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Managing Post-Traumatic Stress Disorder in Emergency Personnel: A Qualitative Case Study

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Abstract

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MA, American Public University, 2011

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Project Study Submitted in Partial Fulfillment

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Abstract

The material in current emergency medical services (EMS) curricula is insufficient to prepare prehospital emergency medical care personnel recognize the signs and symptoms of post-traumatic stress disorder (PTSD) within their workforce. Prehospital emergency textbooks focus on treating patients affected with PTSD, but there is very little included about how EMS professionals may also be affected. Moreover, supervisors and managers of EMS agencies receive very little education on workforce PTSD in their personnel. The purpose of this study was to understand the educational preparation of EMS supervisors in order to develop a PTSD-awareness course. The research question investigated the educational preparation that EMS supervisors receive. The conceptual framework of the study was Conti-O'Hare's wounded healer theory. EMS professionals are wounded healers from frequent critical incident exposure. A qualitative approach featuring a case study design was used. The study included 9 participants. A focus group was used that consisted of three paramedics and three emergency medical technicians (EMTs). Separate interviews were conducted with three EMS supervisors. Data gained from the focus group and individual interviews were analyzed through coding with the goal of investigating the education received by EMS supervisors on PTSD. The themes that emerged were EMS supervisors do not receive enough education on workforce PTSD and a course specifically targeted on this subject is needed. Positive social change may be achieved through this study by enabling EMS managers to help paramedics and EMTs cope with a critical incident (CI) improving prehospital healthcare.

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Dedication

Dedicated to the thousands of emergency medical service professionals who tirelessly serve their respective communities and are always ready to answer the call for help.

Acknowledgments

I owe an immense debt to many people for their guidance and support. Above all, I want to thank G-d and his Son, Yeshua for blessing me abundantly. I want to thank my wife Amber and our children for their support and understanding; she is the reason I pursued this direction. I would like to thank my parents for teaching me to work hard, seize opportunities, and keep moving forward not matter what life throws at you. To Keith Knight, thank you for making me the paramedic I became. To Dr. Charles Erwin, thank you for making me a leader. Both of those men saw something in me that I didn't see in myself. They mentored and guided me during crucial moments in my career.

Last and by no means the least, I would also like to thank my chair, Dr. Stephanie Bowlin and co-chair Dr. Sydney Parent for their constant support and guidance. They have been long-suffering, extremely patient, and encouraging. Without any of you, I would have given up long ago

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Section 1: The Problem

The Local Problem

In this section, I will define the problem and prevalence of post-traumatic stress disorder (PTSD) among emergency medical professionals and the lack of education on PTSD in current emergency medical services (EMS) education curricula. The educational preparation of EMS supervisors was the topic of this study. Two counties along the Mississippi-Alabama gulf coast were the site of the study. The problem of PTSD has quickly become more prevalent among emergency medical technicians (EMTs) and paramedics and can adversely affect patient care (Luftman et al., 2017). Educating EMS supervisors on PTSD would create positive social change by helping prehospital clinicians mitigate the emotional effects of a critical incident (CI).

In Section 1, I will introduce key terms and the significance of the problem at the local level. I will also examine questions and subquestions. This section includes a review of literature supporting the lack of educational preparation for EMS professionals and the conceptual framework for the study and concludes with the implications of the study, a potential specialty course on PTSD for emergency medical service professionals.

The emergency medical services are a high-pressure profession that requires personnel to administer healthcare to patients in a variety of prehospital settings. Paramedics and EMTs often work shifts of 12, 16, or 24 hours in an unpredictable environment and answer a variety of emergency calls (Smith et al., 2011). Some of these calls can be particularly stressful and may cause emotional and physical problems that last long after the call is over. Mitchell and Everly (2012) referred to these types of calls

as CIs. EMS professionals are especially prone to developing PTSD due to their working conditions and it is a growing problem (Johansson, Johansson, & Grimby, 2014). The effects of PTSD have far-reaching consequences such as poor job performance; behavioral problems such as depression and anxiety, and substance abuse (Johansson et al., 2014).

One contributing factor to PTSD among EMS personnel is the lack of adequate educational material on how a CI affects prehospital professionals in current EMS curricula (NHTSA, 2013). The participants of this project study all cited lack of material on workforce PTSD during the focus group and interviews. Many EMS textbooks do not cover the topic of PTSD in EMS personnel in detail and only from the standpoint of caring for a patient with the condition. There are few references to the development of PTSD in EMS professionals in current curricula. There is no apparent education or training for EMS personnel on coping with a CI from their respective agencies (Meehan, 2013). Furthermore, Gayton and Lovell (2012) discovered managers receive very little training in helping EMS professionals cope with emotional trauma. Lack of education on PTSD is a gap in practice that must be filled because it may affect the care delivered by EMTs and paramedics.

The purpose of this study was to understand the educational preparation of EMS supervisors in order to develop a PTSD awareness educational course. I conducted the study in two counties in the southeastern United States. According to the director of public health in this region, both counties have urban and rural populations and contain approximately 1,412 EMS personnel in both counties.

Rationale

Evidence of the Problem at the Local Level

My rationale for this study was that there have been increased incidents of PTSD among local EMS professionals. According to a regional EMS director, three EMS agencies in the study site had reported employees who were utilizing employee assistance programs (EAP) due to work-related PTSD. Moreover, according to a regional EMS director, at least two more EMS agencies implemented service animal programs as way to help employees mitigate the effects of PTSD. There was also a lack of an educational program designed specifically for prehospital professionals regarding PTSD in the workforce (Mantha et al., 2016). I wanted to understand the educational preparation of those rendering support to EMS personnel who have been exposed to a CI.

The rationale for this study was also based on the experiences of a paramedic who lives and works in the study site. He was on duty with a local ambulance company and responded to a domestic violence call. Two deputy sheriffs also responded with the ambulance crew. While being interviewed by the ambulance crew and the deputies, the patient produced a handgun and began firing at the deputies, killing one and critically wounding another. Other deputies at the scene responded and the patient was killed in a shootout. The paramedic and his partner not only witnessed the shootings, but they treated both officers at the scene.

Despite the care he received by the ambulance company, which consisted of a debriefing, the paramedic was still experiencing problems such as insomnia and irritability approximately 4 months after the incident. With little sleep, he was plagued

by nightmares of the incident. His work on the ambulance was a part-time job but problems from the incident began to carry over into his primary job as a firefighter. While his chief was concerned and expressed his sympathies, the paramedic received no follow-up care. I became aware of this incident after reading about it in the local newspaper and reached out to the paramedic to offer emotional support.

The protocol for many EMS agencies along the Mississippi-Alabama gulf coast is to debrief the affected crew, who are then expected to resume their duties as soon as possible. According to Healy and Tyrell (2013), a debriefing session consists of participants meeting with counselors in a group or individual setting and discussing their thoughts and emotions about the incident. A single session consists of multiple phases and may last from one to three hours (Healy & Tyrell, 2013). Debriefing of participants is a common method used by EMS agencies in the aftermath of a CI but how much follow-up care do participants receive after the initial debriefing? Many supervisors, while sympathetic, see a CI as part of the profession.

According to a regional EMS executive, many EMS personnel in the study site felt PTSD was a real problem in the profession and managers needed more options besides debriefing. A regional public health official also stated that since September 2016, three paramedics along the Mississippi-Alabama gulf coast have died by suicide and another also attempted it; another paramedic in central Alabama also died by suicide; there were also no systems in place for reporting CI occurrence. There was very little material in the current EMS education curricula on how to help prehospital professionals who were struggling with PTSD. Educating the management personnel of EMS agencies

on more effective ways to manage those suffering from PTSD would help EMS personnel cope with this condition and enjoy a better quality of life, on and off shift. The purpose of this study was to understand the educational preparation of EMS supervisors in order to develop a PTSD-awareness educational course.

Evidence of the Problem from the Professional Literature

Flannery (2014) demonstrated how emergency medical professionals are predisposed to the development of PTSD due to the extreme nature of prehospital medicine. According to Jeong Won and Byoungsook (2013), nurses working in hospital emergency departments reported symptoms of PTSD stemming from job-related stress. Likewise, Armstrong, Shakespeare-Finch, and Shochet (2014) found firefighters were at risk for PTSD due to responding to large-scale incidents such as automobile accidents, fires, and hazardous material spills. Ho and Lo (2011) also found PTSD symptoms were also reported by emergency department physicians.

Zygowicz and Grill (2011) found EMS professionals do not receive any formal education and training on ways to cope with CIs. Likewise, Sagarra (2015) found supervisors and managers often failed to recognize signs and symptoms of PTSD due to CI exposure in their personnel. Moran and Roth (2013) reported a lack of education on CI-induced PTSD among fire service personnel. However, paramedics and EMTs are not the only professionals who report high rates of PTSD. Hebert, Moore, and Rooney (2011) found nurses received very little training on coping with death and terminally ill patients during their education and almost none by supervisory personnel when they enter the profession. Likewise, Brodie, and Eppler (2012) reported law enforcement officers

received very little training on coping with CIs during their training period. The purpose of this study was to understand the educational preparation of EMS supervisors in order to develop a PTSD awareness course.

Definition of Terms

I used the following terms throughout this paper: *Action Learning (AL):* An approach where working on actual problems is the method by which learning takes place (Duberman, Mulford, & Bloom, 2015).

Critical Incident (CI): An event that can overwhelm the coping mechanisms of an EMT or paramedic during or after an emergency call (Caroline, Elling, & Smith, 2013).

Critical Incident Stress Management (CISM): A system that allows EMS professionals to confront and deal with emotions from a CI in a therapeutic way (American Academy of Orthopaedic Surgeons, 2015).

Emergency Medical Services (EMS): An integrated healthcare system comprised of hospitals, agencies, and communications dedicated to delivering prehospital emergency care (Walz, 2011).

Emergency Medical Technician (EMT): Healthcare personnel who deliver prehospital emergency care to acutely ill or injured patients. An EMT can perform non-invasive basic life support (BLS) procedures such as bleeding control; splinting of sprains and fractures; cardiopulmonary resuscitation (CPR) and usage of automatic external defibrillators AED in patients suffering from cardiac arrest. An EMT also works under the authority of an emergency physician through standing orders and direct medical

consultation. This classification is the entry-level position of prehospital care provider (Mistovich, Karren, & Hafen, 2012).

Paramedic: Healthcare personnel who provide advanced prehospital emergency medical care to patients suffering from acute illnesses or injuries under the direction of an emergency physician. Paramedics receive education and training in patient assessment and management, including advanced life support (ALS) procedures such as intravenous (IV) fluid and medication administration; electrocardiography (ECG/EKG); defibrillation and cardioversion of unstable, fast heart rates; thoracic (chest) decompression of punctured lungs; transcutaneous cardiac pacing (TCP); oral intubation (introducing a breathing tube directly into a patient's trachea). Paramedics are the highest level of prehospital provider and work under the authority of an emergency physician through a combination of standing orders and direct medical consultation (Bledsoe, 2013).

Post-Traumatic Stress Disorder (PTSD): An anxiety disorder brought about by exposure to traumatic experience (Mistovich et al., 2012).

Problem Based Learning (PBL): A learning approach where students study clinical cases and apply didactic knowledge to stimulate critical thinking (Shin & Kim, 2013).

Standardized Patient (SP): People who can duplicate the behavior, signs, and symptoms of medical illnesses and traumatic injuries to aid students of medicine and allied health professions (EMS, nursing, cardiorespiratory care) in applying clinical knowledge to live patients (Zeng et al., 2014).

Significance of the Study

According to Simpson (2013), EMS providers are at a high risk for developing PTSD and the report rate could be as high as 30%. While there were continuing medication education (CME) articles on patients with PTSD in trade publications such as the *Journal of the Emergency Medical Services* and *EMSWorld*, there was very little material in EMS curricula addressing PTSD among EMS personnel. Moreover, there were no courses on PTSD training designed specifically for EMTs and paramedics. There was very little literature on how EMS agencies prepare their employees to handle the emotional stress of a CI (Adams et al., 2013). A 3-day course in PTSD training for EMS professionals was developed from themes from this doctoral study.

Research Questions

I framed guiding research questions around the type of education supervisors received on PTSD and CIs. According to Hesketh, Cooper, and Ivy (2015), supervisors who received education on PTSD could mitigate the effects of a CI, increase resilience, and be perceived by employees as positive organizational support. Moreover, Hansen, Rasmussen, Kyed, Nielsen, and Andersen (2012) cited poor organizational support was a factor in the development and severity of PTSD among EMS personnel.

The following research questions guided this study:

Research Question 1 (RQ1): What educational preparation did supervisors receive to help EMS professionals deal with a CI?

Research Question 2 (RQ2): How did the supervisors aid their personnel in the aftermath of a CI?

Review of the Literature

I used the following search terms to discover appropriate literature for this study: *anxiety disorders, treatment modalities, organizational culture, social support, conceptual framework, nursing education, EMS education*, and *fire service administration*. I used ERIC, Google Scholar, Medline, PubMed, PsycARTICLES, and SAGE Premier to search for literature.

I used topic of *anxiety disorders* develop the following key words: *acute stress disorder*, *post-traumatic stress disorder*, *critical incident stress*, and *work stress*. These key words addressed the types of experiences that can lead to PTSD such as natural disasters, crime, and terrorist attacks as well as signs and symptoms. I used the category of *treatment modalities* to focus on current literature for treatment of PTSD and focused on the following key words: *critical incident stress debriefing, critical incident stress management,* and *psychological first aid.*

I used the following key words to focus on how EMS personnel perceive support from their agencies: *workplace safety*, *organizational culture, public safety workplace culture, EMS workplace culture, EMS safety culture,* and *ambulance workplace culture*. I used the term *organizational culture* to investigate how other professions such as combat veterans and nurses perceive support in the event of a CI. I also used the category of *social support* to focus on perceptions of EMS personnel in the amount of support received from their significant others. I also utilized this category to search the terms *critical incident, social support,* and *workplace social support*.

I used the category *nursing education* to search for terms such as *coping skills*, *palliative care*, *active learning*, and *problem-based learning* as keywords. I used the category of *EMS education* and *fire service administration* for keywords such as *coping skills*, *pediatric deaths*, *critical incident stress management*, *continuing medical education*, and *line of duty deaths*.

Conceptual Framework

The conceptual framework that I used for this study was the nurse as wounded healer (Conti-O'Hare, 2002). According to Conti-O'Hare (2002), many people who experience tragedy in their personal lives feel compelled to enter professions where they may help others, such as medicine, law, or nursing. People who have healed themselves may be in a better position to help others with their own healing (Conchar & Repper, 2014). Moreover, the wounded healer concept has been utilized to explain why some people with a criminal past become counselors and social workers (LeBel, Richie, & Maruna, 2015).

Paramedics and EMTs exposed to a CI became wounded healers due to their experience. Pender and Anderton (2016) found that many EMS personnel experience multiple CIs over the course of their career but choose not to report symptoms for fear of losing their jobs. I used the conceptual framework to support my research question by exploring the type of training EMS supervisors received for administering care to personnel affected by a CI. In 2012, British nursing programs have been implementing wounded healer approaches such as mindfulness and reflection into their curriculum so students can understand patient perceptions as well as help them build resilience to death

and dying (Walker & Mann, 2016). The wounded healer concept may allow for more thoughtful curriculum development by integrating CI participant experiences into course construction (Newcomb, Burton, Edwards, & Hazelwood, 2015). I developed codes and themes from the focus group and interviews to construct learning objectives for a PTSD-awareness course for EMS supervisors.

Prehospital emergency responders deliver medical care under extremely stressful conditions and repeated exposures to emotional trauma may lead to the development of PTSD. Moreover, EMS professionals may develop ineffective coping mechanisms that could lead to internalizing their feelings and affect clinical performance (Christie & Jones, 2014). Research by Houck (2014) found that educating healthcare managers about emotional trauma enabled them to provide positive support to clinicians who have experienced emotionally traumatic events.

There was compelling evidence that EMTs and paramedics will probably be involved in a CI over the course of their career (Hegg-Deloye et al., 2014). Understanding the educational preparation of those who will be rendering aid to those involved in a CI is important because supervisors and managers are the first people who affected EMTs and paramedics would encounter after the call is over. According to Bardon and Mishara (2015), managerial support in the aftermath of CI played a big role in employee resilience.

Simpson (2013) discovered EMS managers do not receive any specialized training on recognizing PTSD in their employees. However, managers who received some training to help their employees cope with a CI, such as psychological first aid

(PFA), reported they felt more prepared (Lewis, Varker, Phelps, Gavel, & Forbes, 2014). Fernandes and Tewari (2012) discovered managers who received education on workplace stress were perceived more positively by employees. Managers and supervisors who do not receive any education on PTSD may lead to negative attitudes among employees and discourage those affected from seeking help (Britt, Wright, & Moore, 2012).

Lack of education on CIs and PTSD are not limited to the emergency medical services. Peters et al. (2013) found nurses receive very little education on death and dying while in nursing school or in the workplace. Moreover, veterans suffering from PTSD reported no training or education on CI exposure prior to deployment to combat zones (Bryan, Jennings, Jobes, & Bradley, 2012). The problem of PTSD is also prevalent among law enforcement personnel (Marzano, Smith, Long, Kisby, & Hawton, 2016). Chae and Boyle (2013) discovered police officers are subject to the same stressors as paramedics and firefighters, leading to the development of PTSD.

Nurses reported little to no education on coping with patient death and dying (Peters et al., 2013; Peterson, Johnson, Scherr, & Halvorsen, 2013). According to De Boer, Van Rikxoort, Bakker, and Smit (2014), many nurses felt they should have received some education on how to process their emotions when patients die. Likewise, many student nurses felt their education may not prepare them for coping with death (Edo-Gual, Tomás-Sábado, Bardallo-Porras, & Monforte-Royo, 2014; Poultney, Berridge, & Malkin, 2014). Ryan and Seymour (2013) found that lack of education could lead to negative attitudes toward patient death as well as the development of PTSD.

Active duty military, as well as veterans, had very little training on PTSD prior to deployment (Bryan, et al., 2012; Russell, Butkus, & Figley, 2016). Chapman et al. (2012) reported many combat soldiers attach negative perceptions to seeking mental health care and many military medical professionals do not have "an evidence-based, validated program for medics and other soldiers to recognize stress and mental health issues on the battlefield" (p. 277). Predeployment education on PTSD could help mitigate the effects of repeated CI exposures in combat zones (Price, Gros, Strachan, Ruggiero, & Acierno, 2013). Preventive PTSD education could not only help soldiers anticipate conditions which could cause emotional trauma, but it could also help them discover comorbid conditions such as ADHD which could make them more susceptible (DiGangi et al., 2013).

While the fire service has raised awareness of work-related PTSD, including initiatives from leading organizations such as the International Fire Chiefs Association, the International Association of Firefighters, and the National Fire Protection Association, fire officers received very little training on PTSD recognition and the majority of it focuses on after exposure to a CI (Finney, Buser, Schwartz, Archibald, & Swanson, 2015; Skeffington, Rees, Mazzucchelli, & Kane, 2016). Katsavouni, Bebetsos, Malliou, and Beneka (2015) reported early recognition of PTSD symptoms was a key finding in mitigating its effects. Firefighters also reported that exposures to CIs negatively affected rescue operations and more education on PTSD is needed in emergency personnel (Jacobsson, Backteman-Erlanson, Brulin, & Hörnsten, 2015)

There was also growing evidence that PTSD was also a problem among law enforcement personnel (Marzano et al., 2016). Chae and Boyle (2013) reported how police officers are subject to the same stressors as EMS personnel and firefighters, leading to the development of PTSD. Law enforcement officers who suffered repeated exposures to a CI are at high risk for developing PTSD (Faust, & Ven, 2014). Many officers perceived what little training they received on PTSD to be of no help (Strydom, Botha, & Boshoff, 2015). Bell and Eski (2016) reported that lack of education on PTSD led to negative perceptions toward fellow law enforcement officers who sought help for CI exposure. While many officers are trained to handle subjects, who may be suffering from psychiatric problems, they received hardly any education on recognition of workplace PTSD (Fleischmann, Strode, Broussard, & Compton, 2016).

Review of the Broader Problem

Hegg-Deloye et al. (2014) demonstrated paramedics reported a higher incidence of PTSD symptoms than the general population. Symptoms of PTSD, such as irritability, can develop gradually over time, prompting many EMS professionals to simply label the changes as "burnout" (Vévodová, Vévoda, Vetešníková,, Kisvetrová, & Chrastina, 2016). Stassen, Van Nugteren, and Stein (2012) found burnout among EMTs and paramedics to be associated with shift work and call volume. According to Hazan and Haber (2016), compassion fatigue, an emotional state "characterized by a gradual decrease of empathy, concern, or kindness toward others," was considered a secondary form of PTSD and was also reported among emergency room nurses, physicians, and EMS professionals (p. 19).

Moreover, Boyle (2015) found compassion fatigue can negatively impact job performance.

EMS professionals often utilized a variety of coping mechanisms to counteract the effects of a CI (Mildenhall, 2012). Avraham, Goldblatt, and Yafe (2014) found many EMS professionals use negative coping strategies such as refusing to talk about the incident, blaming themselves, absenteeism from work, and substance abuse. Many paramedics reported mentally and emotionally distancing themselves from patients as a psychological protective measure (Williams, 2012). According to Charman (2013), humor, usually storytelling, is a positive coping mechanism used by EMTs and paramedics. Moreover, Sliter, Kale, and Yuan (2014) found humor also helps participants in a CI to share their experiences and seemed to bond them together. What may be viewed as "cryptic" or "dark" humor is a way for EMS professionals to make sense of their experiences.

Workplace culture may also be a barrier to EMS professionals affected by a CI (Brunsden, Hill, & Maguire, 2013). Public safety professions such as EMS, fire, and law enforcement pride themselves on resiliency and believe it to be a requirement for the job. McCann, Granter, Hyde, and Hassard (2013) reported prehospital professionals view EMS as a "blue collar" profession due to the physical nature of the work and can develop a stoic attitude against seeking help for themselves. Indeed, control of emotions in the chaotic environment of EMS was considered a foundational skill for a successful career (Kennedy, Kenny, & O'Meara, 2015). Moreover, Streb, Häller, and Michael (2014) reported suppression of emotions involved in a CI could be considered part of workplace

culture and led to further complications later. Paramedics involved in a CI may feel that openly talking about their emotions may jeopardize their career or cause others to see them in a negative light.

Drewitz-Chaney (2012) reported certain characteristics of the EMS profession such as shift work, the high number of emergency calls, and the unpredictable nature of each emergency call can contribute to the development of PTSD. Many EMTs and paramedics work overtime shifts and may work for more than one agency. Moreover, EMS professionals frequently encounter a lack of employer support after being exposed to a CI (Fjeldheim et al., 2014). Employer support is a critical factor in how EMTs and paramedics recover from a CI (Cancelliere et al., 2016). Indeed, Halpern, Maunder, Schwartz, and Gurevich (2014) demonstrated how early employer interventions could mitigate PTSD in EMS personnel exposed to a CI.

