes say they didn’t know if they did the right thing or didn’t do enough, and if they show weakness, others look at them as weak.” EM2 revealed that, “I feel like I just don’t have enough training; maybe I’m stupid in these situations,” and E3 expressed: “What if I did more? I might feel better about myself.”

Anger. A profound feeling of *anger* in situations that the participants could not control led the categorization of this subtheme. The use of the terms frustration, mad, irritated, or annoyed received this subtheme.

E3 explained that, “I get so mad sometimes; for no reason, I lash out. We don’t get appreciation from nursing, docs, or managers.” E4 expressed:

There’s the times when we see something bad, someone getting hurt because of someone else’s stupidity. It’s frustrating, but you just have to keep up the image, like it doesn’t bother you. You go on doing your job. I get so freaking angry sometimes. (E4)

EM3 said that, “It’s irritating when we try, and no one sees it.”

Low self-esteem. The participants who described not being valuable were displaying *low self-esteem*. The meaning units “I’m not smart enough” or if “I wish I was better” fell under the categorization of low self-esteem.

E3 expressed, “I wish I just knew what to do when I feel down, “ and E2 stated, “Being in bad situations makes you question yourself ‘am I doing enough, or is this going to make a difference?’” (E2)

Sorrow. When the participants described being sorry for themselves or the circumstances of their experiences, they were displaying *sorrow*. E1 explained, “A patient's death is so sad sometimes. Then you're on to the next, and you slap on a fake smile. EM2 said, “When it happens, you can't be sorry because you don't have time to be sorry. I used to be sorry, but not much anymore.”

Lack of education. When the participants felt they lacked enough education or training, they were assigned the *lack of education* subtheme. EM1 revealed,

I feel anxious when people talk about bad calls. Again, I don't have the training to know what I'm supposed to do. . . . No one ever told me or trained me in dealing with employees who get into these bad situations. I didn't get a degree in psychology. I now wish I had. (EM1)

E2 also revealed that, “managers just don't know what to do.”

Not knowing. The subtheme *not knowing* emerged from the statements expressing frustration about not having an appropriate response to an employee. If a participant stated he or she did not know about something, the statement was assigned this subtheme.

EM1 explained, “I just don't know what to do.” EM11 expressed that, “Not knowing is so frustrating,” and EM2 revealed, “When an employee says they experienced stress or something like that, I just don't know what to do for them.”

Lack of management. The subtheme *lack of management* describes experiences of inadequacy by the EMS managers or frustration by the EMTs. EM2 stated, “We need to do more, but we can only lead to the level of our training.” E3 explained that, “The managers just don’t know that the hell they are talking about, so we need to have someone else come in and talk to us,” and EM4 revealed that, “You’ve been in dark places and develop PTSD because of the lack of management response.”

Poor guidance. The EMT participants who expressed frustration with managers or EMS managers who stated they lacked policies for stress management were assigned the subtheme *poor guidance*. EM2 related that, “I came up from the trenches. No one ever taught me what to say or what to do for stress problems.” EM3 expressed, “Is it written in a book? No. Do I have a policy? No.” E2 enlightened with: “Do they tell me where to go, what to do? The supervisor isn’t someone you go to; you just talk with your partner.”

Reliving. When the participants’ lived experiences described reexperiencing a stressful situation, the *reliving* subtheme emerged. The participants used many different descriptive terms to illustrate the impact of occupational stress.

EM2 stated, “It eats you up inside. You think about it, at least I do, and you get these bad thoughts in your head.” EM3, said, “It’s like a bad CD that won’t play the next track. It repeats over and over, and you get that feeling in the pit of your stomach,” and EM1 explained, “I kinda looked at it like I got over it, so others should be able to get over it, but you don’t really; you don’t get over it, it’s in your head like a worm.”

Anxiety. Every participant in the study described *anxiety* symptoms. These symptoms included feeling anxious, feeling overwhelmed, or feeling uptight in stressful situations.

E3 expressed, “I feel like a wound-up rubber band when I hear us being sent on another serious call; I know my partner feels it too. It’s because we’ve gone on so many bad ones.” EM2 said, “Young guys get affected by those nasty bad calls. They see things that others don’t.” E2 stated that, “Stress just eats you up inside. The weight is too much sometimes,” and E4 said, “When the alarm goes off, I feel like I could jump outta my skin.”

Situated Emergent Theme Narratives for EMTs

The following section explores the individual themes and secondary themes from each EMT interview. The additions of observations noted during the interviews provide a better understanding of the individual participant’s lived experience and meaning units.

E1. The emergent theme during E1’s interview was emotions and protective mechanisms with a subtheme of anger. E1 used phrases and words, such as “I could have done more,” “seeing bad things,” and “quit,” when answering questions relating to occupational stress and its impact on his career. The participant demonstrated an uncomfortable shifting in his seat when describing the self-reporting of stress experiences and the impact stress had on the ability to do his job. E1 expressed his desire to quit at any time because of the stress that the calls produced. The emotions displayed when speaking to the services, the benefits, and the activities that improved mental health or physical well-being were brazenly cynical. E1 stated, “no one cares about what you’re

seeing; only you can understand it.” This strong emotion represented an angry position toward management in response to workplace stress and traumatic experiences.

Participant E1 also used phrases, such as “avoiding the radio” or “dragging my feet,” when discussing the occupational impact stress has on the ability of the EMT to do the job. It was apparent when E1 recalled a request for services that had the potential to expose the responding crew to a traumatic event. The emergent theme was *protective mechanisms* as a way of shielding themselves from the effects of stress. E1 demonstrated self-constructed stress protection by shielding himself from the adverse effects of traumatic experiences.

E2. The emergence of emotions and psychological effects was the most prominent theme dominating E2’s interview. E2 led his conversations with an emotional plea that “someone needs to fix this problem” and as a frequent reference to his perceptions of occupational stress and the services, the benefits, and activities that were offered during his career.

E2 referred to visions of past events that permeated his thoughts when describing his career outlook and things that have the most effect on his career. Further, E2 used the statement “push things down” when discussing the stigma of mental health well-being in EMTs. This statement aligns with the subtheme for psychological effects in the workplace. When asked to elaborate, E2 stated he thinks about past events while at home and has a difficult time sleeping when he allows them to invade his thoughts at bedtime. “I can’t disconnect” he stated when he discussed his inability to relax during off hours.

E2 talked about the effect his career had on his wife and children. He felt that they were kept at a distance to protect them from the stresses. He revealed that the distance

has harmed his emotional connections with his family. E2 expressed a desire to limit sharing the impact on his family during the interview, and he attempted to redirect the session toward the weaknesses he saw in younger EMTs.

When talking about his perceptions of career and professionalism, E2 attempted to display a stoic persona. He stated, “you can’t show your emotions” and “high intensity, high stress gets you excited inside, but you don’t let them see it.” The reference to himself as “like a stone” demonstrated his desire to be viewed as unaffected by occupational stress. The coding and categorizing process revealed the intentional meaning unit of his experiences and perceptions. E2 finished his interview with the statement “the fact that I’m emotionless and I don’t show any emotions, ever, shows that I’ve learned to deal with things. But other EMTs need someone to fix this problem.”

E3. The interview and follow up with E3 showed the emergent themes of psychological effect and maladaptive coping mechanisms. E3 was extremely open concerning her dependency on alcohol, smoking, and high-risk behaviors. The dependency factors underscored the psychological impact on the workplace. E3 was optimistic about the effects of traumatic events and her response to stress. She stated that, “You pull up the bootstraps and deal with it,” when describing exposure to traumatic impacts.

The meaning units that demonstrated the psychological effect theme included “death,” “talking,” and “suppress” as the clear leading indicators of stress. E3 discussed the impact that the death of patients, friends, and colleagues has on providers. The need to talk about events led to the further revelation that EMTs have the perception that they need to suppress their emotions. E3 stated, “if we had someone to talk to, it would be so

much better.” The maladaptive coping mechanisms theme indicates that E3 had a strong admitted dependency on alcohol, smoking, and participating in risky behaviors.

