

Addressing Trauma Among Firefighters: Identifying Effective Components of Mental Wellness

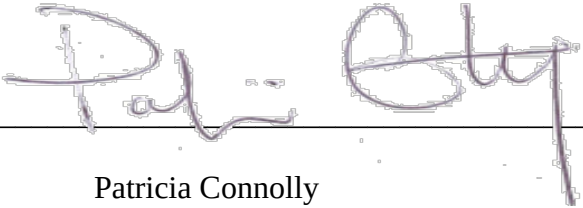
Programs for Fire Service Personnel

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Certification Statement

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

Signed:  _____
Patricia Connolly

Abstract

Firefighters increasingly face critical calls in the course of their careers that expose them to traumatic events. While they have been trained to take immediate action, the emotional impact of those calls can create acute or chronic job-related stress. That stress has been acknowledged by major fire organizations, but most fire departments have lacked adequate behavior health programs to support their first responders. The problem is the Bend Fire Department (BFD) doesn't have an effective program to monitor and support the mental health of its line personnel. The purpose of this study was to identify the most effective components of other fire agencies' mental health programs, analyze Bend Fire's mental health services to determine its limitations, and make recommendations to improve our department's mental wellness support for Bend Fire personnel. A descriptive research method focused on answering the following research questions; 1) What are the most effective components of existing mental health programs at other fire agencies? 2) How effective is the current mental wellness program at the Bend Fire Department? 3) What components of mental wellness programs could the Bend Fire Department adopt to improve its mental wellness services for its employees? A literature review determined the present state of mental health services in the fire service. Questionnaires were distributed to line personnel and department heads of BFD and two other departments and the data was analyzed to answer the three research questions. The results demonstrated the mental wellness resources at the BFD were insufficient to support the mental wellness of its personnel. The research identified best practices that could be applied at the BFD that would improve its mental wellness support. It was recommended BFD expand mental wellness resources, implement stress education and build a peer support program to improve its mental wellness support.

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Programs for Fire Service Personnel

Firefighters face a wide variety of critical calls in the course of their career that exposes them to traumatic events. These events are varied and range from death of a child, murder, vehicle extrications, structure and wild land fires, hazardous material spills, terrorist attacks and, most recently, active shooter incidents. Although firefighters are trained to mitigate these critical calls, responding on traumatic calls can create emotional stress and affect the mental wellness of these emergency responders (Regehr & Bober, 2005). The National Fire Protection Association (NFPA) has addressed the need for behavior health support for fire personnel in NFPA 1500: Standard on Occupational Safety and Health Program chapter 11, stating “fire departments shall provide access to behavior health programs for it members and immediate families” (“NFPA 1500,” 2013, p. 33) and National Fallen Firefighter Foundation (NFFF) cites psychological support as one of its 16 firefighter life safety initiatives. In this document, NFFF states “firefighters and EMS professionals and their families must have resources to deal with various complications that their jobs can bring to their lives, especially with issues regarding emotional and psychological distress” (“Life Safety Initiatives,” 2004, Chapter 13). In addition to these two organizations, the International Association of Firefighters (IAFF) and the International Association of Fire Chiefs (IAFC) have recognized the lack of mental wellness support to firefighters and have made recommendations for the development of behavior wellness programs in the fire industry (“PTSD Out of the Shadows,” 2015; *Wellness Initiative*, 2008). Even with these mounting initiatives, studies and recommendations, most fire departments lack adequate

behavior health programs to support its first responders before and after exposure to traumatic calls.

The problem is the Bend Fire Department (BFD) doesn't have an effective program to monitor and support the mental health of its fire service personnel. The BFD does offer Employee Assistance Program (EAP) through the city of Bend and has led critical incident stress debriefings (CISD) after major critical incidents, but the mental health support and preventative care for its firefighters and line staff is not consistent with best practices today.

The purpose of this study was to identify the most effective components of other fire agencies' mental health programs, analyze Bend Fire's mental health services to determine its limitations, and make recommendations to improve our department's support for Bend Fire personnel.

A descriptive method was used for this Applied Research Project (ARP) which focused on the following research questions to identify the effective components of mental health programs at other fire agencies and make recommendations for Bend Fire Department:

1. What are the most effective components of existing mental health programs at other fire agencies?
2. How effective is the current mental wellness program at the Bend Fire Department?
3. What components of mental wellness programs could the Bend Fire Department adopt to improve the mental wellness services for its employees?

Background and Significance

Bend Oregon is located on the eastern ridge of the Cascade Range along the Deschutes River. Three hours southeast of Portland, Bend is the fifth-largest metropolitan area in Oregon

and the largest city east of the Cascades. Bend is known for its mild dry climate and stunning views. The area is surrounded by the Three Sisters Wilderness area to the west and a high desert landscape to the east.

Historically Bend was a logging community. Bend was incorporated in 1905, and by 1914, was home to two major lumber companies that employed a majority of the community members. For most of the century, the pine mills were the backbone of the economy. That changed when one mill closed in 1950, the other in 1980. When the timber industry crashed, so did Bend's economy and the once vibrant town sputtered to a population less than 18,000 by 1980.

Today the economic outlook is a much different. In 2011, CNN.com reported Bend as the 10th fastest growing city in the United States, and the tourism industry has had four consecutive record summers (Leads, May 7th, 2015). In 2014 the estimated population of Bend was 84,000 with the influx of tourists sending the population to about 100,000 many days during the summer months.

Although Bend has a diverse economic base consisting of healthcare, education, construction and technology, the backbone of the economy is tourism. Bend has become a recreational hub for a variety of outdoor activities. Twenty-two miles from downtown Bend the Mount Bachelor Ski Resort offers 3700 acres of downhill runs and 40 kilometers of Nordic trails. The Deschutes River, which runs through the center of town, attracts paddle boarders on its flat-water sections and class IV and V rapids attract rafting and kayaking adventurers. In addition, 300 miles of single-track mountain biking trails accommodate all biking levels. With 71 parks, 26 golf courses and a 26 micro-breweries, it's no surprise The New York Times has named Bend Oregon one of the 52 places to go in 2015 (Seminara, 2015).

Bend is also home to two colleges: Central Oregon Community College (COCC) and University of Oregon Cascades Campus (OSU). OSU Cascades is currently in the process of building a new campus close to the core of downtown and when complete, both campuses will be located in the center of BFD's response area. Currently, these two campuses bring an influx of over 11,000 college students during the academic year and enrollment continues to increase.

The total official population served by the BFD is approximately 104,500 citizens (84,000 city / 20,500 county). However, due to the influx of tourism, the actual number of citizens served is much greater than the census data suggests. The Bend Bulletin estimates at any given time 18,000 tourists a day (Leads, May 7th, 2015) are visiting the area. In total, between city and county residents, college students and transient visitors, the BFD often serves a community of approximately 130,000.

The BFD has five fire stations and protects a fire service area of 164 square miles and an ambulance service area of 1,726 square miles. The department is responsible for hazard mitigation for structural and wild land suppression, emergency medical services, technical rescue, hazardous material, and fire prevention for The City of Bend as well as the Deschutes Rural Fire Protection District No. 2 (DCRFD).

The Bend Fire Department (BFD) employs 94 career personnel. Of those 94 employees, 72 are emergency line personnel work a three shift system (A, B and C shifts) with 48 hours on duty and 96 hours off duty (48/96). Each shift has a supervising Battalion Chief, 6 captains, 6 engineers and approximately 21 to 22 firefighters. The remainder of the career staff is 22 administrative employees working a 40-hour a week schedule. This support staff is comprised of the fire chief, 4 deputy chiefs, 1 fire marshal, 1 battalion chief, 6 fire prevention staff, 2 administrative captains and 7 office support staff. These positions provide the department's

operational plan, administrative and logistical support and training for department members as well as code enforcement, and fire education for the community.

The BFD is an advanced life support (ALS) transporting agency for the City of Bend and surrounding rural area. Each station is equipped with an ALS medic and an ALS engine. The BFD also has one heavy rescue, one ladder truck, three interface engines and two water tenders that are dispersed throughout the response district. Two of the five stations have dedicated fire and EMS crews and the other three stations cross staff apparatus. The two stations with dedicated crews are staffed with five personnel; one three-person fire suppression company and a two person dedicated ALS ambulance company. The cross-staffed stations have a single three person crew making them “single pole” stations. This means they will staff an ALS fire apparatus as well as an ALS medic depending on need. Therefore, during the shift they will often toggle between responding on the ALS medic and the ALS fire engine.

While fire suppression is still a core duty of the BFD, the responsibilities and responses have changed dramatically in recent decades. Fire departments today respond to a much more diverse call set than they did in the past. These calls include auto extrications, hazardous materials, terrorist attacks, technical rescues and active shooter incidents. As the responsibilities have expanded over the years, fire departments’ responses to medical emergencies have increased exponentially more than any other emergency response (Wilmoth, 2014). The Bend Fire Department is no different. Of the 9017 calls the BFD responded to last year, 7392 of those calls were emergency medical responses (EMS), which is approximately 82% of the total call volume. Since 2004 the increase of EMS responses has increased from 4314 calls to 7392 calls in 2014. Because of the relative volume of EMS responses, the majority of line firefighters are

paramedics (81%) and having a paramedic license is a requirement for any newly hired firefighter.

Table 1

Bend Fire Workload History 2004-2014

WORKLOAD HISTORY								
	EMS	FIRE	HAZ COND	NON-FIRE	TOTAL	AVE Calls/Day	AVE EMS/Day	AVE Fires/Day
2004	4314	338	79	1336	6067	16.58	11.79	0.92
2005	5084	349	106	1488	7027	19.25	13.93	0.96
2006	5662	426	124	1436	7648	20.95	15.51	1.17
2007	5784	356	103	1507	7750	21.23	15.85	0.98
2008	5831	353	99	1400	7683	20.99	15.93	0.96
2009	6038	282	102	1322	7744	21.22	16.54	0.77
2010	6334	269	76	1106	7785	21.33	17.35	0.74
2011	6545	341	101	1074	8061	22.08	17.93	0.93
2012	6736	324	116	1025	8201	22.41	18.40	0.89
2013	6961	347	123	1185	8616	23.61	19.07	0.95
2014	7392	283	143	1199	9017	24.70	20.25	0.78
2015 ytd	5182	232	99	851	6364	26.19	21.33	0.95

*2004, 2008 and 2012 were Leap Years - Average Calls divided by 366 for calls/day

**2015 ytd is finalized through 8/31/2015 - Average Calls divided by 243 for calls/day

While the explosive growth of Bend positively affected on the local economy, it has strained the community's core services, including the fire department. Eric King, the Bend City Manager, told the local paper the bloated summer population is felt most directly by the police and fire departments (Leads, May 7th, 2015). In the last ten years the response volume has increased by 67%; 6067 total responses in 2004 to an increase in 9017 in 2014.

The increase of call volume, particularly in medical calls, means the BFD is exposed to more critical incidents every year. A critical incident is defined as "any situation faced by emergency personnel that causes them to experience unusually strong emotional reaction which has the potential to interfere with their ability to function either at the scene or later" (Halpern, Gurevich, Schwartz, & Brazeau, 2009, p. 174). With this higher call volume, the line personnel

have a greater potential to respond on a critical incident that could emotionally affect them, or a series of critical calls over the years that can have a cumulative emotional effect. Studies have shown that emergency personnel are at a much greater risk for developing emotional distress from the repeated exposure to emotionally challenging and frequently traumatic calls (Regehr & Bober, 2005).

Approximately 20 years ago the BFD recognized the negative effects critical incidents had on the emotional wellness of the line personnel and took action to implement a process to help defuse the impacts of these traumatic calls. In 1992, a Critical Incident Stress Debriefing (CISD) program was introduced. The CISD process was adopted to create an official forum for a formal psychological debriefing following a critical incident. The participation in a critical incident stress debriefing session is mandatory for all those that responded to the call. The debriefing is initiated by the battalion chief if he or she believed the call had negative emotional effect on the responding crew(s). The CISD process and policy is still part of the BFD protocol and continues to be used after severe traumatic incidents although not all critical incidents will trigger a debriefing.

In addition to the CISD procedure, the City of Bend has an Employee Assistance Program (EAP) for personnel who are distressed and need emotional support. This program was implemented in approximately 2002. This is an employee benefit program offered by the City of Bend and is not overseen by the fire department. EAP is intended to help employees deal with personal problems that might affect their job performance and health. This program is voluntary, confidential, and uses outside therapists contracted by the city for counseling needs.

Over the last thirty years the BFD has had several firefighters show serious signs of emotional distress affecting their well being. There have been three known firefighters who left

the department reportedly based on their experience of high levels of occupational stress. Even more devastating for the BFD is the loss of four firefighters from suicide over the last 25 years, with the most recent occurring just two years ago of a 36 year old fire engineer. This tragic event affected every employee deeply. Unfortunately, these mental health issues are pervasive in fire departments across the country. Reports indicate “between 7% and 37% of firefighters met the criteria for Post Traumatic Stress Syndrome (PTSD) diagnosis” (Tull, 2013, para. 5). A study out of Australia found 68% of firefighters exhibited moderate signs of PTSD symptoms (Kleim & Westphal, 2011).

The suicide rate among firefighters is a difficult number to determine. The most reliable statistics are reported by the Behavior Health Alliance (FBHA) website. The founder, Jeff Dill, reported since 2012 to 2014 there have been at least 251 firefighter suicides and an additional 97 firefighter suicides as of October of this year, 2015. Although these figures posted on the FBHA website are disturbing, the numbers represent only those very few fire departments volunteering this information to the FBHA organization (Wilmoth, 2014).

Although the BFD has provided mental health support for its line personnel through CISD and EAP, these programs are not enough to provide the mental health support that is needed for the BFD employees. The current programs only offer emotional support after the traumatic incident has occurred. Furthermore, the EAP program is voluntary and is initiated by emergency personnel typically after the responder is experiencing emotional problems. The current programs lack any education or resiliency training that can prepare the firefighters and their families for the potential emotional issues that develop when working in this occupation.

During the *Executive Development* class in the first year of the Executive Fire Officers Program, the class studied the difference between adaptive challenges and technical problems.

An adaptive challenge is one where attitudes, behaviors and values are required to change for the problem to be solved. The adoption of additional programs to improve the mental wellness support for the Bend Fire employees is an adaptive issue. The administration will be called on to allocate resources for the start and continued success of additional programs and the firefighters will need to overcome the engrained stigma of receiving mental health support that resides in every fire department. The shift in focus to a more comprehensive mental wellness program will take adjustments in thoughts and behaviors for every member of the Bend Fire Department.

This research supports the United States Fire Administration's strategic goal # 3 of enhancing the Fire and Emergency Services' Capability. One of the key initiatives stated for this strategic goal is to "promote a culture of health, wellness and behavior that enhances emergency responder safety and survival" (U.S Department of Homeland Security, 2014, p. 12). Establishing a mental wellness program that meets the emotional needs of BFD employees is paramount in promoting a culture of health and wellness and will directly impact the safety and survival of BFD line personnel.

Literature Review

Current literature addressing mental health issues of firefighters was reviewed in addition to identifying barriers associated with seeking help, and the various components of effective mental wellness programs supporting first responders. This researcher used search words such as: firefighter stress, PTSD, CISD, mental wellness programs and firefighting, resilience, coping abilities, and firefighter suicide as key words to locate relevant journal articles, dissertations, websites, and books to supplement this research study.

The first part of the literature review examines PTSD and work related stress in the fire service and barriers that may prohibit firefighters from seeking help. The second part of the literature review focuses on effective behavioral health programs used to support firefighters before, during and after a firefighter exposure to critical calls.

