Saving Our Own:

Mental Health Support After the Traumatic Event

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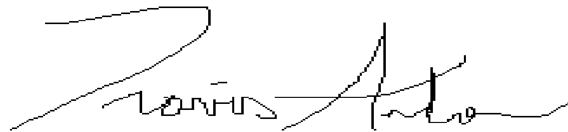
Certification Statement

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.



Signed:____

Travis Anderson

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Abstract

On October 1, 2017, a gunman opened fire on a crowd of concertgoers in Las Vegas, Nevada. As responders arrived, they were met with a flood of gunshot victims pleading for help. The scene was devastating, with 58 fatalities and 546 injured and the emotional toll of disbelief written across the faces of first responders. Weeks removed from that horrible incident, it was evident that the mental health of those that responded would need to be addressed. The problem was the North Las Vegas Fire Department (NLVFD) does not have a comprehensive plan to provide mental health support for employees following a traumatic event. The purpose of this applied research project was to identify best practices to provide mental health support for first responders following a traumatic event. The descriptive method of research was utilized to assemble and analyze information to answer the following questions: a) What are the effects of stress on first responders following a traumatic event? b) What types of events are most likely to predispose a member to mental health issues? c) How are other agencies addressing mental health concerns of their members? d) What are the current resources available to NLVFD to address mental health concerns of their members? Literature review was completed, interviews were conducted, and questionnaires were distributed, the results of which detailed the importance of supporting mental health after a traumatic event. The fire service's common practice of critical incident stress debriefing was identified as ineffective, while the power of peer support was praised. Final recommendations were to further develop a peer support team, develop a mental health policy, incorporate training into rookie and officer schools, incorporate operational briefings, and have members audit Stress First Aid and Psychological First Aid programs to determine which would be the most beneficial to the department.

Saving Our Own: Mental Health Support After the Traumatic Event

On October 1, 2017, a gunman opened fire on a crowd of concertgoers in Las Vegas, Nevada. First responders, including the author of this applied research paper, were called to this incident to treat and transport the wounded, as well as mitigate the incident. As first responders arrived, they were greeted with a flood of gunshot victims pleading for help. The injured significantly outnumbered the initial surge of first responders, which resulted in stressful decisions that they were forced to make. Rescue task forces made up of police and firefighters were assembled and searched the concert grounds for any survivors. The grounds were littered with personal belongings as concertgoers fled the war zone. Cell phones lying adjacent to their deceased owner would continue to light up the scene as loved ones frantically searched to see if their loved one was safe. The scene was devastating, with 58 fatalities and 546 injured, this became the deadliest mass shooting in modern United States history.

The author of this paper was part of the command structure running the South Branch, which included Mandalay Bay Hotel and Casino as well as the concert grounds where the deceased rested. The Southern Nevada Hostile Mass Casualty Plan was followed, requiring fire personnel to place their ballistic gear on and integrate with police to form rescue task forces. This would be the first significant incident requiring firefighters to don such gear and enter areas that were typically reserved for law enforcement. This would also be the first time the majority of these firefighters would witness such carnage. The author quickly noted the emotional toll endured by the first responders of this incident: their facial expressions of disbelief and sorrow are something that will be forever etched in the author's memory.

Two weeks removed from that horrible incident, it is evident that the mental health of those that responded is something that will need to be continually addressed. The federal

government concurred and pledged millions to support the mental health of first responders that helped mitigate the incident. The problem is the North Las Vegas Fire Department (NLVFD) does not have a comprehensive plan to provide mental health support for employees following a traumatic event. The purpose of this applied research project is to identify best practices to provide mental health support for first responders following a traumatic event. The descriptive method of research will be utilized to assemble and analyze information to answer the following questions: a) What are the short and long-term effects of stress on first responders following a traumatic event? b) What types of traumatic events are most likely to predispose a member to mental health issues? c) How are other local, state, and federal agencies addressing the mental health concerns of their members following a traumatic event? d) What are the current resources available to NLVFD to address mental health concerns of their members following a traumatic event?

Background and Significance

The city of North Las Vegas is located in southern Nevada and stretches 101.4 square miles. North Las Vegas has consistently been one of the fastest growing cities with a population of 234,807 in 2015 (United States Census, 2016). North Las Vegas is primarily dense residential but has seen tremendous commercial growth with businesses such as Amazon, Fanatics, and Hyperloop taking up residency. North Las Vegas provides its own fire department to deliver fire and medical services to their residents and visitors; their mission is to provide dedicated emergency and community services in a professional manner.

NLVFD is an all-hazard organization that responds to fires, emergency medical service calls, active shooter incidents, technical rescues, hazardous material incidents, and natural or human-made disasters, and was an original member of Southern Nevada Fire Operations

maintaining automatic aid agreements with the city of Las Vegas Fire and Rescue and Clark County Fire Department. NLVFD operates out of an administration building as well as eight fire stations strategically placed throughout the city, with suppression personnel working 48/96-hour schedules divided into two battalions and three platoons.

Firefighting has consistently ranked as one of the most dangerous and stressful occupations in the world, with firefighters routinely placing themselves in harm's way to render aid to those in need. They are exposed to some of the most heartbreaking and horrendous scenes one can see and the psychological stress and emotional toll from these traumatic events are often unbearable for first responders. It should be no surprise that firefighters are at an increased risk of mental health disorders. According to Steinkopf, Klinoff, Hasselt, Leduc, and Couwels (2016), firefighters have been found to have a higher rate of psychiatric symptoms such as anxiety, depression, alcohol abuse, sleep disturbances, and post traumatic stress disorders (PTSD). Tiesman et al. (2015) found that firefighters have one of the highest rates of suicide. Sadly, reports from the Firefighter Behavioral Health Alliance have identified a steady increase each year in the number of firefighters that take their own life.

Each year NLVFD responds to over 30,000 calls for service, exposing their members to some of the most traumatic scenes, which can be detrimental to their mental wellbeing. Incidents such as a house fire on December 1, 2017, where North Las Vegas firefighters arrived to find grandma, grandpa, and a small child still in the house. Firefighters successfully extracted the victims, revived them, and then watched them succumb to their injuries within several hours. After each significant event, the department has struggled in identifying the best course of action to render mental health support. The recent mass shooting in Las Vegas, which several members were attending and others responded to help mitigate the incident, has brought this problem to

the forefront. Clinical psychologist Broder and Kirschman (as cited in Mohney, 2017), who specialize in treating first responders, warned that Las Vegas's first responders face a significant risk of acute stress responses as well as developing PTSD. Researchers Nordboe, Kantor, Barker, Ware, and Armistead (2007), found that first responders from past mass-casualty events such as Columbine High School shootings, 9/11, and the Oklahoma City bombing had a much higher risk of mental health issues. They also determined that many of those suffering were reluctant to seek help and waited over five years before beginning treatment.

Over the past decade, the fire service has proactively addressed firefighter health and safety. In 2004, the Firefighter Life Safety Summit was held in Tampa, Florida to address the need for change within the fire service. Through this meeting, 16 life safety initiatives were created to improve the health and wellness of firefighters as well as reduce the number of line of duty deaths. Initiative 13 was specifically established to address the mental stresses firefighters face on a daily basis; it states, "Firefighters and their families must have access to counseling and psychological support" (National Fallen Firefighter, 2016). If NLVFD is to live up to this initiative, they must identify those resources as well as the best practices to follow for providing them to their members.

As NLVFD has attempted to address mental health support after the traumatic event, they have encountered conflicting information on best practices. Historically, the fire service has used the critical incident stress management (CISM) model, which included a key component called critical incident stress debriefing (CISD). Many have argued that CISD does not help and could potentially pose more harm. Others have argued that CISM still has a place in the fire service and should not be discarded. Additionally, other theories of psychological interventions have been proposed such as psychological first aid (PFA) and trauma-focused cognitive

behavioral therapy (Gartlehner et al., 2013). In the wake of the Las Vegas shooting, the NLVFD can no longer afford to put this problem on the back burner. They must immediately address this issue and identify best practices in support of their members following a traumatic event.

This applied research project will identify best practices to provide mental health support for first responders following a traumatic event. It is directly linked to goal three of the United States Fire Administration (2015a), whose mission "is to provide national leadership to foster a solid foundation for our fire and emergency services stakeholders in prevention, preparedness and response." Goal three, "Enhance the Fire and Emergency Services' Capability for Response to and Recovery From All Hazards." Specifically key initiative number three states "Promote a culture of health, wellness, and behavior that enhances first responder safety and survival" (p.12).

This project also relates to the Executive Leadership course, which is part of the National Fire Academy's Executive Fire Officer Program. Unit eight discusses adaptive challenges as well as the art of influence and persuasion, where, it states, "Adaptive challenges don't usually come with defined solutions, and often there will be times when you don't know what direction to take or what to do to move forward." NLVFD finds themselves facing this adaptive challenge, and with the recent shootings, the consequences could not be greater. The Executive Leadership manual goes on to state, "Adaptive challenges may require people to alter their assumptions, use different methods than they normally use, and develop new tools and behaviors" (2015b, p. 5). This applied research paper's purpose is to identify the best methods out there to assist NLVFD in developing new tools and behaviors to take care of their personnel.

