

Firefighter behavioral health: we can do more

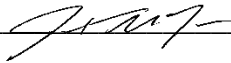
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CERTIFICATION STATEMENT

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

Signed:  \_\_\_\_\_

### **Abstract**

Firefighters and first responders commonly encounter situations the general public will never see; situations that traditionally solicit an emotional reaction of fear or helplessness. The problem is that the United States Fire Service has an increased risk of suicide and behavioral health issues as compared to the general population. The purpose of this research was to evaluate the effectiveness of having full time licensed fire psychologists on staff to decrease suicide rates and behavioral health problems. The evaluative research method was used to collect and analyze data on behavioral health issues in the fire service and the use of on staff fire psychologists in support of a comprehensive behavioral health program. The research focused on five questions: a). what are the components of an effective behavioral health program? b) what is a fire psychologist? c). what programs or initiatives would a fire psychologist be responsible for? d). are other emergency service professions using this model? e). is there a correlation between on staff psychologists and a reduction in behavioral health symptoms or problems? The research procedures consisted of existing literature review, interviews, and a survey providing data on behavioral health challenges and the use of psychologists in the fire service. The results indicated that while there are various organizations and resources available, up to 60% of firefighters have lingering stress effects and only 70% of those seek help. Accordingly, while study results show limited information regarding the use of professional psychology in the fire service, there are articles that identify and address the psychological needs of firefighters and their families. Additionally, results indicate integrating licensed fire psychologists into current programs may improve treatment modalities and decrease the overall risk of PTSD symptoms and suicide.

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### Firefighter behavioral health: we can do more

The fire service culture is anchored in tradition, history, and pride developing an attitude of perseverance through all obstacles, at all costs. While firefighters push through emotions and forgo the normal human reaction to such sights, it does have an effect. In general, behavioral health in the fire service has been a topic no one has wanted to touch until recently. Accordingly, the fire service profession has been forced to respond to an alarming increase in firefighter suicide. In fact, organizations are more likely to experience the death of a firefighter by suicide before a line of duty death, as the suicide rate for first responders is 10 times the rate of the general population (Venteicher, 2017).

The law enforcement community has recognized this for years having conducted significant research on acute stress, mental health, and suicide rates among police officers. Similar to the rate of firefighter suicide versus line of duty deaths, police officers experience three times more deaths by suicide than line of duty death and in 2004 led all occupations in work place suicide (Archibald, Buser, Finney, Schwartz, & Swanson, 2015). Unfortunately, firefighters both individually and in group dynamics perceive seeking help for behavioral health issues weak, and according to a survey of over 200 fire service professionals across the country and in Canada, self-pride was the number one barrier to seeking help for lingering effects of stress. Without recognition that firefighters and other first responders are a distinct population not unlike the military, clinicians and psychologist without a culture understanding of the fire service will continue to be underrepresented.

Consequently, law enforcement identified the problem of post-traumatic stress disorder (PTSD) and suicide and began looking at alternatives to reducing the number of employees affected by PTSD and reduce the suicide rate. The New York Police Department (NYPD) as far

back as the 1960's started using psychologists during hostage negotiations, as a result the Los Angeles Police Department (LAPD) followed suit, consequently leading to law enforcement agencies across the United States now having on staff psychologists, along with multiple other components and programs to assist the department and their members. Line of duty deaths continued to hit triple digits each year as the fire service was late to identify the issue of firefighter suicide and incident induced stress; nor were immediate solutions provided but behavioral health issues in the fire service could not be ignored any longer. As the fire service started forming various support organizations to support members and their families, law enforcement was already using psychologist in support of other types of peer support. However, because the perception of mistrust in the psychology field, the threat of possible fitness for duty evaluations, and the comfort of peer to peer support, progression was limited to organizations and individuals.

The problem is that the United States Fire Service has an increased risk of suicide and behavioral health issues as compared to the general population. The purpose of this research was to evaluate the effectiveness of having full time licensed fire psychologist on staff to decrease suicide rates and behavioral health problems. The evaluative research method was used to collect and analyze data on behavioral health issues in the fire service and the use of on staff fire psychologists in support of a comprehensive behavioral health program. The research focused on five questions: a). what are the components of an effective behavioral health program? b) what is a fire psychologist? c). what programs or initiatives would a fire psychologist be responsible for? d). are other emergency service professions using this model? e). is there a link between on staff psychologists and a reduction in behavioral health symptoms or problems?

The research procedures consisted of existing literature review, interviews, and a survey providing data on behavioral health challenges and the use of fire psychologists in the fire service. According to Weldon, (2018) most fire departments do not have a psychologists on staff and many of the behavioral health programs across the United States do not have a psychologists on staff and in some cases have people running programs and providing support that are self-proclaimed “experts” in the area (p. 32). However, literature review indicated departments such as the Austin Fire Department, Los Angeles City Fire, and the Houston Fire Department have fire psychologists leading behavioral health programs. Consistent with this theme, two fire psychologist were interviewed, one from Houston, and the other a former fire psychologist from Los Angeles City Fire and now president of the Fire Service Psychological Association. The interview results yielded significant contributions to the research questions and provided perspective from psychologists working in the fire service field. Additionally, a survey gathered data from 200 fire professionals across the United States and Canada that clearly identified fire service behavioral health trends and exposure to professional psychology.