The discussion regarding risky behaviors revealed E3’s preference for recreational activities that are high-risk and that have led to past injuries, but E3 said, “I don’t mind getting hurt.” When provoked, E3 stated, “getting hurt means I don’t have to go to work.” E3 also said, “I’m able to bounce back and be that resilient gal.” During a follow-up conversation, E3 offered that, “being resilient is the only way to survive in this career.”

The EMT self-assigns mental health stigmas according to E3. E3 shared “the EMS organization rarely understand the effect of mental health problems.” As a haphazard response to EMTs reporting the effects of a traumatic event, E3 stated “EMS management would be prompted to bring in outside sources and programs,” such as critical incident stress debriefings. E3 asserted, “The managers just don’t know what the hell they are talking about, so we need to have someone else come in and talk to us, I would talk if given the opportunity.”

The mental health topic became a dominant portion of E3’s interview. E3 revealed that traumatic events are troubling for her and her partners. “When it happens, death and bad calls, we shut down mentally, stuff it away, and just do it.” Further, E3 added, “it bothers you, it’s in there, and there is no one to talk to, so I go do stupid shit, and sometimes I get hurt or drink too much, or I’ll get cancer from smoking too much.”

E3’s organization did not address the effects of trauma exposure. E3 indicated that rarely were services provided following stressful events. The impact on her mental

well-being was a reoccurring theme during the interview. E3 stated, “I’m barely holding on at work” and “there is no one to talk to, so I drink and smoke.”

E4. The most dominant emergent themes revealed during the analysis of E4’s interview was protective mechanisms, psychological effects at home, and emotions. E4 described a pervasive subtheme of compartmentalization and low self-esteem. The protective mechanism discussed by E4 demonstrated the self-preservation an individual acquires as a defense against stressful experiences.

E4 stated he often called into his job because he “just can’t take it some days.” When pressed, E4 revealed that past traumatic experiences weigh on him almost daily, but he does not talk about it to anyone else. E4 stated, “I can put myself in a little box so I can do my job.” The essence of his statement reveals compartmentalization. The *DSM-5* describes the dissociative disorder as a disruption of normal memory, identity, emotion, perception, or behavior after experiencing trauma (APA, 2013). Following the exposure to traumatic events, E4 revealed he “can’t talk” or “deal with things,” so his marriage eroded, and his friendships evaporated. E4 discussed his habit of using alcohol and drugs to “hide it” and to fall asleep. When asked if he had sought professional help, E4 stated, “I wouldn’t know who to talk to or where to go.” The participant was referred to the resources on the informed consent form.

The dark humor expressed by E4 revealed a maladaptive coping mechanism. Other study participants employed this maladaptive coping mechanism, also, but it was by far but not on the same scale as E4. The participant was redirected during the interview to include discussions on his perception of services, benefits, and activities that might prepare or support the EMT in their careers. E4 expressed the need for access to a

counselor or mental health professional through his organization. E4 noted the high-stress environment that pervades EMS and the need for stress-relieving activities that would benefit all employees.

The assignment of mental health stigmas was “self-induced,” according to E4. He stated, “We do it to ourselves” and “we are our worst enemy,” when discussing experiences with mental health issues while working in EMS. When asked what would minimize the effects of traumatic experiences, E4 stated, “we need people we can easily get to.” E4 referred to access to mental health services and employee assistance programs (EAP) at his workplace. When asked if he or his coworkers would benefit from professional services, E4 stated, “absolutely . . . when do you start?”

E4 appeared extremely open to the questioning, but he withdrew from questions focusing on his career outlook. “I don’t really want to talk about where I think I’ll be in the future.” During the questioning about self-reporting occupational stress experiences, E4 became more talkative and engaging. E4 revealed his use of drugs as a “crutch” but further stated “that’s a bullshit excuse. I know why I use them, it buries the things I’ve seen, but talking is absolutely better than sleeping it away.” E4 asked if self-reporting stress would be beneficial, and he readily agreed.

Situated Emergent Theme Narratives for EMS Managers

The following section explores the particular themes and subthemes from each EMS manager interviewed. The additions of the observations noted during the interviews provide a better understanding of the individual participants’ lived experiences and meaning units.

EM1. The first EMS manager interviewed was rich in data for the phenomenon development and the emergent theme and subtheme determinations. The most pervasive developing theme from EM1's discussion were knowledge limitations and emotional experiences. EM1 had extensive experience in the EMS field and in personnel management but admitted the limited knowledge in understanding, responding, and guidance for employees exposed to occupational stress or traumatic events. The lack of significant training in stress response, policy development, mental health education, and EAP frustrated EM1's response to the questions. EM1 stated he cared about employees but does not know how he should respond to their mental health needs.

The discussion on PD indicated that EM1 had some knowledge of the definition of PD and the implications on the staff following exposure to a traumatic event. EM1 stated:

I don't know what to do with these guys, or get [how to get] it, so I just avoid the topic and tell them they can talk to someone. But I know they interpret that as I don't know what to do, so get over it, and they just go on answering calls. But it's a lie, and I don't want to look stupid. (EM1)

The emergent theme of emotional experiences led to a discussion on his own past experiences with traumatic events and stress. EM1 revealed he drinks alcohol and uses tobacco products, including cigarettes and chewing tobacco heavily. EM1 discussed the profound emotional impact following the death of four children and an adult while working as a supervising first responder:

I keep reliving it over and over. We never dealt with it, and we just did our job. Then we called in the day shift to take over. We just sat around smoking and

bullshitting. We didn't use [the] CISD team, but we just talked and cried and went on with our lives. I kinda looked at it like I got over it, so others should be able to get over it, but you don't really, you don't get over it, it's in your head like a worm.

When asked about a time that an employee told him they had experienced stress or exposure to traumatic events, EM1 stated, "they did, but I just changed the subject, so I didn't have to show what I don't know." When asked what effects of experiencing occupational stress or traumatic events have on an employee, EM1 stated, "they get quiet and withdrawn." When pressed further, EM1 reported, "I know what happens to me, and it's not good." EM1 paused as if in deep reflection and stated, "this is in confidence, right?" EM1 discussed his consideration of suicide in the past. EM1 stated, "I saw a therapist; that's a waste, she said I'm eating too much, who doesn't when we see what we see? But I told her I had thought about suicide, but she didn't understand what we do."

EM1 appeared frustrated with his lack of knowledge, training, and services to offer to employees. The interview included moments when EM1 would display anger and anxiety when discussing the ways leadership might intervene when stress impacts an employee. EM1 stated, "I never had anyone tell me what to do or where to send people." EM1 shared that his past experiences with stress affect his ability to address employee issues. EM1 stated, "I feel anxious when people talk about bad calls. Again, I don't have the training to know what I'm supposed to do."

EM2. The interview with EM2 produced an emergent theme of poor leadership with a subtheme of weak guidance and lack of management. Like other interviews, EM2 demonstrated frustration in management skills to understand occupational stress. EM2

shared that his formal training in EMS education, college, and continuing education programs lacked guidance for employee stress issues.

When discussing his knowledge of PD, EM2 revealed he had some experience of its characteristics. EM2 stated, "I know when it happens, you zone out." EM2 stated "I've had that happen a bunch of times on bad calls, you just disconnect, you aren't there, but you are physically." When discussing what effect it had on his career, EM2 stated, "you don't want to believe or come to the reality of the situation. So, you just say to yourself, it's not a person it's a broken automobile." EM2 further elaborated, "it's an inanimate object, the patient, and I have to fix it. That way, you can deal with it." The meaning EM2 assigned to the situation, deal with it, was a common thread throughout all the interviews. Every interviewee used the term deal with it when referencing the impact of a situation each EMT confronted in the course of their work.