Literature Review

Traumatic incidents, like the Route 91 shooting in Las Vegas, can be a destructive force in a firefighter's career and life. According to Sivak (2016), firefighters were statistically more likely to take their own lives than die in the line of duty. She identified that in 2014, there were 87 line-of-duty deaths compared to 108 suicides. Sivak contributed this harsh statistic to the psychological stresses firefighters face on the job, and stated research by CareerCast had placed firefighting on top of the list of the 200 most stressful occupations.

Psychological trauma was defined as "a person's physical and psychological response to experiencing, witnessing, or being confronted with an event that involved actual or threatened death, serious injury, or threats of bodily harm to self or others" (Flannery, 2012). Unchecked, this distress could eventually overwhelm a firefighter both mentally and physically. According to Castleman (2016), it would tax the firefighter's capacity to cope, leaving them exhausted, depressed, and helpless; eventually, it would be detrimental to their personality, health, relationships, and professional career.

Research conducted by Benedek, Fullerton, and Ursano (2007) found that people would fall into one of three categories following a traumatic event. Most would experience mild, transient distress such as fear, anger, sadness, sleep disturbances, and increase use of alcohol, which they stated this group might benefit from psychological support. A small percentage would experience moderate symptoms, which could include persistent insomnia and anxiety and they reported this group would likely benefit from psychological and medical intervention. Lastly, a small subgroup would likely develop psychiatric issues such as PTSD or major depression, which they stated would require specialized treatment. Benedek, Fullerton, and

Ursano went on to state that the general PTSD rate for firefighters following a major disaster is 13 – 18 percent.

Several studies conducted on firefighters following a large-scale traumatic event aligned with the above findings. Research following the Oklahoma City bombing identified that 38 percent of the firefighters who responded met psychiatric criteria, which ranged from alcohol dependence to PTSD. A similar study following the 9/11 World Trade Center disaster identified that 12 percent of the firefighters that responded had symptoms of PTSD two years removed from the incident (Gulliver et al., 2016). Like the firefighters from Oklahoma and New York, Dr. Kirshman (as cited in Mohney, 2017) warned that many of the Las Vegas first responders would be at risk for acute stress responses as well as PTSD following the shooting.

Given the information so far, it should not be a surprise that a study conducted by Florida State University, in partnership with the National Fallen Firefighter Foundation (NFFF), found that 50 percent of the 1,000 firefighter respondents reported they had suicidal thoughts at some point during their career, with 15 percent identifying that they had attempted suicide one or more times (Sivak, 2016). A similar study commissioned by the University of Phoenix (2017) this past year found 84 percent of the 2,000 respondents reported they experienced a traumatic event on the job. Additionally, 34 percent of those respondents reported they had been formally diagnosed with a mental health disorder such as depression or PTSD.

To turn the tide on the above stats, experts argued the fire service must take a proactive approach. History has demonstrated that the majority of firefighters will not seek help, even when they are struggling with significant mental health issues. The study conducted by University of Phoenix (2017) found the majority of first responders were not using the mental health resources available to them and cited the stigmas associated with using the services while

on the job as the deterrent. Sadly, a culture of being tough has been created, where firefighters have been conditioned from day one that they must be strong, keep things to themselves, and that asking for help shows weakness.

Because of that culture, many have contended the fire service should activate their resources to evaluate the mental health of their personnel on pre-identified incident types. According to Dr. Adler-Tapia (2014), “The perception of any event varies depending on the individual, but any event with sufficient impact to produce significant emotional reactions in the present or future may need to be reprocessed” (p. 349). He went on to state that critical incidents are extremely unusual in the range of ordinary human experiences such as a line of duty death, the death of a child, multiple fatalities or seriously injured survivors, natural disasters, grotesque injuries, acts of terrorism, and acts of extreme violence.

Moseley (2017) gave a similar description stating critical incident stress is “a normal reaction by a normal person to an abnormal situation” (p. 26). He goes on to argue the normal of a firefighter is not the same as that of a layperson’s; however, extreme factors can increase the odds of developing critical-incident stress such as the involvement of a child, knowing the victim, injury or death of a co-worker, mass casualties, or an injury causing severe disfigurement.

The fire service identified the need to address critical incident stress over 30 years ago. CISD was developed by Jeffrey T. Mitchell, Ph.D. in 1974 and was introduced to the fire service through an article in the *Journal of Emergency Medical Services* in 1983. CISD was designed as a group-processing technique where small groups of paramedics, firefighters, and police officers met with a facilitator to discuss their feeling and reactions to a traumatic event. Experts soon realized that a more inclusive approach was needed to address and prevent mental health issues

bringing about the birth of CISM. "CISM is described as a multicomponent intervention system consisting of a variety of interventions cobbled together from various popularized approaches to self-help, information and referral, and related domains" (Jahnke, Gist, Poston, & Haddock, 2014, p. 114).

CISM, or the "Mitchell Model" as it came to be known, was publicized as an effective intervention to mitigate or prevent mental health disorders and related negative outcomes; however, the effectiveness of CISM is unclear at best. With the exception of its key component, CISD, the rest of the individual components have not been exposed to rigorous study. Both CISD and CISM were widely accepted by the first responder community and had become the standard in addressing mental health concerns following a traumatic event (Jahnke, Gist, Poston, & Haddock, 2014).

Researchers recently argued that years of empirical evidence on CISD/CISM had been mixed at best. Most studies have found the methods to make no difference concerning outcomes, while some determined the processes involved do more harm than good. According to Jahnke, Gist, Poston, and Haddock (2014), a study of 264 debriefed firefighters and 396 non-debriefed firefighters demonstrated no significant differences between the rate of anxiety, depression, or PTSD. They also reported on another study conducted by researchers Carlier, Voerman, and Gerson, which identified that trauma-exposed police officers who received a debriefing had higher rates of posttraumatic symptoms the following week compared to the non-CISD treated group.

Tobia (2015) argued the problem with CISM was it used a broad brush to address the needs of all first responders. He reported that after a traumatic event first responders would convene in a room and discuss their observations and how they felt, in the hopes of reducing the

internalization of emotions that could lead to long-lasting mental health disorders. This had the harmful effect of exposing fellow responders to stress they did not witness directly, as they watched the incident play out through another responder's experience, resulting in many first responders reporting they felt worse after the debriefing.

The track record for individual debriefings has not faired any better. Rose, Bisson, Churchill, and Wessely (2002) concluded in their research, that individual debriefings did not reduce psychological distress nor prevent PTSD compared to the control group. In fact, at the one-year mark, the risk of PTSD was significantly higher for the trial group that received a debriefing compared to the control group. Professor Neyan, head of PTSD research at the San Francisco Veterans Administration Medical Center, agreed with the previous findings arguing that psychological debriefing immediately after a traumatic event is more likely to do more harm than good and stated it is better not to dwell on the event (as cited in University California, 2010).

Because of growing concerns with CISD, experts have examined other techniques to support the mental health of first responders following a traumatic event. An emerging method, Psychological First Aid (PFA), was originally designed to address the psychological needs of the community after a disaster. PFA was jointly developed by the National Center for Child Trauma Stress Network and the National Center for PTSD and became a federal guideline with its inclusion into the 2008 National Response Framework (Uhernik & Husson, 2009). According to their manual *Field Operations Guide for Psychological First Aid*,

> Psychological First Aid is an evidence-informed modular approach to help children, adolescents, adults, and families in the immediate aftermath of disaster and terrorism. Psychological First Aid is designed to reduce the initial distress caused by traumatic

events and to foster short- and long-term adaptive functioning and coping (National Center for PTSD, 2006)

The manual also identified that PFA could be utilized to assist first responders with their needs following a disaster. Phillips and Kane (2006) agreed, declaring PFA as a best practice for first responders following a disaster. The military also identified the strengths of PFA and adopted it into their course *Coping with Deployment: Psychological First Aid for Military Families* (Uhernik & Husson, 2009).

The PFA field guide identified a set of eight interventions that should be used to support first responders, and discouraged the use of "debriefing" responders by asking what they experienced. Those eight interventions and key goals include:

1. *Contact and Engagement.* Goal: To respond to contacts initiated by survivors, or to initiate contacts in a non- intrusive, compassionate, and helpful manner.
2. *Safety and Comfort.* Goal: To enhance immediate and ongoing safety, and provide physical and emotional comfort.
3. *Stabilization (if needed).* Goal: To calm and orient emotionally overwhelmed or disoriented survivors.
4. *Information Gathering: Current Needs and Concerns.* Goal: To identify immediate needs and concerns, gather additional information, and tailor Psychological First Aid interventions.
5. *Practical Assistance.* Goal: To offer practical help to survivors in addressing immediate needs and concerns.

6. *Connection with Social Supports*. Goal: To help establish brief or ongoing contacts with primary support persons and other sources of support, including family members, friends, and community helping resources.
7. *Information on Coping.* Goal: To provide information about stress reactions and coping to reduce distress and promote adaptive functioning.
8. *Linkage with Collaborative Services.* Goal: To link survivors with available services needed at the time or in the future (National Center for PTSD, 2006).