### Background and Significance

In 2015 there were 1,160,450 firefighters in the United States, 345,600 are career firefighters and 814,850 are volunteers; on average there have been 90 line of duty deaths annually over the last three years (National Fire Protection Association, 2015). According to the United States Fire Administration (2016), 89 firefighters died in the line of duty compared to 90 in 2015 and 94 in 2014. While the number of firefighter fatalities from line of duty deaths has decreased, what is staggering is the number of firefighter fatalities during non-emergent situations and suicide. In 2015, according to the United State Fire Administration (2016) nonemergency activity accounted for 53 fatalities, or 60% of firefighter fatalities reported (p.

12). While there is no National data base to report firefighter suicides, Jeff Dill a retired firefighter founded FBHA and has tracked suicide for years. The Firefighter Behavioral Health Alliance (FBHA) is the most prominent organization for suicide statistics for the fire service, gathering information through confidential reports, e-mails, phone calls, and research (NFPA, 2016). According to the FBHA statistics in 2016 102 firefighters took their lives. What's more staggering is that Jeff estimates that only 40% of suicides get reported to the FFBHA (Davidson, 2016).

The culture of firefighting has an established tradition and hardened culture that the job is hazardous and the possibility of getting injured or killed is part of the job. These beliefs can cause firefighters to accept unnecessary risk to a point where their willingness to risk their own lives become the new normal (Scarborough, R. C., 2017). On any given day firefighters can be repeatedly exposed to significant traumatic events, which put this population at increased risk for developing any form of posttraumatic stress disorder. In fact, some studies show as much as 37% of emergency responders may exhibit signs of PTSD and firefighters specifically are feeling the effects of behavioral health, as a result, drug abuse, alcoholism, depression, and relationship problems are progressively going unchecked (NFPA, 2014, para 3).

To address the behavioral health issue the fire service at large has taken steps to break down barriers that label firefighters seeking help as anything but family members in search of assistance.

The National Volunteer Fire Council (2012) described numerous "national organizations such as the National Fallen Firefighters Foundation, the National Fire Academy, the United States Fire Administration, the International Association of Firefighters (IAFF), International Association of Fire Chiefs (IAFC), the National Fire Protection Association



(NFPA), and the National Volunteer Fire Council have addressed behavioral health issues by creating valuable resources and programs. (p. 6).

In 2004, the fire service published 16 life safety initiatives created at the National Fallen Firefighters Foundation life safety summit. One life safety initiative in particular, life safety initiative 13 focused on providing access to counseling and psychological support for the firefighter and their families. Additionally, various national standards through the NFPA have been created to improve the behavioral health of the fire service through medical and fitness requirements, occupational safety and health programs, and more.

These organizations and programs have made a huge impact in the fire service challenging cultural barriers to seeking help, providing training to department across the country, and engaging scholars and subject matter experts to provide peer reviewed research and statistics to help the cause. As a result of life safety initiative 13 and firefighters seeking help across the Nation, Counseling Services for Firefighters, LLC created a behavioral health support triad. This triad included peer support, clinicians, and training to “break down behavioral health barriers and build relationships between clinicians and firefighters” (NVFC, 2012, p. 14).

The goal of the applied research project is to provide critical analysis of behavioral health issues confronting firefighters and evaluate whether on staff fire psychologists in conjunction with peer support and training will reduce the risk of suicide and behavioral health problems in the fire service. In response, the results of this study will improve the health and wellness of the fire service, therefore improving the Nations fire and emergency services capability of response to and recovery from an all hazards. Additionally, there is no doubt that addressing these adaptive challenges head on will require progressive and open minded executive leadership at all levels to be successful.

### Literature Review

Firefighters respond to an all hazard threat environment each day, never knowing what situation they may encounter creating a variety of unique stressors inherent to the performance of the duties and the threat of their environment. The literature review will expand on the research problem and provide valuable information that will assist in answering the research questions. The research questions will be presented in the order at which they have been provided throughout the text.

- a). what are the components of an effective behavioral health program?
- b) what is a fire psychologist?
- c). what programs or initiatives would a fire psychologist be responsible for?
- d). are other emergency service professions using this model?
- e). is there a link between on staff psychologists and a reduction in behavioral health symptoms or problems?

These stressors can cause significant “psychological disturbances and maladaptive coping strategies (substance use)” that have been shown to contribute to suicidal ideation and PTSD (Couwels, Hasselt, Henderson, & LeDuc, 2016, p. 2). Consequently, the firefighters also have high rates of alcoholism, depression, acute stress disorder, and marital discord (Bacharach, Bamberger, & Doveh, 2008) yet firefighters through stress related coping rarely seek mental health services that could possibly reduce their symptoms.