Post-traumatic stress disorder is defined in the Diagnostic and Statistical Manual of Mental Disorders published by the American Psychiatric Association (DSM-V) as a “trauma and stressor-related disorder”. Diagnosis of PTSD requires an exposure to a traumatic or stressful event (“DSM-5 Diagnostic Criteria,” 2015, p. 2).

The DSM-5 defines four clusters of symptoms related to a PTSD diagnosis. These four clusters are intrusion, avoidance, negative alterations in cognitions and mood, and alterations in arousal and reactivity (“DSM-5 Diagnostic Criteria,” 2015). These symptoms include, but are not limited to, recurring thoughts of the event, avoidance of thoughts, feelings or conversations about the event, a persistent negative emotional state, irritability, difficulty concentrating and hyper-vigilance.

Although a firefighter may be experiencing a symptom or several symptoms of PTSD such as irritability and difficulty concentrating, the firefighter may not meet the criteria for a PTSD diagnosis. When evaluating for PTSD, traumatic reactions are looked at on a scale of diagnosis ranging from moderate stress reactions; crisis disorder and acute stress disorder (ASD) to more severe symptoms; PTSD and chronic PTSD (Regehr & Bober, 2005). Where a firefighter falls on this scale of stress disorders depends on severity and duration of symptoms he/she may be displaying.

Repeated exposure to critical calls throughout the career of emergency responders increases the risk of a stress related disorder (“Stress-Related Mental Health Issues,” 2014).

Although it is important to note, what affects one emergency responder dramatically on an incident, may have no affect on another firefighter at the same incident. It is very difficult to find a clear cause and effect relationship between a critical event and a stress related response. Predicting how a firefighter will respond to an event is impossible (Regehr & Bober, 2005).

There are several factors that will impact how one emotionally responds to a critical call including past experiences, genetics, training and the availability of emotional support resources at their department (Dietz, 2015). These findings are reinforced by Ms. Woods' 2007 thesis showing broad differences in what responders identified as emotionally disturbing in any given critical incident. In addition, Woods' study also stated an element of developing long-term stress disorder is influenced by the availability of social and departmental support. It is understood that one major critical incident can be responsible for a traumatic stress reaction, but additionally, an accumulation of smaller stress related events can compound over time into a traumatic stress reaction. Due to this cumulative stress, emergency responders may start showing emotional distress over a seemingly innocuous call (Antonellis, Meshad, & Stack, 2006).

Emotional distress can also be made more complex when emergency responders are also experiencing stress from the work environment. Emergency responders have stated that although critical incidents are a component of job related stress, everyday work strain impacts them the most (Regehr & Bober, 2005). This concept was further developed in two documents showing everyday work issues such as shift work, funding issues, department politics, work load, and overtime increase pressure and stress on emergency responders. (Milen, 2009; Fisher & Etches, 2003). According to the study by David Milen (Milen, 2009) acute and accumulative stress will affect how an emergency responder performs on calls. The InterAgency Board states "stress experienced by line personnel can affect the work performance of the individual, the

team, and in turn the operational performance of the entire organization" ("Stress-Related Mental Health Issues," 2014).

Although occupational stress and PTSD is a growing problem in all ranks of the fire service, emergency responders are very reluctant in seeking help for stress. The issue of firefighters reluctance to seek help was explored in detail in many studies (Woods, 2007; Halpern, Gurevich, Schwartz, & Brazeu, 2008; Antonellis et al., 2006). Understanding why emergency personnel are reluctant to seek help when experiencing emotional stress symptoms is critical when creating a mental wellness program with the intention of decreasing stress disorders among individuals in the organization.

One reason emergency responders are reluctant to seek help may be personality traits identified as inherent among individuals drawn to the occupation of public safety (Antonellis et al., 2006; Halpern et al., 2009; Regehr & Bober, 2005; Woods, 2007). A study conducted by Ms. Woods in 2007 identified some firefighters as capable of emotionally distancing themselves from the pain and suffering of their patients. She identified personality profiles showing low empathy levels. Low empathy was explained as a natural defense mechanism allowing individuals to emotionally disengage. This mechanism allows emergency responders to work effectively while controlling their own emotions. In contrast, a study of ambulance workers (Halpern et al., 2009) found emergency workers have feelings of deep compassion for their patients however, they are able to bury those feelings in an effort to effectively perform their job. This theory is further developed by (Antonellis et al., 2006) who states the suppression of emotion is a learned behavior needed to perform the job, but over time this behavior becomes second nature. The down side to this ability to suppress emotion is it can bleed over into the responders' personal lives and interfere with his/her relationships. Furthermore, fire department

culture expects responders to repress emotion, even on the most traumatic of calls (Regehr & Bober, 2005). This behavior has been described as “emotional numbing” and is thought to be a cultural defense mechanism within fire departments and a contributing factor to the refusal to seek help when experiencing stress disorder symptoms (Antonellis et al., 2006; Halpern et al., 2009).

Another factor that contributes to emergency responder’s reluctance to seek emotional support is their lack of recognition of acute and chronic stress symptoms (Jahnke, Gist, Poston, & Haddock, 2014; Clayton, 2012). Educating emergency responders in recognizing symptoms of emotional stress in themselves and peers has not been and continues not to be a topic of discussion in the public safety culture (Jahnke, Gist, Poston, & Haddock, 2014). The fallout from lack of training in traumatic stress is further addressed in an article about firefighters and PTSD. The author states that some firefighters believe the emotional feelings they may develop from exposure to critical calls is a “just part of the job” and therefore, won’t recognize their feelings as symptoms of traumatic stress. (Clayton, 2012) If emergency responders are not educated about stress symptoms they in turn will not know if and when to seek emotional support.

Among the barriers to seeking help for stress related disorders is a pervasive lack of trust of mental health professionals (Jahnke et al., 2014; Wilmoth, 2014). Emergency responders have a close culture and have an inherent belief that people outside the profession do not understand the pressure they encounter (Wilmoth, 2014). Studies have shown that firefighters feel uncomfortable discussing critical calls with mental health professionals in debriefing sessions such as critical incident debriefing (Jahnke, Gist, Poston, & Haddock, 2014). This concept was echoed in another study that stated emergency workers “maintain almost perverse

aversion to therapists or other “outside” professionals who, some responders believe, understand neither the work nor the stress they face” (Wilmoth, 2014, p. 5).

The major barrier, however, to emergency responders accessing emotional support is the cultural attitude surrounding mental health in public safety (Bulala, 2013; Halpern et al., 2008; Regehr & Bober, 2005; Rutkow, Gable, & Links, 2011). One study concluded that the “stigma of mental illness is the most salient inhibitor for firefighter mental health services use” (Bulala, 2013, p. 39). The stigma of seeking help appears to be two fold; a concern how others will view them if they seek help and additionally how seeking help will effect their perception of themselves (Bulala, 2013). Several studies have shown the fear of seeking emotional support for job related stress disorder is entrenched in the belief that it will discredit their competence with their peers and management (Rutkow, Gable, & Links, 2011). This theory was further developed by (Regehr & Bober, 2005) stating under utilization of mental health programs is entrenched in fear the responder will get a reputation for being incompetent and seen as unfit for duty. In addition, studies have shown emergency workers do not want to be labeled with a stress disorder because it will hinder confidence in themselves and their ability to make quick decisions on critical calls (Bulala, 2013). The stigma of mental health programs in emergency medical services is summed up by Halpern, Gurevich, Schwartz, & Brazeu as “the stigma is so firmly entrenched in the culture that it remains unrecognized and unchallenged” (Halpern, Gurevich, Schwartz, & Brazeu, 2008, p. 145).

After looking at stress disorders in general, the occupational stressors related to first responders, work environment stresses, and theories related to barriers for seeking help, this researcher turned to examine the literature and studies addressing effective mental health interventions and programs for emergency workers.

A recurring theme in much of the literature is that interventions fall on two timeframes: (1) covering prevention with the responders, supervisors and the responders families and (2) covering early intervention with long term follow up care (Regehr & Bober, 2005; Skogstad, Weisaeth, & Heir, 2013; Sweeney, 2014).

The focus of prevention programs are designed to provide information used for the recognition of symptoms of stress and development of coping skills. This information is not only necessary for emergency responders, but also their supervisors and their families. Prevention is a topic frequently discussed in journal articles, dissertations and books (Skogstad et al., 2013; Woods, 2007; Halpern et al., 2008; Regehr & Bober, 2005; Fisher & Etches, 2003). As discussed earlier in the paper, one of the barriers to seeking help is the lack of education that is provided for emergency responders about symptoms of emotional stress (Sweeney, 2014). Studies on the influence of education on traumatic stress and the positive results of these programs have shown to be a vital part of mental wellness programs (Skogstad, Weisaeth, & Heir, 2013). This concept has been expanded in the literature stating if firefighters are informed on their occupational exposure to stressors, are capable of identifying symptoms in themselves and peers, and understand the avenues for support, they are likely to use the wellness services provided to them. Importantly, education will reduce the culture stigma that is so prevalent in the fire service culture (Regehr & Bober, 2005; Woods, 2007). Changing the organizational culture regarding the stigma of mental health through education may have the greatest impact on members' attitudes toward seeking help and bouncing back after exposure to a traumatic event (Dietz, 2015).

Support from line supervisors and the management team through awareness of stress symptoms and knowledge of different mental wellness support programs are also critical

components for helping responders deal with critical stress management (Halpern et al., 2008). One study showed supervisors not showing emotional support to responders after a traumatic call have been identified as one of the factors contributing to the reluctance of line personal to talk about their feelings (Milen, 2009). This lack of support was supported by a study where emergency responders stressed the importance of their supervisors' support following a traumatic call (Halpern et al., 2009). In a previous study by the same researcher, emergency responders reiterated this concept by stating they would like to see supervisors better educated in recognizing traumatic stress (Halpern et al., 2008). In support of these data, an additional study stresses company officers are one of the most important players in recognizing when emergency responders need additional support in managing critical incident stress (Jahnke et al., 2014). It is imperative to educate supervisors in recognizing all levels of stress symptoms so an intervention will be more likely to occur, preventing symptoms from developing into a deeper stress disorder. (Fisher & Etches, 2003).

Several studies have researched the impacts the emergency service occupation has on families and concluded critical stress training and education should include the families of emergency responders (Regehr & Bober, 2005; Greene, Kane, Christ, & Corrigan, 2006). Emergency responders believe the stress they feel from traumatic calls and general occupational stress have negative impacts on their family. Significant numbers of responders may experience irritability, exhaustion, and poor communication skills after returning home from work (Regehr & Bober, 2005). In addition, emergency responders may be reluctant to talk about traumatic calls with their significant others because of the belief their family will not understand the experience (Gawrych, 2010).

Even though responders may not talk about their experiences on shift with members of their family, research has shown job related stress can be transmitted to families (Regehr & Bober, 2005). Information designed for families to help them understand emergency responder's behavior when returning home and have the ability to recognize stress symptoms and the knowledge of how to respond is important for the emotional health of the family (Greene, Kane, Christ, & Corrigan, 2006). In a book about crisis counseling in the New York Fire Department, the author stressed the importance of family training in recognizing trauma symptoms in their responder and further training on the appropriate way to help when stress is identified (Greene, Kane, Christ, & Corrigan, 2006). The support of their families in first responders' lives is vital to reducing job related stress. Families are the backbone of support for emergency responders and if an education program leaves this essential element out of the process, the mental wellness program runs the risk of failing the individual and in turn the effectiveness of the program in general (Regehr & Bober, 2005).

The importance of early intervention after a critical incident was another topic that was discussed by many researcher studies (Barboza, 2005; Jahnke et al., 2014; Regehr & Bober, 2005). The traditional model for intervention after critical incidents has typically been critical incident stress debriefing (CISD). As stated earlier in this paper, the CISD process was used to create an official forum for formal psychological debriefings following a critical incident. Although this intervention has been used extensively following a traumatic event, several studies have stated that the "efficacy of this process is under much debate" (Barboza, 2005, p. 50). One journal article stated that when looking at the effectiveness of the CISD process on first responders, there was little to no positive effect on the responder involved in the debriefing compared to a responder who didn't go through the process at all (Jahnke et al., 2014). If fact,

the study showed that the CISD process has a contradictory result in some of the responders in the debriefing process because they were introduced to further details of the traumatic call or from rehashing the incident (Jahnke et al., 2014). This study found firefighters feel uncomfortable with the formality of the process and having an outsider come into the group to lead the debriefing process (Jahnke et al., 2014).

Peer support is a mental health program where other first responders, typically from the same organization, are trained in traumatic stress support and help the crew or the responder through the current traumatic call (Regehr & Bober, 2005). This researcher did find support and success for early interventions using peer support programs (Regehr & Bober, 2005; Wilmoth, 2014; Jahnke et al., 2014). Bill King, mental wellness coordinator for Tualatin Valley Fire and Rescue, stated the peer support team is vital to his program. He stressed the importance of having an internal team who can detect early warning signs and refer people to additional help before it becomes a crisis (B. King, phone conversation, August 12th, 2015). The rationale behind using peer support groups for initial crisis intervention is that peers understand the details of the work and have been on critical calls themselves (Regehr & Bober, 2005). Therefore, responders feel much more comfortable talking with people who understand their experiences and emotional reactions. In a research article (Wilmoth, 2014) offer data supporting peer support groups. She reported peer support groups were shown to have a direct correlation between decline of police suicides and the number of peer support groups available for initial intervention. The success of peer intervention was also echoed in an additional study on peer intervention indicating that peers, crews and existing social networks were preferred for primary interventions after a traumatic event (Jahnke et al., 2014). These data are supported in another study that showed a “time-out” period of about an hour after a critical event spent with peers,

usually people who have been on the incident, speaking about the incident in an unstructured setting was critical for initial interventions (Halpern et al., 2008).

Throughout the literature review, several themes emerged. Education programs for the employees, supervisors and families of emergency responders to help them recognize the symptoms of critical incident stress appeared to be a vital component of successful mental wellness programs. Additionally, the adoption of a more informal debriefing process using peers has had success and appears to be well received among line personnel.

Procedures

Informal interviews were conducted with members of the Bend Fire administration staff prior to the researcher's class at the National Fire Academy (NFA) to brainstorm pertinent issues the BFD was experiencing. Through these interviews and further conversations at the NFA, the researcher honed in on a particular subject that has impacted her fire department greatly; mental wellness issues and a lack of support programs at the Bend Fire Department. A clear problem and purpose statement was written and three research questions were developed to provide direction for the study. A descriptive research method was chosen to collect data. The goals for the study, as defined by the research questions, were to identify the most effective components of other fire agencies mental health programs, analyze BFD's mental health services to determine its limitations, and make recommendations to improve the mental health support for BFD's members.

Initial data collection began at the NFA in the Learning Resource Center (LRC) to collect articles, trade journals, dissertations on the subjects of mental wellness and firefighters, barriers to seeking emotional support in the fire service, firefighter suicide, PTSD and emergency

responder trauma and stress. Information gathering was continued after the completion of the EFO course in Bend, Oregon.

In addition to the written data, calls were made to firefighter mental wellness experts, wellness program developers and other fire organizations to conduct informal interviews regarding mental wellness programs for emergency personnel. On August 7th, 2015 the researcher spoke to Jeff Dill, founder of Firefighter Behavior Health Alliance in an informal interview and discussed firefighter suicide, mental health issues in emergency personnel and the absence of statistics on firefighter suicide. The researcher spoke with Tim Dietz, a retired fire captain as well as a licensed professional counselor and founder of Behavior Wellness Resources. In this interview topics discussed included firefighter traumatic stress and mental wellness programs. Mr. Dietz directed the researcher to fire departments he believed had the most comprehensive and successful mental wellness programs. The collected reference material and information gleaned from the interviews were used by the researcher to establish background material to help shape the direction of this study, decide on fire departments to include in the study, and develop questionnaires to gather data that would aid in formulating recommendations to improve the mental wellness services for Bend Fire personnel.