Another potential tool to help minimize behavioral health issues following a traumatic event would be to conduct a technical or operational briefing, which National Center for PTSD identified as a regular and formal part of an organizational response to a disaster. They further recognized that mental-health workers had acknowledged it as a suitable practice that may help survivors garner an overall sense of meaning and a degree of closure (United States Department of Veterans, n.d.). Clay (2013), a board member on the NFFF, concluded in her research that operational debriefings were an effective way to address mental stress after a traumatic event. She argued it gave personnel an opportunity to identify what went well and what needed to be improved. It also provided responders a "time out" giving them a time of reflection and an opportunity to put the pieces together.

The United Kingdom's military came to the same conclusion and abandoned the CISD concept, requiring their officers to transition to operational debriefings. Harrison, Sharpley, and Greenberg (2008), stated the military's operational debriefings were not a psychological intervention, nor are they designed for personnel to vent their feelings. However, they argued research had identified many positive psychological elements to operational briefings, as

personnel want to know their experiences mattered and it was a perfect opportunity to improve the plan for future incidents.

Stress First Aid (SFA) was a new behavioral health program created by the NFFF in 2013. It was created to help fire departments care for their personnel in times of acute distress following a traumatic incident like the shooting massacre recently witnessed in Las Vegas or a department line-of-duty death. NFFF derived their program from the military's Combat and Operational Stress First Aid program. According to Dr. Watson (as cited in Carey, 2013), the U.S. military, specifically the Marine Corps, completed significant research in the development of their program in regards to social stigmas concerning stress, how to cope with stress, and the distinction between bending and breaking with stress. According to the NFFF, SFA was a system that emphasized the importance of constantly monitoring the stress of firefighters and to quickly identify and appropriately help personnel who were reacting to stress and were in need of interventions to foster healing. The system employed seven steps to reduce the risk of more severe stress reactions: Check, Coordinate, Cover, Calm, Connect, Competence, and Confidence (NFFF, n.d.).

Another key element developed by the NFFF to assist organizations following a traumatic event was the Trauma Screening Questionnaire (TSQ). The TSQ consists of ten easy to answer questions concerning recent symptoms following a traumatic event. NFFF recommended waiting three to four weeks after the event to allow time for normal recovery to take place. The TSQ was not a formal diagnosis of psychological impairment and just identifies an issue that may need more attention. According to Carey (2013) "It is a tool for dealing with stress- part of the bridge to a solution, not the solution itself" (p. 3). If the employee answered

yes to more than six questions, then a complete screening by a competent behavioral health professional was indicated.

The rise in suicides and mental health issues across the country prompted fire departments to take action, with a recent trend being implementation of peer-support teams and improved access to licensed mental health resources. The Professional Firefighter of Utah as well as the state of Washington took a unique approach and created their crisis hotlines for first responders. These 24-hour hotlines provided first responders direct and confidential access to their peers who have been trained in behavioral health issues (Morrison, 2015).

Phoenix Fire Department created a 48-person peer support team shortly after four of their members took their own lives. This gave their personnel 24-hour confidential access to members of their peer support team. In addition, Phoenix Fire Department also created the Firestrong wellness program, which provided online resources to their members about PTSD and other related behavioral health concerns. The Fire Departments of New York City (FDNY) and Chicago also created their own unique peer support teams. FDNY established a Counseling Service Unit to provide peer support for substance abuse and other behavioral health issues. Their goal was to change the culture in their organization by teaching recruits in the academy that it was okay to ask for help. Chicago Fire Department created their Gatekeepers Peer Support Network, which was strictly confidential and members of the team wore a special patch on their uniform to identify themselves to their peers (Morrison, 2015).

A few organizations have added professional resources to their peer support teams. Spokane Fire Department added the expertise of a psychologist with training in trauma and first responders. Denver Fire Department utilized assistance from an organization that specializes in suicide awareness and prevention for men. Austin Fire Department adopted a more inclusive

approach, combining forces with a staff psychologist, a chaplain program, as well as the Austin-Travis County EMS peer-support team (Sivak, 2016).

With the new presumptive laws in Canada, several fire departments there have started tracking traumatic incidents to identify members who could be suffering from acute stress. Lakeland, Greenview, and Ladysmith Fire Rescue have all implemented a traumatic-incident exposure tracking system. According to Lakeland Chief McShannock (as cited in Jasper, 2017), it was a simple form for their members to fill out, which helped officers understand how incidents have impacted their crews and what help may be required. He stated,

> Not only is it tracking at-risk incidents, but it also keeps the communication lines open with those who may need to talk. We implemented the form on a one-year trial basis, but almost immediately we noticed a marked increase in open discussion following a traumatic event (p. 10).

Ladysmith Fire Rescue Chief concurred with Chief McShannock stating the form was a catalyst for discussion about mental health. Both chiefs remarked that the key component of the tracking form was the final question, which asked the member if they would like to talk to someone about the incident (Jasper, 2017).

With the rash of wars in the Middle East, the United States military faced an epidemic of soldiers returning home with mental health issues. As a result, the military has been on the forefront of research to address mental health and stress from traumatic events. The Air Force implemented a program called Deployment Anxiety Reduction Training (DART) to tame the initial stress reaction to combat trauma. Neylan, McCasin-Rodrigo, and Choucroun, developers of DART, argued while some stress is good, “the experience of extreme stress in the immediate aftermath of such a traumatic event may cause it to live on in the mind in especially vivid

fashion, and this can elevate the risk of developing PTSD" (as cited in University of California, 2010, p.1). They went on to discuss that the information and exercises are easy to deploy in the field, which would allow soldiers to complete the training within hours of experiencing a traumatic event.

The Army took a different approach and incorporated the use of Combat Stress Control teams, which consisted of a psychiatrist, social worker, and two mental health specialists per team. The teams were tasked with prevention activities as well as providing debriefings after a traumatic event. Each team was trained in coaching techniques, motivational interviewing, PFA, resilience skills, management of combat and operational stress reactions, and cognitive-behavioral techniques for managing PTSD. They were tasked to work with individual soldiers instructing them about stress and anger management, reintegration tips, and suicide. Additionally, the Army implemented a resilience program, formerly known as Battlemind, designed to combat stress by teaching self-confidence and mental toughness (University of California, 2010).

Throughout the literature review, it became evident that psychological issues were and will continue to be a major challenge that the fire service must address. Historically, the fire service addressed acute stress through CISD. However, the literature review identified that at best CISD is non-effective and could be even harmful to the first responder. As a new approach, many fire departments implemented a peer support team or partnered with behavioral healthcare professionals. Some organizations even started tracking critical stress exposures to their personnel, which they stated had the added benefit of increasing dialogue about behavioral health. Two highly recommended programs to replace CISD for acute stress were PFA and SFA.

The Army's approach to addressing acute stress and PTSD was the development of their Combat Stress Control teams, which were made up of trained behavioral health experts. The Air Force's approach was one of self-care through a program called DART, which could be implemented in the field. The literature review also created more interest in learning what type of training fire department peer teams received and how they are utilized after a critical incident. The author was unable to locate any fire department policies that answered those questions, which will require further research through a questionnaire. The author was also interested in knowing how many departments have adopted either PFA or SFA and their experiences with the program. Lastly, the literature review created more interest in interviewing military healthcare personnel to discuss the different programs they used for addressing acute stress.

Procedures

The purpose of this descriptive applied research project was to identify best practices to provide mental health support for first responders following a traumatic event. More precisely, to answer the following four research questions: a) What are the short and long-term effects of stress on first responders following a traumatic event? b) What types of traumatic events are most likely to predispose a member to mental health issues? c) How are other local, state, and federal agencies addressing the mental health concerns of their members following a traumatic event? d) What are the current resources available to NLVFD to address mental health concerns of their members following a traumatic event? The strategy to acquire efficient, yet credible, data to answer the above mentioned questions resulted in research being conducted through three different methods: literature review, interviews, and questionnaires.

The literature review commenced on October 14, 2017, at the Learning Resource Center on the National Fire Academy campus, with a search of their online catalog system for material

on the subjects of mental health support for first responders, PTSD, and critical incident stress. Those same topics were searched on the World Wide Web, utilizing the search engines Google and Google Scholar, which resulted in an abundance of published articles, allowing the author to look at the topic from an interdisciplinary perspective and obtain some of the most current information. The literature review was utilized to help develop questionnaires as well as assist in answering questions a, b, and c of this applied research project.

Interviews with a military behavioral health specialist as well as a brigade commander, were conducted to address research questions a, b, and c. The behavioral health specialist, Kathy Kron out of Fort Sam Houston, was selected because she oversees the mental health units assigned to Fort Sam Houston and has extensive knowledge and experience dealing with military personnel and traumatic events. United States Army Brigade Commander Colonel Parker was also interviewed to provide insight on how the military is addressing challenges of mental health in the military. Colonel Parker provided a unique vantage point as she is entrusted with the health and well being of her entire brigade.