Supervisors and management of EMS agencies need education and training in recognition and interventions in personnel with symptoms of PTSD. Scully (2012) reported EMS professionals who received emotional support from staff trained in modalities such as psychological first aid (PFA) seemed to display greater resilience after a CI. Moreover, EMTs and paramedics, along with management should receive regular education on PTSD in order to mitigate the effects of a CI (Nie Pack, 2013; Streb et al., 2014). Moffitt, Bostock, and Cave (2014) found education on workplace stress in EMS and the fire service improved perceptions by management and personnel toward seeking help for mental health issues.

Social support is also a contributing factor in the recovery of EMS professionals exposed to a CI (Bentley, Crawford, Wilkins, Fernandez, & Studnek, 2013). Müller-Leonhardt, Mitchell, Vogt, and Schürmann, (2014) reported support from co-workers could be just as effective as support from friends and family. Prehospital personnel who received social support immediately after a CI reported lower symptoms associated with PTSD (Berger et al., 2012). Workplace education on CIs can increase social support from managers and peers, mitigating the effects of PTSD (Bardoel, Pettit, De Cieri, & McMillan, 2014).

Types of Experiences

Emotionally traumatic experiences can cause PTSD (Mancini, Prati, & Black, 2011). Violent crimes such as assault and battery, rape, and kidnapping are common causes of PTSD (Bisson, Weltch, Maddern, & Shepherd, 2010; Kunst, Winkel, & Bogaerts, 2010). Natural disasters, such as Hurricanes Katrina and Rita in 2005 and the Tuscaloosa, Alabama tornado of April 2011, can produce emotional scars that last a lifetime (Lemieux, Plummer, Richardson, Simon, & Al, 2010; Niederkrotenthaler, Parker, Ovalle, Noe, & Bell, 2014). Terrorist attacks, such as those of September 11, 2001, can also produce symptoms of PTSD among survivors (Liu, Tarigan, Bromet, & Kim, 2014).

Prehospital emergency medical professionals are often the first people to respond to emergency calls (Kunst et al., 2010). The types of patients, such as pediatrics; the number of patients; and the magnitude of the injuries can trigger physical and emotional symptoms in EMS personnel that do not abate once the call is over. Many EMS

professionals internalize these experiences and do their best to carry on with their duties, treating it as part of the job (Streb et al., 2014; Weiss et al., 2010). However, Shrestha (2015) found that emergency responders who receive early education on PTSD prior to exposure to CIs may be able to cope with the event better. Moreover, regular educational sessions (monthly, quarterly) on PTSD, as well the types of emergency calls that could produce symptoms, may build resilience in EMS professionals (Jacobowitz, 2013).

Signs and Symptoms

A variety of symptoms as well as various times of onset make PTSD a complex condition to diagnose and treat (Matusko, Kemp, Paterson, & Bryant, 2013). Education on PTSD can lead to early intervention and faster recovery for EMS professionals who have been exposed to a CI (Selfridge, 2014). Signs and symptoms of PTSD are varied and can begin within hours or days after exposure to a CI (Williams, 2013). Irritability, anxiety, depression, and inability to focus are some of the emotional symptoms (Iranmanesh, Tirgari, & Bardsiri, 2013). Physical symptoms include insomnia, headaches, fatigue, and gastrointestinal disturbances such as heartburn, irritable bowel syndrome (IBS), and gastric reflux (Shepherd & Wild, 2014). These conditions can affect the performance of EMS personnel, leading to absenteeism or improper clinical judgment, which could open the EMT or paramedic as well as the ambulance service to liability. Emergency medical service personnel experiencing PTSD may also withdraw from family and friends (Niculită, 2013).

PTSD in Other Professions

Military. Veterans of the armed forces, particularly those who have experienced combat in Afghanistan and Iraq, are susceptible to PTSD (Wangelin & Tuerk, 2014). Soldiers and marines constitute the "boots on the ground" in combat operations and openly engage enemy forces, with many being killed or wounded. For many, the emotional toll of taking a life as well as watching their fellow soldiers and marines die in battle can be too much to bear. According to Pitts et al. (2013), professional soldiers, though trained to kill during combat, may experience PTSD. Support personnel, which include supply and medical staff, may also develop symptoms due to witnessing combat deaths and having to kill in self-defense (Lowe, Galea, Uddin, & Konen, 2014).

Nursing. According to Mealer and Jones (2013), nurses are at risk for developing PTSD, especially those working in emotionally charged areas such as adult and pediatric intensive care units (ICU), emergency departments (ED), and oncology units. Like EMS personnel, nurses must perform under extremely stressful conditions. However, they are often in contact with patients for longer periods of time and develop relationships with them as well as their family members (Lavoie, Talbot, & Mathieu, 2011). Czaja, Moss, and Mealer (2012) discovered organizational and social support helped nurses cope with their experiences as well as mitigate symptoms.

Lack of Effective Treatment for PTSD

Perhaps the largest obstacle in effectively treating EMS personnel suffering from PTSD is the lack of available research (Haugen, Evces, & Weiss, 2012). According to Flannery (2014), much of the research on PTSD has focused on combat veterans, victims

of violent crime such as assault and rape, and disaster victims. There has yet to be a systematic field study of PTSD in EMS personnel (Maercker & Hecker, 2016). For many years, critical incident stress debriefing (CISD) was the model for mitigating CI stress among emergency personnel (Pack, 2013). However, Forneris et al., (2013) as well as Hawker, Durkin, and Hawker (2011), demonstrated little to no improvement in subjects who participated in CISD after a CI. Subsequent research examining coping factors and resilience have yielded positive results (Varker & Devilly, 2012).

Implications

The purpose of this study was to understand the educational preparation of EMS supervisors in order to develop a PTSD-awareness educational course. A PTSD awareness course was developed from themes extracted from this study. The course would be held over three eight-hour days and would be used to educate prehospital personnel in PTSD from exposure to a CI and prepare them to aid other EMS professionals who may be at risk for developing symptoms. This course may contribute to medical education by raising awareness of the problem of PTSD in the emergency medical services. It may also contribute to positive social change by giving EMS professionals the education to help mitigate problems associated with CI exposure.

Participants for this course can include firefighters, EMTs, and paramedics as well as supervisors, managers, and fire service officers. The purpose of the course would be to educate EMS personnel on PTSD associated with critical incidents so they will be better prepared to deal with the possible side effects of a CI. The participants who successfully complete the course will receive a certification which can be used for

continuing educational units (CEUs) for their respective level of EMS licensure. The format of the course would include PowerPoint lectures, case-based studies utilizing a problem-based learning method (PBL) during the lectures as well as utilizing an action learning (AL) format on the second and third days to apply their knowledge on "real" cases.

Summary

In Section 1 of the project study, I detailed the local problem, rationale, terms, research questions, and the review of literature. The basis of this project study was the experiences of a local paramedic involved in a CI. Work-related emotional trauma, such as PTSD, is a growing problem in the EMS profession and there is no education that prepares EMTs and paramedics to cope with problems which may develop after involvement in a CI. Local EMS agencies believe PTSD among the workforce is a growing problem and agree supervisors should receive education in order to better render aid to personnel involved in an emotionally traumatic incident. Terms and concepts to be used in the study were defined and their relevance explained.

The significance of the study was the development of a course on PTSD-awareness in EMS personnel; this course focused on preparing managers to help their workforce deal with the effects of a CI. It could be especially beneficial to new employees and could possibly prepare them to deal with an emotionally traumatic incident. Poor organizational support along with inadequate education of managerial staff on PTSD was a factor in employees coping with a CI.

Conti-O'Hare's "wounded healer" was the conceptual framework of the study. Organizational support and preparatory education could help mitigate PTSD in employees that have experienced a CI. Understanding managerial PTSD education and employee perceptions of effectiveness of education provided data to develop an awareness course on PTSD in EMS personnel; this could help them cope with the aftermath of a CI. Data were gathered through a focus group and interviews with EMS managers; data were coded for themes that were used to develop the PTSD-awareness course. The search for terms focused on topics such as anxiety disorders, organizational culture, nursing education, and EMS education and utilized databases such as ERIC, Google Scholar, Medline, PubMed, PsycARTICLES, and SAGE Premier. The problem of PTSD was also prevalent in nursing, law enforcement, the fire service, and the military with little to no preparatory education on PTSD. Twenty-six peer-reviewed sources emphasized the importance of educating managers on PTSD so they can better render care to personnel who have been involved in a CI as well as decreasing the stigma associated with the condition, enabling them to seek help. Data collected from this study were used to develop a PTSD-awareness course for EMS supervisors.

Section 2 covered the methodology of the study. Research design, participants, sampling, and data collection methods, as well as data analysis were explained in detail. The experiences of the participants were at the core of the study. The data gathered from this study not only aided in the development of a course that specifically addresses PTSD among EMS personnel but could further research to aid in caring for EMS personnel, a group most susceptible to developing problems in coping with a CI.

The project was the subject of Section 3. This area included a brief overview of the project along with the goals. A review of literature was included to strengthen the rationale behind the construction as well as providing a conceptual framework for the project. Section 3 also covered how the project would be implemented (a three-day certification course) as well as evaluation (follow-up surveys from participants). Implications for social change within the local level (organizational support for EMS personnel within the project area) as well as the profession were discussed.

Section 4 concluded the study. This section examined the strengths and limitations of the project. Alternative approaches to further study were discussed. Researcher reflections on topics such as scholarship as well as self-analysis on the roles of practitioner, scholar, and leadership were addressed in detail. This section will also address how the study affected social change.

Section 2: The Methodology

The purpose of this study was to understand the educational preparation of EMS supervisors in order to develop a PTSD-awareness educational course. Emergency medical technicians and paramedics are the first to respond to emergency calls that could be classified as a CI and often managers and supervisors will be the first people available to help those crews involved. It is vital that EMS personnel, especially management, are educated on PTSD and possess the skills to render support to affected crews. Supervisors will also be able to educate new EMS graduates on the problems of PTSD associated with CI exposure; this could also be part of new employee orientation. I chose a qualitative approach because I was concerned with the experiences of the participants. Investigating the perspectives of participants and how people make meaning of their lives is a characteristic of qualitative research (Ormston, Spencer, Barnard, & Snape, 2013). Vivid description and rich detail, as well as researcher participation are also hallmarks of the qualitative tradition (Ormston et al., 2013).

Research Design and Approach

I implemented a qualitative research design with a case study to focus on participant experiences in a CI. I framed the research questions around the educational preparation of those who would be rendering care to EMS personnel involved in a CI. While the experiences of the participants are not the focus of the study, they provide insight into the effectiveness of the follow-up they received after the CI. Qualitative methodology is used to investigate experiences (Baškarada, 2014; Cleary, Horsfall, & Hayter, 2014). Therefore, I focused on the experiences of those who would render aid to

EMS personnel involved in a CI as well as those personnel who were affected. Participant experiences, values, and perceptions are key components of qualitative research (Safdar, Abbo, Knobloch, & Seo, 2016).

Critical incidents are unique episodes that occur over the span of an EMS professional's career. Indeed, the frequency of exposure to a CI is small but one event can produce lifelong complications for those involved (Sattler, Boyd, & Kirsch, 2014). A case study design is the best choice for investigating and documenting participant experiences. Creswell (2012) wrote: "A case study is an in-depth exploration of a bounded system (e.g., activity, event, process, or individuals) based on extensive data collection" (p. 465). Case study research is used to examine a singular episode in time (Gog, 2015). A case study design allowed participants to give rich detail about their experiences (Hamilton & Corbett-Whittier, 2013). Therefore, I used a case study design for this project study. Interviews and focus groups were the methods of data collection.

A grounded theory design was not appropriate because the goal of the study was not the development of theory. According to Kolb (2012), theory is developed after extensive qualitive analysis through coding, observations, and document reviews. Likewise, an ethnographic study was impractical because workplace culture was not the goal of the study, though it may have some bearing in how EMS personnel cope with a CI. An ethnographic design studies a particular culture (Person, Spiva, & Hart, 2013). A phenomenological design focuses on a phenomenon (Dowling & Cooney, 2012). While a CI is unique, it was not the focus of the study. According to De Massis and

Kotlar (2014), case study designs are useful for exploring how and why a particular episode occurred.

I selected nine participants were selected through purposeful sampling based on knowledge gained through previous working relationships. Purposeful sampling entails seeking participants who possess similar characteristics as well as who will provide the best sources of data for the study (Suri, 2011). I chose six focus group participants were chosen according to the following criteria: (a) 2 years or more of prehospital patient care experience; and (b) experienced a CI within a 5-year period (2011–2015). Three other participants were managers with local EMS agencies; they also met the same participation criteria.

I chose nine participants because it would allow for greater depth of experiences in order to achieve saturation. According to Dworkin (2012), saturation is reached when "the data collection process no longer offers any new or relevant data" (p. 1319). Using two participants did not give enough depth for the study while more than 20 would prove to be redundant. According to O'Reilly and Parker (2012), depth, richness, and variety of experiences, not a required number of participants, should be the foundation of sampling for qualitative research.

Work schedules of the participants also played a part in selection; many worked shifts of 24-hours on/48 hours off as well as working for more than one EMS agency. Moreover, many of the EMS agencies did not change shifts at the same hours each day. Coordinating the schedules of nine participants in order to gain access was a significant challenge and a larger number of participants proved impractical. The focus group

consisted of six participants: three who were licensed at the EMT level and three who were licensed at the paramedic level. The purpose of the focus group was to examine how the educational preparation of EMS managers impacted the recovery of the participants. The interviews with three EMS manager not only focused on their educational preparation, but whether their respective agencies had policies in place regarding the care of personnel involved in a CI.

Gaining Access to Participants

I gained access to the participants through a local university that has an EMS education program. A regional office of the state department of public health that oversees the education, licensure, and practice of emergency personnel was also located at this university. This office contained a database of all EMS personnel in the study site, including contact information. The administrator of the Alabama Gulf Coast Emergency Medical Services Systems (AGEMSS) office was also a faculty member of the local university. I received permission from the administrator to gain access to email addresses of potential participants. Twenty-four potential participants received email correspondence explaining the study and permission for further correspondence. I selected the first three EMTs and the first three paramedics who gave their permission to participate. I also selected the first three managers who gave permission.

Establishing a Researcher-Participant Relationship

The participants were former co-workers and former students. I worked to establish a researcher-participant relationship with each of the participants. I was courteous, professional, and placed them at ease. I reviewed the purpose of the study, my

role as a researcher, and their role as participant, emphasizing the importance of their participation in this study. I explained how their experiences were the central focus of the study and how it would help other EMS professionals who may experience PTSD.

Ethical Considerations

Informed consent was gained from the participants before any data collection began. I advised the participants that their identities would not be revealed in the published study and strict confidentiality would be maintained throughout the process. They received an informed consent document, stating their rights, including withdrawing consent at any time with no negative consequences. The participants signed the informed consent document and received a copy for their personal records.

Data Collection

Focus Group

I scheduled a 90-minute focus group with six participants who were not in a supervisory role in an EMS agency. The purpose of the focus group was to document the perceptions of organizational support in the aftermath of a critical incident. The focus group was semistructured, consisting of mostly open-ended questions to allow the participants to describe their experiences. I also utilized some closed-ended questions. A focus group interview guide is available in Appendix E. According to Merriam (2009), a focus group guide contains questions which will allow the participants to dictate the flow and topics of discussion. The participants received a copy of the interview guide via email, approximately two weeks prior to the meeting. I received participant approval to

audio record the focus group to ensure accuracy of questions and responses to aid with transcription and coding.

Interviews

Interviewing is one of the primary methods of data collection in qualitative research as it allows participants to express values, beliefs, and perceptions (Jacob & Furgerson, 2012). I interviewed three participants who are EMS managers separately in the setting of their choosing. I emailed an interview guide, available in Appendix D, approximately 2 weeks prior to the interview. The interviews were audio recorded to ensure accuracy in transcription and coding. If the participants refused to allow video recording of the interview, I took handwritten notes. Each interview was approximately 90 minutes in length and consisted of open-ended questions.

Keeping Track of Data

I utilized a research log to catalog all data collection and a reflective journal to document any emerging patterns or self-reflection during data collection. After the focus group and after each interview, I transcribed the data and logged the date, time, and any themes that developed. I scanned and converted all data to PDF for electronic storage in password-protected electronic files on my laptop computer, office computer, and external storage devices such as “thumb” drives. All external storage devices were stored in a locking file cabinet in my office, which I also kept locked. I did not allow anyone access to the data other than the participants during data analysis.

Role of the Researcher

I have been an instructor for a local university paramedic program for 4 years and the program director for 2 years. Prior to my academic career, I worked full-time in EMS, beginning in 1995. I watched many friends and colleagues struggle with PTSD and many well-meaning managers do little more than tell them to "suck it up" and offer to buy them a beer after their shift was over. For the profession to continue to improve, EMS managers must be educated to provide support to personnel who have a CI. There must be more research and programs developed to help prehospital personnel cope with PTSD so competent, experienced professionals can continue to serve their communities.

I have developed many personal and professional relationships with other EMS professionals as well as good working relationships with many local ambulance services and fire departments. This positively impacted data collection due to interest on the part of participants, many of whom wanted to tell others about their experiences. I am not currently in a working relationship with any of the participants, nor are any of them currently my students. My experiences as a healthcare provider and educator have made me very passionate about this topic and this passion fuels my project. I believe that PTSD is a serious problem in EMS and not enough is being done to help those affected.

I recorded the interviews with an iPhone 5S using a Shure Motiv attachment and the Shure Motiv Audio app. The individual interviews took place first. Participant 1 was interviewed at his residence. Participant 2 was interviewed at his place of employment. Participant 3 was interviewed at my office. All the interview participants selected the

place of their interview. Before the interviews began, I again advised them of their right to discontinue their participation at any point.

I conducted the focus group at a local fire department. The focus group participants chose this site due its central proximity. Just as in the interviews, the focus group was recorded with an iPhone 5S outfitted with a Shure Motiv microphone attachment and the Shure Motiv iPhone recording application. I advised the focus group participants that they could discontinue their participation at any point. I uploaded the interviews and focus group recordings to my office desktop, which was password-protected for extra security. The interviews and focus groups were transcribed manually from the audio recordings and uploaded to my desktop computer and saved to the thumb drive.

Data Analysis

I transcribed the interviews and focus group audio recordings and analyzed for words, phrases, and ideas which seemed to repeat. Ideas, statements, and words that appear regularly in during qualitative data analysis are called codes (Creswell, 2012). According to Creswell (2012), the purpose of the coding process is to "examine codes for overlap and redundancy" (p. 243). I grouped the codes into themes, which are collections of similar codes. Themes are extracted from codes are a key component of qualitative data analysis (Creswell, 2012; Merriam, 2009). Phrases such as "helpless" or "didn't learn this in school" were be grouped under the theme of "Emotional Symptoms." I analyzed the themes to determine how the participant's interpretation of the event may

have been a factor in the onset and types of symptoms as well as the effectiveness of the treatment.

I transcribed the audio and video from the focus groups. I noted body language such as facial expressions, tone of voice, gestures, and changes in posture and developed codes from them. Highlighting the physical reactions of the participants to the discussion seemed to demonstrate how deeply the shared experiences affected them. I organized and stored all data, such as interview notes, audio, video, and documents with Atlas.Ti Qualitative Data Analysis and Research software. The program allows users to organize data into codes and themes and was the primary tool of data analysis. The program was password protected and I will be the only person with access, ensuring security and participant confidentiality. I will also store data in portable electronic storage devices, such as "thumb drives;" these will be kept in a locked file cabinet in my office for which I will have the only means of access.

According to research by Elo et al. (2014), credibility is an ongoing process to ensure the accuracy of qualitative research findings. It involves preparation prior to beginning research as well as documenting the details of sampling, data collection, analysis, and results (Elo et al., 2014). I employed three methods to ensure credibility: member checking, external audit, and triangulation. There were no discrepant cases during data collection and analysis. The coding and themes extracted from the data of the interviews and focus group, respectively, seemed to overlap.

I used member checking to ensure credibility by allowing the focus group and interview participants to evaluate the findings and themes of the study to ensure accuracy.

According to Creswell (2012), “member checking” is where the “researcher asks one or more participants in the study to check the accuracy of the account” (p. 259). This was the first form of ensuring credibility. Participants in the focus group, as well as in the interviews, received copies of transcripts from their respective sessions by email, approximately six weeks later after the interviews and focus group. They were asked to review the transcripts to ensure accuracy.

The second method used to ensure credibility was an external audit. According to Creswell (2012), a third party reviews the research process during any point in the study. The interview transcripts, researcher notes, and a rough draft of the study were reviewed by a colleague who had an EdD. He was proficient in quantitative and qualitative research methods. The colleague provided a written evaluation near the conclusion of the study.

The third method to ensure credibility was triangulation. According to Kolb (2012), triangulation is a process of examining multiple sources of data to ensure credibility. However, research by Stake (2010) found triangulation was necessary only if there were discrepancies in data collection. In discrepant cases, triangulation would be used by conducting follow-up interviews with specific participants along with a review of transcripts, audio, and video in order to rectify conflicts and obtain clarification of conflicts. There were no discrepant cases.

Since participant experiences constituted the data to be collected in this project study, a qualitative research methodology was employed. Moreover, I utilized a case study research design because each participant’s experience is a unique event (Creswell,

2012). I selected nine participants were from the twenty-five who were contacted by email. A focus group containing six participants and individual interviews with three other participants constituted the method of data collection. I gained consent from the participants prior to any data collection and I emphasized the importance of their participation in the study to the participants. The focus group and interviews were transcribed, coded, and analyzed with MAXQDA2018 Qualitative Research software. I ensured security through saving files to flash drives, which were kept in a locked file cabinet in my office; my office was also locked when I was not present. I established credibility was established by member checking, external audit, and triangulation.

The questions for the interviews were to understand the educational preparation of EMS supervisors in order to develop a PTSD-awareness educational course. The questions for the focus group centered on the type of aid EMS professionals received in the aftermath of a CI. The thumb drive remained in a locked filing cabinet in my locked office along with my desktop office computer.

I selected nine participants for the study. All participants had at least two years of experience in EMS and had experienced one CI within a five-year period between 2011 and 2015. I selected three EMTs and three paramedics for participation in a focus group that discussed how their respective agencies aided them after their experience in a CI. I selected three EMS managers for individual interviews where the focus would be on their respective agencies' policies and/or training on aiding personnel involved in a CI. I emailed all participants were invitations participation/consent forms. I also emailed focus group and interview guides to the respective participants. The invitation to

participation/consent forms advised all participants of the purpose and nature of the study; the importance of their participation; the process (interview or focus group); and of their right to withdraw from the study at any time for any reason. I accessed participant email addresses with permission from the Alabama Gulf Emergency Medical Services System, an office of the State of Alabama Office of EMS and Trauma.