The researcher then contacted different recommended fire departments to collect information on their mental wellness program. Primary calls were made to eight departments to collect initial information. Of those eight departments, two departments were selected to be included in the research in addition to Bend Fire and Rescue. Both departments offer CISD, EAP, Chaplain support, Peer Support Program, education on acute and chronic stress, and access to a mental health counselor trained to work with emergency personnel, annual stress evaluations and one department just started mindfulness training.

The researcher then conducted two interviews with Bend Fire Department Chiefs; Battalion Chief Dave Howe and Training Chief Mark Taylor. The purpose of these interviews was to gather historical information about the mental health resources available to line personnel and information about the mental health problems the BFD personnel have experienced in the last 15 years. This information was used to develop a complete picture of the mental wellness issue at the BFD and to gather pertinent historical data for the background and significance section of this research paper.

Questionnaires were then developed for fire department line personnel and the managers of the mental wellness programs using the website www.typeform.com. The questionnaires were reviewed by several individuals outside the Bend Fire Department for grammatical errors and to identify questions that may be unclear in its purpose. Five individuals that hold ranks ranging from firefighter to Captain reviewed the line personnel questionnaires. Two professionals that work in the mental wellness field reviewed the mental wellness manager questionnaires. After modifications of both the line personnel and manager questionnaires based on professional feedback, the questionnaires were sent out to line personnel in the three fire departments and the managers of these programs.

The questionnaires sent out to the line personnel were identical for each department and consisted of 18 questions. To distribute the questionnaires, an email was sent to the union president of the two departments with a link to the survey, an explanation of the study, estimated time to complete the survey and statement of confidentiality (see appendix G). The Union President then forwarded the questionnaire with the explanation to all members in their Association. The time frame to complete the questionnaire was left open in hopes of getting maximum responses.

The researcher developed the line personnel questionnaire to seek information to identify factors related to occupational stress incorporating items assessing stress from critical calls, effects from work stress on families and the impacts of stress on co-workers. Another set of questions was used to identify the perception of their department's existing mental health program, focusing on assessing knowledge and utilization of existing resources, if existing program is adequate, preference of resource, and perceived stigma associated with using mental health services in general. (see appendix L,M,N)

Another set of questionnaires was developed for the managers of the mental wellness programs. The questionnaires consisted of 15 identical questions used to seek information on the different mental wellness program resources available at each department and to evaluate the effectiveness of these programs from the perspective of the program head. The questions on the manager questionnaires focused on types of mental health resources provided, estimated percentage of use by the line personnel, resources they believe are least and most effective and elements in their mental wellness program they believed were essential for a successful mental wellness program. (see appendix I,J,K)

Once the literature review was complete and the questionnaires were returned and analyzed, several limitations of this study became apparent. First, the data set was a voluntary process giving the researcher a 25% response rate, therefore creating an incomplete cross section of firefighter demographics.

Another limitation noted was finding fire departments with comprehensive mental wellness programs. Many departments have some resources available for its line personnel but finding a department that has expanded those resources was challenging. Typically the

departments with more extensive resources available to its staff were larger metropolitan departments that have considerable funding to support a mental wellness program.

During the literature portion of the paper, the researcher noted that available research on the topic of firefighter occupational stress and effective mental wellness programs for this demographic was limited. The topic of mental wellness support for firefighters and EMT's is a fairly new topic of discussion and is currently being explored in more depth in many fire departments. Statistics about firefighter occupational stress, PTSD and use of mental health resources are sparse and incomplete. The statistics on response on critical incidents and the mental health implications of repetitive exposure to traumatic incidents is not widely tracked.

Another limitation noted during the process of analyzing the data is the lack of a universal set of terms that is common knowledge in discussing mental health resources. Therefore the line personnel misinterpreted some of the researcher's questions.

Results

The purpose of the descriptive research was to identify the most effective components of other fire agencies' mental health programs, analyze Bend Fire's mental health services to determine its limitations and make recommendations to improve the Bend Fire Department's mental health support for emergency personnel.

Three research questions were developed to focus the study and analyze the dataset. The first question sought to identify the most effective components of existing mental health programs at other fire agencies. The second question looked at the effectiveness of the current mental wellness program at the Bend Fire Department. And the third question sought to determine what components of mental wellness programs could the Bend Fire Department adopt

to improve the mental wellness services for its employees. The data from the questionnaires research produced findings that were used to answer the three research questions proposed in this ARP.

The questionnaires were distributed to two fire departments, Department Number One and Department Number Two and the Bend Fire Department.

The first question posed in the questionnaire determined the demographic cross-section of line personnel responding. In total 720 line personnel consisting of firefighter, engineer, captain and fire inspector ranks received the questionnaire. Of those 720 questionnaires distributed 180 were returned, yielding a response rate of 25%. For Department Number One 370 questionnaires were distributed 74 were returned producing a response rate of 20%. In Department Number Two 277 questionnaires were distributed 64 were returned yielding a response rate of 23.1% and for Bend Fire Department 74 questionnaires were distributed and 42 were returned producing a response rate of 56.7%. Specific rank was not asked in the questionnaire to insure confidentiality although length of service in the occupation of fire and EMS was established. Of those who completed the questionnaire 3.8% have 1-4 years of service, 21.1% have 5-10 years of service, 21.6% had 11-15 years of service and 53.3% had 16-25 years of service.

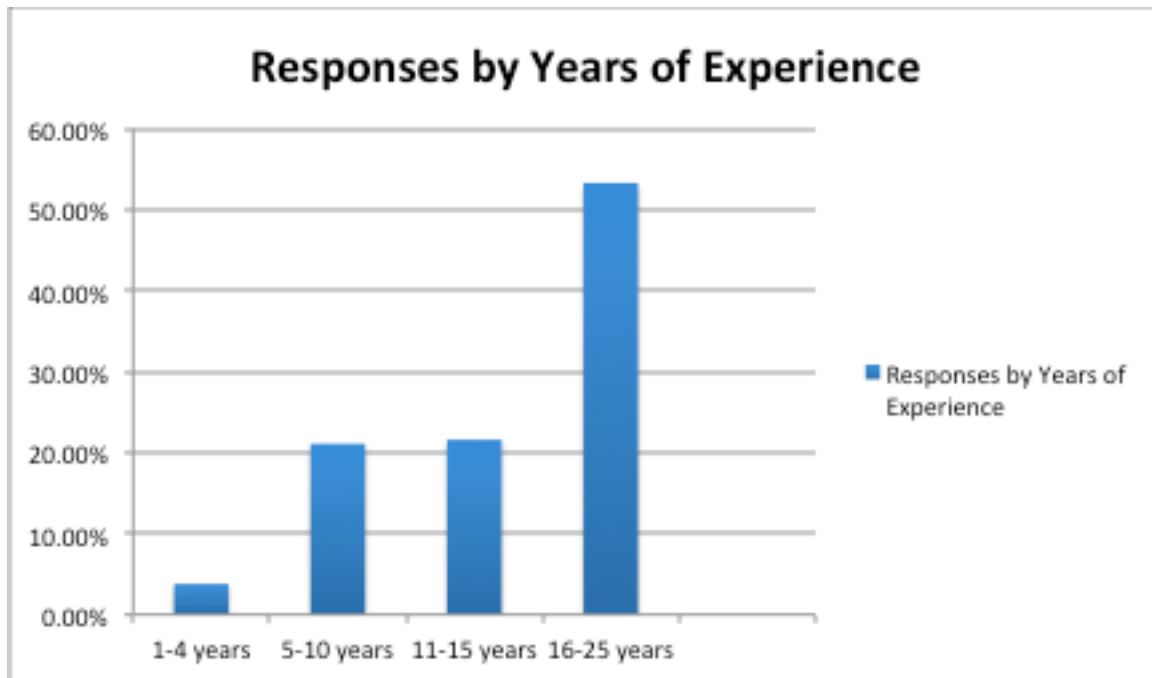


Figure 1. Responses rate percentages by years of experience

Approximately six questions were asked to determine level of stress felt by the line personnel from these departments to determine level of need for mental wellness programs in fire departments. The intent of asking these questions was to establish a background understanding and baseline of stress and effects of this stress on the line personnel's family. All three departments included in the study reported very similar percentages of occupational stress. The first question asked if they had responded to a critical incident they found emotionally upsetting in the last two years. The mean of the three departments show 77.7% stated they had responded to an incident that was emotionally upsetting in the last two years. A follow up to this question asked how many emotionally upsetting calls had they ran in the last two years. The total mean of the three departments showed 45.5% had responded on 1-3 calls they found emotionally upsetting, 20% had run 4-8 calls that were emotionally upsetting, 3.8% had run 9-14 calls they

found emotionally upsetting, 5.5% had run 15-20 calls they found emotionally upsetting and 2.7% had run over 20 calls they found emotionally upsetting in the last two years.

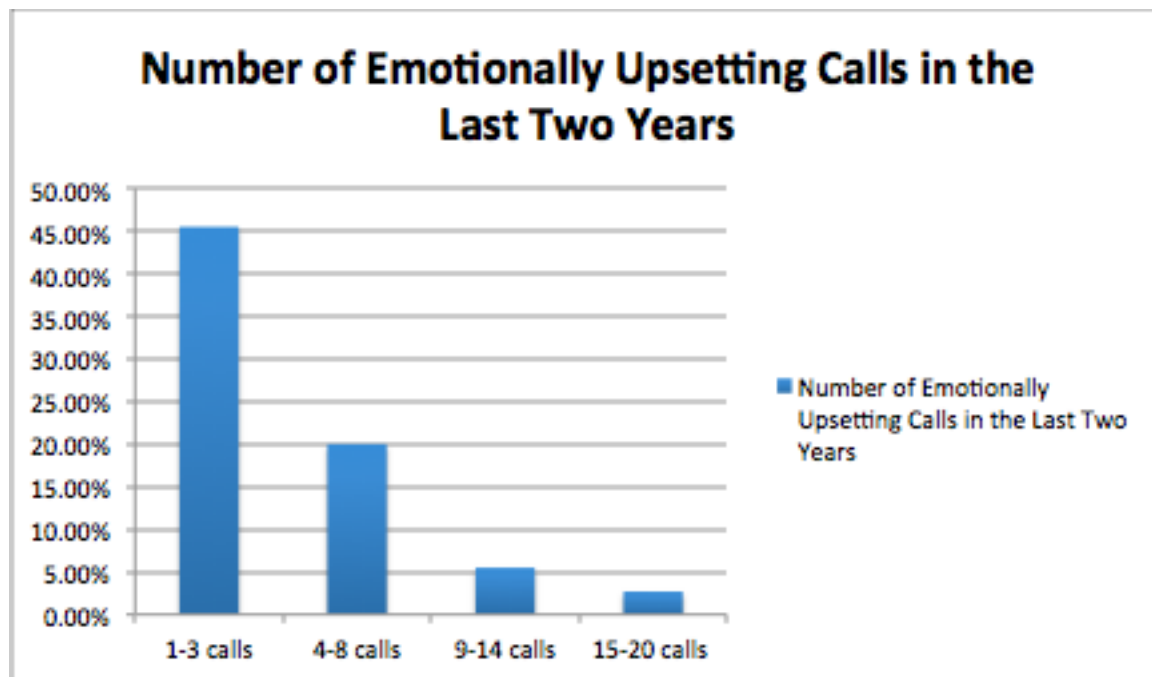


Figure 2. Percentage of emotionally upsetting calls in the last two years.

The next question determined if the level of job-related stress ever negatively impacted their family life. Data showed 69.4% of the respondents stated job related stress had impacted their family life.

The final question examined whether employees were concerned about a co-workers ability to deal with job related stress. 69.4% of respondents were concerned about a co-workers' ability to deal with job related stress.

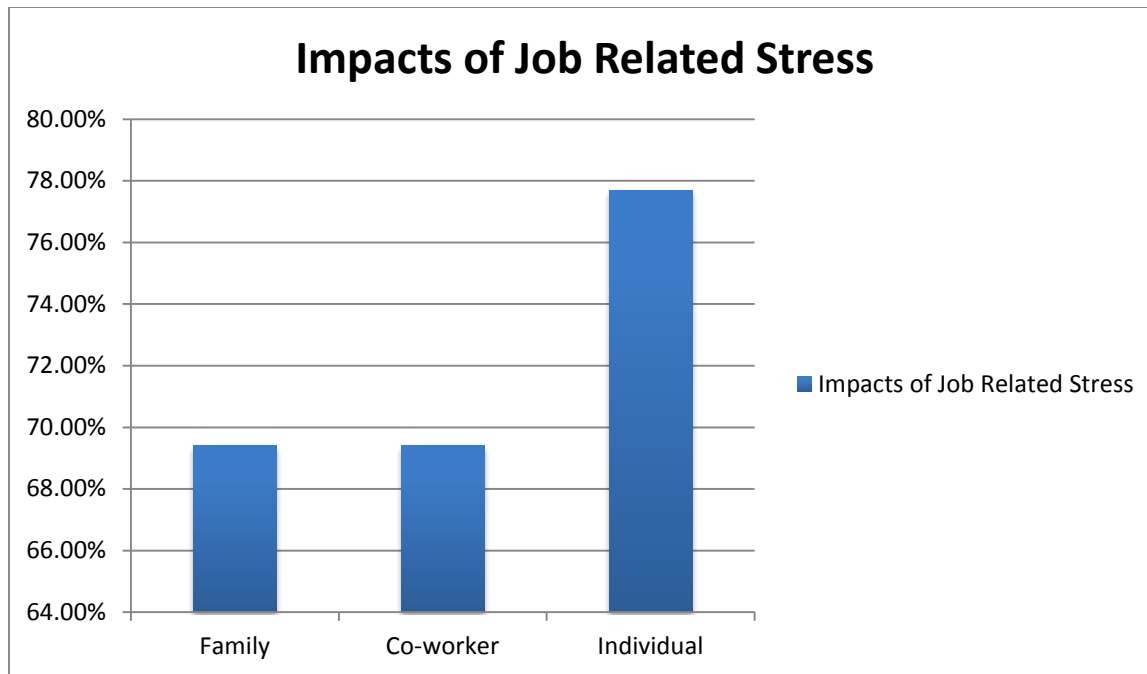


Figure 3. Impacts of Job Related Stress on Individual, Co-Worker and Family

To learn about the most effective components of existing mental health programs at other fire agencies, the researcher collected data from two departments that have established and financially supported mental wellness programs. The questions posed to both the mental wellness heads and line personnel defined their existing mental health programs and determined whether line personnel were aware of the resources and how accessible they perceived these services to be.

Department Number One has a mental wellness program that has been available to the line personnel for 17 years and has an annual operating budget of \$150,000 to \$200, 000. The program provides an in house mental health counselor, CISD, EAP, Peer Support, stress awareness and education, chaplain services as well as mindfulness training. The integrated education program is given to all line personnel and chief officers but does not include stress education for the families of the emergency workers. This department provides annual stress

screening and uses this data to shape the mental wellness program to meet the needs of the line personnel. The mental wellness head believes all resources are easily accessible to the employees.

To determine if the emergency personnel in Department Number One were aware what resources were available to them, the line personnel were also asked what mental health resources were available at their department. Of the resources available to them, 99% were aware of EAP, 93% CISD, 95% Chaplain services, 73% mental health counselor, 66% peer support and 1% were not sure what services were available.

Table 2

Awareness of Mental Wellness Services Available Department Number One

Awareness of services	EAP	CISD	In house Counselor	Peer Support	Chaplain Services	unknown
% of respondents	99%	93%	73%	66%	96%	1%

The emergency personnel of Department Number One were also asked if they believed the programs were easily accessible. 96% believed the programs were easily accessible while only 4% of the respondents did not know how to access any of the resources. Of the programs available, 89% knew how to access EAP, 86% CISD, 81% peer counseling, 84% chaplain services and 74% mental health counselor.