The author interviewed Kathy Kron and Colonel Parker separately on November 17, 2017. The author provided both subject matter experts the questions via email on November 14, 2017, to review and prepare for the interview. A final interview was conducted on November 22, 2017, with NLVFD Captain Dennis McLane to help answer research question d. Within the last year, Captain McLane was tasked with establishing and organizing a Peer Support Team to help address behavioral health issues within the NLVFD. Each interview was conducted in person and lasted approximately 30 minutes, found in Appendices A, B, and C.

To explore further the questions posed in this applied research project, a questionnaire was also constructed and distributed utilizing the website Survey Monkey

(www.surveymonkey.com), found in Appendix F. The questionnaire was distributed to several Executive Fire Officer graduates within the Las Vegas Valley to evaluate reliability before dissemination. The questionnaire was designed to primarily answer questions b and c by identifying what, if anything, other fire departments were doing to support mental health with their first responders. The author felt it important to look at best practices around the country and not limit his research to local and state agencies, nor discriminate by size of organization.

The questionnaire consisted of nine questions and was distributed on November 17, 2017, to departments across North America via the Western Fire Chiefs Association and the United States Fire Administration TRADENET program. There was a 30-day time frame with 82 questionnaires completed. Of those 82, eight were duplicates from the same department, or the participant left the organization name as anonymous. With the challenge to validate and the possibility of duplication, the author chose not to use anonymous surveys, leaving only 74 usable questionnaires. The letter sent to the Western Fire Chiefs Association and TRADENET, as well as the list of responding organizations, can be found in Appendix D and E.

While great care was taken to acquire and present credible data, there are several assumptions and limitations that should be noted. First, the author assumed each respondent who completed a questionnaire to be knowledgeable and honest in his or her answers. Second, small survey size of fire departments to address questions b and c of this applied research project, out of tens of thousands of fire departments in America that are each charged with the well being of their first responders. Minus the literature review, the author limited his research to 74 organizations. This small sample size can have an undesirable impact on the statistical power to identify what accurately exists within a population; however, the author found valuable information that could be used in identifying what other fire departments do to address mental

health of their personnel after a traumatic event. Lastly, the author relied solely on the interviews of a behavioral health specialists and an Army Brigade Commander to identify best practices in the military for addressing mental health. Relying on information from a small group may increase the potential for data to be skewed.

Results

The purpose of this descriptive applied research project was to identify best practices to provide mental health support for first responders following a traumatic event. The author used several different procedures that proved effective in answering each one of the research questions presented in this applied research project. Research included interviews with a military behavioral health specialist, a United States Army brigade commander, and an NLVFD captain that volunteered to help develop a NLVFD peer assistance program, as well as a questionnaire sent to departments across North America.

First research question asked what are the short and long-term effects of stress on first responders following a traumatic event? This question was posed to the military behavioral health specialist, K. Kron, assigned to Fort Sam Houston. She stated, “Stress in the short run can be very raw and intense, but it will start to lose its intensity as time goes on. Stress shouldn't be ignored because early diffusing of the event will be helpful in the long run” (personal communication, November 17, 2017). She went on to state that initially it is important for first responders to be mindful of their lifestyles. They should make sure to increase their exercise regime, get plenty of sleep, keep busy and do not isolate themselves, communicate with friends as well as others who have experienced similar experiences, and minimize alcohol use.

K. Kron added most people know what happens to individuals who ignore their stress in the long run, ignored stress starts turning inward and starts to compromise one’s health.

> It is as if the body has tried to help you out for a while and now it's going to make sure you pay attention to it. Unresolved stress now turns into chronic anxiety, depression, high blood pressure, and heart issues. That person is usually living a more narrow life as they have this intangible sense of doom. Everyone's life has stress, but as a counselor, I find the unresolved stress and trauma is what causes us trouble because it can lay below the surface for so long it can become who we are as opposed to an event that happened to us (personal communication, November 17, 2017).

K. Kron went on to explain that long-term stress can result in irrational beliefs and crooked thinking.

> I've observed that people that have been exposed to trauma often start creating some crooked thinking about themselves. I think it is in response to not wanting to believe that life is as random as it really can be. So to counteract that fear they start putting together some irrational cause and effects such as if I only had or had not done that, am I being punished for something, someone else would have done better in this situation, or I was not competent enough (personal communication, November 17, 2017).

The second research question asked what types of traumatic events are most likely to predispose a member to mental health issues? This research question was addressed in both an interview with behavioral health specialist K. Kron, as well as the 74 questionnaires that were analyzed. K. Kron shared that in her experience individuals react dramatically differently to traumatic events; that some individuals are very resilient and are not affected by the traumatic incident, while others struggle to cope post incident. She went on to state, “Traumatic stress can be caused by any kind of trauma in which ones well-being is physically or emotionally

threatened such as combat, witnessed a violent death, death of a loved one, or physical abuse" (personal communication, November 17, 2017).

Results of question seven of the questionnaire revealed 42 percent of organizations with a behavioral health program have pre-identified incidents that are most likely to cause mental health issues (Table 1). Out of those 42 percent, the most common pre-identified incident requiring mental health support was serious injury or death of a co-worker with 79 percent reporting their organization activates their team following this type of traumatic event. Next two most common pre-identified incident types were multiple fatality incidents at 71 percent and incidents that resulted in the death of a child at 68 percent (Table 1).

Table 1

Is your team activated based on pre-identified incident types?

	# Responded	Percentage
Yes	28	42%
No	39	58%

Type of Incident Team is Pre-Activated On

Incident Type	Yes/Total	Percentage
Death of a Child	19/28	68%
Multiple Fatality	20/28	71%
LODD	22/28	79%
Fire Fatality	15/28	54%
Injury/Death of Co-Worker	22/28	79%
Victim Known by Crew	14/28	50%
Other	10/28	36%

Table notes. Only answered by agencies reporting they had a behavioral health program.

The third research question asked how are other local, state, and federal agencies addressing the mental health concerns of their members following a traumatic event? This research question was addressed in interviews conducted with an Army brigade commander and a military behavioral health specialist, as well as the 74 questionnaires that were analyzed. Results demonstrated that 90 percent of respondents stated their fire department had some type of mental health assistance program to assist their members following a traumatic event (Table 2).

Table 2

Does your organization have a program to address mental health of your first responders after a traumatic event?

	# Responded	Percentage
Yes	67	90%
No	7	10%

Table notes. Total of 74 external agencies responded to questionnaire.

Interestingly, the vast majority at 72 percent stated their organization was still using CISD, which in recent years has been questioned on its efficacy. The next largest response group was the other category at 18 percent where respondents commonly reported they had outsourced their program to a company that specializes in behavioral health services. Six percent of the respondents identified their organization was utilizing operational debriefings. Only three respondents stated their organization was either utilizing the nationally recognized SFA or PFA program (Table 3).

Table 3

What program/process does your organization use to address mental health of your first responders after a traumatic incident?

	# Responded	Percentage
CISD	48	72%
Ops Briefing	4	6%
PFA	1	1.5%
SFA	2	3%
Other	12	18%

Table notes. 7 respondents skipped question because they did not have program

A key element in any mental health program will be the personnel who will guide and care for first responders following a traumatic event. Results from the research identified the majority of respondents, at 52 percent, stated their organization utilizes a team of trained peers as well as mental health professionals in their program. Fifteen percent reported they rely solely on internal peers to deliver their program, while another 15 percent reported they utilize a mixture of internal and external peers. Only 12 percent of the respondents stated they strictly relied on trained professionals to carry out their program (Table 4).

Table 4

What is the makeup of your mental health support team?

	# Responded/Total	Percentage
Internal Peers	10/67	15%
Internal/External peers	10/67	15%
Peers/Trained Specialist	35/67	52%
Trained Specialist	8/67	12%

Table notes. 7 respondents skipped question because they did not have program

The final question of the survey asked the respondent how they would rate their organization's mental health program and why. The author analyzed each questionnaire where the respondent answered their program was either very good or poor to identify commonalities that could be used, as well as avoided, for implementing a program for NLVFD. Fifteen respondents rated their program as very good while six reported theirs as poor (Table 5), with mixed responses and some reporting they used peer groups only, while others used trained professionals. The author did identify two common themes consistent throughout the 15 questionnaires where the respondent rated their program as very good: trust and responsiveness. Several respondents commented that there is significant trust in their program and firefighters are not afraid to open up and share their feelings; in fact, they stated it is common for a firefighter to initiate the requests for help. Several others also commented on how responsive and flexible their group is to the needs of their personnel. Analysis of the six questionnaires where the respondent rated their program as poor found the following common themes: lack of trust, little or no formal training for team, lack of buy-in from membership, and no formalized process to deliver aid to their members.

Table 5

How would you rate the effectiveness of your program and why?