I protected the identities of the participants by assigning them pseudonyms for the purpose of the study. The following table lists their pseudonyms, EMS professional level (EMT, Advanced EMT, or paramedic), and years of experience:

Table 1

Participant EMS Professional Level and Years of Prehospital Experience

Pseudonym	Level	Years of Experience
Participant 1	Paramedic	43
Participant 2	Paramedic	20
Participant 3	Paramedic	20
Participant 4	Paramedic	18
Participant 5	EMT	10
Participant 6	Paramedic	20
Participant 7	Paramedic	10
Participant 8	EMT	8
Participant 9	EMT	10

I performed data analysis by transcribing the interviews and focus group audio recordings and coded for themes. I manually transcribed the audio recordings of the interviews and focus group. I read the transcripts looking for errors that could have been the result of inaudible sections: corrections were made while listening to the interview audio for confirmation. After corrections were made, I reviewed the transcriptions multiple times in order to interpret the data. I used qualitative analysis (MAXQDA2018) software for coding. The software also had a log feature where I kept notes on body language, tone, and my own reflections. I had difficulty purchasing the Atlas Ti. Software because the company website did not offer purchase information as did neither a customer service phone line. I stored the data on my password-protected desktop computer in my office as well as on portable electronic storage devices, such as thumb drives. I kept the portable electronic storage devices in a locked drawer in my office, which remained locked when not in use. The department where my office is located is only accessible during regular hours (8:00 AM-5:00 PM) and remains locked after hours. I was the only one who had access to the data during analysis. I kept my laptop computer in my locked office after business hours

I emailed copies of the interview and focus group transcriptions to the participants who were asked to read them and verify their accuracy. They were instructed to reply via email with “I agree” if the transcripts accurately reflected their participation. I also instructed the participants to check for grammatical and spelling errors. All nine participants received transcriptions (interview and focus group) and

replied with “I agree,” verifying their accuracy and agreeing with the result of the findings.

Data Analysis Results

I developed the findings for this study by analyzing codes extracted from the interview and focus group transcripts. I grouped codes into themes based on commonalities such as words/phrases and subjects.

Findings for RQ1

The first RQ for this study was “What educational preparation did supervisors receive to help EMS professionals cope with a CI?” I used interviews with EMS managers to answer this question. All the interview participants appeared eager to share their experiences and it was not difficult to elicit responses. The body language of the participants displayed confidence, engagement, and passion for the subject. While the focus was on their educational preparation, they shared their own CIs with me and how those events impacted them and their management style. Three themes emerged from the data and each will be discussed in detail.

Theme 1: Inadequate education on workforce PTSD. The participants in the interviews stated that education on PTSD in EMS in the current EMS educational curricula is inadequate. All the participants believed that a chapter on workforce PTSD should be included in every EMS educational textbook. Participant 2 believed that it would benefit “new people coming out of school and new people coming into the industry.” Other participants believed state and/or national standards should include PTSD in EMS training as part of education required for certification and licensure.

Participant 1 stated “I think it needs to be put into the national curriculum.” Participant 3 stated, “I think it ought to be at least included in the refreshers and our protocol that takes one of those required classes to get your license.”

There was no official policy on aiding EMS personnel involved in a CI nor was there any required education of supervisors. Participant 2 stated “We don't have a specific policy, but we're fortunate to have a member of the local CISD team on staff here,” referring to a firefighter with training as a CISD counselor. Participant 1 stated:

> There's nothing in writing. As far as I know, currently. There's not that much available in the state of Alabama to first responders. I use my experience over the years, one-on-one with employees. But there is no structured ... nothing structured.

Participant 3 added “We do not currently have a policy. It's really more of a ‘supervisors pay attention’.” All three interview participants stated to some degree that they use their own judgment in helping those affected by a CI.

Theme 2: EMS-focused PTSD Education Needed. All three interview participants questioned the value of CISD as a method of helping EMS professionals cope with the effects of a CI. “There is not a one size fits all. It is individualized. As far as sitting down, rehashing things out, I haven't seen a great deal of positivity come from it. It's like rehashing things all over again”, stated Participant 1. Participant 2 stated, “I personally have participated in several of them (critical incident stress debriefings), but I haven't really gotten a whole lot of benefit out of them.” Participant 3 added, “With us,

you've got one person, usually somebody you don't even like, so we don't have the opportunity to get that father figure or whatever that you need to talk to."

The EMS managers believed that a PTSD awareness course developed by and focused on EMS personnel could help mitigate the effects of a CI. Participant 3 elaborated on this point by discussing how his EMS agency developed a short presentation on the signs and symptoms of PTSD as well as information on their employee assistance program (EAP). He stated, "It actually helped out quite a few people and we were able to get them into the employee assistance program and set them up with counselors and really talk through a lot of their issues." According to Participant 3, there were some positive results from the presentation: "We saw quite a few people that realized that they had those symptoms and they reached out and they got the help that they needed because of that." Participant 2 believed that an EMS-specific PTSD course should be developed by EMS professionals because it may encourage more people to seek help. "Yeah, it's one of those things, you can't explain to somebody unless they've done it. I think that's part of the problem", Participant 2 added. He also stated, "But if we go and, say, talk to a psychiatrist or psychologist or a licensed counselor, they don't get it. So, I think that's a big part of the problem."

Theme 3: Needed Change in EMS Culture. One of the biggest roadblocks to PTSD education is EMS culture, which seems to have a negative view on seeking help for problems associated with a CI. Participant 3 stated, "There's still a little bit of stigma attached to asking for help. I don't know what to do to fix it." P 1 believed that EMS culture can discourage those who are affected by a CI by condoning silence on the issue:

“And as it's all over with, you don't have anybody to talk to.” Participant 2 agreed that the current culture in EMS hinders those who may seek help. “We put on our tough guy face…so they don’t think it’s okay to ask for help,” he stated.

All three interview participants believed for any PTSD education program to be effective there must be an open dialogue on mental health problems in EMS professionals. Participant-2 believed that department leaders are the key to effecting a positive change in the culture. Supervisors or “middle managers”, as Participant 2 referred to them are especially important because of their close working relationship with EMS personnel. He stated: “The new people coming in are scared to come in this office and talk to me. I don't know what the deal is, but they'll communicate with the middle managers and the middle managers come talk to us.” Participant 2 also added: “I think we need to educate our middle managers to go have these conversations with these people and maybe they won't be as stressed about it.”

Relationship to the Literature

The findings of this study seemed to validate information found in the literature. Jones, Holmes, Brightwell, and Cohen (2017) found that many paramedic students do not feel adequately trained for the psychological demands of EMS, including PTSD, and believe more material needs to be included in EMS educational curricula. Likewise, Hayes (2018) called for the integration of coping skills into EMS education to help paramedic students develop resilience to cope with the emotional trauma involved in a CI. Moreover, workforce training on PTSD could mitigate symptoms by developing a preparedness mindset (Feder et al., 2016).

All the participants seemed to agree that there is not enough EMS-focused education on PTSD. P 3 believed the success of his agency's program was due to the fact a paramedic helped with its development and implementation. Newland, Barber, Rose, and Young (2015) found that many EMS professionals perceived the support they received through an EAP unhelpful since the counselor had little or no experience with first responders. Resilience programs designed for first responders have demonstrated success in helping them cope with a CI (Andersen et al., 2015). Research by Moss, Good, Gozal, Kleinpell, and Sessler (2016) found that profession-specific PTSD education programs enabled healthcare providers to cope with environmental factors that could lead to behavioral problems.

Perhaps the biggest issue that was raised was the need for a change in EMS culture regarding seeking help for PTSD. The participants all seemed to agree that a negative attitude towards those seeking help in the aftermath of a CI was possibly the biggest obstacle to changing the culture. According to Bronkhorst, Tummers, Steijn, and Vijverberg (2015), organizational culture is a determining factor as to whether an individual seeks help in coping with work stress. However, culture can extend beyond an organization into a field. Certain professions, such as law enforcement, the fire service, and EMS, may promote an attitude of independence and view those who seek help with behavioral issues as "weak" (Heffren & Hausdorf, 2016). Moreover, Britt, Jennings, Cheung, Pury, and Zinzow (2015) found that professional and organizational culture may stifle open dialogue concerning workplace stress.

Relationship to the Conceptual Framework

The conceptual framework for this study is Conti-O'Hare's nurse as wounded healer theory. Nurses are wounded healers and are helped with their own psychological wounds by engaging in helping to heal others (Schwab, Napolitano, Chevalier, & Pettorini-D'Amico, 2016). Paramedics and EMTs are wounded healers due to multiple CIs over the course of their careers (Russell et al., 2016). According to Matheson, Robertson, Elliott, Iversen, and Murchie (2016), healthcare professionals report that being able to help others also helps them cope with their own experiences. Participant 1 stated that while his own CI experiences continue to haunt him, he still feels compelled to serve the people in his community:

> I may walk away from it, but if I know if there's a situation where I can help somebody, whether physically, emotionally, or whatever, I'm going to be there for them. And I'll probably be that way until I'm just not able to get out anymore.

Educational programs built around concepts such as the wounded healer may help those affected by a CI cope with its effects by helping to focus on helping others (Levy-Gigi et al., 2016).

Findings for RQ2

The second RQ for this study was "How did the supervisors aid their personnel in the aftermath of a CI"? The questions for the focus group were to investigate how management actions aided them in coping with a CI. Four of the six participants were very active in the conversation. Two of the participants did not speak during the focus group. After the focus group was over and the recording was stopped, I spoke with both separately and privately, asking if the questions or the subject matter was the reason for

their lack of participation. Both participants told me that the subject matter did not negatively affect them in any way and that listening to the other participants talk had a positive effect. Their body language, tone, and mannerisms reflected eagerness and passion in discussing the subject. They shared their own CI experiences as well as how their respective agencies assisted them in the aftermath and were brutally honest. The themes that emerged from this focus group had similarities to the themes from the individual interviews; these will be discussed below.

Theme 1: Inadequate Education on PTSD among EMS Professionals. There was a consensus among the focus group participants that there is not enough education on workforce PTSD and regular education needs to be implemented in EMS curricula and staff training. A commonality among the participants when discussing their own CIs was how their respective managers had little to no training on PTSD. When asked if they or their supervisors had received any specialized training on workforce PTSD education, Participant 4 stated:

> The education that you're going to get especially in the fire service is going to be ... there are some training courses. I've gone through one or two but other than that for the most part there's really no training on PTSD or even recognizing PTSD.

Participant 5 advocated for more training and believed the agency leadership needs to be at the forefront of its development and implementation. He stated:

> Management does need to come up with some kind of program because you do have some firefighters who are just coming on who may not have seen, may not

> be exposed to this kind of stuff and you don't know how it's going to hit them in the beginning.

Participant 9 agreed that PTSD education needs to be implemented in the national EMS curricula.

Theme 2: No Written Policy on CI Exposure. Another commonality among the participants was that their respective agencies had no formal written policy on CI exposure and referrals to CISD and/or EAP was the common method for those seeking assistance. However, they all believed there should be an official policy to guide supervisors in aiding those affected by a CI. Participant 4 stated his agency did not have a written policy on CI exposure, but only an informal protocol for EMS professionals to get help. Participant 4 elaborated further:

> Usually what happens, we do have a critical incident stress debriefing team that we can call on. Usually what happens is either the lieutenant or the chief officer will contact somebody and request that one be done, but there's no policy as far as doing it.

This statement was echoed by nods of approval among the other participants. Participant-5 believed that a policy on CI exposure would especially benefit entry-level EMS professionals who have never experienced a CI. He described an incident in which a new firefighter on his crew became visibly upset after responding to a gunshot victim. The captain was able to intervene but again Participant 5 believed that some policy must be in place. “Management does need to take a step to try and do something to help with

that situation if some new guy sees something like that, then there needs to be a program thing", he added.

Theme 3: Change in EMS Culture. By far, this theme seemed to emerge as the dominant area of discussion among the focus group participants. They all believed that the culture in EMS views those who seek help for PTSD in a negative light. Participant 5 was especially vocal about this particular topic:

> First off, there's a ... what's the word I'm looking for? There's a culture in the fire service, I think that says that if you show any kind of weakness you get ragged on. It's like earlier when you were speaking about, do you get time off for it? Folks can think, 'Oh you need time off for that? You must be weak. You must be a punk. You must be soft.' Something like that, but that culture first needs to change.

Participant 5 also believed that open communication about workforce PTSD is the first step. He added: "Go talk to somebody and the culture needs to change where you're not considered to be soft and a punk if you do have a problem with seeing something." He was also adamant that leadership needs to take the issue to the forefront.

Participant 7 offered an interesting perspective on the need to promote more openness about workforce PTSD in EMS culture. While he agreed that PTSD in EMS was a problem, he believed that problems may develop when it affects someone on a deeply personal level. He stated:

> You have a partner, somebody you're on shift within law enforcement and an incident happens and they get shot or hurt, or killed and it becomes personal and then dealing with that is where the PTSD comes in.

He also believed that EMS providers are affected differently because all EMS calls are different. Participant 5 added:

> I think there are situations where you have different types of empathy for different patients. I think everyone can relate and agree that pediatrics would be one where you have a greater empathy just because of the innocence of the injured in that instance.

He also believed the stigma of PTSD could be exacerbated if applied too liberally, stating, "I think we've almost gotten to a point to where we throw around 'PTSD' loosely in this field and it becomes a crutch for some." He became apologetic regarding his remarks and I encouraged him to continue. Participant 7 believed that attempting to emotionally detach as much as possible during and after emergency calls could be a strategy for mitigating PTSD. "We sign up for it and there's a job to do and you can't make it personal", he added.

Relationship to the Literature

The focus group was extremely concerned about the lack of PTSD education as well as regular training on the subject in their respective agencies. Research by Hirschinger, Scott, and Hahn-Cover (2015) found that inadequate education on work stress and PTSD was a key factor in how employees coped with a CI. People who work in high-stress professions such as law enforcement, the fire service, and EMS could possibly mitigate the effects of a CI with regular training (Wild et al., 2016). First responders who participated in regular training on PTSD reported better coping with the

effects of CI (Meichenbaum, 2017). The focus group also believed that there were not enough workforce PTSD awareness courses that had an EMS focus.

Research by Vanhove, Herian, Perez, Harms, and Lester (2016) found that EMS professionals who were employed with agencies that had written policies on employee CI exposure felt a measure of protection by management, as well as reporting better coping mechanisms. Setti, Lourel, and Argentero (2016) found that employees suffering from workforce PTSD who were simply referred to their agency's EAP reported negative perceptions of management along with the organization. Lack of a written policy on aiding EMS professionals exposed to a CI can open an agency to liability (Quevillon, Gray, Erickson, Gonzalez, & Jacobs, 2016). The absence of an agency policy on CI exposure could lead to a higher burn out rate among EMS professionals (Sansbury, Graves, & Scott, 2015).

Organizational culture plays a major role in the mental health of first responders (Cates & Keim, 2016). Research by Anderson, Vaughan, and Mills (2017) discovered that organizations that promoted a culture of safety and open dialogue about mental health issues reported a higher retention rate of employees as well as fewer days lost to illness. Likewise, employees who worked in a culture that promoted communication regarding workplace issues, reported higher job satisfaction (Tong, Tak, & Wong, 2015). However, EMS culture seems to view those affected by a CI as weak (Gilroy, 2018). Wankhade (2016) found that many EMS professionals do not seek help for PTSD symptoms due to workplace culture. Many EMS professionals view their workplace

culture as one of the biggest detriments to seeking help for PTSD (Donnelly, Bradford, Davis, Hedges, & Klingel, 2016).

Relationship to the Conceptual Framework

As the participants weighed in on the questions, their body language spoke the loudest. Many nodded their heads in agreement, especially when Participant 5 was talking about negative perceptions of EMS personnel affected by a CI. Participant 5 also tapped his foot and conveyed a sense of frustration when discussing how management should help personnel affected by a CI. When Participant-4 stated that his agency had no written policy on CI exposure, he shook his head side-to-side and had a look of sadness in his eyes. When Participant 9 spoke about a particularly gruesome emergency call, a few participants shifted uncomfortably in their chairs and looked away. None of the participants openly stated that they suffered from PTSD symptoms, yet most of the participants had some small physical reaction to the questions and the answers others were giving. Having worked in EMS for almost 17 years, I am familiar with the mindset of these professionals; they will not necessarily ask for help because they help everyone else. They experience multiple CIs but may choose to suffer in silence. This appears to align with the conceptual framework of the study.

However, there was a sense of pride in their profession. Many of the participants showed up in uniform even though it was not required, and they were not on duty at the time. As Participant-7 spoke, he sat up straight and maintained eye contact with the other members of the group. His tone was somber yet positive and this did seem to have a positive effect on the other participants. Even if these participants are carrying their own

scars, they all conveyed a sense that they would continue helping others and this could be the best option. Larsson, Berglund, and Ohlsson (2016) discovered that many first responders still feel a drive to continue helping others despite their own emotionally traumatic experiences. Moreover, research by Oginska-Bulik and Kobylarczyk (2015) found that allowing people who have experienced emotionally traumatic experiences to continue to function in their regular roles may help speed recovery and develop positive coping mechanisms.

The purpose of this study was to understand the educational preparation of those rendering support to EMS personnel who have been exposed to a CI. A PTSD awareness course may be developed from themes extracted from this study. The course would be held over three eight-hour days and would be used to educate prehospital personnel regarding PTSD from exposure to a CI and prepare them to aid other EMS professionals who may be at risk for developing symptoms. This course may also contribute to medical education by raising awareness of the problem of PTSD in the emergency medical services and contribute to positive social change by giving EMS professionals the education to help mitigate problems associated with CI exposure.

Participants for this course can include firefighters, EMTs, paramedics as well as supervisors, managers, and fire service officers. The purpose of the course is to educate EMS personnel on PTSD associated with critical incidents so they will be better prepared to deal with the possible side effects of a CI. The participants who successfully complete the course will receive a certification that can be used for continuing educational units (CEUs) for their respective level of EMS licensure. The format of the course would

include PowerPoint-based lectures, case-based studies utilizing a problem-based learning method (PBL) during the lectures as well as utilizing an action learning (AL) format on the second and third days to apply their knowledge on “real” cases.

Section 3: The Project

Introduction

The purpose of this study was to understand the educational preparation of EMS supervisors in order to develop a PTSD-awareness educational course. I developed the professional development class on workforce PTSD based on my study findings. The project will be a professional development class on workforce PTSD awareness for EMS professionals. My motivation for this project was the lack of workforce knowledge concerning PTSD treatment. The class will take place over 3, 8-hour days and consist of case study lectures. group activities, and scenario-based activities involving SPs so participants can apply what they have learned in a simulated incident. The target audience for this professional development course will be managers and supervisors in EMS agencies though non-management EMTs and paramedics may also take this course. In my project, I highlighted current research on EMS-related PTSD and CI effects. I also cover topics such as changing organizational attitudes toward PTSD and integrating PTSD awareness into new hire orientations as well as regular CME. My goal of the project is to educate managers in the management of workforce PTSD.

Rationale

I chose the genre of professional development because most CME for EMS professionals are administered as such. According to Salinas (2015), many professional development courses are given in a workshop format. Furthermore, many clinicians attend 2–3-day professional development courses in order to learn new concepts (Gracía-Pérez & Gil-Lacruz, 2018). A workforce PTSD awareness course modeled after required

certification/licensure courses would be the best option for course delivery because the method would be the most familiar to EMS professionals and be more likely to fit into their shift work schedule.

Many CME course such as advanced cardiac life Support (ACLS) and pediatric advanced life support (PALS) are delivered over a 3-day period with 8-hour class days being the standard. Healthcare professionals reported better retention of course material during 3-day workshops (Nambiar, Nedungalaparambil, & Aslesh, 2016). Participants in 3-day courses viewed the pace and content favorably as opposed to 1-, 2-, or 5-day workshops (Ong et al., 2016).

This course would also benefit participants in that it was created by EMS professionals for EMS professionals. It would not only give supervisors and managers the tools to help EMTs and paramedics involved in a CI, but it will help remove the stigma of seeking help.

I extracted the following themes from the data analysis in Section 2:

- Inadequate education on workforce PTSD in current EMS curricula.
- Lack of PTSD education with an EMS focus
- Changes in organizational culture regarding workforce PTSD.

These themes provided the foundation from which to craft the learning outcomes of the course. In Section 1 of this study, I gave an overview of the rise of PTSD in the prehospital profession and its negative effects on the workforce. First responders have a high probability of experiencing multiple CIs over the course of their career. Furthermore, there seems to be inconclusive evidence on how to mitigate the effects of

PTSD among EMS personnel. Debriefing, once held up as the standard, has fallen out of favor with many EMS professionals as evidenced by the data from the interviews and focus group.

Moreover, the data analysis seemed to confirm the need for workforce-related PTSD in EMS education. I discovered that the material covered in EMS educational curricula focused on responding to and caring for patients with PTSD, with very little mention of workforce wellness. Law enforcement and the fire service have developed similar programs to help their respective professions, but there seems to be very little education that was focused exclusively on EMS professionals. Prehospital clinicians would have to settle for a PTSD awareness course that is developed for nurses in order to receive more education on the subject.

One of the strongest themes that emerged from the data was the need for a change in organizational culture regarding PTSD among EMS personnel. The interview participants as well as those in the focus group all agreed that the stigma about seeking help needs to be removed. The participants also agreed that management is in the best position possible to affect a positive change in EMS culture. They all seemed to agree that regular education on PTSD, whether part of their regular licensure CME, or a stand-alone course, would benefit the organization and create an open, honest dialogue on PTSD.

Review of the Literature

The genre of the project study was professional development. All medical professionals must meet a required number of CME hours in order to maintain licensure.

Most first responders are licensed on a 2-year cycle and must take refresher courses in cardiopulmonary resuscitation (CPR), ACLS, PALS, prehospital trauma life support (PHTLS), and National Registry/state EMS protocol refresher courses. First responders may also take courses in management, leadership, as well as instructor courses for teaching EMS educational programs. Because the participants all stated that they do not receive regular training on workforce PTSD, nor do their respective organizations have a policy on CI exposure, a professional development course would be the best way to implement this training.

Literature Search

I used a variety of words and terms in conducting the review of literature. The search began with the term *professional development* because this was the genre of the project. I expanded upon these terms using w*orkplace professional development courses* for additional searching. I used another term, *resilience training*, as well as *workplace resilience training*. I also utilized Allied health professions such as nursing along with specialties such as *emergency nursing*, *oncology nursing*, *intensive care nursing*, and *pediatric intensive care nursing*. I focused on disaster management response for the review of literature, using the term d*isaster resilience education*.

Public safety professions such as law enforcement and the fire service were another area of focus. I used terms such as *police officer resilience training*, *police critical incident education*, and *suicide awareness prevention* in the search for literature related to law enforcement. I researched the fire service for peer-reviewed sources with terms such *firefighter resilience training*, *workplace stress management*, *firefighter*

suicide prevention, and *fire service compassion fatigue training*. Military professions such as *combat medic specialist* and *corpsman* were also searched due to similarities with civilian EMS professions.

I also used terms that dealt with aspects of course delivery, searching for more dynamic modes to heighten student engagement. I focused on terms such as *active learning (AL), team-based learning (TBL), case-based learning, problem-based learning (PBL),* and *case studies*. Likewise, I also investigated the terms *standardized patients (SP), simulated patients,* and *role playing*. Utilizing these tools could enable course participants to apply what they have learned to actual scenarios.