Table 3

Perceived Mental Wellness Service Accessibility Department Number One

Perceived service accessibility	EAP	CISD	In house counselor	Peer Support	Chaplain Services	Unknown how to access
% of respondents	89%	86%	74%	81%	84%	4%

Department Number Two also has a well-established mental wellness program, in existence for 5.5 years and supported by an annual budget of \$19,650 dollars. The program provides a contracted mental health counselor, CISD, EAP, Peer Support, and stress awareness and education. The stress education program is provided for all line personnel and is inclusive of the families of the line personnel. The department provides voluntary annual stress testing for the line personnel but does not track critical incident response data. The mental wellness head believes all resources are easily accessible.

The emergency personnel in Department Number Two were also asked what mental resources are available to them. Of the resources available to them, 98% are aware of EAP, 88% of CISD, 92% of chaplain services, 100% of peer support, and 6% of mental health counselor.

Table 4

Awareness of Mental Wellness Services Department Number Two

Awareness of Services	EAP	CISD	Contracted Counselor	Peer Support	Chaplain Services	Unknown
% of Respondents	98%	88%	6%	100%	92%	0%

98% of the emergency personnel knew how to access the support services and 2% were not sure how to access the resources. Of the programs available 95% knew how to access EAP, 60% CISD, 95% peer support, 80% chaplain services, 69% EAP and 8% department counselor.

Table 5

Perceived Mental Wellness Service Accessibility Department Number Two

Perceived Program Accessibility	EAP	CISD	Contracted Counselor	Peer Support	Chaplain Services	Unknown
% of Respondents	95%	69%	8%	95%	80%	2%

The department heads were asked to estimate how many emergency personnel they believed used any of the mental health resources available to them. Department Number One and Two estimated 20-30% of the emergency personnel used the services and Department Number Two estimated over 30% used their services. In actuality, the questionnaire showed 70% of line personnel in Department Number One used the services and 56% of Department Number Two using the services.

After examining existing mental health services from all three departments and the awareness of these resources from the emergency personnel perspective, the questionnaire then posed several questions to analyze the effectiveness of the existing mental health programs in each department.

The department heads were asked several questions to determine what they believed were the most utilized mental health resources and what they believed the most and least effective program of the available mental health resources. The emergency personnel were then asked similar questions to determine the congruity of responses between department heads and the emergency personnel.

In Department Number One, the wellness head believed the department counselor was the most used mental health resource. The emergency personnel, though, indicated the most

used resource was CISD at 61%, 42% department counselor at 42%, EAP at 28%, peer support at 24% peer support, and 15% had used chaplain services.

Table 6

Most Used Mental Wellness Service Department Number One

Service Available	EAP	CISD	Department Counselor	Peer Support	Chaplain Services	Other
% most used	28%	61%	42%	24%	15%	5%

*yellow cell indicates mental wellness head believes is most used by emergency personnel

Department heads were then asked what they believe is the most effective mental health resource for emergency personnel. Department Number One the department head said the department counselor is the most effective resource. The emergency personnel agreed - 38% preferred department counselor, 18% peer support, 16% EAP, 8% chaplain and 8% CISD.

Table 7

Preferred Mental Wellness Service Department Number One

Service Available	EAP	CISD	Department Counselor	Peer Support	Chaplain Services	None of the services
% preferred to use	16%	8%	38%	18%	8%	9%

* yellow cell indicates service mental wellness head believes is most effective mental health resource

The head of Department Number Two believed the most frequently used mental health resource was peer support. The emergency personnel agreed, reporting that the most used resources at this department was peer support at 40%, EAP at 32%, CISD at 30% and 17% for Chaplain services.

Table 8

Most Used Mental Wellness Service Department Number Two

Service Available	EAP	CISD	Contracted Counselor	Peer Support	Chaplain Services	Other
% most used	32%	30%	0%	40%	17%	3%

- yellow cell indicates service the mental wellness head believes is most used by emergency personnel

Department Number Two head believed that Peer support was the most effective of the resources. The emergency personnel of this department again agreed - 44% preferred to use peer support, 34% EAP, 6% Chaplain and 6% stated CISD.

Table 9

Preferred Mental Wellness Service Department Number Two

Service Available	EAP	CISD	Contracted Counselor	Peer Support	Chaplain Services	None of the Services
% preferred to use	34%	6%	0%	44%	6%	9%

*yellow cell indicates service mental wellness head believes is most effective mental health service

The department heads were then asked what they believed was the least effective mental health resource available to emergency personnel. Department Number One and BFD said EAP was the least effective of all resources available, Department Number Two chose CISD as the least effective. From the perspective of the emergency personnel the data shows that CISD and chaplain services are the least preferred resource in all three departments (See table 7,9,14).

The Emergency personnel were then asked several questions regarding the mental health programs in their fire department as a whole and in regard to specific components of the program in attempt to determine effectiveness from the emergency personnel perspective.

Emergency personnel from each department were asked if the mental health resources had helped them. In Department Number One, 53% answered yes, 24% answered a little, and 5% answered no. Department Number Two, 45% said yes, 16% a little and 6% no. BFD answered 26% yes, 14% a little and 2% no.

Table 10

Line Personnel Opinion if Mental Wellness Service was Helpful

Line personnel response	Yes	No	A little
Department Number One	53%	5%	24%
Department Number Two	45%	6%	16%
Bend Fire	26%	2%	14%

Emergency personnel for the departments were also asked if they felt that the support services provided at their department was adequate enough to help a co-worker through job related stress. 79% of responses in Department Number One answered yes and 21% said no. In Department Number Two, 78% of responses said yes and 22% said no. The emergency personnel at the BFD answered 63% no and 37% yes.

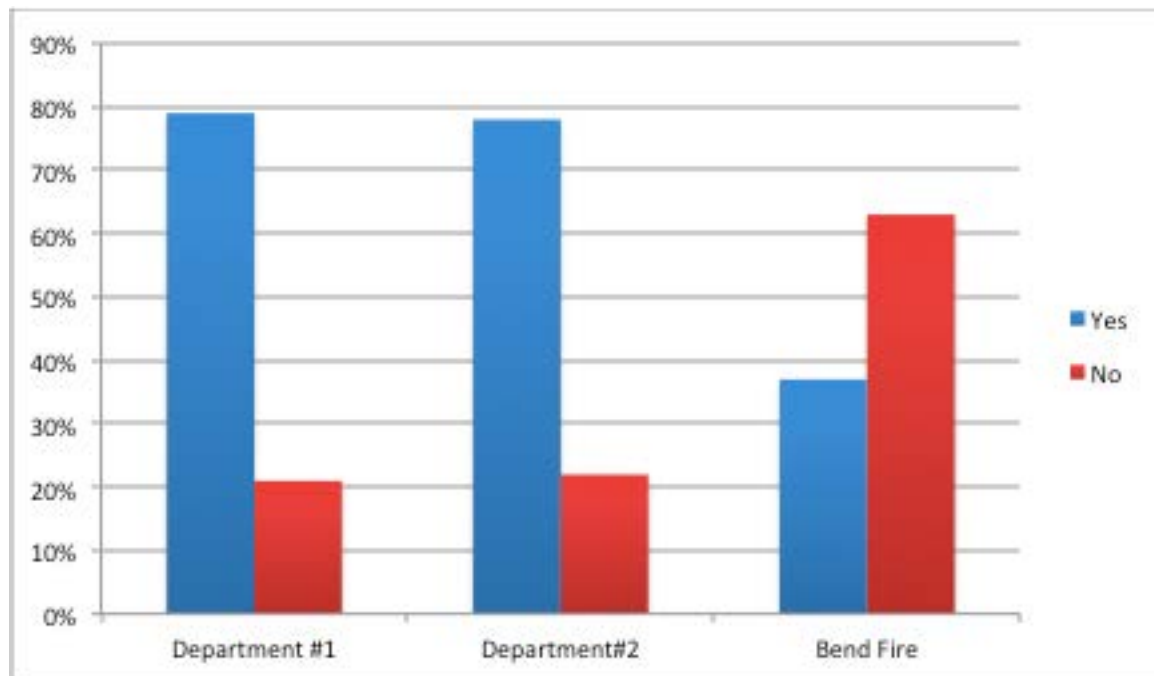


Figure 4. Support Service Adequate to Help a Co-Worker

Emergency personnel were then asked if there was adequate education and training about work related stress and PTSD at their department. Department Number One emergency personnel answered 59% yes and 41% no. Department Number Two answered 55% yes and 45% no and Bend Fire employees answered 7% yes and 93% no.

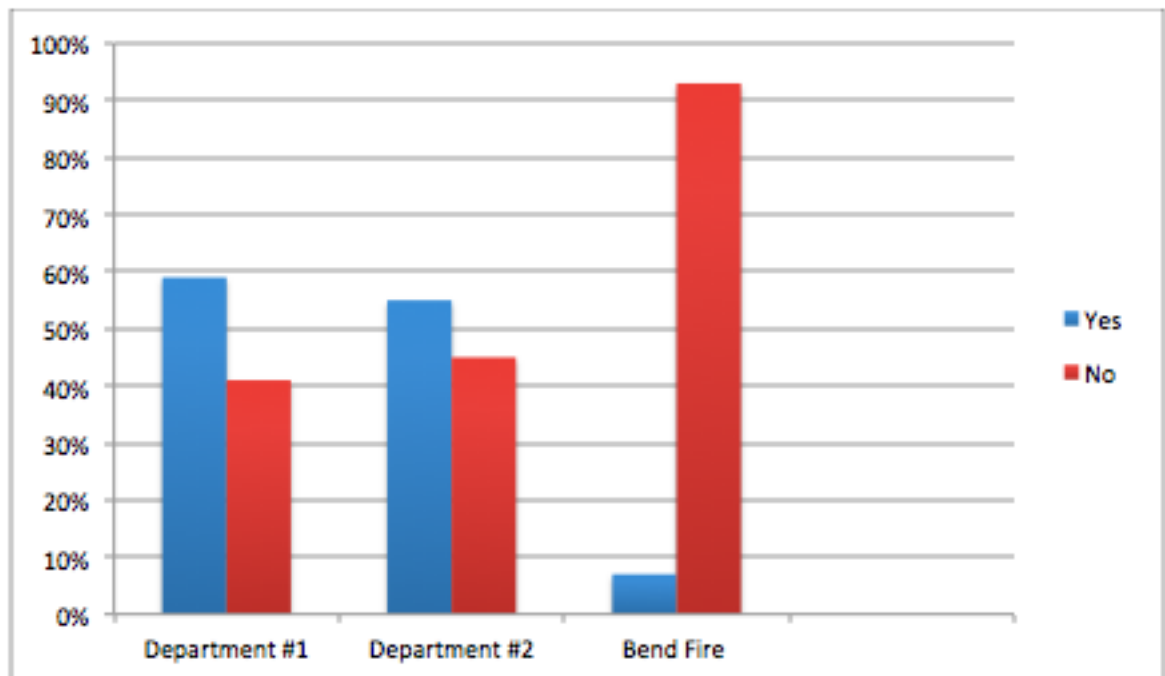


Figure 5. Emergency Personnel Opinion on Adequate Stress and PTSD Education and Training in their Department

The emergency personnel were asked if they ever needed support services for job related stress but didn't access the services. The responses of the three departments were very similar. The responses showed that 42.2% of the emergency personnel felt they have needed support services and but did not access them.

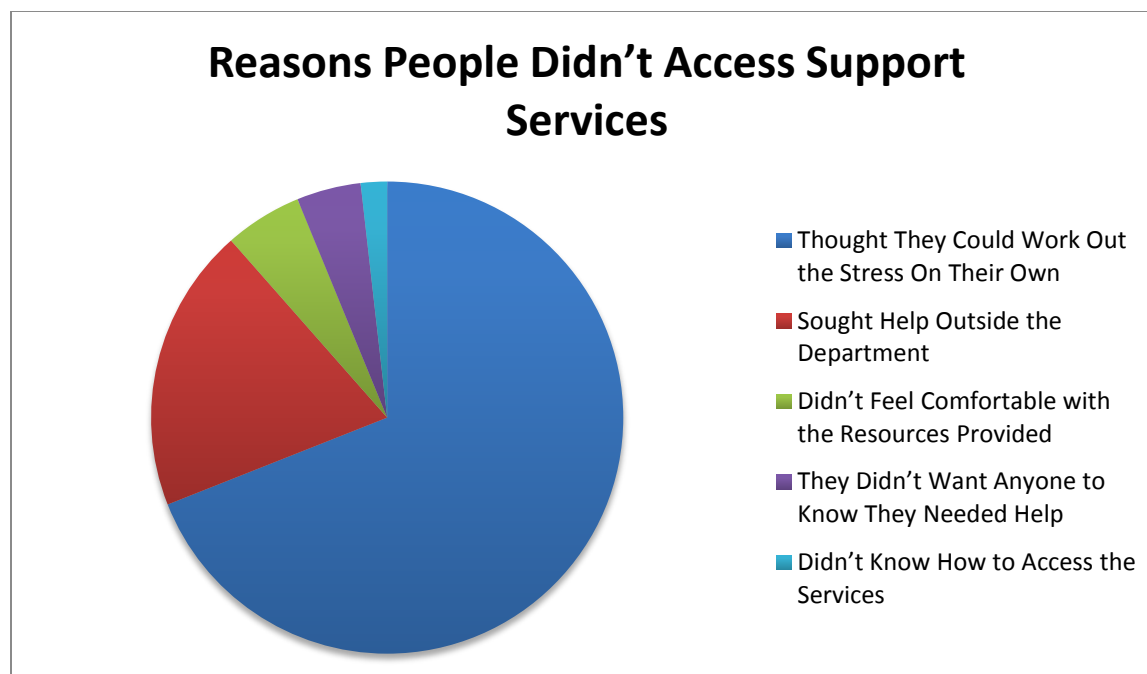


Figure 6. Emergency Personnel who didn't access support services and needed help

A follow up question asked why emergency hadn't accessed services. Again the responses were similar between the three departments. 69% of the 113 responses answered they thought they could work out the stress on their own, 19.5% answered they sought help outside the department, 5.3% didn't feel comfortable with the services provided, 4.4% answered that they didn't want anyone to know they needed help and 1.8% answered they didn't know how to access the mental health resources at their department.

Both mental wellness heads and emergency personnel were asked about stigma attached to mental health services. All three mental wellness heads questioned believe there is negative stigma associated with using support services for job related stress. 53% of emergency personnel in Department Number One reported negative stigma for using mental health services, while 47% answered no. In Department Number Two, 50% said there was negative stigma and

50% answered no. And 71% of Bend Fire personnel indicated there is negative stigma for using mental health services and 29% answered no.