In fact, continuous exposure to “cumulative trauma, vicarious trauma, ambiguous loss, and transitions appear to be major challenges for firefighters as they create and maintain intimate relationships with their significant other” (Wheldon, 2018, p. 24-25). A related problem is the

combination of firefighter acute and traumatic psychologic stressors in the performance of their job and the transitional stress associated with the work/life transition. Firefighters typically work shifts with various schedules, but it is not uncommon to see firefighters working 24-72 or even 96 hours straight, all the while dealing with social stressors of station life and incident related trauma during their tour. This creates a perfect storm of transition stress and the coping of incident trauma and social trauma from the firehouse that create a potentially volatile or toxic environment. Conversely, Wheldon (2018) detailed research done with law enforcement found that “emotional exhaustion and negative emotional states” are a primary contributor of family conflict (p. 26).

The low probability that firefighters seek mental health treatment combined with the extreme instances of negative behavioral effects due to trauma exposure aggravate firefighters’ difficulties, developing into chronic symptoms (Corneil, Beaton, Murphy, Johnson, & Pike, 1999). A key indicator of possible marital or relationship problems may be the ability for firefighters to develop a good work life balance as relationships in the firefighter profession face unique challenges versus the general population. Behavioral health programs are critical to ensure firefighters and their families provided the appropriate support and treatment if needed.

Recent studies conducted in 2015 by Florida State University found that almost 50% of respondents reported suicide ideation, 20% made plans for suicide, and 16% attempted suicide (NFFF, 2017). In general, behavioral health problems range from substance abuse (drugs and alcohol), mental disorders, traumatic stress, and suicidal ideations. Consistent with these themes, “behavioral health” is often considered synonymous with “mental health”, but is the preferred term as it is more positive, inclusive and non-judgmental” (NFFF, 2017, p. 1). This study suggests, that explicit efforts made by the NFFF, FBHA, NFA, and others have proven to be effective at articulating the need for behavioral health programs and training peer support teams, critical incident stress management teams, chaplain corps, and more.

According to the survey; out of 233 responses 62.61% have established mental/behavioral health programs in their department. Furthermore, the survey indicated that on average about 40% of respondents are using peer support teams, and critical incident stress teams in their organizations. Although efforts have been made to provide psychological services, peer support, and training across the country the need for psychological services is becoming increasingly apparent as fire psychology lags behind advances made with military and police populations (Wheldon, 2018). The NFFF, 2017 describes the critical components of a behavioral health program to be; peer support, clinical support, leadership, and firefighters. Peer support is the foundational element needed to really make the program successful and bridged the gap between leadership, the firefighters, and clinicians. The firefighter element is there to seek training, research, mentor, and practice self-care. Clinicians are the additional layer of oversight and provide the treatment to compliment the peer support.

Wheldon (2016) described the ongoing related problem of grouping police and fire together in terms of treatment, not realizing that although similar, each profession has its own established norms and culture (p. 7). Additionally, this assumption causes clinicians and mental health professional to treat firefighters with a “one size fits all” approach, many times with no real understanding of what firefighters do. In particular, mental health professionals that fail to recognize this distinction will not have the necessary skill and understanding required to provide firefighters and their families with specialized care (Wheldon, 2016). In fact, Dr. Tran said it perfectly; psychologist working in with firefighters need to understand what firefighters really do, how they live, how they communicate, and immerse yourself in their culture to better address their needs (personal communication, May 15, 2018). “Many behavioral health programs being created across the United States do not include psychologists, hopefully, this perception will change

as time progresses and firefighters will have access to adequate professional mental health providers from culturally competent providers” (Wheldon, 2018, p. 34).

### Procedures

The purpose of this research was to evaluate the effectiveness of having full time licensed fire psychologist on staff to decrease suicide rates and behavioral health problems. The procedure for this research paper was based on an evaluative research methodology, and consisted of literature review, personal interviews, and a survey instrument. Throughout the literature review, searches focused on firefighter behavioral health, programs, suicide, psychologists, and any correlational or causal effects. Additionally, the literature review was conducted using online libraries such as EBSCO information services and google scholar to search for peer reviewed research.

A survey instrument titled “firefighter behavioral health programs survey” was designed and published with a software company called survey monkey to collect quantitative data on firefighter behavioral health programs, stress, symptoms, and the use or nonuse of fire psychologist. Once the draft survey was created a test survey was sent via email to two peers, and one supervisor to determine reliability and validity based on the research design. Once the comments were addressed and the survey completed, it was distributed to fire service professionals throughout the United States and Canada. The survey contained 12 questions that consisted of multiple choice, fill in text, and dropdown/matrix style questions. The targeted populations were the west coast, mid-west, east coast, and Canada. According to survey monkey analytics, the completion rate for the survey was 97% with 257 total responses. Once the survey was concluded, software analytics provided the results of the survey.