EM2 continued with a discussion regarding how poor management fails the employees. Also, EM2 speculated the lack of education limits the knowledge the EMS managers have in guiding employees to appropriate services. EM2 stated, "The training I received does help me guide staff." EM2 added, "when employees come back from the nasty call, I just talk with them. Talking is a good thing in these situations."

EM2 discussed the effects of occupational stress after an employee's exposure to a traumatic event. EM2 stated, "young guys get affected by those nasty bad calls. They see things that others don't." When asked to elaborate on the effect, EM2 stated, "it eats you up inside. You think about it, at least I do, and you get these bad thoughts in your head." EM2 requested a brief break, following his return to the interview he stated, "I needed a smoke because it makes me think back to things I experienced." EM2

volunteered, “I use alcohol too much.” When asked how alcohol impacts his career, EM2 stated, “I’m probably an alcoholic; it’s a numbing substance, but I don’t use it at work.” EM2 then said, “it’s too bad I can’t help these guys, but there is CISD that they can turn to. I’ve participated in those sessions, they help.”

EM2 referred to the need for formal training to understand the stress and the impact of trauma. The interview paused so that EM2 could take another smoke break. When EM2 returned, he stated, “we need to do more, but we can only lead to the level of our knowledge.” EM2 shared that his experience in EMS has shown him that there is a profound lack of knowledge concerning stress management and EMS leadership response.

EM3. The emergent theme knowledge limitations and emotional experiences with the subtheme of anger dominated EM3’s interview. EM3 spoke openly about her ascension through the management ranks without formal management training. EM3 was concerned that his limited education would hinder his responses or be insufficient for the focus of the interview. The participant acknowledged his answers were critical to understanding the lived experiences of EMS managers. EM3 shared that he felt more comfortable and would contribute as much as possible.

EM3 discussed his experiences in EMS as a testament to his ability to understand EMT issues, “I come from the gutter, metaphorically speaking. I understand what bothers people and how it affects us.” When asked to expand on his statement, EM3 added, “I’ve been in the trenches, you see things that non-EMS people can’t understand, and that affects you.” After a nervous laugh, EM3 stated, “it’s like a bad CD that won’t play the

next track, it repeats over and over, and you get that feeling in the pit of your stomach.”

EM3 shared that he frequently feels anxious when not at work

My relationships fall apart because I can't get disconnected from work. At work, I'm expected to lead people and not be emotional, but how can I not get that way when I've been where they are after one of those calls.

EM3 began to display anger at not having been given the resources to help employees.

He became agitated by the lack of formal programs.

EM3 stated, “we are all like bouncy rubber balls, we just bounce back. I guess I just expect that others will do that, too.” The interview led to a discussion about resiliency. EM3 understood the basic concept of resilience and stated, “if you can't be resilient, you wouldn't be able to last in EMS.” It appeared that EM3 was unconsciously exploring his emotions and trailing off during explanations of his experiences.

EM4. The interview with EM4 contrasted with the previous manager sessions because of his formal education in CISD training, leading groups, and providing policy development in stress responses. The difference in this interview was apparent because of the use of research citations and professional terminology. EM4 had a 20-year career in EMS and shared that he studied psychology in college before pursuing an EMS career and management training. EM4 knew of PD and its effect on employees and patients.

Regarding his reaction to an employee telling him that he had experienced occupational stress, EM4 stated, “I got him right into a therapist. If he tells me about this experience, he has certainly been affected by previous events and this has crossed the threshold.” When asked about the therapist, EM4 shared his company had a trained psychotherapist on retainer who was readily available. This revelation was the only

incident where a formal psychological program was in place at any of the interviewed EMS agency managers. EM4 also stated, “it makes a world of difference when stress is impacting your staff; it assists in treating PTSD before it becomes an issue.” Also, EM4 stated, “we have yearly mandatory seminars for employees on stress management and stress response. We are open with employees that help is available.” EM4 offered to share his policies and training manuals for managers.

EM4 admitted, “before these programs, we had employee suicides; we were just not responsive to the needs of employees.” The program development in stress management was a reliable indicator of the commitment EM4 demonstrated for workplace responsibility. EM4 also discussed the use of their community outreach center for Alcoholics Anonymous and his open participation in the program. “It is important for people to know I was affected by job stress and developed a drinking problem. It almost ruined my marriage.”

The interview led to a discussion on leadership and the need for formal education for managers. EM4 shared, “poor leadership results in bad management. People don’t know where to go or how to address stress issues in the workplace.” EM4 was professional and confident in his responses to questions. But his confidence diminished when he discussed the effects of occupational stress on himself. EM4 focused on himself rather than the impact on employees. The emergent theme developed in the emotional experience’s portion of the interview discussion. EM4 stated:

I’ve been in those situations where you lose control mentally, and you experience the peritraumatic dissociation. We are all EMTs, first, and managers second. You’ve been in the dark places and develop PTSD because of the lack of

management response. I wanted to make sure my employees didn't get to that level. They shouldn't be developing drug or alcohol dependencies. We have programs in place to assist employees, but I've been there, staring into that abyss, knowing that one step forward, and you're going to fall into the deepest darkest hole. That's, unfortunately, where we lose people to suicide.

Summary

The purpose of this study was to identify the role of the EMS organizations in preparing and supporting EMTs for the effects of PD. The study sought to identify the services, the employee benefits, and the activities that destigmatize and minimize the impact of PD. The research findings supported the efforts of the EMS organizations to educate and protect EMTs as well as strengthen the services that the organizations delivered.

This qualitative study adds to the body of knowledge in better understanding the lived experiences of EMTs and EMS managers who have experienced symptoms of PD. The major themes developed through this descriptive phenomenological study were stress experiences and leadership challenges. The data retrieved during participant interviews were analyzed, coded, categorized, and developed into emergent themes and subthemes. Finally, the essence of the participants' lived experiences established major themes. These themes demonstrate the effect of occupational stress and exposure to traumatic events have on the employees and organizations.

The participants lived experiences illuminated the phenomenon. EMS organizations should focus on the mental well-being of EMTs. The participants resoundingly described the lack of support, poor management, and poor leadership to

address inadequacies within EMS organizations. The impact of occupational stress centers on the lack of preparation and support for EMTs. Only one EMS manager could identify a specific program or policy for handling employee stress.

The need became evident when the study participants repeatedly described the impact of occupational stress and exposure to traumatic experiences. A direct link exists between the EMT and EMS manager data. The link indicates a shared phenomenon in the research.

The participants identified a desire to receive services or benefits that address mental health well-being, either following a traumatic experience or as an ongoing program. The EMTs and EMS managers described the application of maladaptive coping mechanisms, protective mechanisms, and emotions as a shared phenomenon. Also, it was obvious that the impact of occupational stress leads to psychological effects and emotional experiences.

The EMT and EMS manager data reported knowledge limitations and poor leadership as emergent themes. The study findings developed the major theme of the lived experiences. The EMTs and EMS managers shared a standard description of stress and leadership challenges. The major theme development was a culmination of the three-cycle coding format described by Giorgi (1997) and Creswell (2018). The EMTs and EMS managers shared a typical horizon identified by Giorgi (1997) as the lived meaning interpreted by the participants.

Chapter 5: Discussion

Introduction

The impact of occupational stress and exposure to traumatic experiences has the potential to produce severe implications for EMTs and EMS managers (Engelhard et al., 2003; Thompson-Hollands et al., 2017). The buffering effect offered by PD temporarily limits dysfunction at the onset of an event (Pacella et al., 2011).

The goal of EMS leadership should be to reduce occupational stress. This study illuminates the lived experiences of EMT employees and the failure to have strategies in place to mitigate the effects of posttraumatic events through intervention. EMS leadership has the dual responsibility of understanding the dynamics of PD and PTSD as well as taking action toward diminishing the far-reaching ramifications of posttraumatic effects on employees and on the organizations they lead (Drewitz-Chesney, 2012; Lilly & Allen, 2015; Regehr & Leblanc, 2017).