The Benefits of Professional Development Education

Regular professional development courses are crucial to keeping first responders abreast of new medical knowledge as well as aid them in the development of leadership skills (Gent, 2016). According to Weglicki, Reynolds, and Rivers (2015), many organizations utilize professional development courses in order to train management and employees in new methods or information pertinent to their jobs. Likewise, human resource departments often utilize professional development courses that educate employees on organizational policy such as sexual harassment prevention and drug and alcohol awareness (Frich, Brewster, Cherlin, & Bradley, 2015). Manuti, Pastore, Scardigno, Giancaspro, and Morciano (2015) found that professional development courses are the common method used by healthcare organizations to educate management.

Professional development courses may also be used to implement more education on workforce PTSD. According to Rogers (2016), resilience training delivered through professional development courses may encourage attendees who were suffering from PTSD symptoms to seek help. Furthermore, professional development courses on PTSD in allied health professions such as EMS could provide education on specific strategies and techniques to mitigate the psychological effects of a CI (Sorenson, Bolick, Wright, & Hamilton, 2016). Robertson et al. (2016) found that workshops on PTSD also allowed participants to share their experiences, provide peer support, and remove the stigma associated with seeking help.

The growing problem of post-traumatic stress disorder in EMS. The number of EMTs and paramedics who reported symptoms of PTSD has increased (Harenberg, McCarron, Carleton, O'Malley, & Ross, 2018). A 2013 study on the prevalence of PTSD among EMS personnel concluded that 30% of participants reported PTSD symptoms (National Highway Traffic Safety Administration, 2013). However, the exact number has been debated. Research by Gianni and Papadatou (2016) discovered that PTSD could affect as much as 10% of prehospital professionals. Recent studies have found that the number of EMS professionals reporting PTSD symptoms could be between 15 and 16% (Carmassi et al., 2016). Moreover, Jones, Nagel, McSweeney, and Curran (2018) found that 25% of first responders reported symptoms that corresponded to increased work stress and PTSD.

The increased risk of suicides due to PTSD. Suicidal ideation and attempts have increased in first responders (EMS, fire service, law enforcement). Carleton et al.

(2018) found that suicidal ideation was increasing among EMS personnel. Symptoms of PTSD severity and depression had a strong relationship to suicidal ideation (Martin, Tran, & Buser, 2017). Occupational experiences of PTSD can also be linked with suicide attempts in EMTs and paramedics (Stanley, Hom, Spencer-Thomas, & Joiner, 2017). Henderson, Van Hasslet, LeDuc, and Couwels (2016) discovered that over 15% of firefighters reported at least one suicide attempt. Suicide among law enforcement officers has been linked to feelings of hopelessness due to CI exposure (Marzano et al., 2016; Violanti et al., 2016). Sifaki-Pistolla, Chatzea, Vlachaki, Melidoniotis, and Pistolla (2017) found that education on the relationship between PTSD and suicides allowed first responders to identify symptoms in themselves and their co-workers.

The problems with workforce PTSD education. There were many problems in educating EMS personnel on workforce PTSD. One of the problems is that many PTSD education programs are not written for EMS personnel (Adams et al., 2013; Bernabé & Botia, 2016). Greene, Neria, and Gross (2016) discovered that many workforce PTSD education programs are written for allied health professionals who work in hospitals and clinics. Moreover, many programs were written for social workers and teachers (Shepherd, McBride, & Lovelock, 2017). A common complaint is that many instructors of these courses have no background in EMS (Jones, 2017). Research by Moss et al. (2016) found that a program designed for EMS providers would encourage participation and possibly mitigate the effects of a CI.

The topic of workforce PTSD has not been integrated into the EMS National Standard Curriculum (Farnsworth, 2016). While the curriculum does address the topic of

death and dying along with stress management, it does not give specific steps on mitigating symptoms of PTSD in EMS personnel (Hayes, 2018). However, workforce PTSD education and training could be integrated by using scenario-based training in psychomotor labs (Sanderson & Brewer, 2017). Research by Seymour-Walsh (2016) found that incorporating emotionally traumatic scenarios into allied health care and medical education could mitigate burnout and the development of PTSD symptoms.

The nurse as wounded healer conceptual framework. The conceptual framework for this project study was Conti-O'Hare's nurse as wounded healer. She used the term *walking wounded* to describe nurses who used personal trauma as motivation to enter the profession; the wounded healer is healed by helping others (Brady, Bambury, & O'Reilly, 2015). I chose this conceptual framework due to the similarities between the nursing profession and the emergency medical services. Both EMS and nursing deliver medical care under high-stress conditions and can expose personnel to emotionally traumatic incidents (Gerada, 2015). Nurses, like EMS personnel, may not report PTSD symptoms due to negative perceptions in their profession (Schwab et al., 2016). Indeed, many nurses experience many CIs over the course of their career (Adriaenssens, De Gucht, & Maes, 2015).

The EMS professional as wounded healer. Paramedics and EMTs may be classified as wounded healers because some people often choose a profession due to experiencing a personal loss (Oates, Drey, & Jones, 2017). Another factor that may categorize EMS personnel as wounded healers are the effects of emotionally traumatic incidents such as "intrusion, avoidance, and hyperarousal" as well as "world view

changes, retention issues, sleep disruption, and social network disturbances" (Shamia, Thabet, & Vostanis, 2015, p. 750). According to Rudd and D'Andrea, (2015), healthcare professionals who have experienced a personal trauma may be able to offer a unique perspective to patients and family members, enabling them to cope with loss and grief. Many first responders reported that their own personal trauma may have influenced their decision to enter EMS (Arble & Arnetz, 2017).

Research by Geronazzo-Alman et al. (2017) and Benjet et al. (2016) found that EMS professionals fit the profile of wounded healers due to repeated exposures to CIs. Repeated exposures to emotionally traumatic incidents may exacerbate PTSD symptoms and cause further wounding (Levy-Gigi et al., 2016; Ratrout, & Hamdan-Mansour, 2017). Like nurses, EMTs and paramedics may refuse to seek help due to negative perceptions (Wankhade, 2016). They may attempt to continue working as a coping mechanism for their symptoms and to prove their emotional strength to their colleagues (Oginska-Bulik, & Kobylarczyk, 2015).

However, there may be benefits to first responders continuing to work or allowing limited work after CI exposure. The accumulation of CI experiences may produce better emotional control during emotionally intense incidents, thus producing more positive coping skills (Levy-Gigi et al., 2016). Indeed, one of the reasons some EMS professionals choose to not seek treatment for PTSD is a positive view of the CI and the use of it as motivation to become better clinicians (Lanza, Roysircar, & Rodgers, 2018). Lee et al. (2016) found that first responders may develop better self-reliance on their training in high stress situations such as a CI, which could enable them to mitigate the

effects. If supervisors and/or the affected person does not feel they are ready to resume patient care, scenario-based training using simulation could be employed to allow the EMS professionals to "work" an emergency call that could produce PTSD symptoms (Pallavicini, Argenton, Toniazzi, Aceti, & Mantovani, 2016). This approach could produce positive outcomes by giving the affected first responder a measure of control in their treatment as well as improving their self-perception of their clinical skills.

Paramedics and EMTs must recognize the wounded healer in themselves. Research by Wahlberg, Nirenberg, and Capezuti (2016) found that self-awareness of PTSD symptoms is one of the first steps toward managing the effects of a CI. Indeed, once EMS professionals discover they are "walking wounded" because of PTSD, they may be more likely to seek help (Hankir, Carrick, & Zaman, 2017). Management must also play a key role in identifying the wounded healers in their agencies and getting them help (Weidlich & Ugarriza, 2015).

The problems with critical incident stress debriefing. Many EMS professionals have negative perceptions of critical incident stress debriefing (CISD) (Wuthnow, Elwell, Quillen, & Ciancaglione, 2016). Forneris et al. (2013) found that many EMS professionals feel forced into debriefing sessions after a CI. Moreover, debriefing may force the participants to relive events, which could possibly further exacerbate PTSD symptoms (Fraess-Phillips, Wagner, & Harris, 2017; Hawker et al., 2011). Panjali, (2017) reported that paramedics and EMTs that used alternative forms of treatment and/or no treatment seemed to recover and return to work quicker than those who used CISD.

Cultural change. One of the biggest deterrents to seeking help in the aftermath of a CI was a negative stigma associated with EMS professionals who seek help for PTSD symptoms. The organizational culture of EMS may discourage affected individuals from seeking help (Britt et al., 2015). According to Heffren and Hausdorf (2016), EMS professionals who sought help may be viewed as weak. Lewis-Schroeder et al. (2018) discovered that EMS organizational culture created a "silencing" effect on those who may seek help for PTSD.

Management must play a key role in changing the culture in EMS. Research by Stanley et al. (2017) found that managers who encouraged EMS personnel to seek help for PTSD symptoms were viewed positively. Fire service and EMS personnel reported feeling more encouraged to seek help when advised by management (Ricciardelli, Carleton, Mooney, & Cramm, 2018). According to Knaak, Mantler, and Szeto (2017), the stigma of seeking help is reduced when management made mental health care a priority. Moreover, managers who are educated on PTSD and include regular training on the subject encourage open dialogue that may remove the stigma associated with seeking treatment for symptoms after a CI exposure (Ebadi, Froutan, & Malekzadeh, 2019).

Down time. A simple technique that could mitigate PTSD symptoms is down time, where EMS personnel involved in a CI are not only removed from the scene but are given time away from the agency **(**Jacobsson et al., 2015). Crews may be taken out of service at their request or by management; the time away can allow for processing of the event and promote recover which could be as little as one hour or the entire shift (Jacobsson et al., 2015). Research by Jacobsson, Backteman-Erlandson, Padyab, Egan

Sjölander, and Brulin, (2017) found that down time may help develop positive coping skills. Down time also allowed for an informal "debriefing" among co-workers, which allowed affected paramedics and EMTs to discuss the incident and acknowledge their emotions (Brazil, 2017). Furthermore, the open nature of downtime was viewed favorably by EMS personnel because they did not feel forced to discuss the incident (Sommerfeld, Wagner, Harder, & Schmidt, 2017). Moreover, down time seemed to enable crews to return to work quicker after the CI (Onyedire, Ekoh, Chukwuorji, & Ifeagwazi, 2017).

Psychological first aid. Psychological first aid (PFA) was developed by the National Center for Post-Traumatic Stress Disorder in 2006 (Lewis et al., 2014). Components of PFA include removal from the scene; active listening; and providing safety (Jacobs, Gray, Erickson, Gonzalez, & Quevillon, 2016; Solon, 2016). According to Birkhead and Vermeulen (2018), one of the advantages of PFA is that non-mental health personnel can administer it. Moreover, Kılıç and Şimşek, (2018) discovered that PFA can reduce PTSD symptoms and improve coping mechanisms. Managers could use PFA as training to prepare personnel for a CI (Morganstein, Benedek, & Ursano, 2016). Using PFA can increase organizational resilience, remove the stigma of seeking help for PTSD symptoms, and increase perceptions of managerial support (Langan, Lavin, Wolgast, & Veenema, 2017). Millegan, Delaney, and Klam (2016) found that PFA gives those affected by CI perceptions of more control over their treatment.

Peer counseling. A new approach is the use of peer groups for informal "counseling" sessions in the aftermath of a CI (Smith, Hyman, Andres-Hyman, Ruiz, &

Davidson, 2016). According to Yip et al. (2016), participants in peer counseling felt more organizational support as well as more connected to their colleagues due to shared experiences. Peer counseling also improves self-stigma of seeking help for PTSD symptoms (Hom, Stanley, Spencer-Thomas, & Joiner, 2018). Gulliver et al. (2016) found that peer counseling also encourages open dialogue about seeking help and may allow the affected individual to return to work quicker than other methods; the affected person may be able to remain at work while receiving the peer counseling.

Project Description

The project is a three-day professional development workshop focusing on workforce PTSD in EMS personnel. The purpose of the project is to educate EMTs and paramedics on PTSD in the EMS profession, focusing on causes; signs and symptoms; awareness and intervention; communication; positive coping; and obtaining help.

Needed Resources and Existing Supports

The existing support is the location where the course will be held. The workshop will be held at an educational facility in the study area that has adequate classroom space complete with computer and projector capabilities. The facility also has several classrooms available where small group sessions can take place as well as lab space for scenario-based training. This facility also has a staff of paid preceptors to aid the primary instructor with lectures, small group discussion, and labs. The only needed resources will be the SPs which must be reserved through the staff of the on-site simulation laboratory.

Potential Barriers and Potential Solutions

The biggest potential barrier to implementation will be the schedule of the participants. Many EMS professionals work 12-and 24-hour shifts; many more also work for more than one EMS agency. People interested in the course may not be able to attend a three-day workshop due to their work schedule. However, this could be rectified by offering the course multiple times in a year such as once every three months. This could give participants enough time to plan their work schedule around the class. The course could be taught in fire stations and EMS agencies as well as hospital classrooms. This would allow the course to be taught in different locations that could make it easier for people to attend.

This professional development course is the result of a qualitative study that found that EMS managers, as well as front-line personnel, do not receive enough education on workforce PTSD that can result from occupational exposure to a CI. The findings revealed that many EMS agencies do not have written policy on aiding personnel who have been involved in a CI. Furthermore, many EMS personnel did not receive specific education on workforce PTSD during EMT or paramedic school and there is a lack of information on this topic in current EMS curricula.

Moreover, what little available education on workforce PTSD in allied health professionals was developed more for nurses and physicians, not EMS personnel. Finally, there was also a stigma in organizational culture attached to EMTs and paramedics that may choose to seek help for PTSD symptoms. Additionally, a targeted literature review supported the need for more education on workforce PTSD in EMS that

was developed specifically for prehospital personnel. These findings were utilized to develop the goals and objectives of this professional development course.

Roles and Responsibilities

The following roles and responsibilities for participants are described below:

- **Student:** This person will attend all lectures and participate in all course activities. Students who successfully complete all course objectives will receive CME credit.
- **Project Coordinator:** This person will have the overall responsibility of planning, coordinating, and ensuring the implementation of all aspects of the professional development program. Their duties will include training of adjunct instructors in leading and providing feedback during small group discussion sessions; training in evaluating and providing feedback during practical skills scenarios; training in evaluating the Final Skills Scenario; and using the Final Skills Exam Scenario Grading Rubric.

  The Project Coordinator will also ensure that adjunct instructors who are tasked with giving presentations during the large group sessions are educated on the course material in advance. They will also be tasked with ensuring adequate class space (tables, desks, chairs) is provided. The Project Coordinator will also be responsible for ensuring that adequate materials are available for course delivery (projectors for PowerPoint presentations; SPs for practical skills lab and Final Skills Scenario; pencils for the Final Written Examination).

The Project Coordinator will lead the first large group discussion on the first day of the professional development course, where they will outline the objectives to be covered over the next three days. They will also be responsible for ensuring the promotion and advertisement of the course at least 90 days in advance. Email correspondence with potential students will also be another responsibility of the Program Coordinator.

- **Assistant Program Coordinator:** This individual will assist the Program Coordinator in the organization and implementation of the professional development course. The specific duties of the Assistant Program Coordinator will be assigned by the Program Coordinator. These duties will include:
    - Ensuring adequate supplies of course materials.
    - SPs for practical skills lab and Final Skills Scenario.
    - Presenter of large group presentation during the second day.
- **Adjunct Instructor:** This individual will assist the Program Coordinator and the Assistant Program Coordinator in delivering large group presentations; leading and evaluating small group discussions; leading and evaluating practical skills labs; leading and evaluating the Final Practical Skills Scenario.

Proposed Implementation and Timetable

Week 1. The Project Coordinator will begin development of all material for the large group presentations and the small group discussions. A review of literature will ensure course materials will align with objectives. PowerPoint slides for large group

discussion and handout sheets for case studies for the first two days of the course will be developed.

Week 2. The Program Coordinator will develop scenarios for the skills labs and the Final Skills scenario. Both sets of scenarios will be developed according to course objectives. The grading rubrics for the skills lab scenarios and the Final Skills scenario will be developed and reviewed to ensure that objectives are met.

Week 3. The Program Coordinator will develop the questions for the Final Written Assessment. Questions will be developed to ensure that course objectives are tested. The Program Coordinator will also develop the questions for the Formative Evaluation.

Weeks 4-5. The Program Coordinator will contact potential participants by email to serve as the Assistant Program Coordinator. The roles and responsibilities of the Assistant Program Coordinator will be laid out in the email with the contact information (email and phone number) of the Program Coordinator also stated in the email. All interested participants will be interviewed by the Program Coordinator by phone so any questions about the position can be answered. The Program Coordinator will select one participant for the Assistant Program Coordinator Position and email their thanks for the interest of the previous applicants. The Program Coordinator and the Associate Coordinator will set up a schedule to work together on course materials with a tentative goal of one day per week for approximately 2 hours.

Weeks 6-8. The Program Coordinator and the Associate Program Coordinator will work together to ensure course materials are meeting the course objectives.

PowerPoint slides; handout sheets with case studies for small group discussion; skills lab scenarios and grading rubrics; the Final Skills Scenario and rubric; and the Final Written Assessment will all be reviewed and revised as needed by the Program Coordinator and the Associate Program Coordinator.

Week 9. The Program Coordinator and the Associate Program Coordinator will secure the classroom space and the needed materials for course implementation. A classroom capable of holding approximately 30 students will be secured. The classroom will have a computer with internet access and a projector. The classroom will also have an adequate number of desks or tables and chairs. The Program Coordinator will communicate with owner or manager of the facility who is providing the classrooms to ensure that the classroom will be available at the desired times and dates; a list of dates will be presented to the owner/manager of the facility to ensure availability. A list of dates for training Adjunct Instructors will also be provided to the owner/manager of the facility. The Program Coordinator and Associate Program Coordinator will design and implement an advertisement for the course on social media (Facebook, Instagram, Twitter). The advertisement will also have a link for interested participants to sign up for the course along with a deadline for registration. This will enable the Program Coordinator to ascertain the number of people who will be attending.

Week 10-12. After the dates for the course and the site have been confirmed, the Program and the Associate Program Coordinator will contact potential participants by email to serve as adjunct instructors. All interested participants will be interviewed in person by the Program Coordinator and the Assistant Program Coordinator at a time

convenient for the participant. A total of four participants will be selected. A roster of potential SPs will be assembled and contacted by email for interest. The roles and responsibilities of SPs will be explained by the Program Coordinator. A total of four SPs will be selected by the Program Coordinator.

Weeks 13-14. The Program Coordinator, the Assistant Coordinator, Adjunct Instructors, and SPs will set a date and time in which to conduct a training session of the course (lectures, small group sessions, skills lab, Final Skills Scenario, Final Skills Scenario Grading Rubric, and Final Written Exam). The purpose of the pilot test is to train the Adjunct Instructors in leading small group sessions, skills lab, and the Final Skills Scenario. This session will also allow for input from all instructors on course materials and sequence of learning activities. The owner/manager of the facility will be contacted to ensure availability of the facility for training Adjunct Instructors.

Week 15. The training session for the professional development course will take place at the designated site. Adjunct Instructors will receive training in course materials (Small Group Sessions, Practical Skill Lab Sessions, and Final Skills Exam Scenario/Grading Rubric). The Program Coordinator, Assistant Program Coordinator, and Adjunct Instructors will take the Final Written Exam; they will review the exam to ensure validity and that questions and answers are developed from the course learning objectives. The participants who are acting as SPs will also receive training on their role in the Practical Skills Lab and the Final Skills Scenario Exam.

Week 16-18. A final roster of participants will be obtained by the Program Coordinator. The owner/manager of the course site will be contacted to ensure

availability. The course site will be evaluated to ensure that all necessary supplies (tables, chairs, computer, projector, lab space) are available. A final meeting of the Adjunct Instructors and SPs will be set by the Program Coordinator to review the course itinerary and all relevant materials.

Week 19. The final meeting of Adjunct Instructors and SPs will be conducted by the Program Director and Assistant Program Director to ensure understanding of all course objectives and review all training materials.

Week 20. The professional development course is conducted.

January 2020. During this month, the assembling of course materials will take place. The Program Coordinator will develop the materials needed for the course. PowerPoint slides for the large group presentations on days 1 and 2 will be developed. Scenarios for usage with the case studies, skill labs, and Final Skills scenario will be developed along with their respective grading rubrics. The handout sheets for the case studies and the questions for the Final Written Assessment will be written. The Final Course Survey will also be written. All documents will be proofread to ensure alignment with course objectives. The Program Coordinator will also email potential participants to be selected for the role of Assistant Program Coordinator.

February 2020. The Program Coordinator narrows down interested candidates for the Assistant Program Coordinator position. After phone interviews, the Program Coordinator selects a person for the Assistant Coordinator position and creates a schedule to work together on course materials. This schedule will be flexible with definite timelines for the Assistant Program Coordinator to review all course materials

(PowerPoint slides; case study handout sheets; skill lab scenarios; grading rubrics; Final Skills Scenario; Final Skills Assessment).

March 2020. The Program Coordinator will secure the facility for the course. They will meet with the head of the facility where the class will be held and complete the procedures for reserving the classroom and skill labs for the course. Once the facility has been reserved, the Program Coordinator and the Assistant Program Coordinator will visit the facility to evaluate any resources needed (tables, chairs, computer, projector). They will make a list of needs and meet later to ensure the resources are in place prior to the course date. They will also reserve the SPs through the staff of the on-site simulation laboratory.

The Program Coordinator will also place advertisement of the course on social media sites such as Facebook, Instagram, and LinkedIn. The Program Coordinator will also monitor the number of participants that sign up through the link provided in the ads placed on social media. A roster of possible participants will be developed, which will also be used to ensure that adequate resources are available. Adjunct instructors will also be selected.

April 2020. The Program Coordinator, along with the Assistant Program Coordinator, will work with the Adjunct Instructors and the SPs to set a date to conduct training on the professional development course. Once the date has been confirmed, the Program Coordinator will contact the course site manager and reserve a date for training. Course training will be conducted at the site by the Program Coordinator and the Assistant Program Coordinator. The training will consist of explanation of the case

studies, Skill Labs and grading rubrics, the Final Skills Scenario and grading rubric, and the Final Written Assessment. The SPs will receive training on simulating the patients in the Skill Labs and the Final Skills Scenario. Once the training has been completed, the roster of participants will be finalized.

May 2020. The Program Coordinator will finalize the date and time of the course with the manager of the course site. A final inventory of resources will be conducted. A meeting to review all course objectives will be organized by the Program Coordinator. During this meeting, the course objectives will be reviewed as well as all course materials. A course itinerary will be developed by the Program Coordinator with input from the Assistant Program Coordinator, Adjunct Instructors, and SPs.

June 2020. The resources will be placed at the site one day prior to the first day of the course. The course will be held over a traditional weekend (Friday, Saturday, and Sunday).

Project Evaluation Plan

A formative evaluation, in the form of a paper questionnaire, will be distributed to the students on the last day of the course. The rationale for a formative evaluation is to evaluate if student expectations for the course were met. The goal of this evaluation is to identify areas for improvement in future iterations. The Project Coordinator will analyze the data and use it to make changes to future courses. The Project Coordinator will analyze the data and apply it to the learning outcomes for future courses. The overall goals of the project are to educate EMS managers and supervisors on methods to help mitigate the effects of a CI in agency personnel.