Personal interviews were conducted via phone with two fire psychologists in the field. Accordingly, both interviews were schedule ahead of time with a time a date chosen at the convenience of the interviewee. Before the interview began each participant discussed with the researcher the study, the purpose, and the potential impact, and answer any questions. All interviews were transcribed using a mobile application, upon completion of the interview the transcripts were edited and cleaned before they were saved and stored under password protection to a mobile device. Both participant gave permission to cite their words and used any information necessary to support the research.

In May 2018 Dr. Kristen Wheldon PhD, President of the Fire Service Psychology Association (FSPA) participated in a phone interview. Dr. Wheldon received her Doctor of Psychology in clinical forensic psychology from Alliant International University Los Angeles in California in 2012. Dr. Wheldon began here training with Corrections with department of Corrections and Rehabilitation and completed her dissertation research on combat veterans with PTSD and depression. She worked for the Los Angeles Fire Department for two years as their Director of Behavioral Health and then moved on to start a nonprofit called the Fire Service Psychology Association (FSPA) with the goal of Bridging the Gap between Professional Psychology and the fire service educating firefighters and their families about their specific needs and specialized Psychological Services.

In May 2018 Dr. Jana Tran PhD, staff psychologist for the Houston Fire Department, Houston TX, participated in a phone interview. Dr. Tran received her PhD in counseling psychology from the University of Houston. Dr. Tran performed all of her pre doctoral work with the Veterans Administrating in Bay Pines and went on to train and work at Michael E. DeBakey VA medical center as well before her current position of staff psychologist with Houston Fire. She also owns her own private practice; Jana Tran PhD PLLC. Dr. Tran and the

Houston Fire Department are one of the very few fire departments with on staff fire psychologist and is leading the way consistently publishing new research in the field.

While the research procedures were comprehensive there were some limitations. Limitations to literature review was the narrow body of research regarding fire psychologist and behavioral health programs. The survey was limited in length and scope to collect any significant data to provide more statistically significant findings. The survey was also limited by time and lastly, an assumption was made that all firefighters have experienced some type of residual stress in the performance of their job.

## Results

This research was designed to evaluate the effectiveness of having full time licensed fire psychologist on staff to decrease suicide rates and behavioral health problems in the fire service. While the research did answer the research questions there was not quantitative or qualitative data or anecdotal evidence that having fire psychologists on staff would reduce behavioral health issues and suicides. However, this may be the result of such a narrow body of research in the field regarding psychologist. This section will utilize all of the research up to this point to provide answers to the research questions.

### 1). What are the components of an effective behavioral health program?

The survey instrument indicated that 63% of firefighters that have experienced a significant incident still feel residual stress effects and only 37% of all respondents sought help. However, the survey indicated that 63% of department's have a behavioral health program. The National Fallen Firefighters Foundation (2017) described effective behavioral health components as; clinical support, peer support, firefighters, and leadership. Literature review and current

research only found three departments in the United States that currently have on staff psychologists; Houston, Austin, and Los Angeles City. Additionally, as we learned in the interview with Dr. Tran (2018), Austin's psychologists are mostly used during the screening and recruitment process. According to Wheldon (2018);

Peer Support Teams were developed in the military as a means to connect soldiers with each other and process psychological challenges before they manifested into poor outcomes.

Ideally, reduces stigma and creates referrals to mental health professionals when higher level of care is indicated. (p. 35).

In fact, this was followed up by Tran (2018) in her interview saying that while clinicians are critical, peer support teams have to be in place and influential for members to feel comfortable with on staff psychologists. Tran (2018) stated; Peer support teams bridge the gap for us as we go around to stations, you know we show people the human side of psychology and kind of humanize the shrink. Ride along's and such help, but really it's the referrals from our peers that give us credibility with the organization to relate to the people who are suffering.

Clinical support through the use of psychologists provides a collaborative critical component to any program. While peer support teams provide that "support", psychologists can provide treatment modalities and design care plans for firefighters seeking the next level of support. In addition, and actually opposite of the common thought, psychologists provided a critical lifeline for firefighters with PTSD or suicidal ideation. Clinicians focus on treatment not unemployment, in fact, psychologists are the only one that can keep firefighters who threaten suicide outside of a hold. In addition, they provide a plan for them to feel better. One thing that Tran (2018) said that I loved was that the first priority after the firefighter was to protect their job.



The next component identified was leadership. Especially at the clinician level, leadership has to be on board and give the appropriate respect as a member of the team if the program will work. Last but certainly not least, engaged firefighters. Firefighters need to be able to voice their concerns, research, understand the stress of your job and the effect it can have on you, prepare for self-care, and learn about the programs. The survey instrument indicated that, of the 55% department's that had a behavioral health program the most common components were Peer support team, CISM teams, and the use of EAP. Only 14% use psychologists in any way; see appendix E.

## 2). What is a fire psychologist?

According to Wheldon (2018) a fire psychologist is someone who is dedicated to the specialization with respect to the fact that firefighters are not just another first responder but have unique challenges are professional choice, and a fire psychologist is somebody who understand those processes and culture dedicated their work providing treatment for the firefighters and their families. Tran (2018) described a fire psychologist as an individual who immersed in fire service culture, I didn't have any idea what a box was or I didn't realize that the majority of the calls of firefighters responded to were medical related and in fact only 14% of our call in Houston are suppression related. The importance of the Brotherhood how they live like a family, its part of their identity. That's a fire psychologist.