The purpose of this study was to identify the role of the EMS organizations in preparing and supporting EMTs for the effects of PD. Specifically, the aim was to identify, from the perspective of practicing EMTs and EMS managers, the services, the employee benefits, and the activities that assist in destigmatizing and minimizing the effects of PD.

The qualitative research study answered two research questions:

1. From the perspective of practicing EMTs and EMS managers, what role should the EMS organization play in preparing and supporting their EMTs for the effects of peritraumatic dissociation, as defined in the study?
2. From the perspective of EMTs and EMS managers, what services, employee benefits, and activities can support and prepare EMTs to minimize the effects of peritraumatic dissociation, as defined in the study, on the employees and the organization?

The research questions examined the perspectives of EMTs and EMS managers and identified two major themes: stress and leadership challenges. The development of major themes came from the analysis of emergent themes and subthemes, as described by the interview participants. The commonality of responses illuminates the essence of meaning from each participant's experience and emerges as thematic categories.

This study findings substantiate the recommendations for further policy development and professional development. An outline for recommendations for further research, policy development, and professional practice is presented. Finally, the limitations of the study will be discussed.

Implications of Findings

The impact of occupational stress on EMS organizations has far-reaching ramifications (Geronazzo-Alman et al., 2017; Rybojad, Aftyka, & Milanowska, 2019). EMS organizations have discounted the effect of stress on personnel, leading to anger, low self-esteem, and maladaptive coping mechanisms on the study participants. Further,

untrained managers perpetuate an atmosphere of poor guidance, leadership, and knowledge that dissuades self-reporting and mental well-being.

The implications of this study substantiate the need for policy change and professional development. The unaddressed stigma to not self-report the effects of occupational stress and exposure to traumatic events weighs heavily on the employees. The resilience of EMS personnel sustains their ability to manage stress in the short-term, but, Geronazzo-Alman et al. (2017) reported the lasting effect of stress culminates in the development of PTSD. The study participants frequently reported being able to “deal with it” as an immediate strategy, but they later acknowledged their diminished ability to sustain mental well-being. Several participants referred to their being able to bounce back. Fraser et al. (1999) and Lee et al. (2014) reported the ability to overcome a psychological obstacle and persevere is the most profound characteristic of resilience, but the unresolved cumulative stress from traumatic experiences leaves the employee vulnerable to PTSD. If employees remain without tangible options, such as professional development or easy access to mental health services, they are at risk of developing profound stress disorders. The EMS organizational goal must address the effects of stress before employees develop PTSD, and if they already display PTSD symptomology, then the EMS organizational leadership needs to guide employees to mental health services.

The immediacy of addressing stress exposures reduces the impact on EMS organizations’ staffing, finances, and services. When diminishing morale affects employee participation, the overall decrease in attendance and job performance impacts agencies’ services. A reduction in staffing burdens agency finances and other employees. The unanticipated increase in overtime further stresses employees who must maintain

staffing levels. A perpetual circle of absenteeism, increased stress, and financial burden adds to the damaging effect of stress.

Employees seeking to minimize the effect of stress, either from cumulative exposure or experiencing a traumatic event, can pursue maladaptive coping mechanisms. Maladaptive behaviors include alcohol and drug use, eating disorders, and risk-taking behaviors, which were repeatedly cited by the study participants. The maladaptive coping behaviors used by emergency workers is a frequently employed survival strategy (Adams, Shakespeare-Finch, & Armstrong, 2015; Bonanno & Mancini, 2012; Donnelly et al., 2016).

The most significant maladaptive coping behaviors among the participants was the use of alcohol and smoking or tobacco products. Nearly all of the study participants described using alcohol as a coping strategy. The frequent reference to alcohol use and potential abuse implies the need to address the source of the problem. The participants described the use of alcohol as a necessity following a stressful event. Additionally, many participants described using alcohol as a buffer to stressful events. The descriptive terms the participants used, referred to as the meaning units, contributed to the emerging theme development for alcohol.

The participants frequently described the use of smoking and tobacco products as a maladaptive coping mechanism. Many researchers and health organizations reference the detrimental long-term health effects of tobacco use. This study reveals the use of maladaptive coping behaviors is prevalent in the EMS community. Smoking and alcohol use emerged as the most widely used coping behaviors, although the participants also described other maladaptive strategies. The EMTs receive training in the health effects of

smoking, yet this leading coping behavior was a systematic method for dealing with stress. Individuals who practice maladaptive coping behaviors describe being relaxed and capable of dealing with their emotions. The essence implies that stress has an extensive psychological impact that necessitates a buffering mediator such as alcohol, smoking, or other behaviors. This finding aligns with the current research reporting the repeated exposure to stress and traumatic experiences lead to the development of PTSD (Adams et al. 2015).

The consequences of unmitigated occupational stress that are either cumulative or from a traumatic experience are the development of severe mental health disorders. This research study demonstrates the need for addressing stress-inducing events. An employee left without services may develop life-altering mental health issues. EMTs affected by stress disorders cannot maintain their job performance standards that patients and the community expect from a professional. When stress is left untreated, the study participants reported an increase in absenteeism and underperformance. Stakeholders carry the burden financially, physically, and emotionally. The stakeholders include the EMS organizations' shareholders, employees, patients, and the community.

The implications of this study's findings on the community arise from the disconnect stressed employees experience on the job. A significant number of the participants described the overwhelming feelings associated with repetitive stress. The accumulation of stress and stress-related symptoms leads to physical and mental deterioration. The participants reported frequent absences, illnesses, and anxiety. The community suffers from diminished compassion, caring, mental acuity, and physical readiness of the affected employees' job performance. The increase in absenteeism leads

to a decrease in staffing or an increase in exhausted staff who must maintain minimum operating levels. The community suffers from the tertiary effects of stress.

The participants also implicated poor leadership guidance, especially during a community crisis. The COVID-19 pandemic causes stress-related anxiety, which has been due to poor leadership from state and federal health organizations. The severity of illnesses associated with the community health crisis compound the emotional and physical toll relating to stress. EMTs have more pressure from the risk of exposure to themselves and the possibility of bringing the virus home to their families. The unprepared state health officials have contributed to the lack of knowledge and dissemination of accurate data. Unnecessary exposures of EMS personnel and other health professions are the result of poor guidance.

The volatility of the COVID-19 virus adds unexpected stress to EMS providers. The participants mentioned the donning of protective gear as a hindrance to their job performance. Having to wear protective equipment may play a role in increasing occupational stress, as an additional threat to employee health and risk to their families. The protective masks can harbor viruses, and insufficient mask face seals can allow the inhalation of contaminants. Inadequate protective gowns can enable the virus to remain on clothing if the employees do not change at work before going home.

In this research study, the EMS managers did not report confidence in their ability to handle stress. The study participants reported feeling inadequate because of the lack of training, knowledge, and guidance. The pandemic highlights the implications of poor leadership. The organizations should prepare and support the EMTs. In the matter of the pandemic, the EMS organization should provide trustworthy guidance and information to

employees. The pandemic contributes to EMT occupational stress. Organizational leaders must minimize stress sources and provide appropriate services and benefits. A supportive culture contributes to the positive mental well-being of its employees.

The results of this research study contribute to the understanding of occupational stress in the EMS community. Like previous studies on stress-related disorders, PTSD, and traumatic exposures, this study further advances the knowledge of occupational stress. The buffering effect of PD is an indicator of stress exposure from a traumatic event (van Der Hart et al., 2008). This study examined the lived experiences of both EMTs and EMS managers. Their perceptions offer unique insight into the impact of stress and leadership challenges.