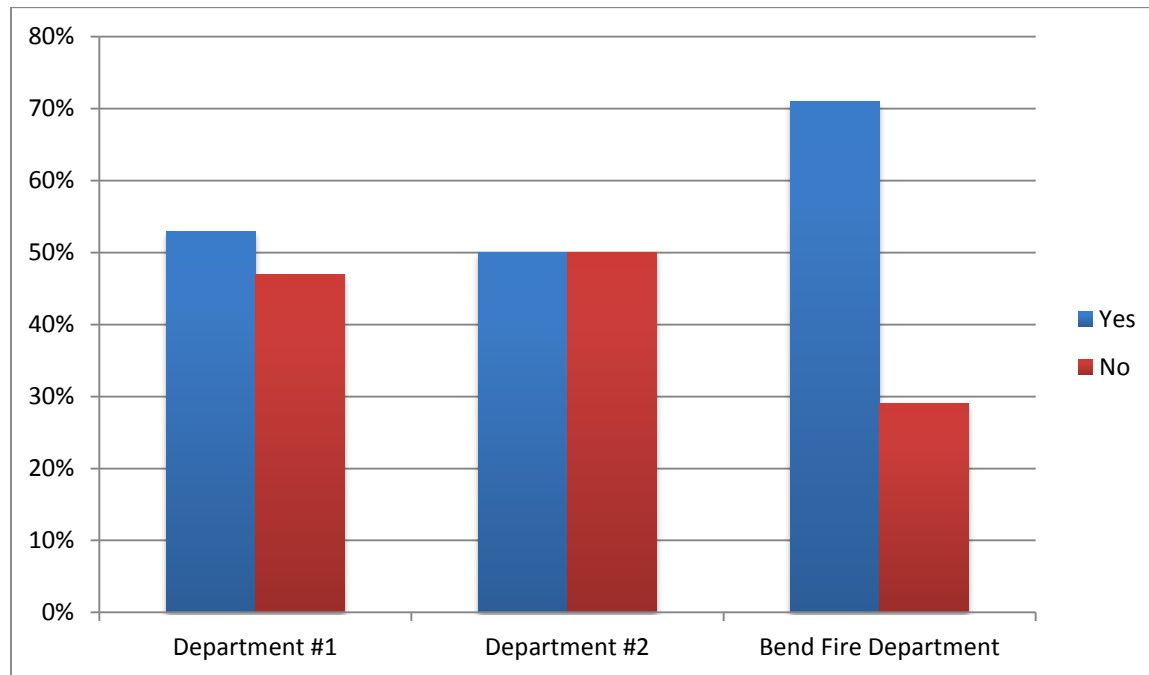


Figure 7. Emergency Personnel opinion of negative stigma using mental wellness services

Finally, the emergency personnel were asked if they would voluntarily participate in an annual stress monitoring survey during annual physical evaluations. Although two of the departments included in the research already have this program in place, the answers were very similar between the three departments. 85% of the emergency personnel stated they would participate in an annual stress survey, 11.6% answered they were not sure and 3.33% answered no.

The data collected from the two outside departments with extensive mental wellness programs was then analyzed to answer the first question posed in this ARP; what are the most effective components of existing mental health programs at other fire agencies? The data most examined by the researcher to answer this question was what program the mental wellness heads

thought were most effective and what resource the emergency personnel felt most comfortable using. The answers to these questions were congruent between the heads and the emergency personnel in both departments (see table 7 and 9). The preferred resource to use and one the heads felt were most effective was department counselor and peer counseling. The researcher also looked closely at whether emergency personnel felt the resources used had been helpful. 53% percent of emergency personnel in Department Number One and 45% of emergency personnel in Department Number Two indicated the services provided by the department were helpful. The data regarding adequate stress education provided to the employees of the two fire departments was also closely examined. 59% in Department Number One thought it was adequate and 55% in Department Number Two thought it was adequate. Given this data, the researcher concluded that the most effective components of the two existing mental wellness programs researched is a department counselor, a peer counseling program and a strong stress education component.

The second question posed in this research paper was how effective is the current mental wellness program at the Bend Fire Department? The Bend Fire Department does not have an official mental wellness program and there is no funding allocated to any mental wellness resources. Although there is no official mental wellness program, CISD, EAP and chaplaincy programs have been available to Bend Fire employees for mental wellness support services. In addition, the department states they have stress awareness education for all its emergency personnel and families, and the Bend Fire Training Chief believes the mental health resources are easily accessible to its employees. BFD does not have an annual stress evaluation screening and does not track critical incident calls for data analysis.

To analyze the effectiveness of the wellness services provided by BFD the existing services were examined and the BFD employees were asked about their awareness of these resources. Of the programs available, 98% were aware of Chaplaincy program, 93% EAP, 86% CISD, 26% believed there was peer counseling services, 5% thought there was a department mental health counselor and 5% of the emergency personnel didn't know what mental health resources were available to them. It is important to note that BFD wellness resources do not currently include peer counseling or a department counselor.

Table 11

Awareness of Mental Wellness Services Bend Fire Department

Services Available	EAP	CISD	Chaplain Support	Peer Counseling	Department Counselor	Unknown
% awareness of service	93%	86%	98%	26%	5%	5%

*Cells in red indicate resource not available at Bend Fire Department

When asked if they knew how to access the mental health resources, 81% stated yes, 14% were not sure and 5% stated they did not know how to access the services. Of the programs available, 90% knew how to access chaplain services, 79% EAP, 62% CISD, 21% peer support, and 5% department counselor.

Table 12

Perceived Mental Wellness Program Accessibility Bend Fire Department

Services Available	EAP	CISD	Chaplain Support	Peer Counseling	Department Counselor	Unknown/ Unsure
% believes programs are easily accessible	79%	62%	90%	21%	5%	19%

*Cells in red indicate resources not available at Bend Fire Department

The BFD emergency personnel were then asked if they had used support services in the past what they have used. The employees who have used support services 33% answered CISD, 15% stated EAP, 10% answered Chaplain services, and 8% answered peer counseling.

Table 13

Most used Mental Wellness Service Bend Fire Department

Service Available	EAP	CISD	Chaplain Services	Department Counselor	Peer Counseling	Other
% Most Used	15%	33%	10%	0%	8%	0%

*Cells in red indicate resource is not available at Bend Fire Department

The department head at the BFD who manages the current mental wellness resources was asked what he believed is the most effective mental health resource for emergency personnel. He reported mindfulness training was the most effective resource. The emergency personnel of this department were asked a similar question to determine what resource they would prefer to use out of the all the programs available to them. The emergency personnel indicated the resources they were most comfortable using was EAP at 33%, Peer support at 19%, Chaplain at 14%, CISD at 14% and department counselor at 7%.

Table 14

Preferred Mental Wellness Service Bend Fire Department

Service Available	EAP	CISD	Chaplain Services	Department Counselor	Peer Counseling	None of the services
% preferred Service	33%	14%	14%	7%	19%	12%

*Cells in red indicate resource is not available at Bend Fire Department

-

Data collected from BFD emergency personnel was used to determine effectiveness of the current mental wellness services provided by the Bend Fire Department. The researcher looked at multiple data sets regarding how emergency personnel felt about the mental wellness services. The data showed 63% of BFD emergency personnel do not think support services are adequate to help a co-worker (figure 4). 93% believe stress education is inadequate (figure 5), and 71% believe there is a negative stigma associated with using mental wellness services (figure 7). Examining the stand-alone results of Bend Fire questionnaires and also comparing the results with the other two fire departments, the researcher concludes that the mental wellness resources at the Bend Fire Department are not adequate to support its emergency personnel's mental health.

The third question posed in the ARP asked what components of mental wellness programs could Bend Fire Departments adopt to improve the mental wellness services for its employees. The data showed that with the existence of an education component within the mental wellness program there is more awareness of existing programs, knowledge of accessibility and a stronger congruence between emergency personnel and program manager's preference in resource. The education program also showed a reduction in the stigma of mental wellness use by 34% from the data collected from Departments Number One and Number Two and BFD (figure 7). The data also showed a preference for use of peer support services - 44% in Department Number Two and 24% in Department Number One. Interestingly, 19% of Bend fire personnel indicated they preferred peer support services, even though the program does not exist. The researcher concluded, therefore, that a strong education program and the implementation of a peer support program are two components of mental wellness services that BFD could adopt to improve the wellness support to its emergency personnel.

Discussion

The purpose of this research was to identify the most effective components of other fire agencies' mental health programs, analyze Bend Fire's mental health services to determine its limitations and make recommendations to improve our department's mental health support for Bend Fire personnel. Qualitative data analysis and a current literature review were used to analyze the issue by answering 3 research questions and in the end, make recommendations to BFD that would enable them to improve their mental health support system.

The data demonstrated an overwhelming need for fire departments to have a comprehensive mental wellness program in place for their emergency personnel. 77.7% of the emergency personnel stated they had responded to a critical call in the last two years that was emotionally upsetting. In addition, 69.4% stated that the stress from work negatively impacts their family life (see figure 2 and 3). These findings are supported throughout research and articles, that state the nature of emergency work and the challenges faced by personnel creates psychological stress and can significantly impact their private lives and personal relationships ("Stress-Related Mental Health Issues," 2014; Regehr & Bober, 2005; Antonellis et al., 2006).

Comparing the rate of return for the questionnaires with the years of service showed an interesting correlation (figure 1). The return rate of questionnaires for emergency personnel with 15-25 years of experience was by far greater than any other year of service bracket with a 53.3% of this demographic responding. Although there could be many reasons for this response, one argument to consider is the impact of cumulative stress has had on the emergency personnel over the course of their careers. An emergency responder's career "involves a string of horrifying exposures outside the average person's experience" (Regehr & Bober, 2005, p. 22).

In addition, emergency responders describe one of the long-term effects of being in the first responder occupation is a “reduced capacity to handle stressful events” (Regehr & Bober, 2005, p. 72). The increased rate of the return of these questionnaires from experienced emergency personnel may be reflective of the cumulative impacts of multiple traumatic exposures both to themselves and co-workers and the potential to have a reduced capacity to handle these critical calls. One speculation is personnel with 15-25 years of experience are more aware of this cumulative stress and therefore more open to talking about stress, the impacts of stress and their attitude toward of the mental wellness resources available to them.

The outside departments used in this research show they have multitude of resources available to their emergency personnel for mental wellness support. In the two departments, the mean combined personnel responses showed that 63% have used one of these services for support. Although some resources are preferred over others, each service provided was used to some degree. Regehr and Bober discuss in their research how first responders have broad differences in how they are emotionally impacted from a critical calls (Regehr & Bober, 2005). The data in this research shows the concept of individual differences in emotional responses can be expanded to individual differences in preference for emotional and stress support services. First responders will have differences in what resources they feel most comfortable using to get emotional help. Fire departments should therefore have a variety of resources available to emergency personnel to increase the chances that one of these resources will be used when the first responder is undergoing stress.

The data from the outside departments not only showed that emergency personnel are using the resources, but also they feel like the mental wellness programs provided are beneficial. In Department Number One, 53% of the emergency personnel stated the services provided

helped them and 79% believe the resources available are adequate enough to help a co-worker through job related stress. In Department Number Two, 45% stated the services helped them and 78% believe the resources are adequate enough to help their co-worker through job related stress. This is in contrast to BFD, where 26% thought the services helped them and only 37% thought the resources were adequate enough to help a co-worker through job related stress (see table 10 and figure 4). This data demonstrates that the emergency personnel in both Departments Number One and Two feel confidence in the resources provided to them and that the BFD resources do not inspire the same confidence.

As stated earlier, both outside departments have multiple wellness resources available which is an important factor for a successful program. But examining which is the preferred resource among emergency personnel may be more helpful in setting priorities for construction of an effective program overall. In Department Number One the data shows that 38% of emergency personnel prefer to use the in house counselor and in Department Number Two, 44% of emergency personnel prefer to use peer counseling (see table 7 and 9). The heads of the mental wellness programs have developed these services and these preferred programs use support that comes from within the departments. In Department Number One the in house counselor runs the mental wellness program and not only is the counselor for the department but was a firefighter himself for over a decade. Department Number Two uses trained peer counselors from within the department as their first line of emotional support. The peer support services preference among firefighters is established in a study about behavior health interventions in the fire house which stated a majority of firefighters said they preferred using existing social relationship in the department, particularly their own crews to help them work through difficult calls and events (Jahnke et al., 2014). The core factor in both of these preferred

programs is that the help comes from inside the department and is a known person(s) who has built some element of trust among the emergency personnel. Having the help come from within seems to be very important piece because as stated by Wilmoth 2014, “many emergency responders maintain an almost perverse aversion to therapists or other “outside” professionals who, some responders believe, understand neither the work nor the stresses they face” (Wilmoth, 2014, p. 5). In addition, both of these programs have been an established resource for a few years. Regehr, Ph.D., speaks to the importance of having established programs, in her book on trauma in the emergency service where she argues that for best results, peer programs and mental health counselors should be set up prior to a critical event taking place (Regehr & Bober, 2005). Because many departments do not have the resources to hire an in house counselor for its emergency personnel, the data and literature show that establishing a peer counseling program for its emergency responders is important for wellness support.

Examining the data from Bend Fire personnel, the preference for peer counseling is evident. The BFD does not have an official peer counseling program in place. Although when asked in the questionnaire what program they feel most comfortable using for mental health support, 19% of emergency personnel answered peer support program (see table 14). This data indicates that even without an official peer support program in place, firefighters prefer debriefing with peers and will utilize this resource regardless of the official establishment of a peer program.

In contrast, the data shows that emergency personnel from the outside departments are least comfortable with the CISD process (see table 7 and 9). Department Number One showed only 8% of personnel feeling most comfortable using this process and Department Number Two only showed 6% (see table 7 and 9). Interesting it’s a resource that seems to be most used by the

emergency personnel with Department Number One having 61% of line personnel having used this resource and 30% for Department Number Two (see table 6 and 8). This data response is most likely due to the fact that historically CISD was the preferred method for stress reduction in emergency care, police and fire departments and was used extensively by these groups after traumatic events (Barboza, 2005). Recent data published finds that emergency workers are uncomfortable in the CISD setting and have even experienced negative effects from this debriefing process (Jahnke et al., 2014). The data found in this research supports these findings and shows when an alternative resource is available, it is preferred by emergency personnel. The results from this research also indicate that the emergency personnel prefer debriefing with peers. This finding is supported by research which have found interventions for emergency workers is more successful when done in station, in a non structured environment when debriefing the incident with their peers (Halpern et al., 2008).

An additional factor that appears to influence the success of the outside departments mental wellness programs is the focus on education to recognize signs of acute and chronic job related stress and teach coping mechanism to deal with this stress. Both departments include supervisors in this education and Department Number Two extends the training to families of the emergency personnel. The education components of their program appear to be successful. Data collected shows 56.6% of emergency personnel in both departments believe the education and training about work relate stress and PTSD is sufficient compared to only 7% of BFD emergency personnel (see figure 5). As discussed by Regehr and Bober, an education component in mental wellness support is imperative because it helps coping mechanisms, reduces the stigma of using mental health resources and it shows department support to the personnel (Regehr & Bober, 2005). Education programs help emergency responders learn to identify normal emotions that

may be induced from a critical call, and the wellness resources available to them. Additionally, education also reduces the stigma of needing help, which is prevalent in the emergency service industry (Bulala, 2013; Halpern et al., 2009). The impacts of the education program can be seen not only in the data showing emergency personnel use of the mental health resources, but also in the perception of stigma associated with using mental health resources. Although the mental wellness heads of these two departments still believe that stigma is prevalent surrounding mental health, 47% of emergency personnel in Department Number One don't believe there is stigma using the mental health resources and 50% in Department Number Two also stated they don't believe there was negative stigma (see figure 7). In contrast only 29% of BFD personnel doesn't believe there was negative stigma to using mental health resources. In an industry where the stigma of seeking help for mental health issues is so widespread and rooted in the culture of the fire service (Halpern et al., 2008), data shows that education programs are making a positive impact. It is mental health education that will change the culture of the departments and destigmatize the use of mental health support.