	# Responded	Percentage
Very Good	15	22%
Acceptable	46	69%
Poor	6	9%

Table notes. 7 respondents skipped question because they did not have program

The United States military, which has been at war for more than 15 years, is another prime area to determine if best practices can be learned from their emphasis on supporting their

soldiers' mental health. K. Kron, a behavioral health specialist for the military, stated there are a lot of good treatment options, the challenge is getting personnel to utilize them. She stated the military has been proactive in creating critical incident teams, which are made up of behavioral health specialist and chaplains that will go out and talk to soldiers that are involved in trauma; however, in her interview, she argued the critical incident teams are ineffective.

> Most of the time people do not want to talk about the incident and especially to people they do not know. I believe these processes are more of a check the box mentality and I do not feel they are that effective. When your emotions are really raw after an extraordinary situation, most times your comfort is going to be with your peers and people you respect and not a team of professionals that just stop by (personal communication, November 17, 2017).

K. Kron went on to state that she believes a better option is to provide psychoeducation over a debriefing. "For some people, debriefing could be valuable, but for 99 percent of the people, I do not believe it to be valuable. Education after the incident is much more valuable" (personal communication, November 17, 2017). She stated her clients had taught her that peoples' resolution to trauma is widely different. Some personnel had significant problems right from the start, where others assimilate and got rid of it relatively quickly. She mentioned it is important to educate personnel on what is normal after a traumatic event, let them know that they might have difficulty sleeping as well as unusual thoughts and feelings. Educating your personnel on all available venues to reach out and talk to people and then encouraging them to do so, advising them that most people recover while informing them that if symptoms do not get better to get help.

K. Kron emphasized that in her experience help usually comes in the form of peers. She explained there is power in peer support and that is important to tap into. Crews discussing their symptoms together, how they are doing, and what they are doing that they have found to work for them is very beneficial. This is especially true as personnel progress through the different stages of trauma. She went on to state it is critical not to allow personnel to isolate themselves and the most crucial thing leadership can do is create an environment where people can say they are not doing okay. From her experience this is not the case, she identified that the majority of diagnoses for PTSD does not come up until soldiers are ready to retire delaying asking for help for fear it will compromise their career. Institutionally there has to be a clear message that we want you to get help (personal communication, November 17, 2017).

Colonel Parker, commander of the 470th Military Intelligence Brigade, agreed with K. Kron, stating that she created an environment in her brigade where mental health support is a priority, and they have a great interplay between social services, chaplains, and the command team.

> As the Brigade Command, I see myself as the senior counselor, and we meet each month and go over soldier by solider in depth, and I make them walk me through what is going on with each one of their soldiers. That is how the Army does it. It is very leadership-centric, with a lot of support services such as mental health professionals; it is a serious layered system driven by command authority (personal communication, November 17, 2017).

According to Colonel Parker, the Army educates their officers on how to help their personnel who have experienced critical stress during company command, battalion command, and brigade command courses. During these courses, the latest techniques, as well as resources

available, are taught including the Army's Care Counsel program. She stated typically when someone seems to be having problems, there is something in their life that starts to spiral out of control, whether that is spousal abuse, child abuse, or substance abuse. These courses teach officers how to recognize someone who is having trouble before their life spirals out of control. She went on to state that the senior commanders are always mentoring the junior commanders as they deliver the Army's Care Counsel program.

Colonel Parker stated that after a traumatic event occurs, the group would usually go through the stages of loss. She stated immediately following the event the brigade would have a stand down from work. According to Colonel Parker, this is important because people are often sent back to work without addressing the incident or their concerns, and people may quit their job if they do not feel safe or cared for. During the stand down social services are brought in, and members can choose to talk to them and stay anonymous. Additionally, several courses are taught during that stand down such as reintegration training, which attempts to circumvent any mental issues or behavioral problems.

Colonel Parker went on to state that one of the challenges they have encountered is taking care of their millennial workforce. She stated,

> Most millennials received a lot of support from their parents, and they do not have the coping skills needed sometimes. One of the mechanisms to address this is we have asked our officers to put a lot of time in with their soldiers in getting to know them. You have to know people so that you can help them when they get to those places and you may become their only option for coping (personal communication, November 17, 2017).

After the stand down significant emphasis is placed on the care counsel process, where each month Colonel Parker convenes her officers and social service staff, and they go over each

member involved in the incident in depth. They discuss how that member is coping and what their care plan consists of for recovery. This demonstrates accountability and ensures her subordinate officers are engaged with their personnel. “You have to show your people you care about their welfare. You have to follow through with all your commitments and find those who are struggling with the incidents” (personal communication, November 17, 2017).

The fourth research question asked what are the current resources available to NLVFD to address mental health concerns of their members following a traumatic event? According to Captain McLane, he volunteered to lead a peer team, which was established this past year. He stated the team is in the inception phase with a total of 10 volunteer members from the organization. He also explained that the NLVFD has a chaplain that would like to be involved in the process, but they have done a poor job in including him. Captain McLane stated each of the ten members received a two-day class on group crisis intervention, designed to help peers talk to peers, but there is no structured program to take from that. Captain McLane was unsure if the course was nationally recognized and whether they received any certification. Captain McLane also identified the issue that there is no official call out procedures and members are only identified by word of mouth. He stated the team is attempting to find their way and they need to do a much better job (personal communication, November 17, 2017).

Discussion

The literature review along with the research detailed the importance of supporting first responder’s mental health following a traumatic event such as the Route 91 mass shooting. During their interviews, military behavioral health specialist K. Kron and Brigade Commander Colonel Parker emphasized the need to have a system in place to address traumatic stress and ensure personnel receive support following a traumatic event. K. Kron argued that acute stress

should not be ignored because early intervention could be beneficial in the long run and that when stress is ignored, it begins to turn inwards and erodes one's health and sense of purpose. It could lead to chronic anxiety, depression, high blood pressure, and heart issues (personal communication, November 17, 2017).

Colonel Parker of the United States Army agreed, stating that when the employee is unable to resolve the stress their life begins to spiral out of control, often manifesting into spousal abuse, child abuse, or substance abuse (personal communication, November 17, 2017). In the literature review, Castleman (2016) and Sivak (2016) also concluded that unresolved stress is detrimental to first responders. According to Castleman (2016), traumatic stress leaves first responders feeling helpless and exhausted, eventually leading to the destruction of their relationships, personal health, and professional career. Sadly, Sivak (2016) found in her research that the spiraling out of control, identified by Colonel Parker and K. Kron, has resulted in an environment where it is more likely for a firefighter to take their own life than die in the line of duty.

In order to mitigate the consequences of traumatic stress, the fire service must ensure its members receive mental health support following critical incidents. The author had sought in both primary research and literature review, to identify what types of incidents are most likely to challenge the ability of first responders for coping with traumatic stress. In her interview, K. Kron stated this could be challenging because, in her experience, individuals react differently to traumatic events, with some personnel not being affected by the event, while others will fail to cope. Ultimately, "traumatic stress can be caused by any kind of trauma in which one's well-being is physically or emotionally threatened such as combat, witnessed a violent death, death of a loved one, or physical abuse" (personal communication, November 17, 2017). Dr. Adler-

Tapia (2015) had a similar conclusion as K. Kron stating, "The perception of an event varies depending on the individual, but any event with sufficient impact to produce significant emotional reactions in the present or future may need to be reprocessed" (p. 6-7). Dr. Adler-Tapia went on to state that traumatic incidents encompass extremely abnormal human experiences such as a line of duty death, the death of a child, multiple fatalities or severely injured survivors, natural disasters, grotesque injuries, acts of terrorism, and acts of extreme violence.

Results of the questionnaires found that 42 percent of the organizations with a mental health support program have proactively identified incidents needing mental health support. The incident types identified by respondents were similar to Dr. Adler-Tapia's list with death or serious injury of a coworker, multi-fatality incidents, and death of a child topping the list. The author believes this to be a critical element of any program as a result of the findings in both the literature review and research, which identified that most individuals are unlikely to ask for help. K. Kron suggested that there are many programs to help personnel, the challenge lies in getting them to utilize those services (personal communication, November 17, 2017). A recent study by the University of Phoenix (2017) supported K. Kron's comments that the majority of first responders were not using the mental health resources available to them, attributing the fire service culture of being tough as a significant deterrent to seeking help.

Identifying best practices in supporting mental health was an important focus of this applied research proposal, with research identifying that 90 percent of respondents reported their organization had a program to address mental health support of their first responders. The vast majority, at 72 percent, identifying their organization was still using CISD, which empirical evidence has suggested provides no benefit at all and many times can be detrimental to the first

responder. Sadly, the fire service motto of "200 hundred years of tradition unimpeded by progress" appears to be accurate in this particular case. Dr. Neyan, the Veterans Administration's PTSD expert, advised the best course of action was to avoid psychological debriefings after a traumatic incident. He argued dwelling on the event is likely to do more harm than good (as cited in University of California, 2010). K. Kron stated during her interview that she believed a better option was to provide psychoeducation over a debriefing. "For some people, debriefing could be valuable, but for 99 percent of the people, I do not believe it to be valuable. Education after the incident is much more valuable" (personal communication, November 17, 2017).