Management in EMS and the fire service are the key stakeholders in this professional development project. Their feedback, reflections, and experience will be instrumental in evaluating the outcomes of this project study. I anticipate a positive evaluation and will use negative evaluations constructively in order to improve education on EMS workforce PTSD.

Project Implications

This project will contribute to positive social change by making the mental health of EMS professionals an organizational priority. Healthier EMTs and paramedics will deliver better patient care, lead better lives, and be better servants in their communities. One of the major findings of this project study was that EMS managers received very little education on workforce PTSD. The other major finding was that many courses on workforce PTSD were not designed for EMTs and paramedics. The outcomes of the project are to help EMS managers and personnel recognize the signs and symptoms of PTSD; to render help to those in need; and to promote a culture that no longer stigmatizes mental illness in the EMS profession. My strategic goal was to take the results of this project study at the local level and apply it to the standard EMS curricula. This would contribute to positive social change by ensuring that EMS students are educated on the effects of a CI. Workforce PTSD is a subject that should be addressed at all levels of EMS education and teaching students how to mitigate its effects may help them live a better quality of life on and off shift.

Section 4: Reflections and Conclusions

Introduction

The purpose of this study was to understand the educational preparation of EMS supervisors in order to develop a PTSD-awareness educational course. My findings seem to agree with Conti-O'Hare's (2002) nurse as wounded healer conceptual framework, where physically and/or emotionally traumatized people enter professions that help others. Many wounded healers are healed themselves by caring for others. Prehospital emergency personnel are wounded healers due to their repeated exposures to CIs over the course of their career. There is usually no one incident that triggers problems but an accumulation of stress over time. Many EMTs and paramedics work for more than one agency so accumulation of work stress could happen much quicker. However, many EMS professionals reported using these experiences to develop better coping skills instead of focusing on the emotional trauma; they reported more resilience to CI exposure over time.

The findings in the study also indicate that EMS managers need more education on workforce PTSD. They are often the first people to interact with a crew affected by CI and more education could enable managers to aid in their recovery. Moreover, the findings indicate that there is a stigma associated with PTSD among the EMS workforce and this needs to be removed to encourage those affected by a CI to seek help. In this section, I will conclude the study with my reflections on this study as the researcher, as a student of Walden University, a paramedic, and an EMS educator.

Project Strengths and Limitations

Strengths

The greatest strength of the project is the specific focus on workforce PTSD among EMS professionals. Research by Asbury et al. (2018) found a lack of PTSD courses developed by and for EMTs and paramedics. Moreover, professional development courses that are specific to a profession have more commitment from participants and are viewed more positively (Reeves, 2016). I discovered an overwhelming level of support for the research. The EMS community along the Mississippi-Alabama Gulf Coast is small and close-knit.

Shortly after I began selecting participants, I was also receiving emails and phone calls from local EMTs and paramedics that were offering to participate in the study. After selecting the number of participants, I had to turn away many more. Many of them thanked me for bringing the problem of PTSD in EMS out in the open and seemed genuinely appreciative that it was a member of the EMS community who was conducting the research. I was also surprised at the level of enthusiasm from the participants because EMS culture does not exactly encourage open discussion about PTSD and work stress.

During the interviews and the focus group, the participants were all in agreement that education specifically designed for EMS providers on PTSD was a subject that needed investigating; all the participants believed it was the biggest priority in the profession. Management seemed to be supportive of a workforce PTSD educational program that was developed by an EMS professional for EMS professionals. They believed that other programs such as CISD were ineffective because they were developed

by people with little to no EMS experience. The management also seemed to agree that workforce PTSD education should be part of a new employee orientation program and that regular training on the subject should be held annually for all employees.

Focus group participants seemed to be as equally supportive as management in the development of a workforce PTSD awareness course for EMS professionals. Many of the participants believed it would encourage trust and openness between employees and management; they seemed to believe it was the first step in changing EMS culture regarding workforce PTSD. They also seemed to agree that management should take the lead in educating agencies on workforce PTSD.

Limitations

The primary limitation of the project is time. A 3-day professional development course provides a good overview of the topic, but the material could have been expanded to a 5-day, 40-hour workshop. Two more days of lectures by subject-matter experts in such as psychiatrists and mental health counselors expand on the causes and treatments for PTSD. Another day of practice in Skill Lab would allow more time for participants to integrate the learning material on SP cases.

Another limitation of the study is the delivery of the lectures and presentations. While they provide the conceptual framework for the project, the lectures may be moved to an online delivery platform such as Centrelearn, which is the primary method of course instruction for our EMS region. Many CME courses are administered in a blended format (online/classroom). Participants do the required online course work then attend 3 days of skill labs to apply what they have learned.

Recommendations for Alternative Approaches

An alternative approach to the project would be to deliver it in a blended format of online lectures followed by attendance at skill labs. Participants would watch online presentations and lectures followed by quizzes to assess learning. After completing the required number of presentations, participants would attend a 3-day workshop consisting of skill labs and case studies in order to apply what was learned in the online content. Many CME courses are administered in a blended format.

The purpose of this study was to understand the educational preparation of EMS supervisors in order to develop a PTSD-awareness educational course. However, all EMS professionals should receive regular education on workforce PTSD. Paramedics and EMTs must complete 60 and 40 hours, respectively, of continuing medical education (CME) over the course of their 2-year licensure period (National Registry of Emergency Medical Technicians, 2018). The states can also mandate that certain courses be taken in order to renew an EMS license.

A specialized course on workforce PTSD could be part of the CME for EMTs and paramedics. One of the primary missions of AGEMSS is providing CME courses to all levels of EMS professionals in the study site. Many of these courses are delivered through Centrelearn, an online CME program that is free to all EMS professionals in the study site. These courses also contain a final exam that must be passed in order to earn CME hours toward license renewal. A course on workforce PTSD could be a required part of the required courses for relicensure. Online administration of this course would allow EMS professionals the flexibility to take the course at any time or location.

Moreover, it would ensure that EMTs and paramedics, not just management, receive regular education on PTSD**.**

Scholarship, Project Development, Leadership, and Change

Scholarship

When I began this study, I assumed that a qualitative methodology was easier because I was only using interviews and focus groups for my data collection; nothing could have been further from the truth. Dedication to scholarship can take you down paths you did not expect. For example, when searching for a conceptual framework for this study, I was searching through sources specific to EMS, the fire service, and law enforcement and coming up empty. It was almost by accident that I discovered Conti-O'Hare's nurse as wounded healer framework. As a result, I began to broaden my research into nursing and psychology, which opened my mind to new perspectives I had not considered.

In the beginning of the project, research proved to be more difficult due to a lack of sources that focused on PTSD in EMS. I found many peer-reviewed articles on PTSD in nursing, medicine, and military medicine. Fortunately, I was able to see the similarities of the effects of PTSD in those professions and used those sources in developing the project study. As I continued my research, I found more studies on workforce PTSD and CI exposure that focused on EMTs and paramedics. I also found that almost all research on workforce education on PTSD was not designed for EMS professionals; the vast majority focused on other allied health professions and the military.

Project Development

Perhaps the biggest challenge was developing the project from the themes extracted from my research. While the themes served as bullet points, it was surprisingly difficult to develop the PowerPoint presentations along those lines. The second PowerPoint presentation proved the most frustrating as I was trying to put the different PTSD treatments, such as psychological first aid, into a framework that would resonate with the EMS professional. I also had trouble generating questions for the final written exam. However, I kept referring to the themes whenever I got stuck, revising the project to ensure it was in alignment with them as well as the learning objectives. The case studies proved to be the easiest to create as I drew on personal experiences for their development.

Leadership and Change

I also learned that change happens only with good leadership. Someone must be willing to not only act but do the hard work to see the objective accomplished no matter what it takes. Leaders establish and drive the agenda and EMS is no exception. EMTs and paramedics are taught to take control, establish priorities, and rapidly implement life-saving treatment. They are taught from the first day of class that they must hold themselves to the highest professional and ethical standards; these are the foundations of good leadership.

As I stated earlier, the culture of EMS tends to look down on those who experience CI stress as weak or not fit for duty. When people enter EMS, they are often told that a CI is simply part of the job and they must learn to deal with them.

Unfortunately, these attitudes lead many EMTs and paramedics to suffer in silence for fear of negative perceptions. Since they cannot voice their feelings or openly seek help, many use drugs and alcohol to help cope with their experiences. It is a vicious cycle that must be broken. In EMS, we truly eat our own.

Reflections on Self as a Scholar

I also learned that scholarship is truly a team effort. My data collection was entirely dependent upon my participants and their eagerness to help was much appreciated. They provided valuable feedback on the interview and focus group transcripts. My colleagues not only reviewed the focus group and interview transcripts but provided guidance on my research process. Overall, their help added strength to the study by providing triangulation and elevating validity.

The codes and themes extracted from the data were used to craft learning objectives for the project. While their experiences were unique, the participants ultimately voiced the same concerns about workforce PTSD and the need for more training, enabling me to achieve saturation during data collection. Having lived many of these same experiences during my EMS career, I understood their perspectives as few would. This made developing the project much easier.

I have been an EMS educator for over 6 years as well as a paramedic since 1996. While I was emotionally invested in the subject, I did my best to enter into this study as objectively as possible and let the data guide me. It was important that I did not become complacent due to my clinical and teaching experience, allowing assumptions to get in the way of my research. I chose to view scholarship as a unique learning opportunity,

one that would help me further the EMS profession and give me new knowledge to share with my students. One thing that I constantly remind my students is that every emergency call is a learning opportunity, so make the most of it.

Reflections on Self as a Practitioner

It was important that the project have active learning as a key component of instruction. Many CME courses place too much emphasis on PowerPoint lectures with a few psychomotor skills thrown in. These courses are often attended by EMS professionals who would rather be doing something else on their off days. My goal for the project was to break the mold of typical CME courses and give EMS professionals a dynamic learning experience. By focusing much of the learning on scenarios and utilizing active learning, students can stay engaged as well as be equipped with concepts they can apply immediately.

What I learned about myself as a practitioner was to integrate more practical skills scenarios into my other EMS classes. The curriculum for most EMS educational programs is separate didactic and lab classes. After developing this study, I began developing case-based studies for my EMT didactic class that also required students to incorporate a variety of psychomotor skills just as they would on an actual emergency call. I also began incorporating small group discussion sessions by giving each group a case to diagnose, treat, and provide the rationale behind their actions. The students told me on many occasions how much they enjoyed the class and 15 of 17 students passed the National Registry of EMTs exam on their first attempt.

This study also showed me that I was cynical and jaded when I stopped being a field clinician. The scholarship prompted deep reflection and introspection on my part. I realized that I left full-time EMS service with a case of compassion fatigue, though I would have denied it at the time. Having such a negative attitude toward patients and the profession when I left made me realize that I was also part of the problem with the culture of EMS. It was an unsettling feeling. During the study, many students who were working for EMS agencies began to stop by my office and openly talk about emergency calls that disturbed them. For some unknown reason, they sought me out and I became their confidant. My work on the study, coupled with my new role as an unofficial counselor to EMS students, were the turning points that inspired me to work on changing the perception of PTSD in EMS.

Reflection on Self as a Project Developer

Developing this project also taught me to turn off the internal editor and just let the ideas flow. Too often I edit as I write, and I end up writing nothing of value. However, for Sections 3 and 4, I used the themes and the learning objectives developed from them to keep me on track. This “free form” approach not only allowed me to get more work done, it generated ideas and kept me working on a regular schedule. The next day I would review what was written and make revisions as necessary. I learned that regular, consistent effort always pays off

The doctoral process took far longer than I had anticipated due to many events beyond my control. Financial problems, family health issues, and being a program director of a university academic department pulled me in multiple directions daily.

However, I remembered the reason for my research after a student came into my office one morning and broke down over an emergency call to which she had responded. I simply sat and listened as she described the incident in detail. After about 20 minutes, she dried her eyes and thanked me for listening to her. She left my office and went to class. And then I remembered why I was pursuing my doctorate, to help people like her. No one understands EMS professionals except other EMS professionals. It was a much-needed moment of clarity that strengthened my resolve to finish the project study no matter what.

Reflections on the Importance of the Work

Through developing this project study, I learned that PTSD was more prevalent in EMS than I had anticipated. The data collection and analysis were the components that really broadened my understanding about how many friends and colleagues have battled this condition along with the stigma of seeking help. It really was the body language, more so than the words of the participants, that spoke the language. Even experienced EMS professionals became emotional when talking about the need for a cultural change.

What really hit home for me was how each participant thanked me for the research and how grateful they were that someone was finally shining a light on the problem of PTSD among EMS professionals. They all encouraged me to truly develop this course and many told me that *when* it became available, they would immediately register for it. All the participants shared a desire to help their colleagues deal with the emotional trauma the EMS profession can bring. Paramedics and EMTs can be brutally

honest and the fact that they seemed to truly believe in this project study reinforced how important it was.

It is going to take good, strong leadership to change negative perceptions regarding PTSD in EMS. Someone must encourage open dialogue on seeking help for PTSD and let EMS professionals know that it's okay to NOT be okay. Only good leadership can change workplace EMS culture from one of machismo to one of compassion and caring for our colleagues who are suffering from PTSD. Change is always difficult but good leadership will encourage and actively promote education on workforce PTSD in EMS. When I use the word *leader*, I am not necessarily speaking of someone in a management position. This person can be a regular employee who has seen enough of his colleagues suffer from PTSD and begins to take action to correct the situation. Leaders can come from anywhere.

I was extremely grateful to my department chair for his assistance with my study. He had just completed his EdD at our university and while the doctoral programs were obviously different, he was an invaluable resource. As stated earlier, he reviewed the interview and focus group transcripts as well as guided me through the data analysis process coding and thematic development. He proofread my study multiple times and even took over some of my administrative tasks so I could devote more time to working on my study.

Implications, Applications, and Directions for Future Research

The findings in the study suggest that EMS managers may need more education on workforce PTSD and this topic should be part of the national standard EMS

educational curricula for EMT, Advanced EMT, and paramedic programs, respectively. Moreover, regular education on PTSD through CME courses and professional development programs could mitigate its effects as well as enable managers to recognize signs and symptoms. While EMS managers would be the *first responders* to personnel exposed to a CI, all prehospital emergency responders should receive education on workforce PTSD, especially in the beginning of their careers.

The study impacts positive social change by providing data that may be used in the development of a PTSD awareness course for EMS professionals. The findings of this study and its impact means that paramedics and EMTs, as well as EMS managers, can learn the signs and symptoms of PTSD as well as coping skills to mitigate its effects. The study can also change the culture by increasing education and awareness on workforce PTSD and remove the stigma of seeking help. Paramedics and EMTs who are educated on PTSD may be encouraged to seek help, which may greatly improve their overall quality of life, making them assets to their organization and their community. Healthy EMS professionals will simply render better medical care.

The findings of this study also suggested further opportunities for research on the effectiveness of PTSD awareness programs among the EMS workforce. There may be additional research opportunities utilizing a quantitative approach to the perceived effectiveness of a PTSD awareness course on recognition and management of symptoms. Additional findings also suggest that there needs to be a change in perceptions in EMS culture toward workforce PTSD. Another research opportunity could be an ethnographic study of EMS culture on perceptions of workforce PTSD.

Conclusion

The purpose of this study is to understand the educational preparation of EMS supervisors in order to develop a PTSD-awareness educational course. The findings of this case study suggest agreement with Conti-O'Hare's (2002) nurse as wounded healer theory because EMS professionals fit this category due to repeated exposures to CIs. The greatest strength of the study was the support of the local EMS community within the study site. The biggest limitation of the study was that all my participants were male despite sending out invitations to female paramedics and EMTs. The second limitation was that six of the nine participants worked in the fire service. My intention was to have diversity in participation and work setting.

I learned that scholarship is a team effort, from the participants to my department chair who was a valuable mentor to me throughout this study. This study also taught me that small actions, performed consistently over time, yield big results. I stopped waiting for the "perfect time" and worked as much as I could when I could. Additionally, I learned to drop perfectionism in favor of action and that forward momentum is the key to progress.

Moreover, this study made me realize that I had developed some negative assumptions about EMS when I began teaching. The research and interactions with students who were already talking of exposure to CI produced a profound change in my attitude; this study helped awaken my compassion for my fellow EMS professionals. With this change of heart, I strove to remain objective during data collection and analysis but also vigilant in developing a program that would benefit the EMS community.

Finally, the study impacts positive social change by providing a workforce PTSD awareness course that can enable EMS professionals to recognize signs and symptoms, not only in each other, but in themselves, and to seek the help they need. The findings I presented in this study suggest education on PTSD could also foster change in workplace culture, promoting honesty about the unseen scars that many EMS providers carry. The findings also identified workforce PTSD as the *elephant in the room* and one of the biggest issues affecting the prehospital profession. There is also a need for regular education on PTSD in EMS and agencies should include this training when hiring a new employee. Helping EMS professionals manage PTSD will enable them to provide the best medical care to their communities.

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Appendix A: The Project

Understanding and Managing Post Traumatic Stress Disorder (PTSD) in EMS Personnel

Introduction

The goal of the project is to educate managers in the management of workforce PTSD. The target audience for this professional development course are managers and supervisors in EMS agencies though non-management EMTs and paramedics may also take this course.

The first objective of the project will be to make EMS professionals aware of how CIs affect them long after the call is over. This will include examining the types of emergency calls that can lay the groundwork for PTSD symptoms such as pediatric cardiac arrests; pediatric trauma; sudden infant death syndrome (SIDS); suicides; and mass casualty incidents (MCI). Along with the types of emergency calls, the signs and symptoms of PTSD will be investigated, with an emphasis on signs and symptoms that may not be viewed as significant such as insomnia; physical, emotional, and compassion fatigue; difficulty in focusing and concentrating; and irritability. The effects of PTSD on clinical judgement and critical thinking will also be covered as it represents one of the biggest areas of concern for EMS professionals. Paramedics and EMTs affected by PTSD could not only endanger the patient due to improper patient care but could open EMS agencies up to potential liability.

The second objective of the project will be to examine how Conti-O'Hare's nurse as wounded healer theory applies to paramedics and EMTs. The prevalence of PTSD

among EMS providers will be explored in order to emphasize the growing problem in the profession. Furthermore, the course will also cover the prevalence of CI exposure among EMS personnel, with an emphasis on the effects of repeated CI exposure. The nurse as wounded healer theory will be presented as a conceptual framework that explains how EMS professionals cope with CIs, enabling them to make sense of their experiences. This theory will provide the framework on how EMS professionals may cope with the effects of a CI. This objective will emphasize how the nurse as wounded healer theory can aid EMS professionals in coping with a CI by understanding why they may feel "compelled" to continue working in the profession despite their emotional trauma.

The third objective of the project will focus on mitigation and interventions for EMS personnel affected by a CI. "Down time" is a technique used by EMS managers to aid personnel affected by a CI; it involves temporarily taking affected personnel out of service to mentally decompress from the event. This technique allows management to personally engage with the EMS professional and give them emotional and social support. The affected personnel may choose to talk over the incident with the manager, who can present a variety of options such as formal debriefing, professional counseling, or paid time off.

Another intervention program such as Psychological First Aid (PFA) will also be covered in this objective. This course will cover the aspects and does not certify participants in PFA as it is a stand-alone course; information on PFA certification will be provided. The last intervention discussed will be the use of peer counseling. Using this

method may increase organizational support, reduce the stigma for seeking help, and allow the affected individual to remain at work or return to work quicker.

Organizational change will be the focus of the fourth objective of the project. Participants will learn how education and leadership can work together to remove the stigma of PTSD among EMS personnel. Special emphasis will be placed on EMS managers as agents of change by implementing written policies on CI exposure and regular PTSD awareness education. Furthermore, EMS managers learn their unique role in mitigating the effects of a CI by often being the first personnel to interact with those affected by a CI. Managers will be instructed on how to educate employee assistance programs (EAP) counselors so they can better aid in treating EMS professionals with PTSD symptoms.

The first session will highlight the need for a specialized course on PTSD in EMS personnel with support from the findings from the study and the literature review. The conceptual framework will be introduced and its application to EMS professionals. The growing problem of workforce PTSD and its prevalence will also be emphasized in the first session. Signs and symptoms will also be covered and tied into the findings of the study. PowerPoint slides-emphasizing the conceptual framework, signs and symptoms will be used during the large group presentation. Handouts that feature case studies will be used for the small group discussions during the afternoon sessions. The objective for the first session will allow EMTs and paramedics to connect the conceptual framework, as well as signs and symptoms, to their own experiences.

The second session will focus on mitigation and intervention techniques along with fostering a positive organizational change. This session will discuss the controversy surrounding critical incident stress debriefing. The concept of "down time" will be explored in depth. The morning session will conclude with an overview of PFA and its efficacy in the aftermath of a CI. Peer counseling will also be covered. Small group discussions will be the focus of the afternoon sessions. Scenarios utilizing role play with SPs will demonstrate proper application of intervention and mitigation techniques. PowerPoint slides will be used in the large group presentation and handouts will provide the instructional material for the afternoon sessions.

The third session will be dedicated to application of the material covered and will be the final component of this professional development course. The morning portion will consist of a practical skills lab where participants use intervention and mitigation techniques learned over the previous two sessions on scenarios involving SPs. A specialized grading rubric will be utilized by the instructors to grade participant performance and provide constructive feedback. After all the practical skills labs are completed, a final large session will be convened to reflect on what was learned and answer questions. The course will conclude with a final written examination that covers course material**.**

The following materials will be part of this professional development course:

- PowerPoint slides for information regarding the conceptual framework; signs and symptoms of PTSD; emergency calls that can produce PTSD; mitigation and intervention techniques; leadership.

- Handouts for small group sessions including case studies and practical skills lab scenarios.
- Final Skills Exam Scenario
- Final Skills Exam Scenario Grading Rubric
- Final Written Examination
- Formative Course Evaluation
- Course Agenda

Course Agenda

Day 1.

8:00 a.m. to 9:00 a.m. The first hour will feature a sign-in/late course registration period as well as a catered breakfast for participants.

9:00 a.m. to 9:30 a.m. The Program Coordinator will welcome the participants and explain the goals and purposes of the course. They will also cover the agenda for the course and answer any questions. There will be a 15-minute break before the first presentation.

9:45 a.m. to 10:45 a.m. The Program Coordinator will present the first PowerPoint presentation, *One Size Does Not Fit All: Re-thinking How to Manage PTSD in EMS.* This presentation will outline the prevalence of PTSD in EMS, the rationale behind an EMS-based PTSD awareness course, and the nurse as wounded healer theory as the conceptual framework of the course. After concluding the presentation, there will be a 10-minute period for questions.

11:00 a.m. to 12:00 p.m. Participants will have a catered lunch at the course site.