## 3). What programs or initiatives would a fire psychologist be responsible for?

Psychologist may be responsible for a variety of things such as; training of the firefighters in behavioral health awareness, service training, transitional training, treatment, work with leadership on how to best address the needs of a firefighter who's been problematic; like what what's going on with this guy? Look to provide a proper plan to reduce their symptoms or

behavior. Perform Behavior assessments and ultimately help Administration develop policies that will give them some guidelines on how to address problem behavior and what we can do to help that person; Oversee the program; testing through individualized resiliency planning and coping strategies; address psychological outcomes procedures with regards to a line of duty deaths etc. (Wheldon, 2018). First and foremost, protect their job (Tran, 2018).

4). Are other emergency service professions using this model?

Findings indicate that law enforcement uses psychologist extensively for recruitment screening, and in service treatment. According to Tran (2018) and Wheldon (2018) the law enforcement field is head and shoulders future along that the fire service as using psychologist. However, Tran (2018) indicated in her interview the one are police are seeking advice from the fire department on; specifically in Houston is their peer support teams. Law enforcement has used psychologist for quite some time but do not have such a comprehensive peer support component.

5). Is there a link between on staff psychologists and a reduction in behavioral health symptoms or problems?

Few studies if any have tested any measurable outcomes or seen statistically significant findings. Tran (2018) provided anecdotal evidence about the mental health and well-being of their membership overall. Despite the lack of quantitative correlation, to “date most of the research in the field of police and public safety psychology has been in the areas of stress and mental health in law enforcement” (Archibald, Buser, Finney, Schwartz, & Swanson, 2015, p. 1).

In 1993, in response to recent suicides the Houston Fire department came up with a three phase suicide prevention program to curb a disturbing trend in firefighter suicides in

coordination with Baylor College of Medicine for psychological services who provided leadership to the HFD team. After the program began in 2007 “there were no suicides of active members for 5 years and three most surely averted” (Archibald, Buser, Finney, Schwartz, & Swanson, 2015, p. 3). In conclusion, while the results didn’t add a significant amount to the body of research specifically addressing any link to psychologist and a reduction in suicide or behavioral health issues, there were some quantitative outcomes provided by Houston Fire and from the survey instrument indicating the lack of psychologist running programs currently, and some effective pieces to a comprehensive program.

### Discussion

Prior to this study no research had been done on the impact of fire psychologists in the fire service. While there were articles related to firefighter behavioral health and behavioral health programs there was limited research on fire psychologists and their impact. The results of the study indicate a significant amount of literature and in fact survey data that was collected in regards to comprehensive program components. However, a consistent theme throughout the research was the lack of a major component of the behavioral health group; the clinicians. Accordingly, Weldon (2018) and Tran (2018), as well as future research from the Houston Fire department provided some initial qualitative and quantitative data for future research to build on.

Survey instrument result in regards to behavioral health program was surprising to have 63% of departments having a program. However, it was still unsettlingly to see 88% of respondents having experiences significant stress while 63% having indicated they have not sought help out. Additionally, one of the biggest surprises from the survey instrument data was

in regards to the biggest barriers to seeking help. Tran (2018) indicated she would guess the biggest barrier to be job security, however, according to the results of 257 respondents self-pride was the biggest barrier to seeking help. Overall, these results will have an immediate impact on the Fresno City College Fire Academy as we work to develop curriculum and provide training to help perspective firefighters and career firefighters have access to education regarding behavioral health.

### Recommendations

As a final consideration it is recommended that future research pursue the correlation between psychological support integrated into behavioral health programs to build off the research the Fire Service Psychological Association and the Houston Fire Department are doing. Additionally, it is recommended that more be done to combat the stigma and culture build around seeking help in the fire service; 18% percent of respondents indicating self-pride as the reason is not okay. According to the survey instrument data almost 90% have experience a significant stress event, 64% feel residual effects, and only 37% has sought help, even though the survey indicates that 64% say they would benefit from help. Specifically for organizations it is recommended that you fully engage your peer support groups and support the onsite clinicians to provide advanced care. Further, leadership has to support the peer teams and the clinician to perform their function without pressure or fear of reprisal. These recommendation should increase the body of research available and benefits organizations in the future to better take care of our people.

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## Appendix A

## Cover Email for EFOP Survey

To: (Email)

From: jacobmcafee@yahoo.com

Subject: EFO Survey

Body: Leaders

I am working on an applied research paper for my year 4 EFOP, entitled, "Firefighter behavioral health; we can do more". This research examines firefighter behavioral health, programs, and the effectiveness of having full time licensed fire psychologist on staff. If you can complete this survey it would be much appreciated.