Tobia (2015) argued the problem with CISD is organizations have used it as a one size fits all, stating that pushing people to talk about their feelings immediately after an event or exposing them to the group's stress had many first responders walking away from the debriefing feeling worse. Researchers Rose, Bisson, Churchill, and Wessely (2002) also found that conducting one-on-one CISD faired no better and increased the first responder's risk of developing PTSD. Jahnke, Gist, Poston, and Haddock (2014), identified two significant studies in their research that parallels the above findings. The first study involved 660 firefighters who were exposed to a traumatic event in which 264 received CISD and the rest did not. Results of the study found no difference in the rate of anxiety, depression, or PTSD between the firefighters that went through CISD and those that did not. The second study was conducted on police officers that experienced a traumatic event and concluded those that went through CISD had higher rates of posttraumatic symptoms the following week compared to their counterparts who did not receive a debriefing.

While the 1970's CISD model continues to be the mainstay of the fire service, research as well as the literature review, have identified other programs and practices that have been determined to be more successful. In the research questionnaires, a small percentage of respondents identified their organization was using operational debriefings to address mental health following a traumatic event. According to the National Center for PTSD (2006), conducting operational briefings following a traumatic event has the potential to help survivors garner an overall sense of meaning and a degree of closure. Harrison, Sharpley, and Greenberg (2008) reported that the United Kingdom's military abandoned CISD and transitioned to operational debriefings. They argued the research demonstrates many positive psychological elements to operational briefings, as personnel want to discuss the incident and identify ways to improve performance for future incidents.

While only a mere three respondents identified their organization was using either PFA or SFA, the literature review identified these two nationally recognized programs as best practices. Phillips and Kane (2006) argued the evidence-informed modular approach of PFA as a best practice to support the mental health of first responders following a traumatic event. They further identified that the United States military adopted it into their course Coping with Deployment: Psychological First Aid for Military Families. SFA was developed by the NFFF (n.d.) and emphasizes the importance of constantly monitoring the stress of firefighters and identifying those in need of help. The seven-step approach of SFA: Check, Coordinate, Cover, Calm, Connect, Competence, and Confidence is very similar to what Brigade Command Colonel Parker is using at Fort Sam Houston called Care Counsel.

Colonel Parker stated during Care Counsel she saw herself as the senior counselor and met with her officers to go over each soldier in depth. She stated that her officers and behavioral

health specialists walk her through who is attending, what is the care plan for recovery, and what is going on with each soldier. One of the challenges the NLVFD faces is identifying when crews go to a traumatic event so executive officers might ensure personnel are receiving the help they need. A potential solution to this problem could be implementing Lakeland, Greenview, and Ladysmith Fire and Rescue's practice of having crews complete a traumatic-incident exposure form. Lakeland Chief McShannock stated (as cited in Jasper, 2017), the form has helped officers understand the impacts of calls, what resources may be needed, and most importantly it immediately improved dialogue for those needing help.

Armed with the information from the literature review and research, the author believes the most significant lesson learned is making sure the program is set up for success by utilizing the right personnel to make up the team. Overwhelmingly, 88 percent of the respondents identified the makeup of their team included internal peers. The majority, at 52 percent, utilized peers as well as behavioral health specialists as part of their team. Additionally, the common theme from the respondents who rated their program as very good or poor identified trust, or lack thereof, as the primary reason. K. Kron, with over 30 years of experience as a behavioral health specialist for the military, provided a wealth of knowledge during her interview on the subject of mental health support teams. She discussed how the military has been proactive in creating critical incident teams, which are made up of behavioral health specialists and chaplains that will work with soldiers involved in trauma; however, she believed the critical incident teams to be ineffective. Throughout her experience, she has realized that soldiers rarely like to talk about the incident and especially to people they hardly know. She enthusiastically argued the power of help lies in peers, "When your emotions are really raw after an extraordinary situation, most

times your comfort is going to be with your peers and people you respect and not a team of professionals that just stop by" (personal communication, November 17, 2017).

The literature review also identified several successful programs that focused on the power of peer support, which NLVFD could learn from. One example was Phoenix Fire Department's 48-person peer support team, which gave their employees 24-hour confidential access to a member they felt they could open up to and trust (Morrison, 2015). A few organizations also found success following the trend identified in the research of adding a behavioral health specialist as part of the peer support team. Spokane Fire Department added a psychologist trained to work with first responders, Denver Fire Department added an organization that specializes in suicide prevention, and Austin Fire Department added a chaplain and psychologist to their team (Sivak, 2016). All four of these organizations boasted about the success they have realized from their teams.

The final question of this research was to ascertain what current resources the NLVFD could utilize to build their team. Captain McLane stated that within the last year ten members of the department volunteered to be part of the peer support team. He identified that the NLVFD chaplain would like to be involved on the team, but they have failed to include him in most of the processes. Captain McLane stated the group attended a local class on group crisis intervention but was unsure of who the organization was that put it on and whether the course followed any recognized curriculum (personal communication, November 17, 2017). While the NLVFD team is just in its infancy stage, the author believes the lack of direction and formal training could be leading the team in the same direction as the six organizations that ranked their mental health support team as poor. Common themes from those respondents were lack of trust, little or no

formal training for the team, lack of buy-in from membership, and no formalized process to deliver aid to their members.

Another key issue identified in the interview with Captain McLane is that the organization and its members have no way of knowing who is on the team except for word of mouth; fortunately, several solutions to this problem were provided during the literature review. Phoenix Fire Department created the Firestrong Wellness Program, which provided online resources to their members about PTSD and other related behavioral health concerns, as well as members of the team and their contact information. Chicago Fire Department took a different approach and created their Gatekeepers Peer Support Network where members of the team wore a special patch on their uniform to identify themselves to their peers.

With the recent events that have taken place in Las Vegas, the implications of this research for NLVFD could not be greater. NLVFD attempted to be proactive with the creation of their peer support team, but the lack of expertise in this area has resulted in little to no advancement in improving mental health support for their members. Results of the research, and literature review will help guide NLVFD in constructing a peer support team that will have the tools and knowledge to be successful. Specifically, this applied research project identified that the traditional model of CISD is ineffective and that there are better nationally recognized curriculums for NLVFD to adopt as part of their program. Results also identified the benefits of utilizing peer support over trained behavioral health specialists that do not have a bond with members of the organization. Additionally, the author found other useful tools and information such as the role of leadership in mental health support, pre-identifying specific types of incidents, signs and symptoms of critical stress, TSQ, traumatic-incident tracking forms, as well as ideas on the best way to identify who is a member of the peer support team.

Recommendations

Based on the information obtained through literature review and primary research, the author recommends NLVFD continue to develop a robust peer support team to support personnel after the occurrence of a traumatic event. According to K. Kron, “Unresolved stress now turns into chronic anxiety, depression, high blood pressure, and heart issues. That person is usually living a more narrow life as they have this intangible sense of doom” (personal communication, November 17, 2017). Sivak (2016) identified that firefighters are more likely to take their own life than to die in the line of duty, attributing this terrible statistic to the stresses firefighters face on a daily basis. NLVFD cannot continue to ignore these stresses encountered by their first responders.

The first recommendation is to work on changing the culture within the NLVFD and the belief that it is a sign of weakness or could jeopardize one’s career if they seek help. A study by the University of Phoenix (2017) brought to light what most firefighters’ know, that firefighters do not ask for help. Sadly, this same culture can be found in the NLVFD, where firefighters have been programmed from day one that they must be strong and keep things to themselves. The author recommends incorporating one day of education on mental health during the 24-week rookie academies to stress the importance of health and wellness.

The author’s second recommendation would be to train NLVFD company officers on how to recognize crewmembers that are struggling. Colonel Parker stated the military has had success in training their officers to identify someone who is having trouble before their life spirals out of control (personal communication, November 17, 2017). Additionally, K. Kron emphasized that help usually comes in the form of peers, “Crews discussing their symptoms together, how they are doing, and what they are doing that they have found to work for them is

very beneficial" (personal communication, November 17, 2017). NLVFD has entrusted their company officers with taking care of the health and welfare of their assigned crew, so the author recommends establishing a class that will be taught during officer candidate school as well to all company officers on an annual basis.

The third recommendation is to create a team of peers that personnel trust and can open up to whenever necessary. The majority of respondents identified that their team is either partially or entirely made up of peers and as K. Kron identified, there is power in peers and rarely will crews open up to strangers they hardly know (personal communication, November 17, 2017). Additionally, the fifteen respondents that rated their program as very good identified trust as one of the significant factors for the success, stating firefighters are not afraid to open up and share their feelings to another trusted individual, and often it is the firefighter that initiates the request for help. The author recommends NLVFD seek nominations from their personnel on members they would like to see on the team, with the NLVFD executive staff and union taking the submissions and making a personal plea to see if the members nominated would be willing to serve.