1:00 p.m. to 4:00 p.m. The Assistant Program Coordinator will explain the purpose and goals for the Small Group Discussion Scenarios (see **Small Group Discussion Scenario Handout, Session 1)**. Participants will be divided into groups. The Adjunct Instructors will pass out the Small Group Discussion Scenarios and will serve as the leaders of each groups and answer all questions. Each group will have 20 minutes to complete the scenarios. The Adjunct Instructors will facilitate discussion among group members during the scenario. At the conclusion of the 20-minute period, each group will discuss their solutions to the scenarios with the other groups. This discussion period will take place for 15 minutes and the Assistant Program Coordinator will act as moderator. At the end of the discussion period, a 10-minute break will follow for course participants. The groups will work on a total of three scenarios during this time period with a discussion period following each scenario.

4:15 p.m. to 5:00 p.m. After a 15-minute break following the conclusion of the Small Group Discussion Scenarios, the Program Coordinator will review the concepts from the first session as well as answer any questions. The Assistant Program Coordinator will cover the agenda for the second day of the course and answer any questions. The first day will adjourn at approximately 5:00 p.m.

Day 2.

8:00 a.m. to 9:00 a.m. This hour will have another sign-in roster for the participants along with a catered breakfast at the course site.

9:00 a.m. to 10:00 a.m. The Assistant Program Coordinator will present the PowerPoint Presentation, *Helping Our Heroes: Changing the Management of PTSD in*

EMS. The presentation will focus on mitigation techniques such as psychological first aid, peer counseling, and down time. At the conclusion of this presentation there will be a 15-minute break.

10:15 a.m. to 11:00 p.m. Dr. Stephen K. Bowden, director of University Hospital Trauma Center and EMS Program Medical Director will speak on the problem of PTSD in EMS personnel. A 10-minute period will follow for questions. At the conclusion of the questions, there will be a 15-minute break.

11:15 a.m. to 12:15 p.m. Participants will receive a catered lunch at the course site.

12:15 p.m. to 4:00 p.m. The Program Coordinator will explain the goals and purposes behind the Practical Skills Scenarios. The grading rubric for the Practical Skills Scenario will be also explained. Participants will be divided into groups and each member will participate individually in a Practical Skills Scenario lab that will be evaluated by an Adjunct Instructor using the Practical Skills Scenario Grading Rubric (see **Practical Skills Scenario #1 and #2 Session 2**; see also **Practical Skills Scenario Grading Rubric**). There will be approximately 5 minutes at the end of each scenario where the Adjunct Instructor may give constructive feedback to each participant. There will be a 15-minute break after all participants have been evaluated.

4:15 p.m. to 5:00 p.m. The Program Coordinator will review all concepts covered during the session and lead a discussion about the application of the concepts during the Practical Skills Scenario. The Assistant Program Coordinator will cover the agenda for the third day of the course and answer any questions. The second day will adjourn at

approximately 5:00 p.m.

Day 3.

8:00 a.m. to 9:00 p.m. This hour will be for participants to sign in and have a catered breakfast on the course site.

9:00 a.m. to 11:00 a.m. The Assistant Program Coordinator will discuss the goals and objectives of the Practical Skills Scenarios as well as review the grading rubric. They will emphasize that the Practical Skills Scenarios of the previous session and this session will aid them in preparation for the Final Skills Scenario. Participants will be divided into groups and each member will participate individually in a Practical Skills Scenario lab that will be evaluated by an Adjunct Instructor using the Practical Skills Scenario Grading Rubric (see **Practical Skills Scenario #3 and #4, Session 3**; see also **Practical Skills Scenario Grading Rubric**). There will be approximately 5 minutes at the end of each scenario where the Adjunct Instructor may give constructive feedback to each participant. There will be a 15-minute break after all participants have been evaluated.

11:15 a.m. to 12:15 p.m. A catered lunch will be served to participants at the course site.

12:15 p.m. to 3:15 p.m. The Program Coordinator will discuss the Final Skills Scenario and the grading rubric (see **Final Skills Scenario #1 and #2, Session 3**; see also **Final Skills Scenario Grading Rubric**). Participants will be divided into groups and each member will participate individually in a Practical Skills Scenario lab that will be evaluated by an Adjunct Instructor using the Practical Skills Scenario Grading Rubric.

There will be approximately 5 minutes at the end of each scenario where the Adjunct Instructor may give constructive feedback to each participant. There will be a 15-minute break after all participants have been evaluated.

3:30 p.m. to 4:30 p.m. The Program Coordinator will provide instructions for taking the Comprehensive Final Exam (see **Understanding and Managing Post Traumatic Stress Disorder (PTSD) in EMS Personnel Comprehensive Final Exam**, **Session 3** and **Understanding and Managing Post Traumatic Stress Disorder (PTSD) in EMS Personnel Comprehensive Final Exam KEY**). The exam will consist of 10 multiple-choice questions. Participants will have one hour to take it. Scantron answer sheets and pencils will be provided to facilitate quick grading. The participants will receive feedback on their scores by the Program Coordinator and Assistant Program Coordinator.

4:30 p.m. to 5:00 p.m. The Program Coordinator will pass out the Formative Evaluation and provide instructions on completing it (see **Understanding and Managing Post Traumatic Stress Disorder (PTSD) in EMS Personnel Course Evaluation**). After evaluations are completed, the Program Coordinator will cover the key concepts of the course and facilitate discussion. The course will conclude at approximately 5:00 p.m.

Small Group Discussion Scenario Handout, Session 1

Directions: The group will have 20 minutes to read and discuss the following scenario. Encourage students to apply the course material. After 20 minutes, the preceptor will lead the discussion and encourage all members to explain their answers.

Scenario #1:

One of your crews was part of a multi-agency response to a school bus accident. Ten children were killed and 42 were wounded, 12 of those were critical. Your crew had a critical 8-year-old patient who died while they were implementing treatment. The call is over, and the crew is back at the station and appears visibly upset; how would you handle this? Each individual will write their own ideas on the space below. After 20 minutes, the group will meet to discuss their answers. You can write your ideas below.

Small Group Discussion Scenario Handout, Session 1

Directions: The group will have 20 minutes to read and discuss the following scenario. Encourage students to apply the course material. After 20 minutes, the preceptor will lead the discussion and encourage all members to explain their answers.

Scenario #2:

An EMT in your agency was part of a crew that treated a 6-month-old female in cardiac arrest; the patient died during transport to the hospital. The EMT refused any help offered by his paramedic partner and the on-duty supervisor after the call. It has been 10 days since the incident and the EMT, who is usually early for his shift, is showing up late, forcing the off-going EMT to cover for him. The paramedic tells you privately that he has noticed that the EMT has become quiet and displaying mild irritability with patients. What approaches could be used to help the EMT? Each individual will write their own ideas on the space below. After 20 minutes, the group will meet to discuss their answers.

Small Group Discussion Scenario Handout, Session 1

Directions: The group will have 20 minutes to read and discuss the following scenario. Encourage students to apply the course material. After 20 minutes, the preceptor will lead the discussion and encourage all members to explain their answers.

Scenario #3:

Your paramedic crew has returned to the station to restock and clean their unit after treating a 17-year-old male who was involved in a motorcycle accident. The paramedic tells you that the patient sustained injuries that will leave him a quadriplegic. The paramedic also tells you that his partner, a paramedic who has only been licensed for one month and has about 2 years' experience in EMS, seemed upset after the call was over. "I told her 'Suck it up, Butter cup. You signed up for this. If you can't hack it, find something else to do'." the paramedic tells you while looking at his partner. The other paramedic shrugs her shoulders and continues cleaning the unit. What approaches could be used with this crew? Each individual will write their own ideas in the space below. After 20 minutes, the group will meet to discuss their answers.

Small Group Discussion Scenario Handout, Session 1

Directions: The group will have 20 minutes to read and discuss the following scenario. Encourage students to apply the course material. After 20 minutes, the preceptor will lead the discussion and encourage all members to explain their answers.

Scenario #4:

One of your agency's ambulances was involved in a motor vehicle accident. The paramedic was pronounced dead on the scene while her EMT partner has sustained critical injuries and may not survive. Three ambulances from your station responded to the call and knew the crew involved. How do you help your agency recover from this tragedy? Each individual will write their ideas in the space below. After 20 minutes, the group will meet to discuss their answers.

Practical Skills Scenario #1, Session 2 (15-minute Time Limit)

You are meeting with a paramedic who has just worked a cardiac arrest on an eight-year-old female drowning victim. Despite the paramedic's efforts, the girl is pronounced dead at the hospital. The paramedic seems upset. He states "Nothing on this call went right! I couldn't get her intubated due to her vomiting and one of the volunteers from the rescue squad accidentally pulled my IV out. It took me twice to get an IO. I…I don't think I can do this anymore. I think I'm done."

Date:
Begin:
End:

Materials needed:
Desk (optional)
Chairs-2, facing each other
Standardized Patient (SP) for the role of paramedic

Trainer notes:
1. The scenario can be read to the participant or a copy may be provided.
2. The scenario is 15-minutes long.
3. The trainer will give the participant the scenario then exits the lab.
4. The scenario begins when the SP enters the room. The trainer will document the time in military time.

Standardized Patient (SP) notes:
1. The SP should seem upset but not aggressive or confrontational.
2. The SP should maintain eye contact with the participant.

Practical Skills Scenario #2, Session 2 (15-minute Time Limit)

An EMT has returned to work after being shot during an active-shooter incident. You have noticed that he seems withdrawn and keeps to himself when not on a call; these behaviors are unusual for him. You have requested a meeting to see how you can help. When he enters, he says in an exasperated tone, "I know what this is about. I'm fine."

Date:
Begin:
End:

Materials needed:
Desk (optional)
Chairs-2, facing each other
Standardized Patient (SP) for the role of paramedic

Trainer notes:
1. The scenario can be read to the participant or a copy may be provided.
2. The scenario is 15-minutes long.
3. The trainer will give the participant the scenario then exits the lab.
4. The scenario begins when the SP enters the room. The trainer will document the time in military time.

Standardized Patient (SP) notes:
1. The SP should seem withdrawn and won't make eye contact.
2. The SP seems annoyed but not aggressive or confrontational.

Practical Skills Scenario #3, Session 3 (15-minute Time Limit)

You are meeting with a paramedic who has failed a drug test. Three months ago, her son was killed in a pedestrian-vs.-vehicle accident; she responded to the accident and insisted on helping to treat her son. The paramedic sought counseling through the company's EAP. However, she has called out sick 5 times since the incident. The Controlled Substances Officer has reported discrepancies in the ambulance medication log when this paramedic is on duty. As she enters your office, the paramedic begins to cry.

Date:
Begin:
End:

Materials needed:
Desk (optional)
Chairs-2, facing each other
Standardized Patient (SP) for the role of paramedic

Trainer notes:
1. The scenario can be read to the participant or a copy may be provided.
2. The scenario is 15-minutes long.
3. The trainer will give the participant the scenario then exits the lab.
4. The scenario begins when the SP enters the room. The trainer will document the time in military time.

Standardized Patient (SP) notes:
1. The SP should be able to speak clearly despite "crying".
2. The SP should not look directly at the participant.

Practical Skills Scenario #4, Session 3 (15-minute Time Limit)

You are meeting with an EMT who was involved in a motor vehicle crash while responding to the hospital with a critically injured patient. While traveling through an intersection, another vehicle struck the ambulance on the left side, causing it to rollover. The incident happened approximately one month ago. The EMT suffered minor injuries but his paramedic partner and the patient both died. She refused counseling from EAP. Her colleagues have stated they have heard her say things such as "I killed my partner and my patient. Maybe I should kill myself" and "I can't take this anymore. I don't want to live."

Date:
Begin:
End:

Materials needed:
Desk (optional)
Chairs-2, facing each other
Standardized Patient (SP) for the role of EMT

Trainer notes:
1. The scenario can be read to the participant or a copy may be provided.
2. The scenario is 15-minutes long.
3. The trainer will give the participant the scenario then exits the lab.
4. The scenario begins when the SP enters the room. The trainer will document the time in military time.

Standardized Patient (SP) notes:
1. The SP should seem withdrawn and soft-spoken.

Practical Skills Lab Grading Rubric

Category	Exceptional: 4 points	Good: 3 points	Minimal: 2 points	Unacceptable: 1 point
Affective A. Empathy B. Eye contact C. Professionalism Score=	**A.** Participant displays empathy. **B.** Participant maintains eye contact during the scenario. **C.** Participant displays a calm, professional demeanor.	**A.** Participant displays partial empathy. **B.** Participant maintains eye contact through most of the scenario. **C.** Participant displays a calm, professional demeanor.	**A.** Participant displays little empathy. **B.** Participant maintains little eye contact during the scenario. **C.** Participant displays annoyance and impatience.	**A.** Participant does not display appropriate empathy. **B.** Participant does not maintain eye contact. **C.** Participant does not display a calm, professional demeanor.
Communications A. Tone B. Active Listening C. Body Language Score=	**A.** Participant uses calm, even tone of voice. **B.** Participant engages in active listening during the session. **C.** Participant displays appropriate body language.	**A.** Participant use a calm tone of voice with occasional hints of exasperation. **B.** Participant uses active listening for most of the session. **C.** Participant displays mildly appropriate body language.	**A.** Participant uses an indifferent tone of voice. **B.** Participant partially engages in active listening during the session. **C.** Participant displays indifferent body language.	**A.** Participant uses an aggressive tone of voice. **B.** Participant does not use active listening. **C.** Participant displays in appropriate body language.
Interventions A. Options B. Subject Participation Score=	**A.** Participant gives the subject many options for interventions. **B.** Participant encourages subject to participate in selection of the intervention.	**A.** Participant gives the subject some options for interventions. **B.** Participant gives some encouragement to the subject to participate in the selection of the intervention.	**A.** Participant gives the subject few options for interventions. **B.** Participant gives little encouragement to the subject to participate in the selection of the intervention.	**A.** Participant gives the subject no options for interventions. **B.** Participant gives no encouragement to the subject to participate in the selection of the intervention.

Total score=

Final Skills Scenario#1, Session 3

You are meeting with a paramedic who was on the initial-responding unit to an elementary school that was struck by a tornado. The incident happened approximately two weeks ago, and the paramedic has told you that he "has not gotten more than four hours of sleep a night since". He appears exhausted and has displayed a melancholy attitude. He has sought your help.

Date:
Begin:
End:

Materials needed:

Desk (optional)
Chairs-2, facing each other
Standardized Patient (SP) for the role of paramedic

Trainer notes:

1. The scenario can be read to the participant or a copy may be provided.
2. The scenario is 15-minutes long.
3. The trainer will give the participant the scenario then exits the lab.
4. The scenario begins when the SP enters the room. The trainer will document the time in military time.

Standardized Patient (SP) notes:

1. The SP should seem withdrawn and soft-spoken.
2. The SP should appear tired.
3. The SP should be cooperative.

Final Skills Scenario #2, Session 3

You are meeting with an EMT who responded to an injured child who was the victim of abuse. The child was dead at the scene. The EMT has refused any help offered by you. However, his partner has complained to you that he displayed aggressive behavior to patients and bystanders and has begun to question the partner's treatment on scene, especially on pediatric trauma incidents. The EMT enters the office with an angry look in his eyes.

Date:
Begin:
End:

Materials needed:

Desk (optional)
Chairs-2, facing each other
Standardized Patient (SP) for the role of EMT

Trainer notes:

1. The scenario can be read to the participant or a copy may be provided.
2. The scenario is 15-minutes long.
3. The trainer will give the participant the scenario then exits the lab.
4. The scenario begins when the SP enters the room. The trainer will document the time in military time.

Standardized Patient (SP) notes:

1. The SP should seem angry.
2. The SP should talk loudly and sarcastically.
3. The SP should be mildly uncooperative.

Final Skills Scenario Grading Rubric

Category	Exceptional: 4 points	Good: 3 points	Minimal: 2 points	Unacceptable: 1 point
Affective A. Empathy B. Eye contact C. Professionalism Score=	**A.** Participant displays empathy. **B.** Participant maintains eye contact during the scenario. **C.** Participant displays a calm, professional demeanor.	**A.** Participant displays partial empathy. **B.** Participant maintains eye contact through most of the scenario. **C.** Participant displays a calm, professional demeanor.	**A.** Participant displays little empathy. **B.** Participant maintains little eye contact during the scenario. **C.** Participant displays annoyance and impatience.	**A.** Participant does not display appropriate empathy. **B.** Participant does not maintain eye contact. **C.** Participant does not display a calm, professional demeanor.
Communications A. Tone B. Active Listening C. Body Language Score=	**A.** Participant uses calm, even tone of voice. **B.** Participant engages in active listening during the session. **C.** Participant displays appropriate body language.	**A.** Participant use a calm tone of voice with occasional hints of exasperation. **B.** Participant uses active listening for most of the session. **C.** Participant displays mildly appropriate body language.	**A.** Participant uses an indifferent tone of voice. **B.** Participant partially engages in active listening during the session. **C.** Participant displays indifferent body language.	**A.** Participant uses an aggressive tone of voice. **B.** Participant does not use active listening. **C.** Participant displays in appropriate body language.
Interventions A. Options B. Subject Participation Score=	**A.** Participant gives the subject many options for interventions. **B.** Participant encourages subject to participate in selection of the intervention.	**A.** Participant gives the subject some options for interventions. **B.** Participant gives some encouragement to the subject to participate in the selection of the intervention.	**A.** Participant gives the subject few options for interventions. **B.** Participant gives little encouragement to the subject to participate in the selection of the intervention.	**A.** Participant gives the subject no options for interventions. **B.** Participant gives no encouragement to the subject to participate in the selection of the intervention.

Total score=

Understanding and Managing Post Traumatic Stress Disorder (PTSD) in EMS Personnel

Comprehensive Final Exam, Session 3

1. Which of the following could be considered a conceptual framework for understanding how EMS professionals may develop PTSD?
A. Maslow's Hierarchy of Needs
B. Conti-O'Hare's Nurse as Wounded Healer
C. Piaget's Stages of Development
D. Erickson's Psychosocial Stages

2. Which method of mitigating PTSD is centered on debriefing sessions?
A. Psychological First Aid
B. Down time
C. Critical Incident Stress Debriefing
D. Psychotherapy

3. Which method of mitigating PTSD does not require any medical training on the part of the practitioner?
A. Psychological First Aid
B. Critical Incident Stress Debriefing
C. Psychotherapy
D. Down time

4. Which of the following methods of mitigating PTSD involves removing the affected personnel from the scene as soon as possible?
A. Psychological First Aid
B. Critical Incident Stress Debriefing
C. Psychotherapy
D. Down time

5. Which of the following methods of mitigating PTSD does not force the affected personal to discuss the incident or their feelings?
A. Psychological First Aid
B. Critical Incident Stress Debriefing
C. Psychotherapy
D. Down Time

6. Which of the following is a critique of critical incident stress debriefing?
A. Referrals to qualified mental health professionals
B. Removing the affected personnel from the scene as soon as possible
C. Forced debriefings
D. Contacting social support

7. What is one of the characteristics that can predispose an EMS provider to PTSD?

A. Repeated exposures to critical incidents (CI) over the course of their career
B. Organizational stigma against seeking help for coping with the aftermath of a CI.
C. May use work as a coping mechanism
D. All of the above

8. Which of the following is a critique of down time?
A. Forced debriefings
B. Referral to the agency Employee Assistance Program
C. Affected crews may not request down time
D. None of the above

9. What is a reason that an EMT or paramedic involved in a CI may not seek help?
A. Inability to pay for counseling services
B. Being viewed as "unfit for duty" by their peers
C. Conflicts with work schedule
D. All of the above

10. According to 2013 data from the National Highway Traffic Safety Administration, what percentage of EMS professionals reported symptoms associated with PTSD?
A. 10%
B. 20 %
C. 30%
D. 28%

Understanding and Managing Post Traumatic Stress Disorder (PTSD) in EMS Personnel
Comprehensive Final Exam KEY

1. B
2. C
3. C
4. D
5. A
6. C
7. D
8. C
9. B
10. C

Understanding and Managing Post Traumatic Stress Disorder (PTSD) in EMS Personnel Course Evaluation

Instructor: _____ Date:

Location:

Please answer the following questions about the course.

1. The instructor for the course was professional and helpful to the students.
   a. Yes
   b. No

2. The instructor provided adequate instruction and was helpful during skills practice sessions.
   a. Yes
   b. No

3. The instructor answered all of my questions before my Final Skills Scenario and Comprehensive Final Exam.
   a. Yes
   b. No

4. The learning objectives of the course were clear.
   a. Yes
   b. No

5. The course content was presented clearly and intelligently.
   a. Yes
   b. No

6. The equipment and the location were clean and in good working condition.
   a. Yes
   b. No

7. The course content prepared me to successfully pass the Final Skills Scenario and the Comprehensive Final Exam.
   a. Yes
   b. No

8. I feel prepared to use the skills I learned in this course.
   a. Yes
   b. No

9. The difficulty of this course was
    a. Easy
    b. Difficult
    c. Adequate
10. The quality of the presentations and written materials was
    a. Excellent
    b. Good
    c. Fair
    d. Poor

Understanding and Managing Post Traumatic Stress Disorder (PTSD) in EMS Personnel

SCHEDULE OF EVENTS

SESSION 1

8:00 AM-9:00 AM	**SIGN-IN/BREAKFAST**
9:00 AM-9:30 AM	**WELCOME**
9:45-10:45 AM	***One Size Does Not Fit All: Re-thinking How to Manage PTSD in EMS***
11:00 AM-12:00 PM	**LUNCH**
1:00 PM-4:00 PM	**SMALL GROUP DISCUSSION SCENARIOS**
4:15 PM-5:00 PM	**LESSONS LEARNED/Q & A/ADJOURN**

SESSION 2

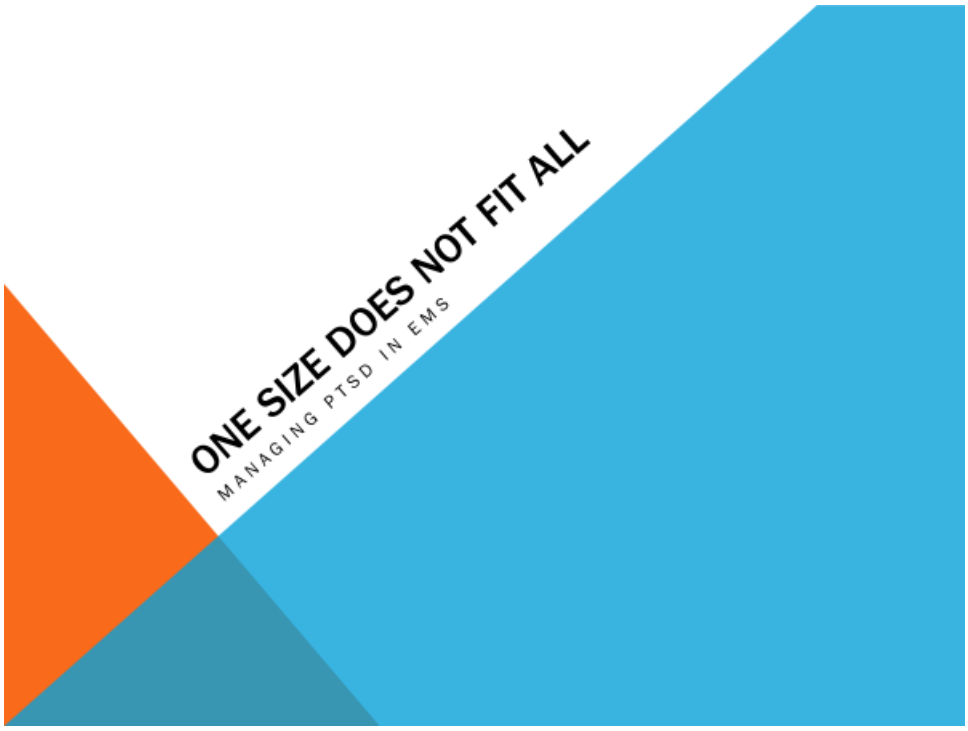
8:00 AM-9:00 AM	**SIGN-IN/BREAKFAST**
9:00 AM-10:00 AM	***Helping Our Heroes: Changing the Management of PTSD in EMs***
10:15 AM-11:00 AM	**GUEST SPEAKER: Stephen Bowden, MD**
11:15 AM-12:15 PM	**LUNCH**
12:15 PM-4:00 PM	**PRACTICAL SKILLS SCENARIOS**
4:15 PM-5:00 PM	**LESSONS LEARNED/Q& A** **ADJOURN**

Understanding and Managing Post Traumatic Stress Disorder (PTSD) in EMS Personnel

SCHEDULE OF EVENTS (*Continued)*

SESSION 3

8:00 AM-9:00 AM	SIGN-IN/BREAKFAST
9:00 AM-11:00 AM	PRACTICAL SKILLS SCENARIOS
11:15 AM-12:15 PM	LUNCH
12:15 PM-3:15 PM	FINAL SKILLS SCENARIO
3:30 PM-4:30 PM	COMPREHENSIVE FINAL EXAM
4:30 PM-5:00 PM	LESSONS LEARNED/Q & A/FORMATIVE EVALUATIONS/ADJOURN


ONE SIZE DOES NOT FIT ALL
MANAGING PTSD IN EMS

OBJECTIVES

- Post Traumatic Stress Disorder (PTSD): The problem no one wants to discuss.
- Problems with the current approach to PTSD education.
- The "Nurse as Wounded Healer:" A Framework for a New Approach.
- The "EMS Professional as Wounded Healer."
- The problems with Critical Incident Stress Debriefing (CISD)
- The need for cultural change.