An additional aspect of the data that speaks to the importance of education on the recognition of job related stress and coping mechanisms is seen in figure 6 which examined why emergency personnel didn't access mental wellness assistance when they needed help. The data collected showed 42.2% of the line personnel who responded to the survey didn't access any mental wellness help when they needed assistance. Of the 42.2% of that didn't access the support, 42.7% stated they thought they could work out the stress they were feeling on their own. This response is supported by research that shows firefighters are not against the concept of getting help in general, but are "personally avoidant when it applies to them" (Bulala, 2013, p. 41). Firefighters have built a culture where they prefer to deal with stresses on their own

(Clayton, 2012). This reluctance to seek help may be inherent in the personality profile of emergency responders (Woods, 2007; Antonellis et al., 2006), or a fallout from a defense mechanism to protect themselves from difficult calls (Antonellis et al., 2006) or a belief the emotions are inherent in the occupation (Clayton, 2012) but regardless of cause, a percentage of emergency personnel will not seek help when help is needed. Therefore, it is critically important that the reluctance to seek help is recognized by fire agencies and education is brought to emergency personnel enabling them to build coping mechanisms to help themselves and encouraging them to use resources when they're needed. Education also needs to be extended to family members so they can recognize emotional stress in their emergency worker and have the skills to assist them.

The two outside departments chosen to be a part of this study have comprehensive support resources for its employees. These departments have recognized the need for mental health support and have clearly spent energy and financial resources to develop these programs. These departments are more progressive in this arena than most departments in the United States and the data collected in this ARP have shown their efforts are making a difference in mental wellness support. But even with these departments that recognize the need and allocate monetary resources to their mental wellness program; the data shows there is still room for vast improvement. Even with the resources in place, 42% of the emergency personnel still did not access support services when they needed the help, and approximately 50% of those employees still believe there is a negative stigma attached to using mental wellness resources for job-related stress. These figures show improvement in even established programs is needed to change fire department culture so that the emergency personnel understand acute and chronic stress and seek help when the stress becomes overwhelming.

The data collected in this ARP clearly shows a need for mental wellness support among emergency personnel. In addition, the outside departments researched have built programs with multiple resources available to its employees, education programs that teach recognition of stress and coping mechanisms, support services that focus on giving help from within the departments and are making a positive impact to the mental wellness of their emergency personnel.

Conversely, the data shows deficiencies in the available behavioral wellness resources at the BFD and points to more effective mental wellness services they can adopt to improve mental wellness support throughout the department.

Recommendations

The purpose of this research was to identify the most effective components of other fire agencies' mental health programs, and make recommendations to improve the mental wellness support services available for Bend Fire Department personnel. Through a descriptive method, the BFD mental wellness resources were analyzed and for their effectiveness and limitations. In addition, two outside departments with established mental wellness programs were examined to determine the most successful components of their systems.

The results demonstrated that Bend Fire Department personnel show a need for mental wellness support and that the program provided at the BFD is insufficient to support the mental wellness of its personnel. Many deficiencies were noted in the current program, including lack of education on stress awareness and stress coping mechanisms, low general awareness of the services available and general lack of effectiveness of the wellness resources. By examining the successful components of other fire agencies' mental wellness programs, the researcher

formulated recommendations to help develop the current mental wellness program at the BFD.

Based on the data collected, the recommendations are:

- To align with the recommendations of NFPA 1500 and NFFF Life safety Initiatives of developing behavior health resources for firefighters and their families, the BFD should commit to expanding its mental wellness program by allocating the energy and financial resources required for the development of a robust program.
- To insure the success of the mental wellness program, a person in the department or contracted person should be in charge of the mental wellness program.
- To expand its mental wellness resources the BFD should develop a Peer Counseling Program modeled after Department Number Two's Peer Support Program. This program should include initial counseling after a critical call, follow up as needed and referral to other mental wellness resources. The department should commit to continual training of the peer support group for the success and longevity of this program.
- BFD should create an extensive education program to educate everyone in the department – supervisors, emergency personnel and their families on stress awareness, emotional impacts of critical and cumulative stress, and the coping mechanisms which can be used to mitigate stress. General sessions for groups of employees to help overcome resistance to support and decrease the stigma associated with mental health programs.

- The BFD program should include multiple resources to overcome the natural resistance of firefighters to mental health programs.
- In order to demonstrate responsiveness to emergency personnel opinions, the department should consider modifying the CISD process.
- Focus on longer tenured employees to deal with the cumulative effect of long-term exposure to critical calls.
- To be able to shape the education program and mental wellness program, statistics on critical calls should be documented and analyzed.
- To further support the BFD personnel, voluntary stress monitoring should be conducted annually during annual physical evaluations.

This research project shows Bend Fire Department's lack of mental wellness resources needed to support the BFD its emergency personnel before, during and after exposure to critical events. As the BFD continues to grow and call volume continues to rise, the emergency personnel will certainly see an increase critical incident calls. Developing effective mental wellness resources to aid the emergency personnel after those critical incident exposures is necessary for the well being of the employees and their families. A commitment from the BFD to establish and develop a mental wellness program will benefit all staff working at BFD, and the success of the Bend Fire Department in serving the community.

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Appendix A

Phone conversation with Jeff Dill, founder of the Firefighter Behavior Health Alliance.

Phone interview with Jeff Dill was conducted on August 7th at 2:30pm. Conversation lasted approximately 10 minutes.

The purpose of this interview was to discuss firefighter mental wellness issues and effective mental health programs at fire departments that are helping with occupational stress issues.

Mr. Dill talked about Firefighter Behavior Health Alliance and the lack of statistics on firefighter suicide. He spoke of acute trauma, PTSD and firefighter suicide being huge problem in emergency services. The statistics on firefighter suicide is not tracked by departments and his website is an attempt to start tracking this information to hopefully put firefighter mental health issues and suicide in the spotlight.

We then talked about mental wellness programs in fire departments. Mr. Dill stated he didn't know much about specific behavioral wellness programs at different departments that are effective in helping firefighters and acute and chronic stress. He directed the researcher towards the 16 fire initiatives by the National Fallen Firefighter Foundation.

Appendix B

Notes on phone conversation with Tim Dietz, founder of Behavior Wellness Resources.

Phone Conversation was on August 7th at 1:30pm and lasted approximately 15 minutes.

The purpose of the conversation was to talk about firefighter occupational stress and effective mental wellness programs at fire departments that are helping firefighters with this stress.

Mr. Dietz spoke about his history as a firefighter and his transition into counseling and firefighter behavior health. Mr. Dietz has been a strong advocate of mental wellness services for fire service and has been an integral part of setting up mental wellness programs for Oregon fire departments. He is active in training peer support groups and gives talks to firefighters and their families about firefighter mental wellness and occupational stress. Mr. Dietz also is also contracted counselor with a few fire departments in Oregon.

Mr. Dietz directed the researcher towards several departments in Oregon and Washington he believed has good mental wellness services for its firefighters. He spoke of the different components of some of the programs and gave the researcher contact information for a couple of departments in Oregon.

Appendix C

An in person interview was conducted with Battalion Chief Dave Howe on September 15 at 11am in his office at 1212 SW Simpson Ave. Interview lasted approximately 20 minutes.

The purpose of this interview was to discuss the historical behavior health issues of the line personnel of Bend Fire Department.

Chief Howe has worked through the rank at the Bend Fire Department and has worked at this department since the mid 1970's.

Chief Howe stated he remembers three people leaving the department from PTSD like symptoms since the mid 1980's. One firefighter left around 1983, mid 90's and the last one was about 5 years ago. He couldn't recall if the past firefighters left from one critical call or an accumulation of calls.

Chief Howe also remembers four suicides at the department since the mid 1980's. The first firefighter suicide he could remember was in late 1980, with another in the late 1990's and the third in 2002. The last firefighter suicide at the department was three years ago.

Appendix D

Interview with Chief Mark Taylor on August 24th at 1:50pm at Backporch coffee shop Bend Oregon. Interview lasted approximately 30min. Interview was not recorded but notes were taken during the conversation.

The purpose of the interview was to get a perspective of a mental wellness program and some of the obstacles that may be posing difficulty to starting a mental wellness program at the Bend Fire Department.

Chief Taylor stated he believes there is a huge need for a mental wellness program at the BFD. He spoke about the history of suicides in the department, PTSD issues as well as the string of divorces that has hit the BFD over the past three years. Chief Taylor also believes with the hiring of more veterans, a mental wellness program will be important. He stated it is apparent this is a hole in our resources we offer our line personnel and he would like to see a program implemented soon.

Chief Taylor stated that as training chief he has tried to bring in some mental wellness education for the line personnel. He spoke of a voluntary training that was put on by Tim Dietz that for firefighters and their family. He stated he would like to expand mental wellness education for the department.

Chief Taylor also spoke of the issues that he foresees with setting up a mental wellness program. He stated the fire department has not committed funding to a mental wellness program and he believes getting funding for this purpose may be difficult. Chief Taylor also talked about some of the legal issues that arise when working with the City's HR department when the department needs to help someone with mental struggles. But Chief Taylor reiterated the need to get department backing and funding to start a successful mental wellness program.

Appendix E

Phone interview with William King Jr., LPC, head of department #1's mental health program.

Interview was conducted on August 12th at 11:15am. Interview was not recorded and notes were taken during the conversation. Interview lasted approximately one hour.

This purpose of this phone conversation was to determine the different components of the departments mental wellness program to decide if the department should be included in the research study.

Bill King was first asked about himself and when he started at the department in his roll as mental wellness head. Mr. king stated has been with the department as mental wellness head for 5 in a half years. He started out part time and now works full time in his position. Mr. King stated he was asked to apply for this position by the department because of his background in firefighting. Mr. King stated he was Boston firefighter for 12 years before transitioning to the career of psychology. He believes his background in fire has helped him trust among the firefighters in his department.

Mr. King was then asked what mental wellness resources they have available at his department. Mr. King stated they have EAP, chaplain services which is primarily used for with the public although they do some follow up with line personnel. He stated he does not train the chaplains. Mr. King also stated he has a peer support program consisting of 12 firefighters. He states he trained the peer support team and is trying to get the line personnel to use their services. He believes this resource is important for an early warning system before it turns into a crises. He has trained the group to listen and refer people if they need more help. Mr. King also states

he conducts debriefing on critical incident calls if requested by the line personnel or Battalion Chief. In addition, Mr. King also is available for counseling sessions with line personnel.

Mr. King was then asked if he integrates an education component into his services. He stated that he gives formal education training twice a year for about an hour to department officers on stress, trauma, resiliency and chemical dependency. The officers then share this information with their crews. Mr. king also states that he posts articles and video clips through the department inter-web for all line personnel.

Mr. King also states that he is starting an 8 week mindfulness and meditation training in the next week which he hopes to continue to develop.

Appendix F

Phone interview with Heather Goodrich, head of department #2's mental wellness program.

Phone interview was conducted on September 8th at 2pm. Interview lasted approximately 25 minutes.

This purpose of this phone conversation was to determine the different components of the departments mental wellness program to decide if the department should be included in the research study.

Mrs. Goodrich was first asked about her background and when she started in her roll at head of the mental wellness program. Mrs. Goodrich stated she began in her department 17 years ago as fitness/wellness coordinator and in 2007 was asked to address mental wellness for the line personnel as well. Mrs. Goodrich states she is not a licensed councilor but works closely with Tim Dietz who does have a master degree in counseling.

Mrs. Goodrich was then asked what mental wellness resources are available for line personnel. She stated they have EAP, CISD, contract with Tim Dietz for counseling needs and a peer support program. She states her peer program started in 2009 and has 38 peers in this group. Tim Dietz did initial training and all continuing education training with this group. The peer support group is used for crew diffusing after critical calls and follow up. They have to be invited to the station by the officer of the crew or Battalion Chief.

Mrs. Goodrich was asked about any education components in the program. She stated they do have wellness talks. These talks are given to the crews by the members of the peer support program. Mrs. Goodrich also stated they give an annual PTSD/alcohol/anxiety/depression assessment every year during the annual physical tests.

Appendix G

Introduction paragraph for line firefighters questionnaire.

Thank you for participating in this survey. I am a Captain with the Bend Fire Department and also an Executive Fire Officer student at the National Fire Academy. This survey will help me collect data for my research paper on effective elements of mental wellness programs in fire departments. This survey is completely confidential and should take no more than 10 minutes. Thank you again for your help!

Appendix H

Introduction paragraph for mental wellness heads questionnaire.

Thank you for participating in this survey. I am a Captain at the Bend Fire Department and student in the Executive Fire Officers program at the National Fire Academy. This survey will be used for my research project on effective elements of mental wellness programs. I appreciate you taking your time to fill out this survey.

Appendix I

Questionnaire and response from mental wellness head of Department Number One.

What services do you provide your line personnel for acute and chronic stress?

1 out of 1 people answered this question

1	Chaplain services	1 / 100%
2	Critical Incident Stress Debriefing (CISD)	1 / 100%
3	Employee Assistance Program (EAP)	1 / 100%
4	General stress and PTSD education	1 / 100%
5	Mindfulness training	1 / 100%
6	Peer Support Group	1 / 100%
7	Professional mental health counselor	1 / 100%
8	Other	0 / 0%

What percentage of line personnel do you think use any of the mental wellness services provided by your department?

1 out of 1 people answered this question

1	20-30%	1 / 100%
2	1-3%	0 / 0%
3	10-20%	0 / 0%
4	4-10%	0 / 0%
5	I dont know	0 / 0%
6	over 30%	0 / 0%

What service do you think is most frequently used by line personnel at your department?

1 out of 1 people answered this question

1	Professional Mental Health Counselor	1 / 100%
2	Critical Incident Stress Debriefing (CISD)	0 / 0%
3	Employee Assistance Program (EAP)	0 / 0%
4	Not sure	0 / 0%
5	Peer Counseling	0 / 0%

Which service do you believe is **most** effective at helping line personnel deal with acute and chronic job related stress?

1 out of 1 people answered this question

1	Professional mental health counselor	1 / 100%
2	CISD	0 / 0%
3	EAP	0 / 0%
4	Education on job related stress and PTSD	0 / 0%
5	Mindfulness training	0 / 0%
6	Peer counseling	0 / 0%
7	other	0 / 0%

What service do you provide that you think is **least** effective?

1 out of 1 people answered this question

1	EAP	1 / 100%
2	CISD	0 / 0%
3	General stress and PTSD education	0 / 0%
4	Mindfulness training	0 / 0%
5	Peer counseling	0 / 0%
6	Professional mental health counselor	0 / 0%
7	other	0 / 0%

Does your program have training to help line personnel recognize signs of acute or chronic job related stress?

1 out of 1 people answered this question

1	For Captains	1 / 100%
2	For Chief Officers	1 / 100%
3	For all line personnel	1 / 100%
4	For line personnel and their families	0 / 0%
5	No	0 / 0%

Do you have annual stress screening for line personnel?

1 out of 1 people answered this question

1	Yes	1 / 100%
2	No	0 / 0%

Do you believe there is a negative stigma in the fire service among line personnel for using the mental wellness services?

1 out of 1 people answered this question

1	Yes	1 / 100%
2	No	0 / 0%
3	No sure	0 / 0%

Does your program track critical incident calls (suicides, murders, traumas, structure fires)?

1 out of 1 people answered this question

1	Yes	1 / 100%
2	No	0 / 0%

Do you believe the mental wellness services you provide are easily accessible?

1 out of 1 people answered this question

1	Yes	1 / 100%
2	No	0 / 0%

Do you think the mental wellness program you provide is adequate to address the line personnel's job related stress?

1 out of 1 people answered this question

1	No	1 / 100%
2	Not sure	0 / 0%
3	Yes	0 / 0%

Appendix J

Questionnaire and response from mental wellness head of Department Number Two

What services do you provide your line personnel for acute and chronic stress?

1 out of 1 people answered this question

1	Chaplain services	1 / 100%
2	Critical Incident Stress Debriefing (CISD)	1 / 100%
3	Employee Assistance Program (EAP)	1 / 100%
4	General stress and PTSD education	1 / 100%
5	Other	1 / 100%
6	Peer Support Group	1 / 100%
7	Professional mental health counselor	1 / 100%
8	Mindfulness training	0 / 0%

What percentage of line personnel do you think use any of the mental wellness services provided by your department?