The fourth recommendation is to create a policy that incorporates when the team will be activated based on pre-identified incidents, the use of the NFFF's TSQ form, and the use of critical-incident tracking forms. Nearly half of the respondents identified their organization has already identified incidents they stand their team up for; with line of duty death, multiple-fatality incidents, and death of a child as the top three. Additionally, Dr. Adler-Tapia (2014) identified that critical incidents are extremely unusual in the range of ordinary human experiences such as a line of duty death, the death of a child, multiple fatalities or seriously injured survivors, natural

disasters, grotesque injuries, acts of terrorism, and acts of extreme violence. NLVFD can use the above information to establish a policy on how to support members after a critical incident.

The author's fifth recommendation is to have the battalion chiefs and company officers incorporate operational briefings after a critical incident. Experts acknowledged that operational briefings provide several psychological benefits to help first responders cope with mental stress as well as bringing a degree of closure to an incident (Clay, 2013; Sharpley, and Greenberg 2008; United States Department of Veterans, n.d.). The sixth recommendation is to have several peer support team members audit the nationally recognized PFA and SFA courses to determine what direction would fit the NLVFD the best. The author's final recommendation is to request the help of the NLVFD chaplain, as well as a behavioral health specialist, to help guide the newly formed team. The Spokane Fire Department, Denver Fire Department, and Austin Fire Department have all had success incorporating trained professionals to help support the team, and these trained professionals will be able to provide advice and support to the peer team members.

The fire service is facing a hidden epidemic of behavioral health issues and suicides. It is a sad statistic that firefighters are more likely to take their own lives than die in the line of duty. Another said statistic was to see that so many organizations are still utilizing CISD in support of their members. The literature review identified that CISD is not the preferred model and many times it is detrimental to first responders. Fire departments have no greater responsibility than taking care of their own, so the author would encourage other organizations to research the importance of mental health support, and then analyze their current program to determine if they are incorporating best practices and meeting the needs of their personnel.

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Appendix A

Behavioral Health Counselor Kathy Kron Interview

1. *What are the short and long-term effects of stress on personnel following a traumatic event?*

   Stress in the short run can be very raw and intense but it will start to lose its intensity as time goes on. So initially, it's important that soldiers are mindful of their life styles: increase your exercise, get adequate sleep, careful on alcohol, don't isolate, talk to trusted allies and others with similar experiences, keep busy. Deprogram with professionals/spiritual advisors.

   Stress in the short run shouldn't be ignored, because early diffusing of the event will helpful in the long run. It is as if the body has tried to help you out for a while and now it's going to make sure you pay attention to it. Unresolved stress now turns into chronic anxiety, depression, high blood pressure, and heart issues. That person is usually living a more narrow life as they have this intangible sense of doom. Everyone's life has stress, but as a counselor, I find the unresolved stress and trauma is what causes us trouble because it can lay below the surface for so long it can become who we are as opposed to an event that happened to us.

   Of course creating a place where people can voice their anger and fears. Normalize the human response. Let them know that it is normal to: have intrusive thoughts about the trauma; be over vigilant, to cry, to be more irritable, jumpy, question spiritual concepts. This is a normal way to respond to an abnormal stress/trauma and it will grow less intense with time.

   Have them express irrational beliefs/crooked thinking: I've observed that people that have been exposed to trauma often start creating some crooked thinking about themselves. I think it's in response to not wanting to believe that life is as random as it really can be. So to counteract that fear they start putting together some irrational cause and effects such as if I only had or had not done that, am I being punished for something, someone else would have done better in this situation, or I was not competent enough.

2. *What types of traumatic events are most likely to predispose a member to mental health issues?*

   My clients have taught me that peoples' reaction to trauma is widely different. Some individuals are very resilient, while others are traumatically impacted by the same incident. Traumatic stress can be caused by any kind of trauma in which ones well-being is physically or emotionally threatened such as combat, witnessed a violent death, death of a loved one, or physical abuse.

3. *How is the Army addressing mental health after a traumatic event such as combat?*

There are lots of good treatment options; the problem we have found is nobody wants to utilize them. The military has critical incident teams made up of behavioral health specialist and chaplains that will go out and talk to soldiers that are involved in trauma.

In my experience the critical incident teams are ineffective. Most of the time people do not want to talk about the incident and especially to people they do not know. I believe these processes are more of a check the box mentality and I do not feel they are that effective. When your emotions are really raw after an extraordinary situation, most times your comfort is going to be with your peers and people you respect and not a team of professionals that just stop by. What I believe is more effective is to give them some psychoeducation for people impacted by trauma. You are probably going to have these thoughts and feel this way, you are probably not going to be able to sleep, and these are normal reactions to an abnormal situation. Advise them on all the venues to reach out and talk to people to figure this out and encourage them to reach out. But I find it more effective to educate people than to have debriefings. For some people, debriefing could be valuable, but for 99 percent of the people, I do not believe it to be valuable. Education after the incident is much more valuable. You inform them what is normal and most people recover, but you inform them that if the symptoms do not get better to get help. My clients have taught me that peoples' resolution to trauma is widely different. Some people have significant problems right from the get-go, where others assimilate and get rid of it relatively quick. You do not want to isolate anyone, and you do not want to do nothing. People are going to be much more willing to talk to their peers and get much more out of that.

Institutionally there has to be a clear message that we want you to get help. In my experience, I have seen it on two different levels- policy and then reality. People still see it as weakness and worry how it will impact their career, so they do not get help.

4. *What types of training does the Army provide officers in regards to mental health support of their personnel?*

   I am not sure what training if any, the military provides its officers.

5. *What role do officers (supervisors) play in addressing mental health support of their subordinates?*

   The officers work with our group, but that would be a better question to ask Colonel Parker. What I have seen is most of the diagnosis of PTSD does not come up until most soldiers retire. They are afraid during their career to ask for help in fear it will compromise their career.

6. *What can be done at the individual and company level to reduce the impacts of critical stress?*

   The crews discussing the symptoms together, how they are doing, and what they are doing that they have found to work for them. I find power in peer support. If one member can share what is working for him, it may help some of his peers. The stages of trauma change

throughout the year and if they continually help each other, and care for each other, that is something that is helpful. The military, police, and fire departments have a macho culture, and they all want to show their strengths, but we need to create an environment where people can say they are not doing okay and that is the peer support I am talking about. From a leadership standpoint, the goal should be to identify the ones that are really struggling and encourage them to get help; sadly, it is usually those that need it the most that are the most difficult to get help.

Appendix B

US Army Brigade Commander Colonel Ingrid Parker Interview

1. *How is the Army addressing mental health after a traumatic event such as combat?*

The group will usually go through the stages of loss after a traumatic event. Immediately after the traumatic event, we will have a stand down from work. After the incident, we try to be honest and open about what happened. The challenge we have encountered is most millennials received a lot of support from their parents, and they do not have the coping skills needed some times. One of the mechanisms to address this is we have asked our officers to put a lot of time in with their soldiers in getting to know them. You have to know people so that you can help them when they get to those places and you may become their only option for coping.

Commanders have a whole bunch of tools available to them. They are college educated and generally have their own family and kids, so they are used to guiding and mentoring, so that is one. We also have institutional things such as medical professionals and chaplains. We have a really advanced version of social services. There is a great interplay between social services and the command team. Our brigade and Army also has a process called CARE counsel where we go over in depth who is attending, what is their care plan for recover and that to me is accountability to make sure my subordinate officers are engaged. We have all the legal authority under army regulation 600-20 General Army Command Policy, which allows us to dive deep into people's personal lives.

As the Brigade Command, I see myself as the senior counselor, and we meet each month we go over soldier by solider in depth, and I make them walk me through what is going on with each one of their soldiers. That is how the Army does it. It is very leadership centric, with a lot of support services such as mental health professionals; it is a serious layered system driven by command authority.

There are also classes taught during the stand down, such as reintegration training, which attempts to circumvent any mental issues or behavioral problems. During the stand down, all the social services are brought, and members can choose to talk them and stay anonymous.

2. *What types of training does the Army provide officers in regards to mental health support of their personnel?*

Most of the training is on the job training. You learn it in your command, by taking company command, battalion command and brigade command. Your senior commanders are always mentoring your junior commanders. As you take these courses, they reintroduce all the support services available as well as any changes that have taken place. Most of the classes follow trends such as the recent rash of PTSD. However, most of the training comes from their senior commanders through teaching how to do CARE counsel, which I previously talked about. We teach them how to recognize someone who is having trouble before their life spirals out of control.

3. *What role do officers (supervisors) play in addressing mental health support of their subordinates?*

Commanders have the full purview to manage the personal lives of their soldiers. I can see all their medical records if I want. We do not have the HIPPA issues to deal with like you; our soldiers signed up knowing many of their rights and benefits would be given up to command authority. Typically, when someone seems to be having problems, there is something in their life that starts to spiral out of control, whether that is spousal abuse, child abuse, or substance abuse. As a commander, I can temporarily put someone in the hospital on hold until they come out of that spiral, which can be short term or the long-term 29-day program.

4. *What can be done at the individual and company level to reduce the impacts of critical stress?*

First, have a stand down day. Lots of time we send people back to work, and they do not feel safe, and that is why people quit their jobs. You have to show your people your care about their welfare. You have to follow through with all your commitments and find those who are struggling with the incidents.