Limitations

The small sample size limits the generalizability found in larger populations. The study had representatives from the EMS industry that included EMTs and EMS managers from rural, suburban, and urban agencies in a county in Central New York. State, but the less dense geographical area may not yield variability. The EMS industry, as a whole, lacks diversity with young White males representing a majority of EMTs working for ambulance agencies.

The COVID-19 pandemic offered limitations in access to participants. The interviews were conducted using Zoom and Google Meet as the noncontact virtual platforms. The limited observation of full-body expressions and emotional nuances may have impeded an accurate interpretation of the participants' lived experiences. The study participants may have expressed themselves in a way that was not visible to a computer camera. The use of protective face coverings recommended by the Centers for Disease

Control, was not needed because of the virtual, noncontact nature of the interviews. Observation of facial expressions allowed for the interpretation of participants' responses.

The researcher is required to be a neutral, unbiased observer and record the participant responses. This unbiased observation is referred to as bracketing, a phenomenological reduction of knowledge, experience, or opinion of the studied phenomenon (Giorgi, 1997). The researchers' biases were bracketed before each analytical level. Peoples (2020) discussed not highlighting bias in a transcendental phenomenological study because it overshadows the analysis. Further, the process of discovery is vital to the validity of the findings, still, the participants were unrestrained in the breadth and depth of their responses. The geographic location of this study and the researcher's long-standing professional position was assumed to be a limitation. Instead, the participants were eager to contribute to the research.

Recommendations

The role of EMS organizations is to prepare and support EMTs for occupational stress and exposure to traumatic experiences. As a result of this study, it is apparent that EMS organizations must do a better job of recognizing and identifying the sources of occupational stress. The best practices for EMS organizations are the use of professional development. Training for EMTs and EMS managers in the identification, destigmatization, and minimization of stress will yield a better prepared EMS community.

Professional practice. The impact of cumulative stress or exposure to traumatic events has the potential to lead to serious mental health issues. PD buffers the initial

effects of traumatic exposure but only as a short-term measure. The consequences of untreated exposure may lead to PTSD (Donnelly et al., 2016). One solution is the development of professional practices that directly address stress and traumatic event exposure. EMS organizational goals should include methods to reduce employee stress and provide access to mental health services.

The use of professional development to address stress, trauma, maladaptive coping mechanisms, protective mechanisms, and emotions can have a positive outcome in EMTs' mental health. Further, professional development in EMS manager training would impact those tasked with overseeing staff. The role of the manager should be in advocating employee mental health and recognition of stress exposure. The manager may not play a direct role in the mitigation of stress, but, rather, they should have a supportive counseling capacity. The study participants in the EMS manager group cited knowledge limitations, poor leadership, and their own emotional experiences as the most critical factors in their leadership challenges.

Leaders who lack the skills to guide employees properly results in the perpetuation of stress and associated disorders. An untrained manager is equal to an absent policy. The need for mental health services was abundantly clear following the analysis of participant data. Therefore, the goal of EMS organizations is to destigmatize and minimize occupational stress. The application of Trauma Risk Management (TRiM) in military personnel and police has shown positive outcomes in helping them express past traumatic experiences, and TRiM has had an effect on individuals who compartmentalize (Clompus & Albarran, 2016).

Policy development. Current policies should be updated to have sick leave include time for stress relief, mental health counseling services referrals, and stress level measurement tools. The use of sick days for stress reduction needs to be supported. EMS managers should encourage the healthy benefits of time away from work by removing the stigma associated with mental health issues. The potential advantages include improved morale, improved job performance, a decrease in errors, and a decrease in accidents. New York State Governor Andrew Cuomo signed Senate Bill S7506B into law for fiscal year 2021. The bill provides 40 hours of paid sick leave to full-time and part-time employees in a calendar year. This is for employers with 5-99 employees. The sick time may be used for the treatment of mental health illnesses. This change encourages employees to take time off to address undiagnosed mental health issues such as stress-related disorders.

The creation of a supportive environment that removes the stigma associated with mental health issues takes a large step in addressing the gap in occupational stress mitigation. Providing EMS management with the tools to guide employees toward services and benefits will yield a better outcome in preparing and supporting EMTs.

This study found a critical shortage of mental health training for EMS managers. The lack of knowledge, poor leadership, and the impact of their own emotional experiences created a barrier to understanding the effect of occupational stress. The study participants described the essence of this phenomenon as the fear of confronting their own experiences. Maladaptive coping behaviors are ineffective substitutes for healthy discourse with mental health professionals. The lack of policy and professional development impedes the recognition of stress in the workplace. EMTs who confront traumatic experiences frequently compartmentalize the situation to continue functioning

professionally. PD buffers the experiences, but it results in thought suppression, fragmented memories, sensory impressions, and emotional intensity that can later lead to PTSD if not professionally addressed by a mental health expert (Engelhard et al., 2003). The current EAPs do not fully deliver the level of mental health services, but they do act as a gateway to professional mental health services.

The development of mental health policies may result in a decrease in stress-related anxiety and physical health problems. A personal leave or sick leave policy that provides mental health services and benefits could translate into millions of dollars saved throughout the industry (Trautmann et al., 2016). The goal of EMS organizations is to provide trustworthy information to stressed employees. The solution may be policies that direct EMS manager training in the identification of stress-related disorders. A well-trained management team can guide employees to the appropriate services and benefits. EMS employees who lack guidance often succumb to the detrimental effects of occupational stress. Stress effects may be in the form of anxiety disorders, suicidal ideation, and, ultimately, PTSD (Halpern et al., 2012).

Exposure to traumatic events and the culmination of occupational stress wears on EMTs who often do not self-report symptoms or seek professional mental health services. The removal of mental health stigmas provides the easiest path to the treatment of stress-related disorders. Many of the study participants reported a self-induced stigma learned through organizational culture. The development of EMS manager training to curtail the mental health stigma and provide much-needed support can have a significant impact on stress reduction.

EMS organizations should confront the social justice aspect of mental health. Employees need guidance to appropriate mental health services. When EMTs experience the effects of PD, they require monitoring of their stress-related symptoms. The lack of symptom recognition or identification leads to the deterioration of mental health. EMS organizations should monitor for the effects of occupational stress.

A consequence of poor support is anxiety, depression, and suicidal ideation. The prevention of mental health disorders begins with a robust system of recognition. Employees feeling alone and without services disconnect from co-workers, family, and friends (Carleton et al., 2018). A detached employee has a higher potential to commit suicide (Boffa et al., 2017); therefore, the employer should protect vulnerable employees by guiding them to mental health services.

Recommendations for further research. An opportunity exists to explore the development of PTSD despite the use of mental health services. What is the relationship between existing services and benefits and the progression of mental illness? Do current services meet the needs of EMS employees, and what contributes to the improvement in occupational stress levels?

This study focused on a county in Central New York State. It would be beneficial to expand the research to a larger geographical area to compare findings and conclusions. Also, a study that concentrates exclusively on a large urban center might change the outcome. The training program for EMTs is identical throughout New York State. There are no mandated EMS manager training programs. A research study examining organizations that have specific EMS manager training policies may yield valuable results for detecting and helping employs through occupational stress.

Finally, the use of PTSD service dogs has been proven to reconnect individuals tormented by the effects of traumatic experiences. Several participants noted the positive effect a service dog had on employees at the researcher's workplace. A study that examines the impact of service animals may yield additional data that can be applied to stress-reduction programs.

Conclusion

EMS managers, generally, cannot recognize PD and PTSD symptomology in EMTs. Additionally, EMS organizations fail to minimize the effect of posttraumatic events through interventions. Exposure to traumatic events may lead to EMTs experiencing PD. During a traumatic experience, PD provides a buffer to cope with the gravity of the situation mentally. Fikretoglu et al. (2007) described it as a panic reaction inducing fear, helplessness, and horror, leading to experiences such as an altered sense of time or out-of-body experiences. These symptoms encompass a dissociative response.