1 out of 1 people answered this question

1	over 30%	1 / 100%
2	1-3%	0 / 0%
3	10-20%	0 / 0%
4	20-30%	0 / 0%
5	4-10%	0 / 0%
6	I dont know	0 / 0%

What service do you think is most frequently used by line personnel at your department?

1 out of 1 people answered this question

1	Peer Counseling	1 / 100%
2	Critical Incident Stress Debriefing (CISD)	0 / 0%
3	Employee Assistance Program (EAP)	0 / 0%
4	Not sure	0 / 0%
5	Professional Mental Health Counselor	0 / 0%

Which service do you believe is **most** effective at helping line personnel deal with acute and chronic job related stress?

1 out of 1 people answered this question

1	Peer counseling	1 / 100%
2	CISD	0 / 0%
3	EAP	0 / 0%
4	Education on job related stress and PTSD	0 / 0%
5	Mindfulness training	0 / 0%
6	Professional mental health counselor	0 / 0%
7	other	0 / 0%

What service do you provide that you think is **least** effective?

1 out of 1 people answered this question

1	CISD	1 / 100%
2	EAP	0 / 0%
3	General stress and PTSD education	0 / 0%
4	Mindfulness training	0 / 0%
5	Peer counseling	0 / 0%
6	Professional mental health counselor	0 / 0%
7	other	0 / 0%

Does your program have training to help line personnel recognize signs of acute or chronic job related stress?

1 out of 1 people answered this question

1	For line personnel and their families	1 / 100%
2	For Captains	0 / 0%
3	For Chief Officers	0 / 0%
4	For all line personnel	0 / 0%
5	No	0 / 0%

Do you have annual stress screening for line personnel?

1 out of 1 people answered this question

1	Yes	1 / 100%
2	No	0 / 0%

Do you believe there is a negative stigma in the fire service among line personnel for using the mental wellness services?

1 out of 1 people answered this question

1	Yes	1 / 100%
2	No	0 / 0%
3	No sure	0 / 0%

Does your program track critical incident calls (suicides, murders, traumas, structure fires)?

1 out of 1 people answered this question

1	No	1 / 100%
2	Yes	0 / 0%

Do you believe the mental wellness services you provide are easily accessible?

1 out of 1 people answered this question

1	Yes	1 / 100%
2	No	0 / 0%

Do you think the mental wellness program you provide is adequate to address the line personnel's job related stress?

1 out of 1 people answered this question

1	No	1 / 100%
2	Not sure	0 / 0%
3	Yes	0 / 0%

Appendix K

Questionnaire and response from mental wellness head of Bend Fire Department

What services do you provide your line personnel for acute and chronic stress?

1 out of 1 people answered this question

1	Chaplain services	1 / 100%
2	Critical Incident Stress Debriefing (CISD)	1 / 100%
3	Employee Assistance Program (EAP)	1 / 100%
4	General stress and PTSD education	0 / 0%
5	Mindfulness training	0 / 0%
6	Other	0 / 0%
7	Peer Support Group	0 / 0%
8	Professional mental health counselor	0 / 0%

What percentage of line personnel do you think use any of the mental wellness services provided by your department?

1 out of 1 people answered this question

1	1-3%	1 / 100%
2	10-20%	0 / 0%
3	20-30%	0 / 0%
4	4-10%	0 / 0%
5	I dont know	0 / 0%
6	over 30%	0 / 0%

What service do you think is most frequently used by line personnel at your department?

1 out of 1 people answered this question

1	Employee Assistance Program (EAP)	1 / 100%
2	Critical Incident Stress Debriefing (CISD)	0 / 0%
3	Not sure	0 / 0%
4	Peer Counseling	0 / 0%
5	Professional Mental Health Counselor	0 / 0%

Which service do you believe is **most** effective at helping line personnel deal with acute and chronic job related stress?

1 out of 1 people answered this question

1	Mindfulness training	1 / 100%
2	CISD	0 / 0%
3	EAP	0 / 0%
4	Education on job related stress and PTSD	0 / 0%
5	Peer counseling	0 / 0%
6	Professional mental health counselor	0 / 0%
7	other	0 / 0%

What service do you provide that you think is **least** effective?

1 out of 1 people answered this question

1	EAP	1 / 100%
2	CISD	0 / 0%
3	General stress and PTSD education	0 / 0%
4	Mindfulness training	0 / 0%
5	Peer counseling	0 / 0%
6	Professional mental health counselor	0 / 0%
7	other	0 / 0%

Does your program have training to help line personnel recognize signs of acute or chronic job related stress?

1 out of 1 people answered this question

1	For line personnel and their families	1 / 100%
2	For Captains	0 / 0%
3	For Chief Officers	0 / 0%
4	For all line personnel	0 / 0%
5	No	0 / 0%

Do you have annual stress screening for line personnel?

1 out of 1 people answered this question

1	No	1 / 100%
2	Yes	0 / 0%

Do you believe there is a negative stigma in the fire service among line personnel for using the mental wellness services?

1 out of 1 people answered this question

1	Yes	1 / 100%
2	No	0 / 0%
3	No sure	0 / 0%

Does your program track critical incident calls (suicides, murders, traumas, structure fires)?

1 out of 1 people answered this question

1	No	1 / 100%
2	Yes	0 / 0%

Do you believe the mental wellness services you provide are easily accessible?

1 out of 1 people answered this question

1	Yes	1 / 100%
2	No	0 / 0%

Do you think the mental wellness program you provide is adequate to address the line personnel's job related stress?

1 out of 1 people answered this question

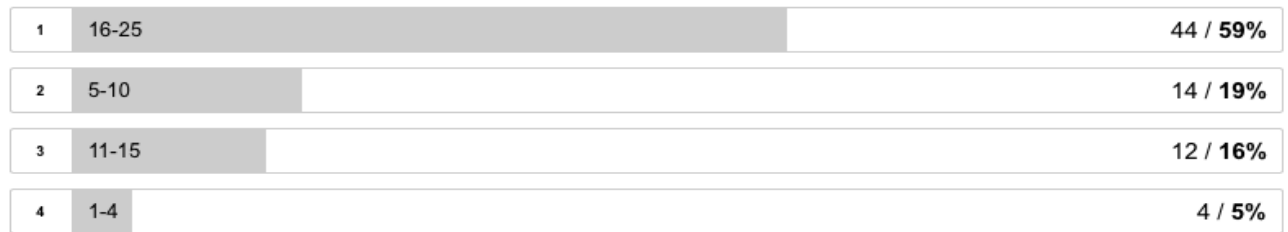
1	No	1 / 100%
2	Not sure	0 / 0%
3	Yes	0 / 0%

Appendix L

Questionnaire and response from emergency personnel of Department Number One

How many years of service (career and volunteer) do you have in fire and EMS?

74 out of 74 people answered this question



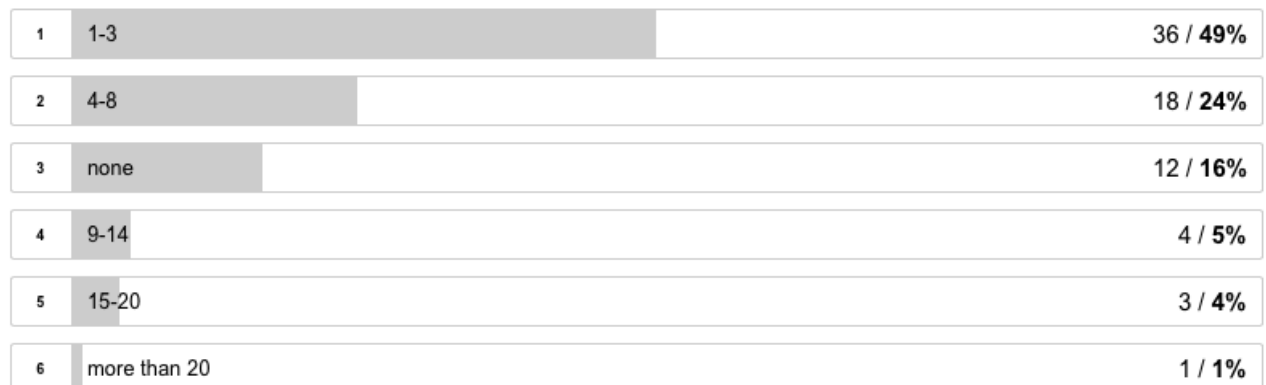
In the last two years have you responded to a critical incident (suicide, trauma, critical MVA, death, house fire, etc.) that you found emotionally upsetting?

74 out of 74 people answered this question



If so, how many?

74 out of 74 people answered this question



Has job related stress ever negatively impacted your family life?

74 out of 74 people answered this question

1	yes	53 / 72%
2	no	21 / 28%

What services are available at your department to support job related stress?

74 out of 74 people answered this question

1	Employee Assistance Program (EAP)	73 / 99%
2	Chaplain Services	70 / 95%
3	Critical Incident Stress Debriefing (CISD)	69 / 93%
4	Peer Counseling	66 / 89%
5	Department Counselor	54 / 73%
6	Other	2 / 3%
7	Not sure	1 / 1%
8	None	0 / 0%

Do you know how to access these programs if you need support?

74 out of 74 people answered this question

1	yes	71 / 96%
2	not sure	3 / 4%
3	no	0 / 0%

If yes, which ones do you know how to access?

74 out of 74 people answered this question



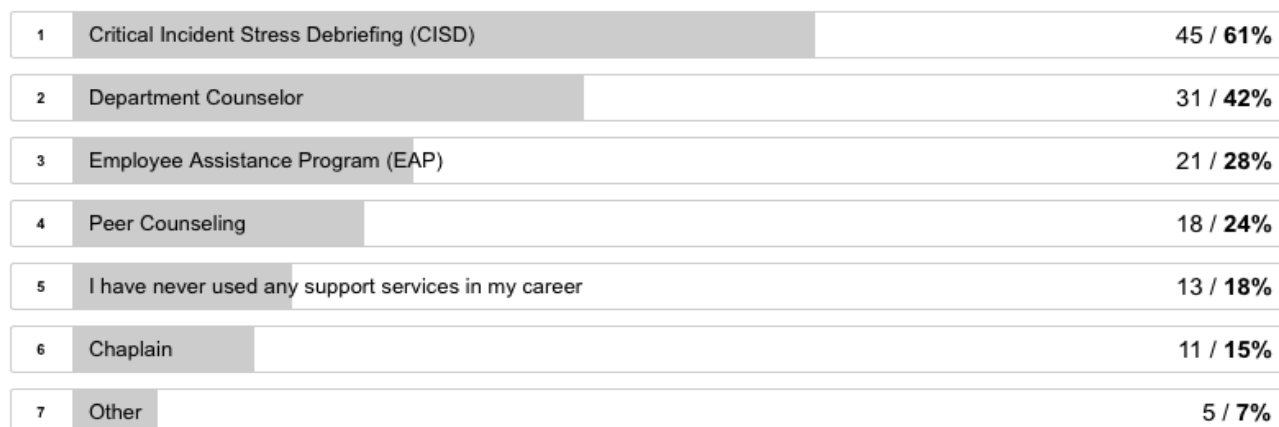
In the course of your career have you used support services for job related stress?

73 out of 74 people answered this question



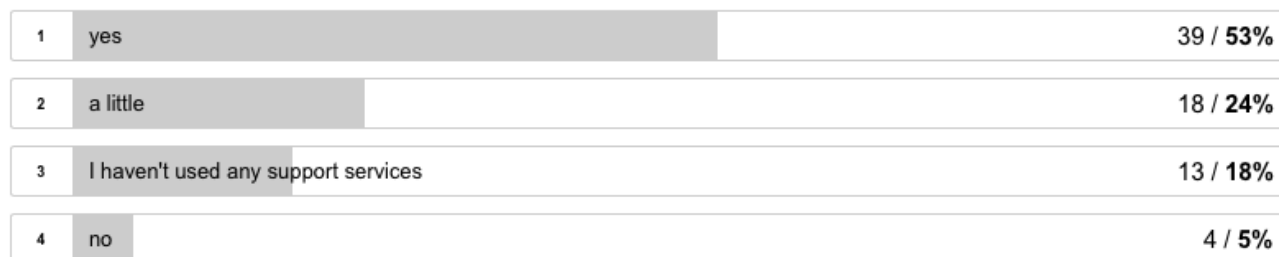
If you have used any support services in your career, which one(s) did you use?

74 out of 74 people answered this question



Did the support service you used help you?

74 out of 74 people answered this question



Have you ever needed to access support services for job related stress and didn't?

73 out of 74 people answered this question



If yes, why?

42 out of 74 people answered this question



Should you require assistance for job related stress, which service would you feel most comfortable using?

73 out of 74 people answered this question



Do you believe there is adequate education and training about work related stress and PTSD at your department?

73 out of 74 people answered this question



Do you think there is a negative stigma associated with using support services for job related stress in the fire service culture?

74 out of 74 people answered this question



Have you ever been concerned about a co-worker's ability to deal with job related stress?

74 out of 74 people answered this question



If yes, do you believe the support services provided at your department are adequate to help them through the stress?

62 out of 74 people answered this question



Many departments have annual physical evaluations. Would you participate in a voluntary annual stress monitoring evaluation?

74 out of 74 people answered this question

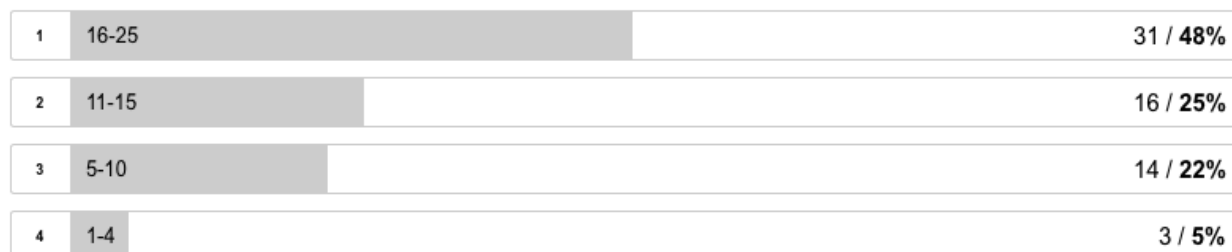


Appendix M

Questionnaire and response from emergency personnel of Department Number Two

How many years of service (career and volunteer) do you have in fire and EMS?

64 out of 64 people answered this question



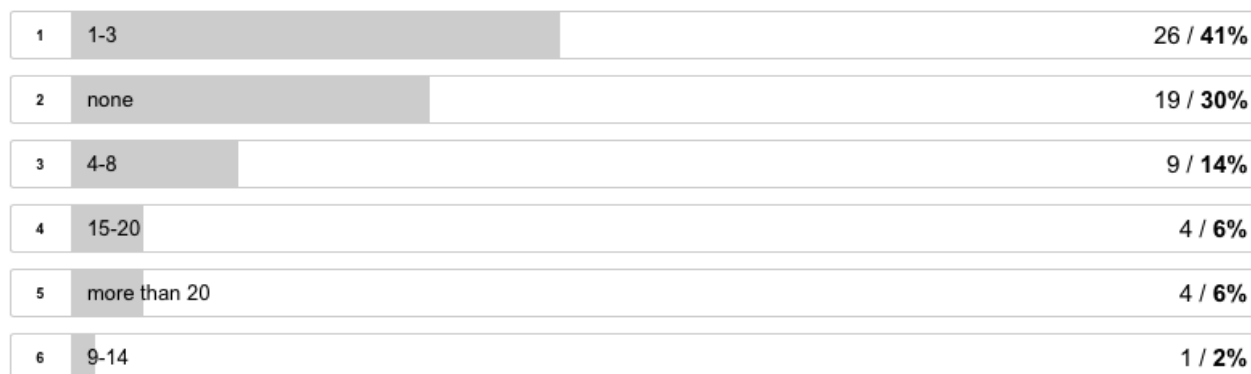
In the last two years have you responded to a critical incident (suicide, trauma, critical MVA, death, house fire, etc.) that you found emotionally upsetting?