Appendix C

Captain Dennis McLane Interview

1. *What resources does the NLVFD have to address mental health support?*

   There are ten members on the peer support team that was recently formed this past year. All members attended a two-day Group Crisis Intervention course that was taught in the Las Vegas Valley. We also have the peer fitness program that is in the initial phases of getting implemented. Working out has proven to be a great stress reducer. The surrounding police and fire departments also have some form of a team and can be asked for assistance if we need help.

2. *What was the training or certification each peer team member recieved?*

   The course was 14-hours that taught members how to talk and help their peers. I am unsure if it is any official course or certification but it is called Group Crisis Interventions and counted for continuing education hours.

3. *How is the Peer Support Team Activated?*

   There is no official call out procedures. Typically, the Battalion Chief will call us out after one of the crews ran a traumatic incident. We also have a few members that have reached out to individuals on the team.

4. *How do members know who is part of the Peer Support Team?*

   Currently the team is only identified by word of mouth. We need to do a better job of getting out who is on the team.

5. *What is the process your team will take if you suspect a member is having significant issues after an incident?*

   If it seems like someone is struggling we won't leave him or her alone. We will talk to the Battalion Chief and see if we can arrange for them to talk to a professional.

6. *What role does the chaplain play?*

   The chaplain took the same course but has not been involved in the process. He has asked to be more involved, and we need to do a better job getting him involved. However, some of the members do not like the religious take the chaplain brings.

Appendix D

Letter to Other Fire Organizations

November 12, 2017

My name is Travis Anderson, Assistant Fire Chief for the North Las Vegas Fire Department. I am conducting research to complete an Applied Research Paper on "Mental Health Support After the Traumatic Event."

A critical component of my research is to determine what other organizations are doing in my search for best practices. It would be very helpful if you could take a few minutes and complete the survey from the link below. If you have any problems completing the survey please contact me and let me know. In addition, if your organization has a formal program they are willing to share please send to
andersont@cityofnorthlasvegas.com

https://www.surveymonkey.com/r/GN6889T

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Appendix E

Fire Departments That Completed Questionnaire

1. Akron Fire Department, OH
2. Ann Arbor Fire Department, MI
3. Atlanta Fire Rescue Department, GA
4. Bellevue Fire Department, NE
5. Bolivar City Fire Department, MO
6. Boynton Beach Fire Rescue Department, FL
7. Bloomfield Fire Department, NJ
8. Buckley Fire and Emergency Services, CO
9. Carrboro Fire-Rescue, NC
10. Charlotte Fire Department, NC
11. Colerain Twp FD, OH
12. Colusa Fire Department, CA
13. Coon Rapids Fire Department, MN
14. Des Moines Airport Fire Department, IA
15. East Longmeadow Fire Department, MA
16. Eau Claire Fire Department, WI
17. Eden Prairie Fire Department, MN
18. Evansville Fire Department, IN
19. Fairburn Fire Department, GA
20. Fairfax County Fire and Rescue Department, VA
21. Fayetteville Fire Department, NC
22. Fort Worth Fire Department, TX
23. Frederick County Maryland Division of Fire and Rescue, MD
24. Golder Ranch Fire District, AZ
25. Greensboro Fire Department, NC
26. Idaho Falls Fire Department, ID
27. Iona McGregor Fire District, FL
28. La Verne Fire Department, CA
29. Little Rock Fire Department, AR
30. Olathe Fire Department, KS
31. Palm Beach Fire Rescue, FL
32. Pike Road Fire Department, AL
33. Springfield Fire Department, MO
34. Canon City Area Fire Protection District, CO
35. Centerville-Osterville-Marstons Mills Dept. of Fire-Rescue & Emergency Services, MA
36. Grants Pass Fire Rescue, OR
37. Menomonee Falls Fire Department, WI
38. Johnson County Consolidated Fire District #2, KS
39. Pembroke Pines Fire Department, FL
40. Bend Fire Rescue, OR
41. Lake Stevens Fire, WA
42. Los Alamos Fire, NM
43. Macomb Township Fire Department, MI
44. Madison Fire Department, WI
45. Montgomery County Fire Rescue, MD
46. Nashville Fire Department, TN
47. Pearland Fire Department, TX
48. Urbandale Fire Department, IA
49. Webster City Fire Department, IA
50. Orange County Fire Authority, CA
51. Central Lyon Fire, NV
52. Medford Fire Rescue, OG
53. Red, White & Blue Fire Protection District, CO
54. Ridgeland Fire Department, MS
55. Sandoval County Fire Department, NM
56. Shawnee Heights Fire District, KS
57. Sioux Falls Fire Rescue, SD
58. Smithville Area Fire Protection District, MO
59. Southington Fire Department, OH
60. Hingham Fire Department, MA
61. Overland Park Fire Department, KS
62. South Trail Fire Rescue, FL
63. Spokane Valley Fire Department, WA
64. Springdale Fire Department, AR
65. Stockton Fire Department, CA
66. Frisco Fire Department, TX
67. Kingsport Fire Department, TN
68. Largo Fire Rescue, FL
69. Valdosta Fire, GA
70. Waukee Fire Department, IA
71. West Fargo Fire Rescue, ND
72. Wilson Fire/Rescue Services, NC
73. Winchester Fire and Rescue, WV
74. Yuma Fire Department, AZ

Appendix F

Questionnaire – Rapid Damage Assessment

1. Please provide the name of your organization? ____________________________
____

2. What type of organization?
   - ☐ Volunteer
   - ☐ Career
   - ☐ Combination

3. Does your organization have a program to address mental health of your first responders after a traumatic event?
   - ☐ Yes
   - ☐ No (skip to end and complete survey)

4. What program/process does your organization use to address mental health of your first responders after a traumatic incident?
   - ☐ Critical Incident Stress Debriefing
   - ☐ Operational Debriefing (after action review – not designed to vent feelings)
   - ☐ Psychological First Aid (National Center for PTSD program)
   - ☐ Stress First Aid (National Fallen Firefighter Program)
   - ☐ Other please specify in comment box

5. What is the makeup of your mental health support team?
   - ☐ Peer group (internal members only)
   - ☐ Peer group (multiple organizations)
   - ☐ Trained behavioral health professionals
   - ☐ Combination- peer group and behavioral health professionals
   - ☐ Other please specify in comment box

6. What type of training or certification does your team receive?
   - ☐ Please specify in comment box

7. Is your team activated based on pre-identified incident types such as LODD, Death of child, MCI, etc?
   - ☐ Yes
   - ☐ No (skip to question 9)

8. What type of incidents do you activate your mental health support team (check all that apply)?
   - ☐ Death of a child
   - ☐ Multiple fatality
   - ☐ LODD

- ☐ Fire fatality
- ☐ Serious injury or death of a co-worker
- ☐ Victim is a friend or family of crew member
- ☐ Other please specify in comment box

9. How would you rate the effectiveness of your program and why?
   - ☐ Very Good
   - ☐ Acceptable
   - ☐ Poor

Questionnaire Results

Table of results

Total Number of questionnaires handed out: Mass online survey was distributed through International Association of Fire Chiefs and the United States Fire Administration Tradenet program.

Total Number of questionnaires returned: 74
Question # 1: Identified organization (see Appendix G for list)

Question #2: What type of organization?

Type of Organization	# Responded
Volunteer	0
Career	49
Combination	25

Question #3: Does your organization have a program to address mental health of your first responders after a traumatic event?

	# Responded	Percentage
Yes	67	90%
No	7	10%

Question #4: What program/process does your organization use to address mental health of your first responders after a traumatic incident?

	# Responded	Percentage
CISD	48	72%
Ops. Debriefing	4	6%
Psych First Aid	1	1.5%
Stress First Aid	2	3%
Other	12	18%

* 7 respondents skipped question because they did not have program

Question #5: What is the makeup of your mental health support team?

	# Responded	Percentage
Internal Peers	10	15%
Int/Ext Peers	10	15%
Trained Specialist	8	12%
Peers/Trained Specialist	35	52%
Other	4	6%

* 7 respondents skipped question because they did not have program

Question #6: What type of training or certification does your team receive?
Common Answers

	Yes/total	Percentage
Unknown	36/61	59%
IAFF Peer Support	8/61	13%
CISD	12/61	20%
Training by Local Behavioral Health Specialist	5/61	8%

*61 responses

Question #7: Is your team activated based on pre-identified incident types such as LODD, Death of child, MCI, etc?

	# Responded	Percentage
Yes	28	42%
No	39	58%

28 respondents only answered the following questions.

Question #8: What type of incidents do you activate your mental health support team (check all that apply)?

Incident Type	Yes/total	Percentage
Death of Child	19/28	68%
Multiple Fatality	20/28	71%
LODD	22/28	79%
Fire Fatality	15/28	54%
Serious Injury or Death of Co-worker	22/28	79%
Victim is known by crew	14/28	50%
Other	10/28	36%

* Only 28 reported they activate team based on pre-identified incident types

Question #9: How would you rate the effectiveness of your program and why?

	# Responded	Percentage
Very Good	15	22%
Acceptable	46	69%
Poor	6	9%