The purpose of this study was to identify the role of EMS organizations in preparing and supporting EMTs for the effects of PD. Specifically, the aim was to determine from, the perspective of practicing EMTs and EMS managers, the services, the employee benefits, and the activities that destigmatize and minimize the effects of PD. Several research studies document the relationship between PD and PTSD (Pacella et al., 2011; Thompson-Hollands et al., 2017; van Der Hart et al., 2008). The goal of this study was to expand the knowledge in the EMS industry and to provide insight into related sectors whose employees may be experiencing stress-related disorders.

This study applied a qualitative descriptive phenomenological design, which provided insight into the shared phenomena of PD and the impact of occupational

stress—the essence of the lived experiences culminated in the emergence of two major themes. The major themes were stress and leadership challenges. The participant groups, EMTs and EMS managers, shared consistent emerging themes and subthemes.

These two research questions guided the investigation.

1. From the perspective of practicing EMTs and EMS managers, what role should the EMS organization play in preparing and supporting their EMTs for the effects of peritraumatic dissociation, as defined in the study?
2. From the perspective of EMTs and EMS managers, what services, employee benefits, and activities can support and prepare EMTs to minimize the effects of peritraumatic dissociation, as defined in the study, on the employees and the organization?

The study examined the perceptions of EMTs and EMS managers who shared a common phenomenon of lived experiences with PD. The lived experiences gave each participant a unique, yet common, perspective and interpretation of the culture, environment, and experiences in the EMS industry. The four EMTs and four EMS managers contributed to the study findings. Their experiences and interpretation of events provided the data that developed the emergent themes and subthemes. Exposure to occupational stress and traumatic events left an indelible mark on the study participants. If EMS organizations fail to identify and minimize stress, it may ultimately lead to PTSD.

The study participants' interviews were completed using virtual meeting applications, and they were audio recorded. A transcription service of the narrative provided data for analysis. The data was subjected to three cycles of coding and

categorizing that led to the emergent theme and subtheme development—further analysis developed into the major themes of stress and leadership challenges.

The study findings are consistent with the existing research regarding occupational stress, trauma, and PD. The participants' lived experiences indicate a critical need to address mental health issues. A systemic response to repetitive exposure to stress and the weight of individual traumatic experiences culminates in the formation of unhealthy coping behaviors. van Der Hart et al. (2008) identified the associated relationship between PD and PTSD formation. The association confirms the study findings that EMS employees mediate their stress response during traumatic event, but they later develop PTSD symptoms (Fikretoglu et al., 2007). Maladaptive coping behaviors, including alcohol and tobacco use, and emotional responses described by study participants often hide PTSD symptoms (Boffa et al., 2017). Further, untreated or undiagnosed stress-related disorders are often concealed in low morale, absenteeism, poor career outlook, or diminished job performance.

The EMS managers overwhelmingly described their frustration with the lack of training, knowledge, and guidance when dealing with occupational stress. The underlying cause appears to be either nonexistent or minimal training in employee mental health issues. The lack of knowledge arises if employees self-report symptoms of anxiety or traumatic experiences. The EMS managers are unsure how to respond, or they respond inappropriately to be of value to an employee. Additionally, many of the EMS managers harbored past stress experiences that impacted their ability to express empathy for their staff.

The major themes, stress and leadership challenges, demonstrate the occupational impact stress has on the EMS industry. The employees who described exposure to traumatic experiences lacked guidance to mental health services. The EMS managers lacked the knowledge and leadership to recognize and identify the effects of stress. The culmination of both themes is consistent among the participants.

The consequences of nonaction are the perpetuation of stress-related disorders, including the development of PTSD. Undiagnosed and untreated PTSD has severe consequences. The repercussions include depression, anxiety, and suicide. Boffa et al. (2017) and Carleton et al. (2018) reported the prevalence of suicidal ideation, planning, and attempts among first responders. The recognition of stress-related disorders is vital to the prevention of suicide in the EMS community. The growth of professional development programs and policy changes would be beneficial to the mental health of EMS employees.

The study findings suggest interventions are necessary to alter the course of occupational stress among EMTs. Emotional experiences are the result of participant exposure to stress and traumatic events. The participants described being overwhelmed by their experiences. The stigma of self-reporting becomes a factor in finding services or benefits that can address mental health issues. The weight of emotions affects employee morale and career outlook. When employees deny the effects, they display compartmentalization, which obstructs healthy outlets. The buildup of stress leads to depression and anxiety.

It is the responsibility of EMS organizations to recognize and identify the effects of occupational stress on employees. The cumulative stress and exposure to traumatic

events induce stress-related disorders. The buffering effect of PD provides a temporary protective mechanism when an acute event occurs. When repetitive exposures occur, the EMT experiences occupational stress, and the stigma of self-reporting symptoms delays the treatment of stress-related disorders. Undiagnosed and untreated stress-related disorders lead to harmful mental health issues.

The recommendation of this study is professional development and policy advocacy. The employment of professional development programs and changes to current policies can have a positive outcome for employees. A training program directed at the EMS managers to recognize and identify occupational stress will improve employee access to mental health services and benefits. The creation of policies that directly address the need for personal time or sick time to access mental health services is vital to resolving the stigma. EMS organizations must advocate for the at-risk employees who experience cumulative stress or stress from a traumatic event. The use of professional and policy development is a step in the right direction.

Additional recommendations include addressing maladaptive coping mechanisms. The findings implicate alcohol and tobacco use as the leading stress coping behaviors. There are programs for alcohol abuse and tobacco cessation that EMS organizations can access.

EMS organizational leadership can prepare and support EMTs who are exposed to occupational stress. The role of EMS organizations is the identification and recognition of stress-related symptoms that have the potential to lead to PTSD. The prevention and mitigation of occupational stress carry a strong social justice connotation.

The words the participants used to describe their personal experiences highlight the essence of the phenomenon. The descriptive phenomenological design offered the participants the opportunity to express their emotions without judgement. But it is the power of words that gives strength to the participants' experiences.

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Appendix A

Interview Protocol

The interview protocol followed for each interview that was conducted during the study. This protocol was developed by Creswell and Creswell in 2018. Each interview began with basic information about the interview and followed the steps outlined below.

Introduction

In the introduction, the interviewer introduced himself and gave an overview of the study to the participant and explained that the interview was going to be approximately an hour long. During this introduction, the interviewer also shared that follow up on the responses given may be needed, the interview would be audio recorded, the participant's name would not be used in the study, and all information would be stored in a safe location.

Opening Questions

Introductory open-ended questions were used to start the interview. This was done to help the interviewee feel more comfortable during the process. Then, the interviewer moved to the open-ended questions on lived experiences in EMS. This semi-structured interviewing allowed the participant to share in the process and to be open while the researcher gathered information.

Content Questions

The content questions were asked in an open format and adjusted to meet the roles of the participant for formulation of better questions as the interviews progressed.

Using Probing Questions

Throughout the interview, probing questions were used to help capture a more complete understanding of the responses. Examples of these included:

- Tell me more.
- I need more detail.
- Could you explain your response more?

Interview Questions Posed to the EMT Study Participants

1. From your perspective, what occupational stresses have the most effect on the EMT's career?
2. Considering occupational stress, what impact does it have on the ability of EMTs to do their job?
3. To your knowledge, do EMTs self-report the occupational stress experiences to their managers?
4. From your perspective, does experiencing occupational stress or exposure to traumatic experiences effect EMTs' outlook on their careers?
5. What kind of services, employee benefits, or activities are you aware of that are offered during EMTs' careers?
6. What services, employee benefits, or activities would be helpful to an EMT to ensure physical and mental health well-being?
7. Do you know if a stigma is associated with those EMTs experiencing mental health issues while working in EMS?
 - a. If so, what are the stigmas and by whom are they assigned?
8. Do EMTs consider themselves resilient? Can you give some examples of how EMTs demonstrate resilience?