Survey link; <https://www.surveymonkey.com/r/38T97R2>

V/r

Jacob McAfee, CFO, CTO, MIFireE  
Fire Chief  
Fresno City College Fire Academy

## Appendix B

## Participant Consent to Interview Request

Dear Potential Participant,

I am working on an applied research paper, entitled, Firefighter behavioral health; we can do more. This research examines firefighter behavioral health, programs, and the effectiveness of having full time licensed fire psychologist on staff. The problem is that the United States Fire Service has an increased risk of suicide and behavioral health issues as compared to the general population. The purpose of this research was to evaluate the effectiveness of having full time licensed fire psychologists on staff to decrease suicide rates and behavioral health problems. The research questions that guide this research are noted below;

1. What are the components of an effective behavioral health program?
2. What is a fire psychologist?
3. What programs or initiatives would a fire psychologist be responsible for?
4. Are other emergency service professions using this model?
5. Is there a link between on staff psychologists and a reduction in behavioral health symptoms or problems?

Any data collected via recording, transcripts, or other documentation procedures may be included in the research paper. In accordance with best practices for ethical research, participant names or specific organizations will not be identified in any report of my findings or in my published research paper, only general field of service (i.e. fire, EM, safety, etc.) information will be documented unless specific approval is given. I will provide a copy of the final results of this study upon your request as well as a transcript of the interview.

After reviewing the intent of the research, if you consent to participate in an interview please reply via email with your consent. Please specifically state your consent to participate in



an interview as part of the applied research project described in the participant letter. If you have any concerns about this request please contact me at the phone number listed below.

Sincerely,

Jacob McAfee

Fresno City College Fire Chief

Phone #

Appendix C

Cover Email for EFOP Survey

To: (Email)

From: jacobmcafee@yahoo.com

Subject: EFO Survey

Body: Leaders

I am working on an applied research paper for my year 4 EFOP, entitled, "Firefighter behavioral health; we can do more." This research examines firefighter behavioral health, programs, and the effectiveness of having full time licensed fire psychologist on staff. If you can complete this survey it would be much appreciated.

Survey link; <https://www.surveymonkey.com/r/38T97R2>

V/r

Jacob McAfee, CFO, CTO, MIFireE  
Fire Chief  
Fresno City College Fire Academy

## Appendix D

## Phone Interview

Place: Phone

Interviewer: Jacob McAfee

Interviewee: Dr. Kristen Wheldon

Position of Interviewee: President Fire Service Psychology Association

Project Description: The purpose of this research is to evaluate the effectiveness of having full time licensed fire psychologist on staff to decrease suicide rates and behavioral health problems.

Questions:

1. What are the components of an effective behavioral health program?
2. What is a fire psychologist?
3. What programs or initiatives would a fire psychologist be responsible for?
4. Are other emergency service professions using this model?
5. Is there a link between on staff psychologists and a reduction in behavioral health symptoms or problems?

## Appendix E

## Phone Interview

Place: Phone

Interviewer: Jacob McAfee

Interviewee: Dr. Jana Tran

Position of Interviewee: Fire Psychologist, Houston Fire Department

Project Description: The purpose of this research is to evaluate the effectiveness of having full time licensed fire psychologist on staff to decrease suicide rates and behavioral health problems.

## Questions:

1. What are the components of an effective behavioral health program?
2. What is a fire psychologist?
3. What programs or initiatives would a fire psychologist be responsible for?
4. Are other emergency service professions using this model?
5. Is there a link between on staff psychologists and a reduction in behavioral health symptoms or problems?

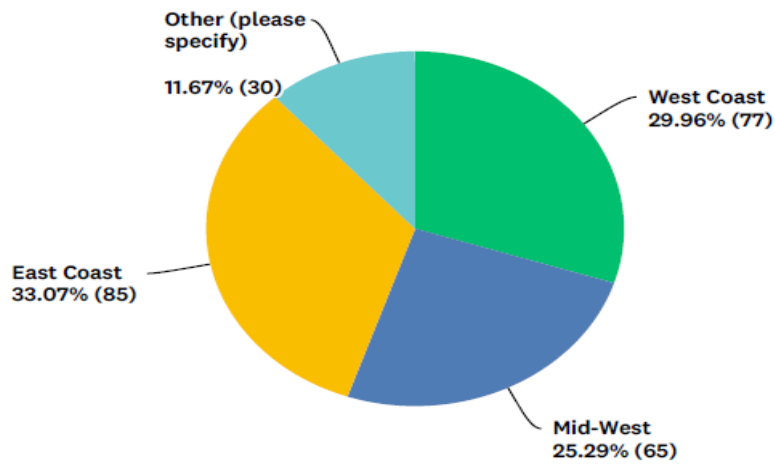
Appendix F

Firefighter Behavioral Health Programs Survey

SurveyMonkey

Q1 What part of the Country do you work in?