PTSD: THE PROBLEM NO ONE WANTS TO DISCUSS

- The number of EMS professionals reporting PTSD symptoms is increasing (Harenberg, McCarron, Carleton, O'Malley, & Ross, 2018).
  - The numbers are not exact
  - 2013 NHTSA study reported 30% of EMS professionals sampled reported PTSD symptoms.
  - 10% (Gianni & Papadatou, 2016).
  - 15 to 16% (Carmassi et al., 2016).
  - 25% (Jones, Nagel, McSweeney, & Curran, 2018).

PTSD: THE PROBLEM NO ONE WANTS TO DISCUSS

- Increased risk of suicides due to PTSD
  - Suicidal ideation is increasing (Carelton, et al., 2018).
  - Symptom severity and depression are linked to increased suicide risk(Martin, Tran, & Buser, 2017).
  - Occupational exposure to PTSD has been linked with suicide attempts (Stanley, Hom-Spencer, & Joiner, 2017).
    - Firefighters, 15% reported one suicide attempt (Hendersen, Van Hasslet, Le Duc, & Couwels, 2016).
    - Law enforcement officers reported PTSD increased feelings of hopelessness, that increase suicidal ideation (Violanti, et al., 2016).

PROBLEMS WITH THE CURRENT APPROACH TO PTSD EDUCATION

- Many PTSD educational programs are not written for EMS personnel (Adams, Davis, Brown, Filardo, & Thomson, 2013).
- Workforce PTSD education written for professions .
  - Nursing (Green, Neria, 2016).
  - Social workers and teachers (Shepherd, McBride, & Lovelock, 2017).
- Instructors have no EMS background (Jones, 2017).
  - Courses developed for EMS personnel by EMS personnel would encourage participation.

PROBLEMS WITH THE CURRENT APPROACH TO PTSD EDUCATION

- Lack of workforce PTSD in the EMS National Standard Curriculum (Farnsworth, 2016).
- The curriculum does not give specific instruction on workforce PTSD signs and symptoms (Hayes, 2016).
- Incorporate scenarios of EMS workforce PTSD into psychomotor skill labs (Sanderson & Brewer, 2017).
- Incorporating emotionally traumatic scenarios (SIDS, pediatric death) into EMS medication. (Seymour-Walsh, 2016).
  - Scenarios could prepare EMS professionals for critical incidents (CI)s and mitigate PTSD symptoms.

THE NURSE AS WOUNDED HEALER

- The Nurse as Wounded Healer:
  - Developed in 2002 by Marie Conti-O'Hare.
  - Personal trauma is the motivation to enter professions that serve others ("Walking Wounded).
  - The Wounded Healer is healed by helping others (Brady, Brambury, & O'Reilly, 2015).
  - Nurses may experience many emotionally-traumatic incidents over the course of their career (Adriasenssens, De Gucht, & Maes, 2015).
  - May not report PTSD symptoms due to negative perception (Schwab, Napolitano, Chevalier, & Pettorini-D'Amico, 2016).

THE EMS PROFESSIONAL AS WOUNDED HEALER

- Many EMS professionals are "wounded healers"
  - Many EMTs and paramedics enter the profession due to a personal loss (Oates, Drey, & Jones, 2017).
  - EMS professionals share the same symptoms as nurses who have been exposed to a CI (Shamia, Thabet, & Vostantis, 2015).
  - EMS professionals fit the category of "wounded healer" due exposure to CIs throughout their career (Geronnazo-Alman, et al. 2017).
    - Repeated CI exposures can exacerbate PTSD symptoms (Levi-Gigi et al., 2016).
    - May refuse help due to negative perceptions (Wankhade, 2016).

THE EMS PROFESSIONAL AS WOUNDED HEALER

- Use work as a coping mechanism (Oginska-Bulik & Kobylarczyk, 2015).
- May view a CI as motivation to become a better clinician (Lanza, Roysircar, & Rogers, 2018).
- Recognize the Wounded Healer in themselves
  - Self-awareness of PTSD symptoms is the first step (Wahlberg, Nirenberg, & Capezuti, 2016).
  - May be more likely to see help (Hankir, Carrick, & Zaman, 2017).
  - Management must be vigilant in recognizing wounded healers and getting them help (Weidlich & Ugarizza, 2015).

THE PROBLEMS WITH CRITICAL INCIDENT STRESS DEBRIEFING (CISD).

- Negative perceptions of debriefing (Wuthnow, Elwell, Quillen, & Ciancaglione, 2016).
- Many EMS professionals feel forced into CISD (Forneris et al., 2013).
- Forced to relive events (Fraess-Phillps, Wagner, & Harris, 2017).
- EMS professionals that used alternative forms of treatment or no treatment recovered quicker than with CISD (Panjali, 2017).

THE NEED FOR CULTURAL CHANGE

- Negative stigma associated with EMS professionals who seek help for PTSD symptoms.
- Organizational culture of EMS may be a deterrent (Britt, Jennings, Cheung, Pury, & Zinow, 2015).
- Fear of being viewed as "weak" or "not cut out for the job (Heffren & Hausdorf, 2016).
- Management must play a role in changing EMS culture regarding PTSD
  - EMS providers felt better about seeking help when encouraged by management (Ricciardelli, Carleton, Mooney, & Cramm, 2018).
  - Positive view of management by EMS personnel when management gets involved (Stanley, et al., 2018).

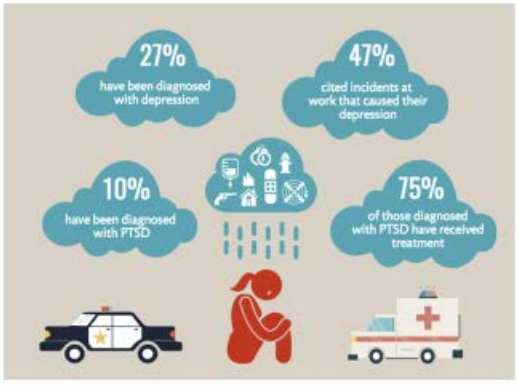
SIGNS AND SYMPTOMS

- Signs and Symptoms of PTSD
  - Irritability
  - Insomnia
  - Depression
  - Absenteeism
  - Substance abuse
    - Drugs
    - Alcohol

BRINGING IT ALLHOME

- PTSD is a problem that is NOT going away.
- EMS professionals are “wounded healers” due to their exposure to Cis.
- CISD is not a panacea.
- The cultural of EMS must remove the stigma of PTSD and treatment.

QUESTIONS?


27%
have been diagnosed with depression
47%
cited incidents at work that caused their depression
10%
have been diagnosed with PTSD
75%
of those diagnosed with PTSD have received treatment

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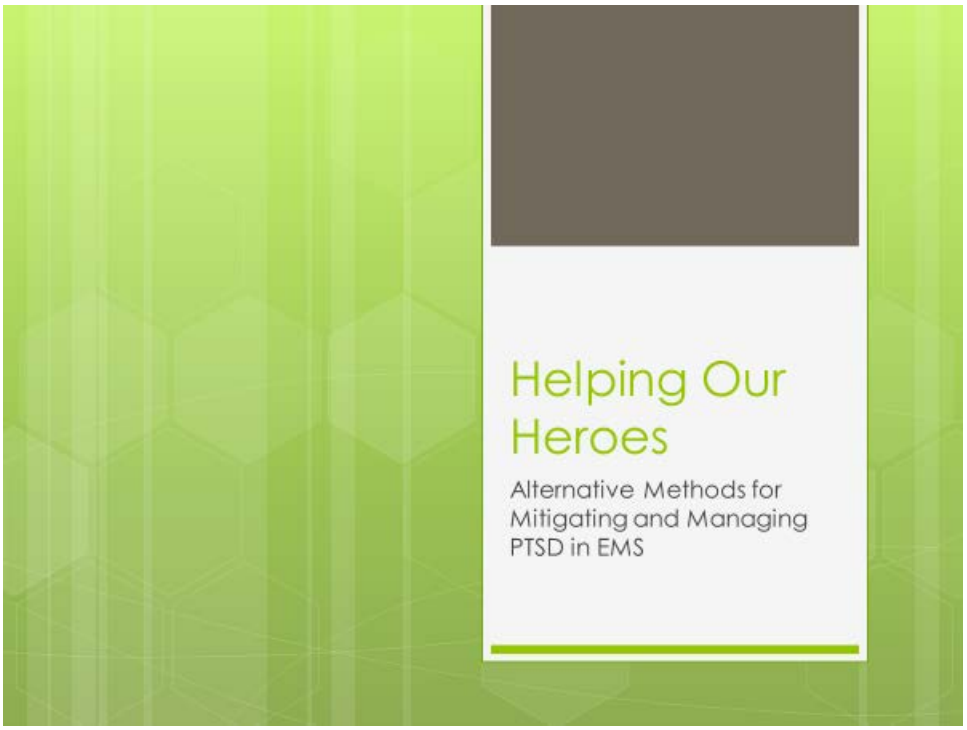
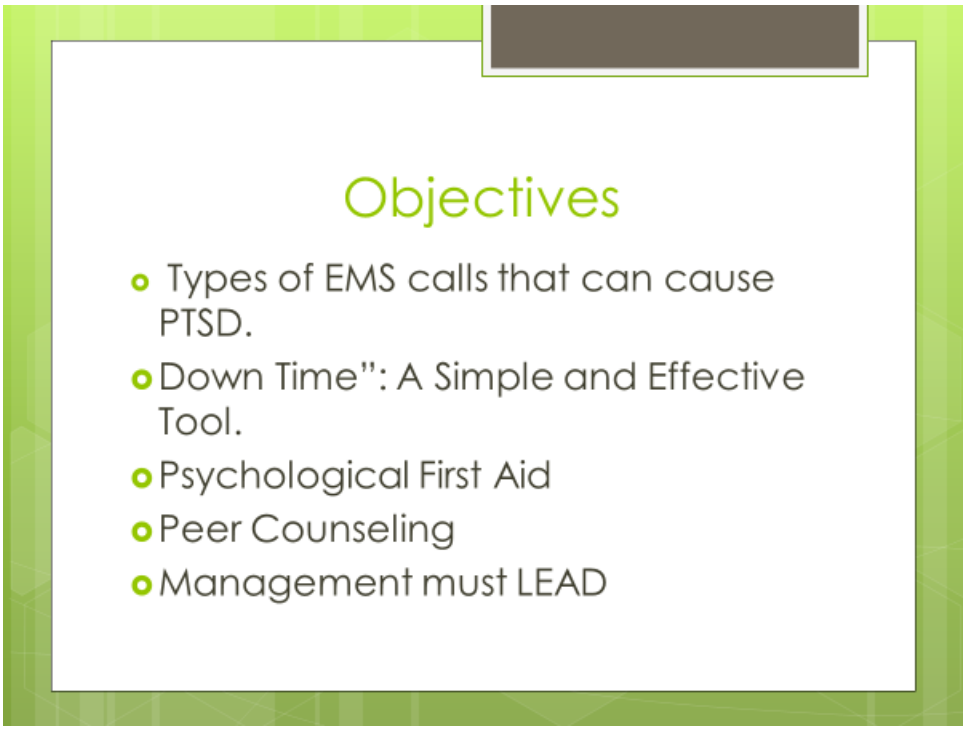
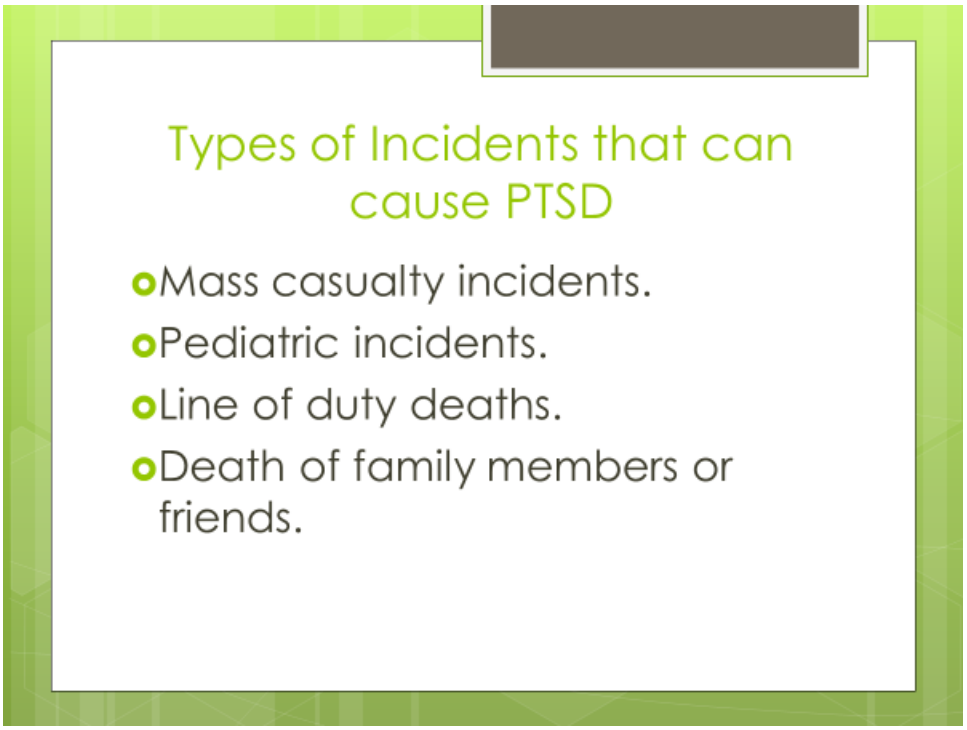
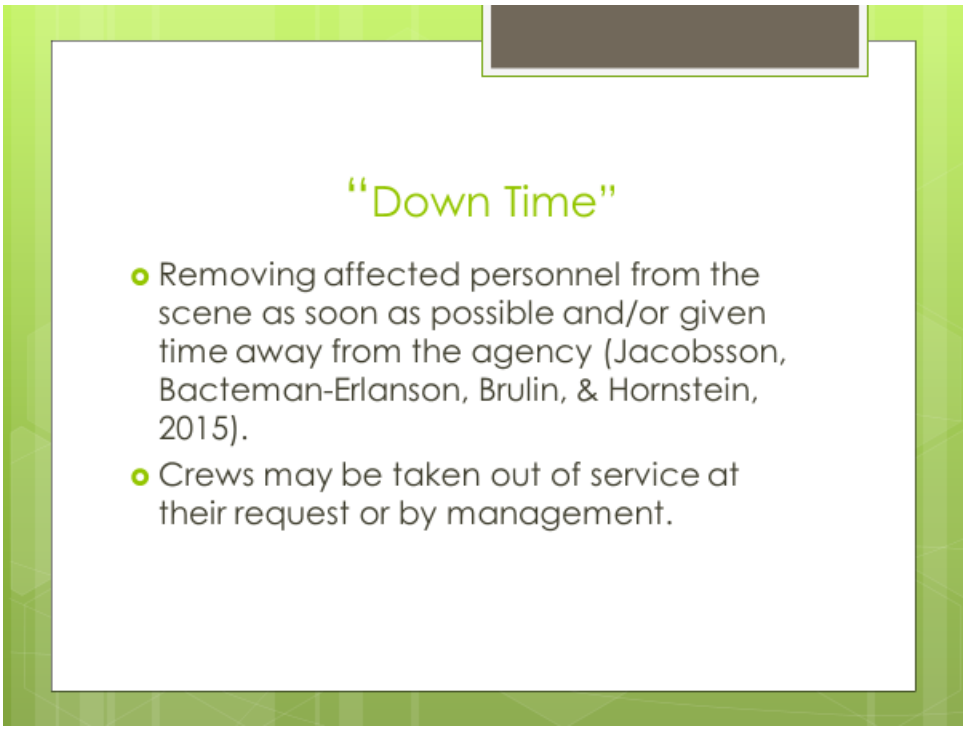
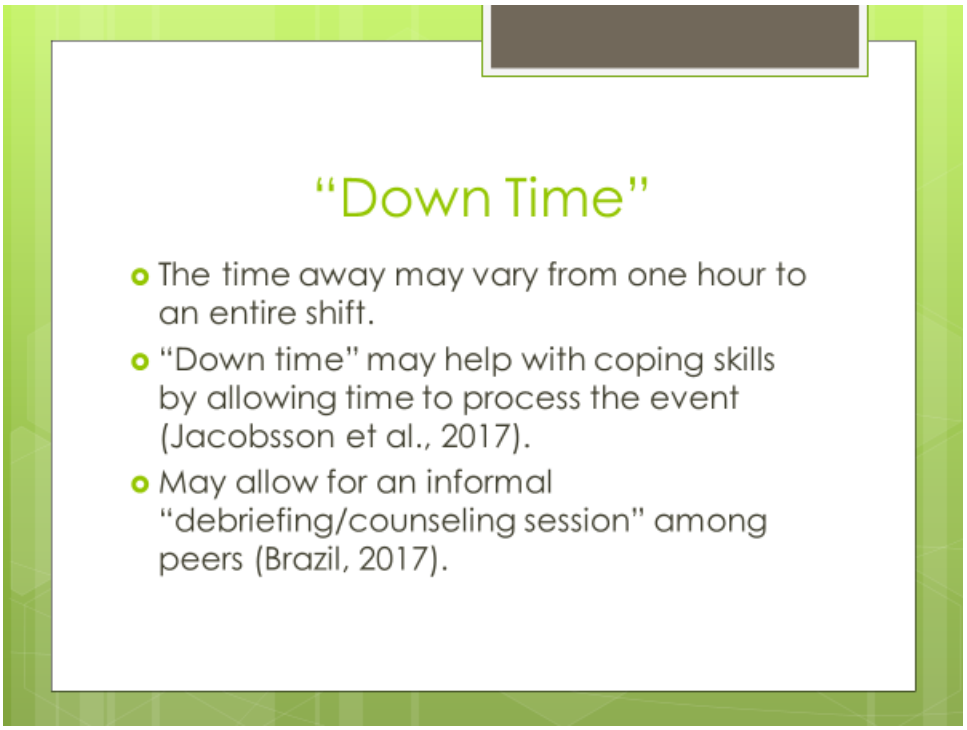
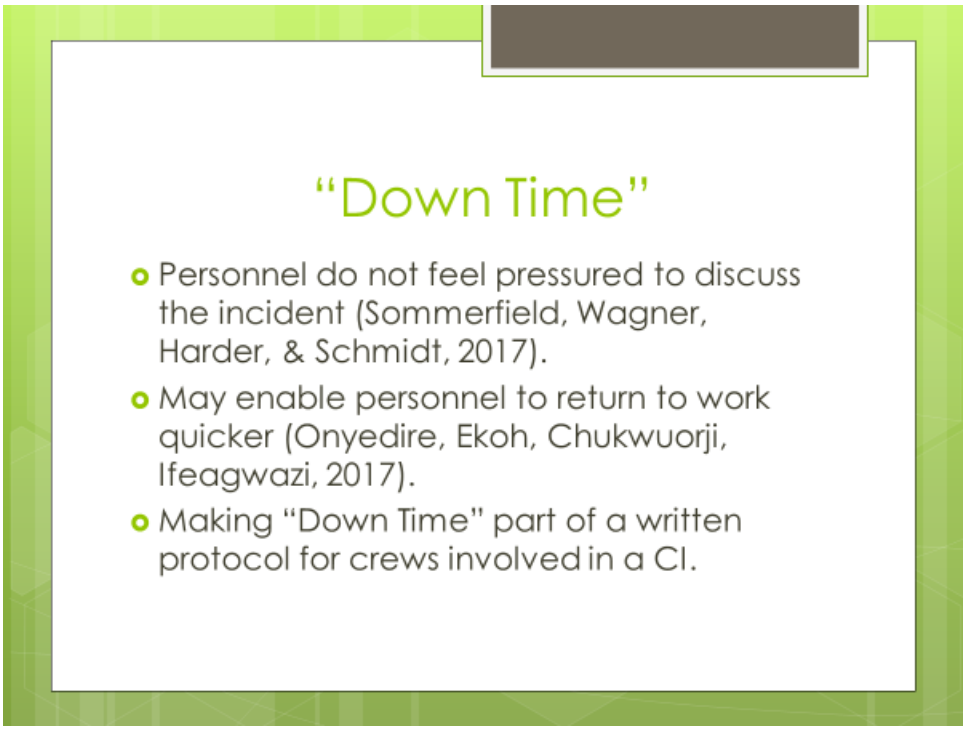