Interview Questions Posed to the EMS Manager Study Participants

1. Are you aware of the term peritraumatic dissociation?
 - a. If yes, what is your perception of its effect on employees?
2. Think back to a time when an employee or member told you they experienced occupational stress or exposure to traumatic events:
 - a. What was your initial reaction?
 - b. What actions were taken?
3. Considering the aftermath of employee(s) who experienced occupational stress or exposure to traumatic events, what effect did it have on staffing, finances, services, or the organization as a whole (including staff morale)?
4. If an employee experienced occupational stress or exposure to traumatic events, are you aware of how it affected their outlook on their career?
5. Based on your observations of others, what are some of the effects of experiencing occupational stress or exposure to traumatic events, and who is affected?
6. In what ways might EMS leadership intervene or assist when an employee is impacted by stress or mental health disorders?
7. Do you know if a stigma is associated with those experiencing mental health issues?
 - a. If so, what are the stigmas and by whom are they assigned?

Appendix B

EMT Participant Recruitment Email

Dear (Name of EMT):

My name is Stephen Knapp and I am a doctoral candidate in the Ed.D. Program in Executive Leadership at St. John Fisher College (SJFC) in Rochester, N.Y.

My dissertation is entitled: **The role Emergency Medical Service (EMS) organizations play in preparing and supporting Emergency Medical Technicians (EMTs) to minimize the effect of peritraumatic dissociation.**

My dissertation focuses on EMTs working in Onondaga County, New York and as such, I am seeking EMTs to participate in this study.

Participant Qualifications: Participants must be active career EMTs working at an Onondaga County agency, minimum 18 years of age, and having more than one year of career experience.

Purpose of this study: The purpose of this study is to identify the role of the Emergency Medical Service (EMS) organizations in preparing and supporting their Emergency Medical Technicians (EMTs) for the effects of peritraumatic dissociation. Specifically, the aim is to identify from the perspective of practicing EMTs and EMS managers, services, employee benefits, and activities that assist in destigmatizing and minimizing the effects of peritraumatic dissociation. Findings from the study can support the efforts of EMS organizations to educate and protect their EMTs as well as strengthen the services that the organizations deliver.

This study involves a one-to-one non-contact interview lasting approximately 60 minutes.

If you have any questions, please do not hesitate to contact me at 315-263-3905 or email srk05769@sjfc.edu

If you are willing to participate, please respond this email by simply stating your intent to participate, confirm your eligibility (i.e. Current working in Onondaga County, New York, minimum 18 years old, minimum 1-year working EMS experience).

Thank you for your consideration.
Stephen Knapp, Doctoral Candidate
Doctorate of Executive Leadership in Education Program, St. John Fisher College.

Appendix C

EMS Manager Participant Recruitment Email

Dear (Name of EMS Manager):

My name is Stephen Knapp and I am a doctoral candidate in the Ed.D. Program in Executive Leadership at St. John Fisher College (SJFC) in Rochester, N.Y.

My dissertation is entitled: **The role Emergency Medical Service (EMS) organizations play in preparing and supporting Emergency Medical Technicians (EMTs) to minimize the effect of peritraumatic dissociation.**

My dissertation focuses on EMTs and EMS managers working in Onondaga County, New York and as such, I am seeking EMS managers to participate in this study.

Participant Qualifications: Participants must be active career EMS managers working at an Onondaga County agency, minimum 18 years of age, and having more than one year of career experience as an EMS leader or manager.

Purpose of this study: The purpose of this study is to identify the role of the Emergency Medical Service (EMS) organizations in preparing and supporting their Emergency Medical Technicians (EMTs) for the effects of peritraumatic dissociation. Specifically, the aim is to identify from the perspective of practicing EMTs and EMS managers, services, employee benefits, and activities that assist in destigmatizing and minimizing the effects of peritraumatic dissociation. Findings from the study can support the efforts of EMS organizations to educate and protect their EMTs as well as strengthen the services that the organizations deliver.

This study will involve a one-to-one non-contact interview lasting approximately 60 minutes. If you have any questions, please do not hesitate to contact me at 315-263-3905 or email srk05769@sjfc.edu

If you are willing to participate, please respond this email by simply stating your intent to participate, confirm your eligibility (i.e. Current working in Onondaga County, New York, minimum 18 years old, minimum 1-year working EMS experience).

Thank you for your consideration.

Stephen Knapp, Doctoral Candidate

Doctorate of Executive Leadership in Education Program, St. John Fisher College.

Appendix D

Informed Consent Form

Statement of Informed Consent for Adult Participants

The role Emergency Medical Service (EMS) organizations play in preparing and supporting Emergency Medical Technicians (EMTs) to minimize the effect of peritraumatic dissociation.

SUMMARY OF KEY INFORMATION:

- You are being asked to be in a research study that focuses on the effects of peritraumatic dissociation on Emergency Medical Technicians (EMTs) and Emergency Medical Service (EMS) organizations and your perspective of preparation and support to minimize its effect. As with all research studies, participation is voluntary.
- The purpose of this study is to identify the role of the Emergency Medical Service (EMS) organizations in preparing and supporting their Emergency Medical Technicians (EMTs) for the effects of peritraumatic dissociation. Specifically, the aim is to identify from the perspective of practicing EMTs and EMS managers, services, employee benefits, and activities that assist in destigmatizing and minimizing the effects of peritraumatic dissociation. Findings from the study can support the efforts of EMS organizations to educate and protect their EMTs as well as strengthen the services that the organizations deliver. It is hoped the study will answer the research questions (1) From the perspectives of practicing Emergency Medical Technicians (EMTs) and EMS managers, what role should the EMS organization play in preparing and supporting their EMTs for the effects of peritraumatic dissociation, as defined in the study? and (2) From the perspective of practicing Emergency Medical Technicians (EMTs) and Emergency Medical Service (EMS) managers, what services, employee benefits, and activities can support and prepare the EMT to minimize the effects of peritraumatic dissociation, as defined in the study, on the employee and the organization?
- Approximately 6-10 people will take part in this study. The results will be used for completion of the doctoral dissertation in Executive Leadership.
- If you agree to take part in this study, you will be involved in this study an approximate one-hour non-contact one-on-one interview.
- If you decide to participate in the study, you will be asked questions to solicit your opinion, feeling, interpretation or perspective of the role EMS organizations to prepare and support employees for the effects of peritraumatic dissociation. The investigator, Stephen Knapp, may ask for details of your experience to gain better insight into your perspective of the role EMS organizations play in addressing

peritraumatic dissociation. The questions may solicit uncomfortable feelings talking about workplace stress and life experiences. You may stop the interview at any time.

- The interview should last approximately one-hour. More detail will be provided in the body of the consent form.
- We believe this study has no more than minimal risk. You may be seated for approximately one-hour during the noncontact one-on-one interview.
- As a participant of this study, your experiences may contribute to the body of knowledge around peritraumatic dissociation and its effect on EMTs or EMS organizations. You may not directly benefit from this research; however, we hope that your participation in the study may advance knowledge in the field of mental health for EMTs and EMS organizations.

DETAILED STUDY INFORMATION

You are being asked to be in a research study of the effects of peritraumatic dissociation on EMTs and EMS organizations. This study will be conducted using a non-contact meeting application at a private location convenient to yourself that can assure confidentiality and comfort. This study is being conducted by Stephen Knapp, a SJFC Ed. D. Executive Leadership student and supervised by Dr. C. Michael Robinson.

As an EMT or EMS manager, you were selected as a possible participant because you are an active career employee who has lived experiences in the EMS field. Peritraumatic dissociation is associated with exposure to occupational stress or traumatic experiences.

Please read this consent form and ask any questions you have before agreeing to be in the study.