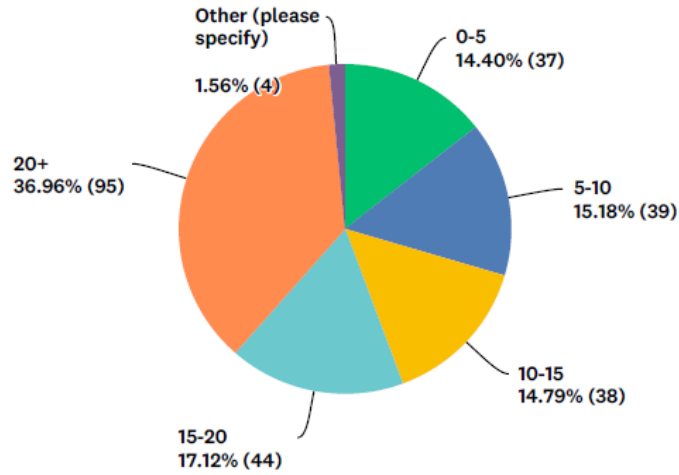
Answered: 257 Skipped: 0



ANSWER CHOICES	RESPONSES	
West Coast	29.96%	77
Mid-West	25.29%	65
East Coast	33.07%	85
Other (please specify)	11.67%	30
<b>TOTAL</b>		<b>257</b>

### Q2 How long have you been in the fire service?

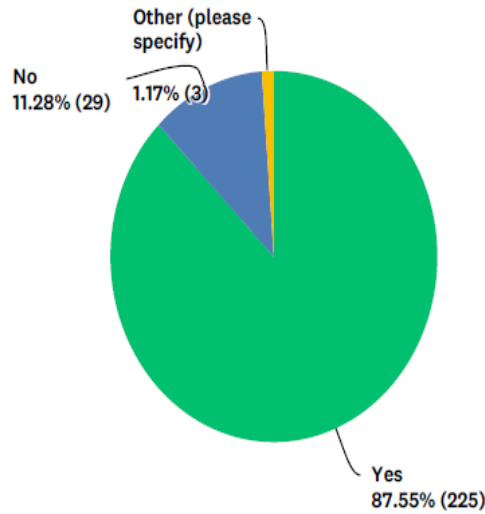
Answered: 257 Skipped: 0



ANSWER CHOICES	RESPONSES	
0-5	14.40%	37
5-10	15.18%	39
10-15	14.79%	38
15-20	17.12%	44
20+	36.96%	95
Other (please specify)	1.56%	4
<b>TOTAL</b>		<b>257</b>

### Q3 Have you experienced any traumatic events that have caused you significant stress?

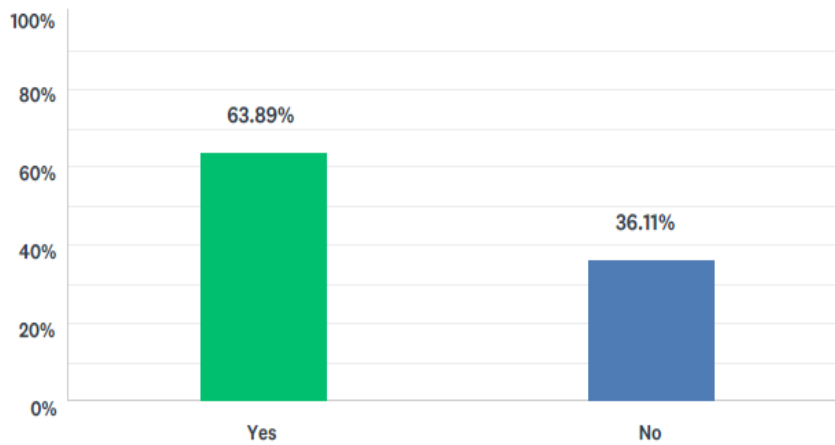
Answered: 257 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	87.55%	225
No	11.28%	29
Other (please specify)	1.17%	3