64 out of 64 people answered this question



If so, how many?

63 out of 64 people answered this question



Has job related stress ever negatively impacted your family life?

64 out of 64 people answered this question

1	yes	49 / 77%
2	no	15 / 23%

What services are available at your department to support job related stress?

64 out of 64 people answered this question

1	Peer Counseling	64 / 100%
2	Employee Assistance Program (EAP)	63 / 98%
3	Chaplain Services	59 / 92%
4	Critical Incident Stress Debriefing (CISD)	56 / 88%
5	Department Counselor	4 / 6%
6	Other	2 / 3%
7	None	0 / 0%
8	Not sure	0 / 0%

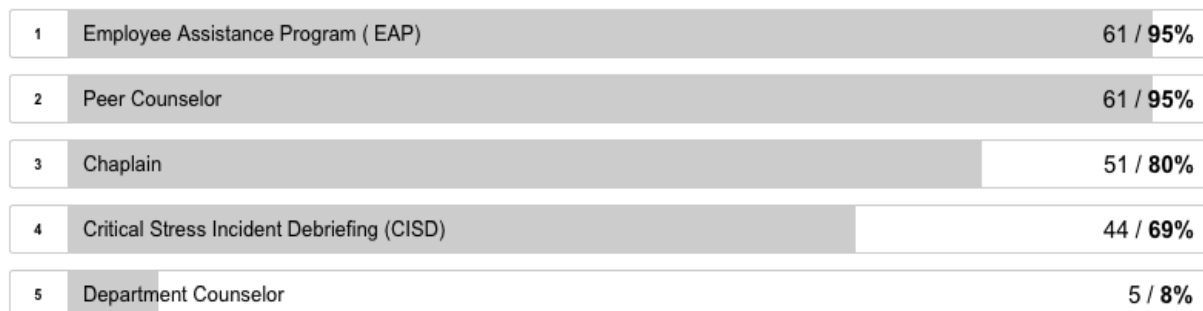
Do you know how to access these programs if you need support?

64 out of 64 people answered this question

1	yes	63 / 98%
2	not sure	1 / 2%
3	no	0 / 0%

If yes, which ones do you know how to access?

64 out of 64 people answered this question



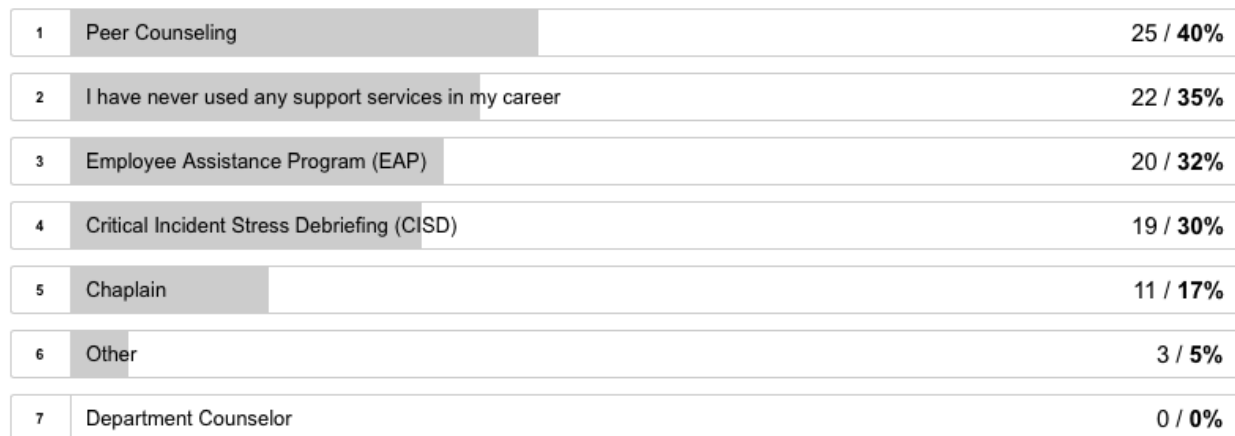
In the course of your career have you used support services for job related stress?

64 out of 64 people answered this question



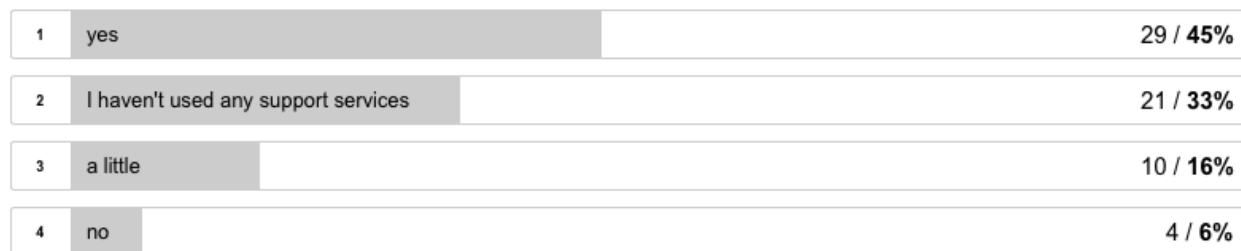
If you have used any support services in your career, which one(s) did you use?

63 out of 64 people answered this question



Did the support service you used help you?

64 out of 64 people answered this question



Have you ever needed to access support services for job related stress and didn't?

64 out of 64 people answered this question



If yes, why?

45 out of 64 people answered this question



Should you require assistance for job related stress, which service would you feel most comfortable using?

64 out of 64 people answered this question

1	Peer Counseling	28 / 44%
2	Employee Assistance Program (EAP)	22 / 34%
3	None of the above	6 / 9%
4	Chaplain	4 / 6%
5	Critical Incident Stress Debriefing (CISD)	4 / 6%
6	Department Counselor	0 / 0%

Do you believe there is adequate education and training about work related stress and PTSD at your department?

64 out of 64 people answered this question

1	Yes	38 / 59%
2	No	26 / 41%

Do you think there is a negative stigma associated with using support services for job related stress in the fire service culture?

64 out of 64 people answered this question

1	No	32 / 50%
2	Yes	32 / 50%

Have you ever been concerned about a co-worker's ability to deal with job related stress?

63 out of 64 people answered this question

1	Yes	45 / 71%
2	No	18 / 29%

If yes, do you believe the support services provided at your department are adequate to help them through the stress?

59 out of 64 people answered this question



Many departments have annual physical evaluations. Would you participate in a voluntary annual stress monitoring evaluation?

64 out of 64 people answered this question

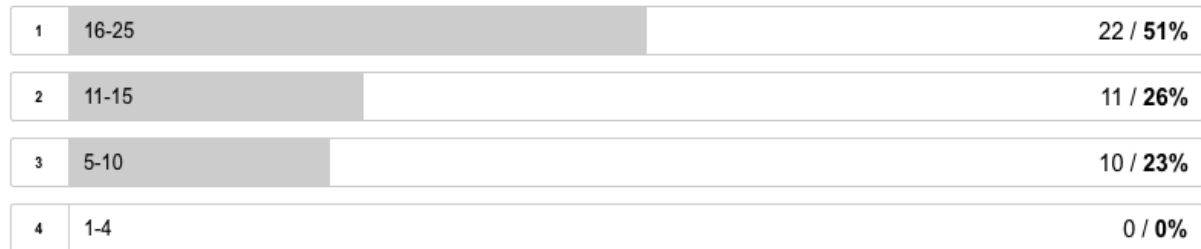


Appendix N

Questionnaire and response from emergency personnel of Bend Fire Department

How many years of service (career and volunteer) do you have in fire and EMS?

43 out of 43 people answered this question



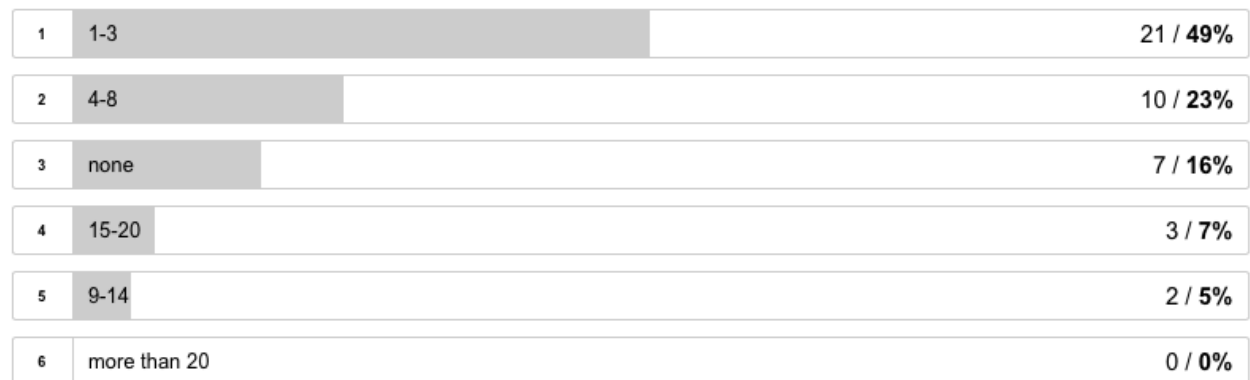
In the last two years have you responded to a critical incident (suicide, trauma, critical MVA, death, house fire, etc.) that you found emotionally upsetting?

43 out of 43 people answered this question



If so, how many?

43 out of 43 people answered this question



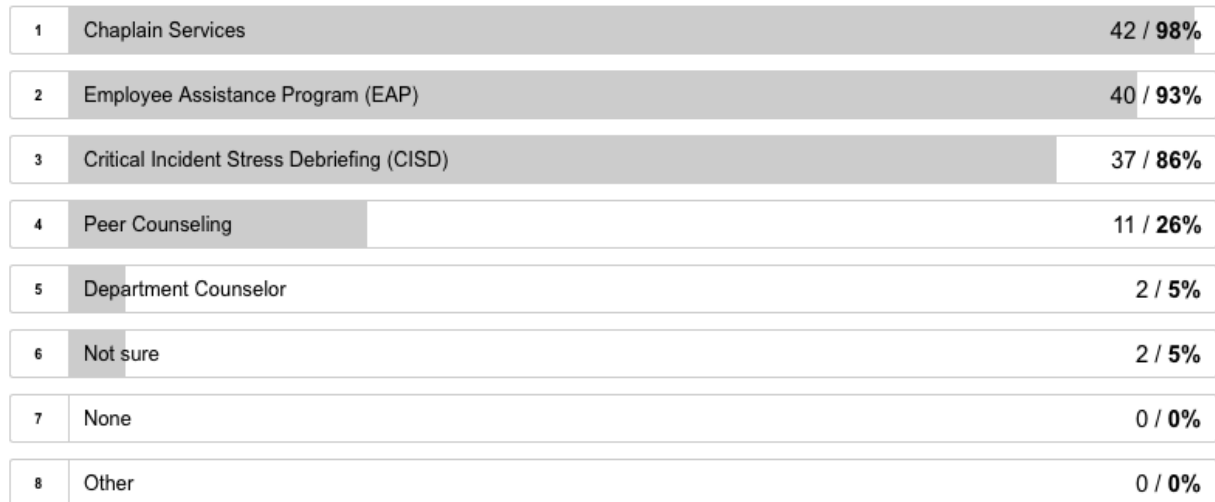
Has job related stress ever negatively impacted your family life?

43 out of 43 people answered this question



What services are available at your department to support job related stress?

43 out of 43 people answered this question



Do you know how to access these programs if you need support?

43 out of 43 people answered this question



If yes, which ones do you know how to access?

40 out of 43 people answered this question

1	Chaplain	36 / 90%
2	Employee Assistance Program (EAP)	32 / 80%
3	Critical Stress Incident Debriefing (CISD)	25 / 63%
4	Peer Counselor	8 / 20%
5	Department Counselor	2 / 5%

In the course of your career have you used support services for job related stress?

42 out of 43 people answered this question

1	No	26 / 62%
2	Yes	16 / 38%

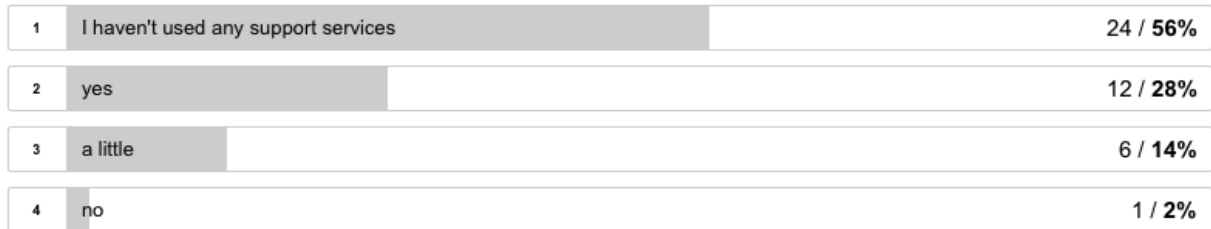
If you have used any support services in your career, which one(s) did you use?

40 out of 43 people answered this question

1	I have never used any support services in my career	22 / 55%
2	Critical Incident Stress Debriefing (CISD)	13 / 33%
3	Employee Assistance Program (EAP)	6 / 15%
4	Chaplain	5 / 13%
5	Peer Counseling	3 / 8%
6	Department Counselor	0 / 0%
7	Other	0 / 0%

Did the support service you used help you?

43 out of 43 people answered this question



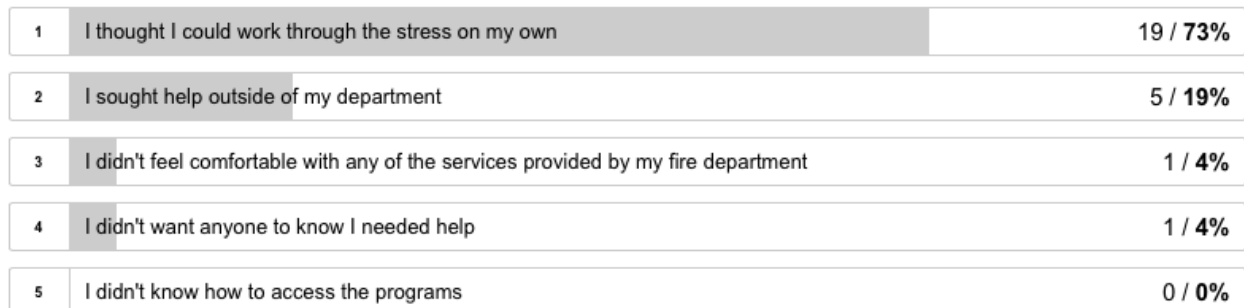
Have you ever needed to access support services for job related stress and didn't?

42 out of 43 people answered this question



If yes, why?

26 out of 43 people answered this question



Should you require assistance for job related stress, which service would you feel most comfortable using?

43 out of 43 people answered this question



Do you believe there is adequate education and training about work related stress and PTSD at your department?

43 out of 43 people answered this question



Do you think there is a negative stigma associated with using support services for job related stress in the fire service culture?

42 out of 43 people answered this question



Have you ever been concerned about a co-worker's ability to deal with job related stress?

43 out of 43 people answered this question



If yes, do you believe the support services provided at your department are adequate to help them through the stress?

39 out of 43 people answered this question



Many departments have annual physical evaluations. Would you participate in a voluntary annual stress monitoring evaluation?

43 out of 43 people answered this question