PROCEDURES:

If you agree to be in this study, you will be asked to do the following:

- The interview will take approximately one-hour.
- During the interview, the investigator and you will be seated throughout the duration of the session. You may request to stand at any time if you feel more comfortable.
- During the non-contact one-on-one interview, you will be asked questions to solicit your opinion, feeling, interpretation or involvement in peritraumatic dissociation you encountered as an EMT or observed as a manager of an EMS organization. The investigator, Stephen Knapp, may ask for details of your experience to gain better insight into services, employee benefits, or activities that prepared and support you or your organization for the effects of peritraumatic dissociation. You may stop the interview at any time.
- The non-contact interview will take place in a private location convenient to you.
- Your responses are confidential and identifying information such as name, address, workplace and specific details of your experiences will not be shared with anyone.
- If you decide to withdraw and stop the interview at any time, you will not be questioned, punished or penalized.

- During the interview, your audio responses to questions will be digitally recorded, and handwritten notes may be taken by the investigator.
- You will be informed prior to beginning the interview that digital audio-recording will be used.
- You will be given the choice to agree to the audio-recording at the end of this form.
- The digital audio-recording will be transcribed by the investigator using transcription software for later analysis.
- The digital audio-recording is not required to participate in this study.
- You may opt out of the recording and still participate in the study by responding to written interview questions that will be provided to you by the researcher.
- You will be provided a list of agencies that provide mental health services if you would like to discuss your feelings with a professional.

COMPENSATION/INCENTIVES:

You will not receive compensation/incentive. Participation in this study is voluntary.

CONFIDENTIALITY:

The records of this study will be kept private and your confidentiality will be protected. In any sort of report the researcher(s) might publish, no identifying information will be included. The only exception to maintaining confidentiality would be if you indicate that there is immediate and serious danger to the health or physical safety of yourself or others. In that case, a professional may have to be contacted. We would always talk to you about this first.

Identifiable research records will be stored securely and only the researcher(s) will have access to the records. All data will be kept in a locked filing cabinet in the researcher's office or on a password protected laptop by the investigator(s). All study records with identifiable information, including approved IRB documents, tapes, transcripts, and consent forms, will be destroyed by shredding and/or electronic deleting after 3 years.

The digital audio-recordings will be secured in a password protected iPhone and/or a password protected laptop for 3 years. Transcriptions of the digital audio-recordings will be kept in the password protected iPhone in software application, password protected laptop and in a locked filing cabinet in the researcher's office. Only the investigator will have access to the digital audio-recordings and transcriptions of the interviews. The digital audio-recordings and electronic transcriptions will be destroyed after 3 years. Any printed transcriptions will be destroyed by shredding after 3 years. The digital audio-recordings will not be used for educational purposes.

The data collected in this study as well as the results of the research can be used for scientific purposes and may be published (in ways that will not reveal who I am). An anonymized version of the data from this study may be made publicly accessible, for example via the Open Science Framework (osf.io), without obtaining additional written

consent. The anonymized data can be used for re-analysis but also for additional analyses, by the same or other researchers. The purpose and scope of this secondary use is not foreseeable. Any personal information that could directly identify an individual will be removed before data and results are made public. Personal information will be protected closely so no one will be able to connect individual responses and any other information that identifies an individual. All personally identifying information collected about an individual will be stored separately from all other data.

VOLUNTARY NATURE OF THE STUDY:

Participation in this study is voluntary and requires your informed consent. Your decision whether or not to participate will not affect your current or future relations with St. John Fisher College. If you decide to participate, you are free to skip any question that is asked. You may also withdraw from this study at any time without penalty.

CONTACTS, REFERRALS AND QUESTIONS:

The researcher(s) conducting this study: Stephen Knapp If you have questions, **you are encouraged** to contact the researcher(s) at 4909 Buxton Drive, Syracuse NY 13215, 315-263-3905, srk05769@sjfc.edu. You may also contact my supervisor is Dr. Robinson, office number 315-498-7265. If you experience emotional or physical discomfort due to participation in this study, for the appropriate crisis services, contact your health care provider, call SAMHSA Disaster Distress Hotline 1-800-846-8517, resources visit <https://www.samhsa.gov/> or National Center for PTSD 1-800-273-8255.

In addition, the following mental health services may be contacted if you feel you need to speak to a mental health professional:

[Safe Call Now](tel:12064593020) – 1-206-459-3020

A 24/7 help line staffed by first responders for first responders and their family members. They can assist with treatment options for responders who are suffering from mental health, substance abuse and other personal issues.

[Fire/EMS Helpline](tel:18887313473) – 1-888-731-3473

Also known as Share The Load. A program run by the National Volunteer Fire Council. They have a help line, text-based help service, and have also collected a list of many good resources for people looking for help and support.

[National Suicide Prevention Lifeline](tel:18002738255) – 1-800-273-8255

The national (USA) suicide hotline. Not first responder specific, but they can and will talk to anyone who needs help. We've been told by one of their founders they have a large number of first responders and veterans who volunteer.

[Crisis Text Line](#)

A service that allows people in crisis to speak with a trained crisis counselor by texting "Start" or "Help" to 741-741.

Frontline Helpline – 1-866-676-7500

Run by Frontline Responder Services. Offer 24/7 coverage with first responder call-takers.

The Institutional Review Board of St. John Fisher College has reviewed this project. For any concerns regarding this study/or if you feel that your rights as a participant (or the rights of another participant) have been violated or caused you undue distress (physical or emotional distress), please contact the SJFC IRB administrator by phone during normal business hours at (585) 385-8012 or irb@sjfc.edu.

If you experience emotional distress during the study, you are encouraged to seek advice from your healthcare provider.

STATEMENT OF CONSENT:

I am 18 years of age or older. I have read and understood the above information. I consent to voluntarily participate in the study.

I understand that checking the box constitutes a legal signature confirming that I acknowledge and agree to the above responsibilities.

Electronic Signature of Participant

Electronic Signature of Principal Investigator

I agree to be audio recorded/ transcribed _____ Yes _____ No If no, I understand that the researcher will keep handwritten notes and you will be provided written interview questions to respond.

I understand that checking the box constitutes a legal signature confirming that I acknowledge and agree to the above responsibilities.

Electronic Signature of Participant

Electronic Signature of Principal Investigator

Click or tap here to enter text.

Please keep a copy of this informed consent for your records.

Appendix E

Theme Development

Table of Themes

Emergent Themes	E1	E2	E3	E4	EM1	EM2	EM3	EM4
Psychological effects		X	X	X	X	X	X	X
Maladaptive coping mechanisms	X	X	X	X	X	X	X	X
Protective mechanisms	X		X	X		X	X	X
Knowledge limitations	X	X	X		X	X	X	
Poor leadership	X	X			X	X		X
Emotional experiences	X	X	X	X	X	X	X	X
Subthemes								
Workplace impacts	X	X	X	X	X	X	X	
Home impact	X	X	X	X	X	X	X	X
Alcohol use	X	X		X	X	X	X	X
Smoking/tobacco use	X	X	X		X	X	X	X
Drug use		X		X	X	X	X	
Risky behaviors	X		X	X		X		
Avoidance of work/social encounters	X	X	X	X	X	X	X	X
Absence from work/obligations	X		X	X		X	X	
Compartmentalizing/dealing with it	X	X	X	X	X	X	X	X
Self-loathing	X		X		X	X	X	
Anger toward self/others	X		X	X	X			
Low self-esteem		X	X		X	X		
Sorrow for self/others	X	X	X	X	X	X	X	X
Lack of education					X	X	X	
Not knowing what to do	X	X	X	X	X	X	X	X
Lack of management skills					X	X	X	X
Poor guidance self/others	X	X		X	X	X	X	X
Reliving the experience	X	X	X	X	X	X	X	X
Anxiety work/social settings	X	X	X	X	X	X	X	X