Helping Our Heroes
Alternative Methods for Mitigating and Managing PTSD in EMS

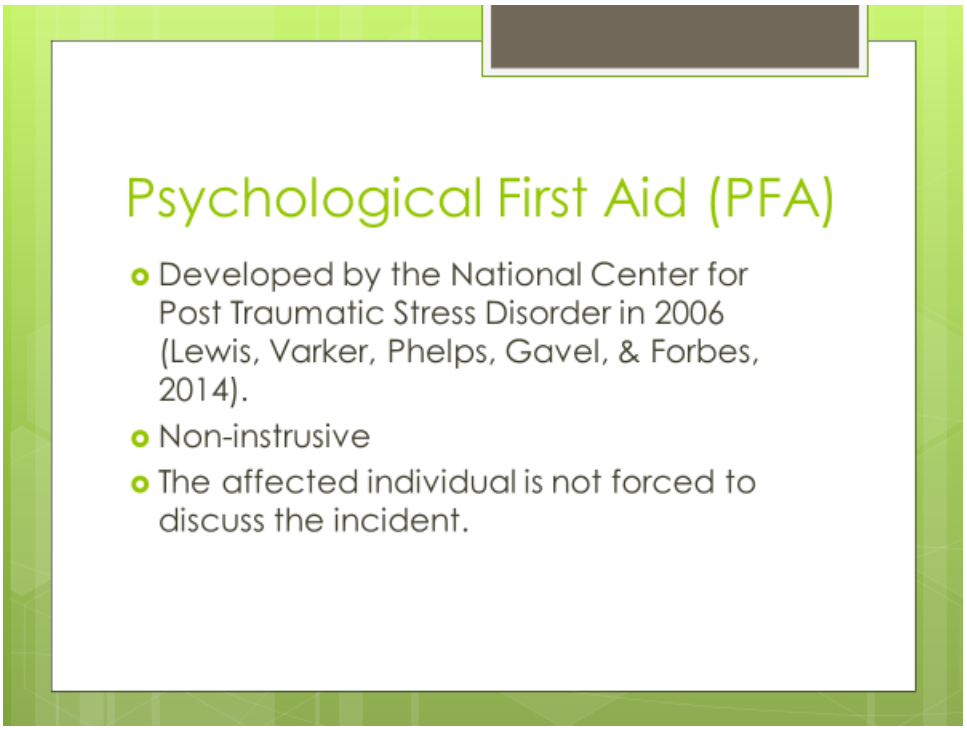

Objectives
Types of EMS calls that can cause PTSD.
Down Time": A Simple and Effective Tool.
Psychological First Aid
Peer Counseling
Management must LEAD

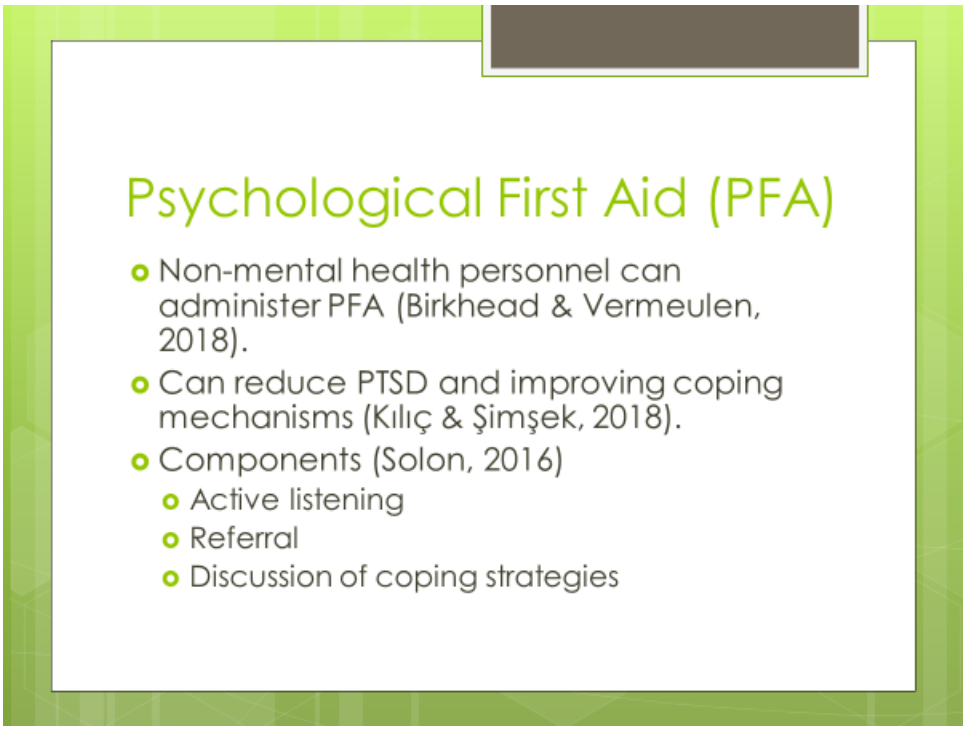

Types of Incidents that can cause PTSD
Mass casualty incidents.
Pediatric incidents.
Line of duty deaths.
Death of family members or friends.

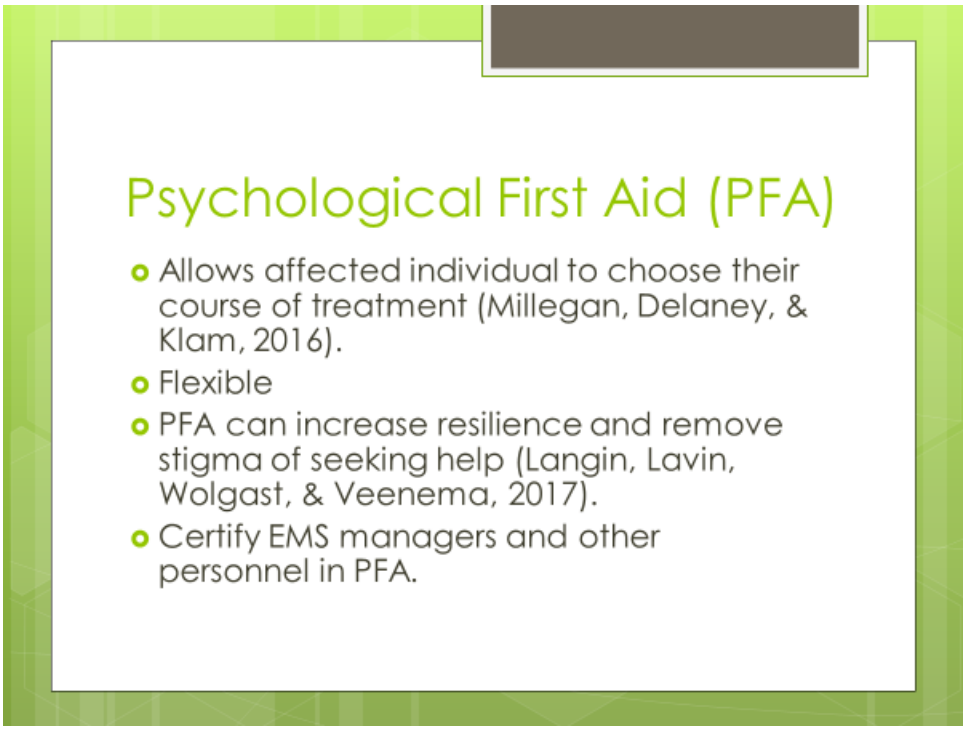

"Down Time"
Removing affected personnel from the scene as soon as possible and/or given time away from the agency (Jacobsson, Bacteman-Erlanson, Brulin, & Hornstein, 2015).
Crews may be taken out of service at their request or by management.

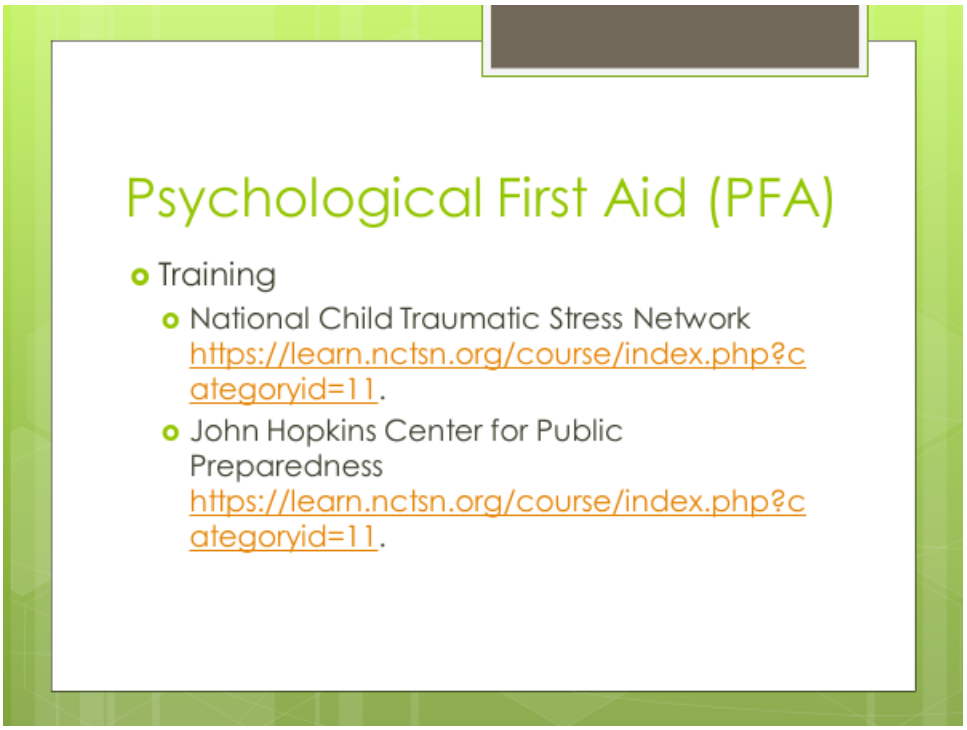

"Down Time"
The time away may vary from one hour to an entire shift.
"Down time" may help with coping skills by allowing time to process the event (Jacobsson et al., 2017).
May allow for an informal "debriefing/counseling session" among peers (Brazil, 2017).


"Down Time"
Personnel do not feel pressured to discuss the incident (Sommerfield, Wagner, Harder, & Schmidt, 2017).
May enable personnel to return to work quicker (Onyedire, Ekoh, Chukwuorji, Ifeagwazi, 2017).
Making "Down Time" part of a written protocol for crews involved in a CI.

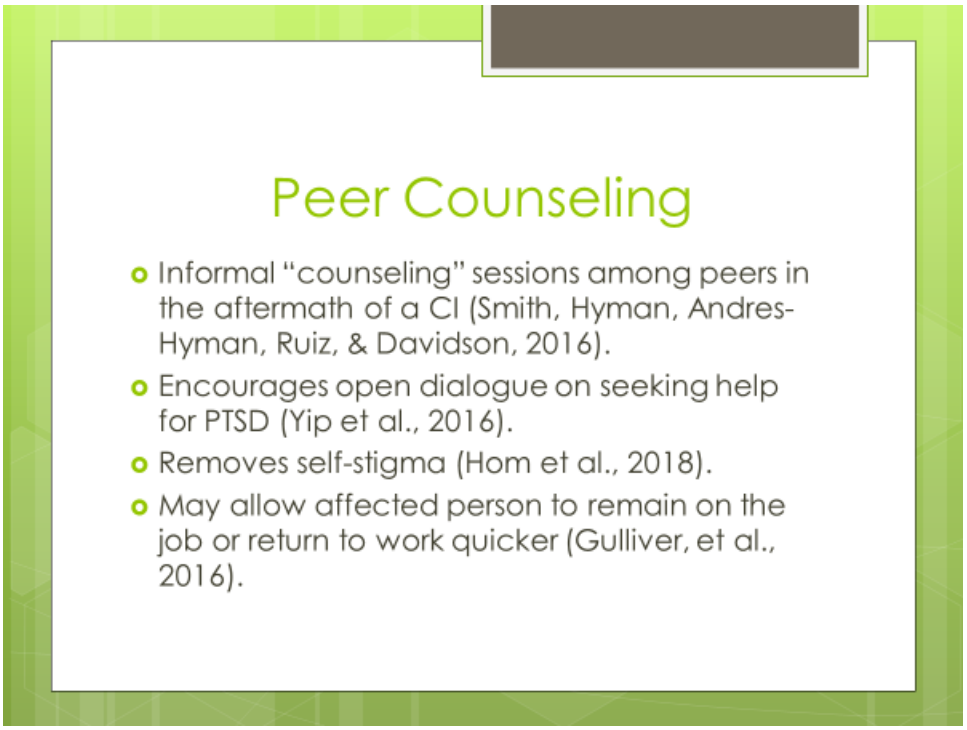

Psychological First Aid (PFA)
Developed by the National Center for Post Traumatic Stress Disorder in 2006 (Lewis, Varker, Phelps, Gavel, & Forbes, 2014).
Non-instrusive
The affected individual is not forced to discuss the incident.


Psychological First Aid (PFA)
Non-mental health personnel can administer PFA (Birkhead & Vermeulen, 2018).
Can reduce PTSD and improving coping mechanisms (Kılıç & Şimşek, 2018).
Components (Solon, 2016)
Active listening
Referral
Discussion of coping strategies


Psychological First Aid (PFA)
Allows affected individual to choose their course of treatment (Millegan, Delaney, & Klam, 2016).
Flexible
PFA can increase resilience and remove stigma of seeking help (Langin, Lavin, Wolgast, & Veenema, 2017).
Certify EMS managers and other personnel in PFA.

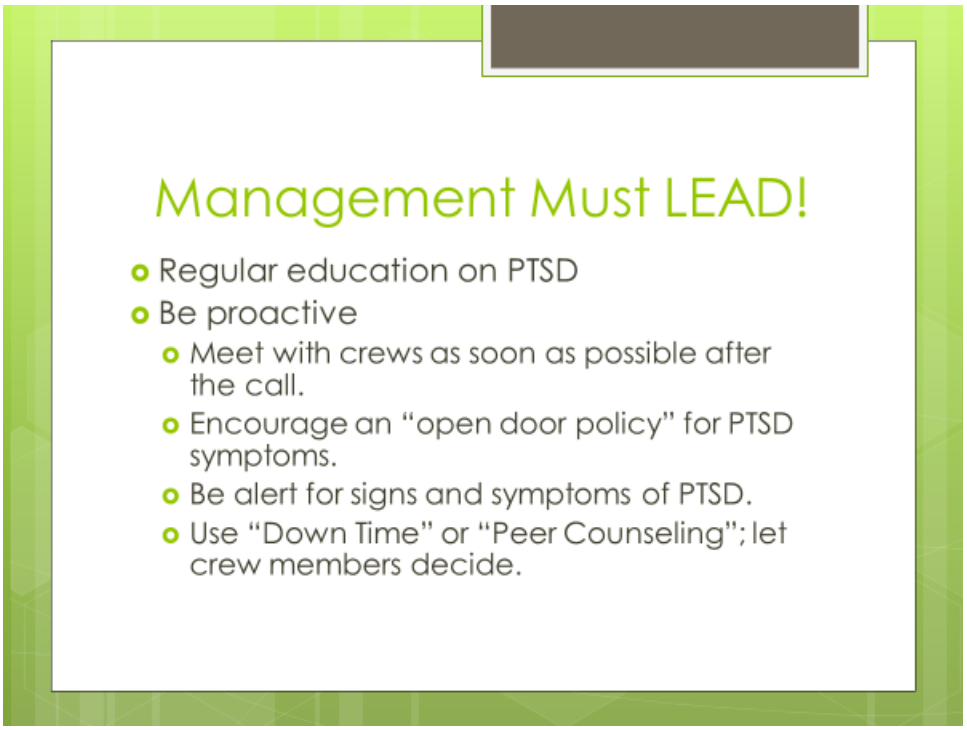

Psychological First Aid (PFA)
Training
National Child Traumatic Stress Network https://learn.nctsn.org/course/index.php?categoryid=11.
John Hopkins Center for Public Preparedness https://learn.nctsn.org/course/index.php?categoryid=11.


Psychological First Aid (PFA)
U.S. Dept. of Veteran's Affairs
https://www.ptsd.va.gov/professional/continuing_ed/psych_firstaid_training.asp.


Peer Counseling
Informal "counseling" sessions among peers in the aftermath of a CI (Smith, Hyman, Andres-Hyman, Ruiz, & Davidson, 2016).
Encourages open dialogue on seeking help for PTSD (Yip et al., 2016).
Removes self-stigma (Hom et al., 2018).
May allow affected person to remain on the job or return to work quicker (Gulliver, et al., 2016).


Management Must LEAD!
EMS Management must take the LEAD.
Develop written policies/protocols on CI exposure.
Using "Down Time".
Peer Counseling.
Referral to Employee Assistance Programs
Become certified in a method (PFA, etc..)


Management Must LEAD!
Discuss the unique needs of EMS professionals with EAP counselors/psychologist
Develop partnerships with local mental health services
Find mental health professionals with experience in counseling first responders.


Management Must LEAD!
Regular education on PTSD
Be proactive
Meet with crews as soon as possible after the call.
Encourage an "open door policy" for PTSD symptoms.
Be alert for signs and symptoms of PTSD.
Use "Down Time" or "Peer Counseling"; let crew members decide.

Questions?


FIRE/RESCUE
THERE'S THIS HEAVY FEELING
IT'S LIKE ALL THE TIME
AND THE FUNNY THING
IS I'M REALLY NOT SURE
WHY?
I FEEL
WORN DOWN
OVERWHELMED
SOMETIMES
IT'S
HARD
TO
THINK CLEARLY
I CAN'T REMEMBER WHEN
I NOTICED THE CHANGE
IT JUST SORT OF BECAME
NORMAL
I GUESS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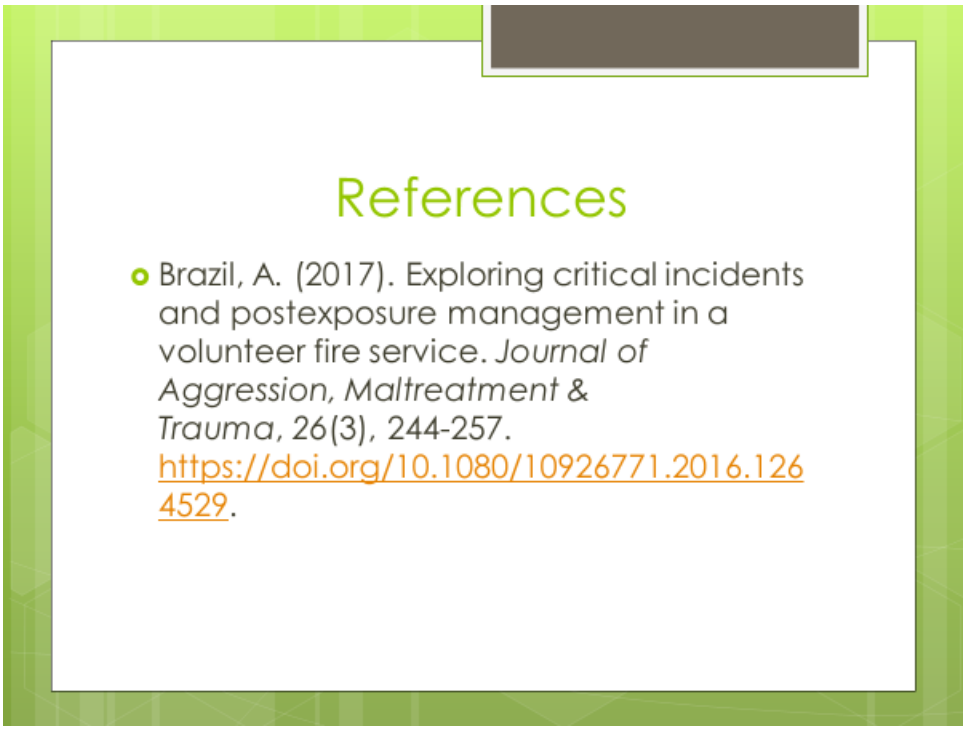
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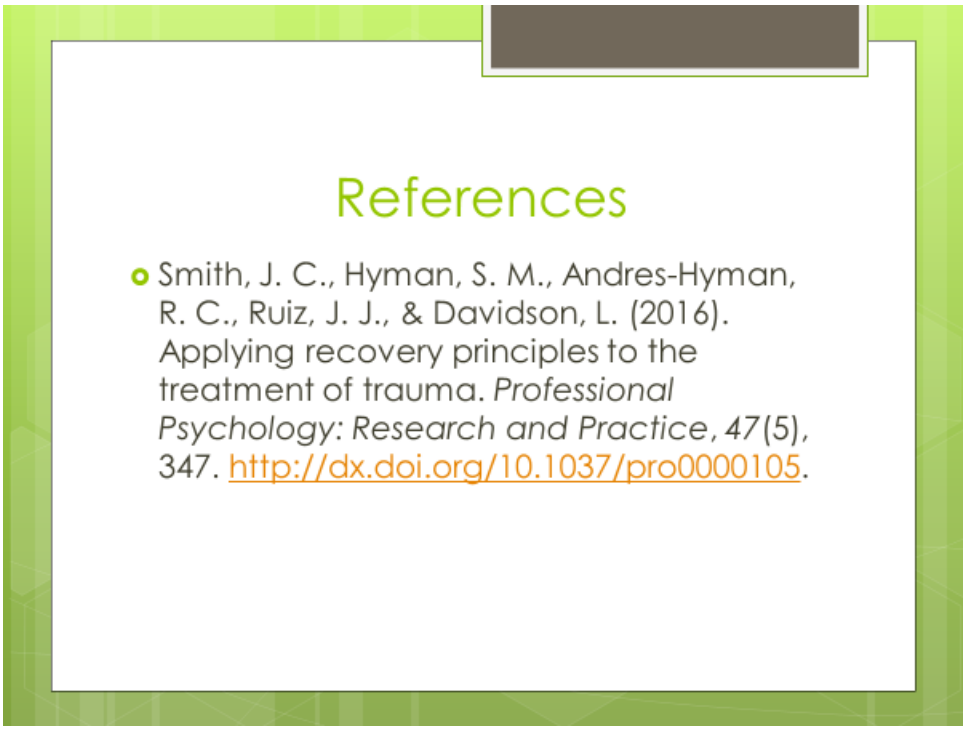
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Appendix D: Interview Guide

1. Tell me about your agency's policy on personnel CI exposure?
2. What kinds of education or training have you or other supervisors received on PTSD?
3. What help do you render in the immediate aftermath to personnel exposed to a CI?
4. Describe the kind of follow-up care affected personnel receive after a CI.
5. Describe an emergency call where personnel were exposed to a CI
6. Did the emergency call affect you as well? How?
7. Describe any changes in behavior you noticed among the affected personnel.
8. Talk about an episode where someone came to you for help in coping with a CI.
9. How can management improve support of personnel who have experienced a critical incident?

Appendix E: Focus Group Guide

1. Tell me about an ambulance call that affected you in a negative way.
2. How did your co-workers and management support you after the call was over?
3. How did you feel after the call was over?
4. Describe your experiences during the first three days after the call.
5. How did the call affect you when you were off duty?
6. What type of support did you receive from friends and family?
7. How did the call affect your next shift?
8. Describe the impact the call had on your job.
9. How did management support you in the first week after the call?
10. Describe how management can improve support of personnel who experience a critical incident?
11. Describe your agency's policy on CI exposure