### Q4 Do you feel any residual stress effects from those incidents?

Answered: 252 Skipped: 5

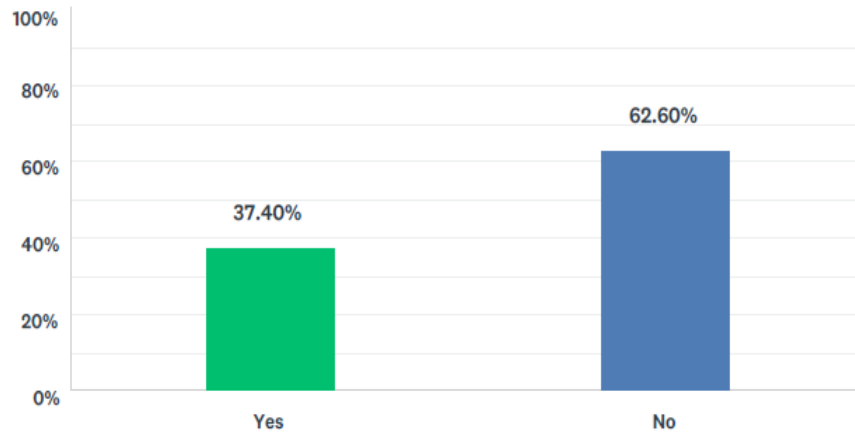


ANSWER CHOICES	RESPONSES	
Yes	63.89%	161
No	36.11%	91
TOTAL		252



### Q5 Have you sought help?

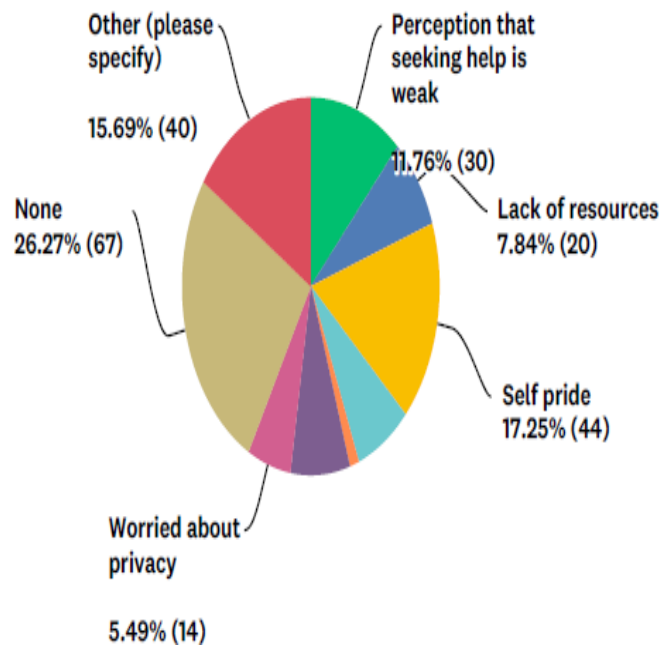
Answered: 254 Skipped: 3



ANSWER CHOICES	RESPONSES	
Yes	37.40%	95
No	62.60%	159
TOTAL		254

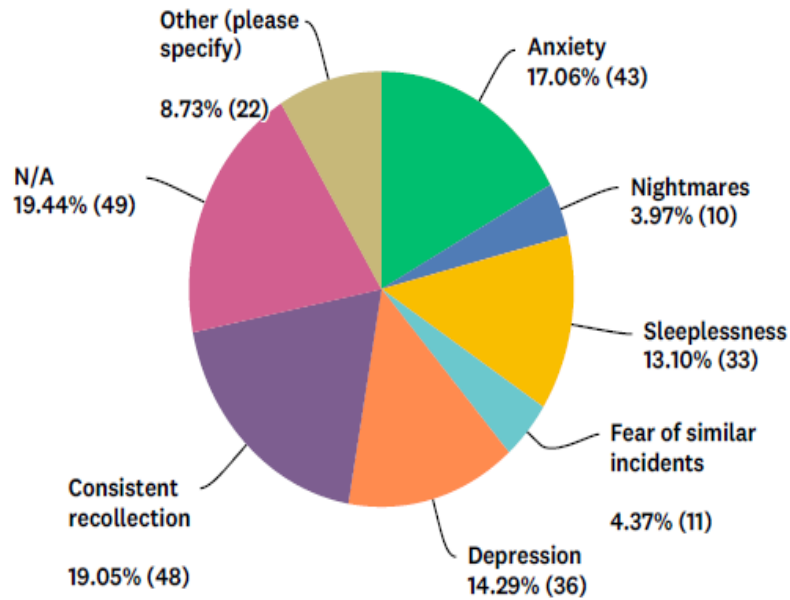
### Q6 What is the biggest barrier to seeking help?

Answered: 255 Skipped: 2



### Q7 What is the most significant symptom your experiencing?

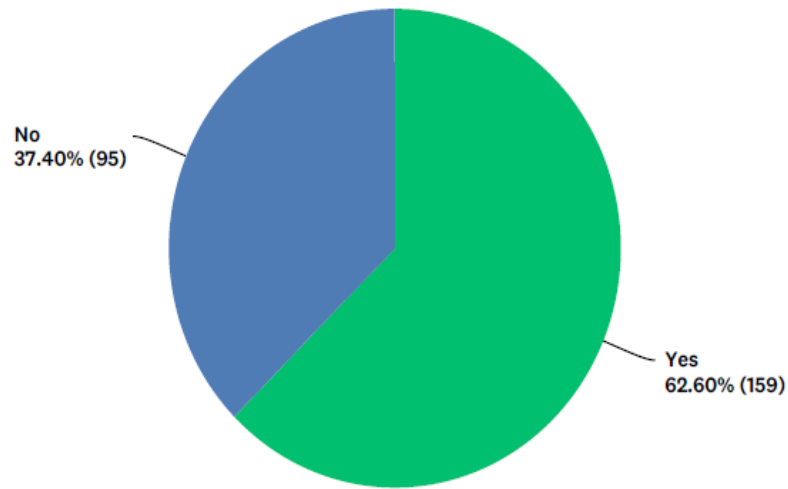
Answered: 252 Skipped: 5



ANSWER CHOICES	RESPONSES	
Anxiety	17.06%	43
Nightmares	3.97%	10

### Q8 Does your department have a mental/behavioral health program (s)

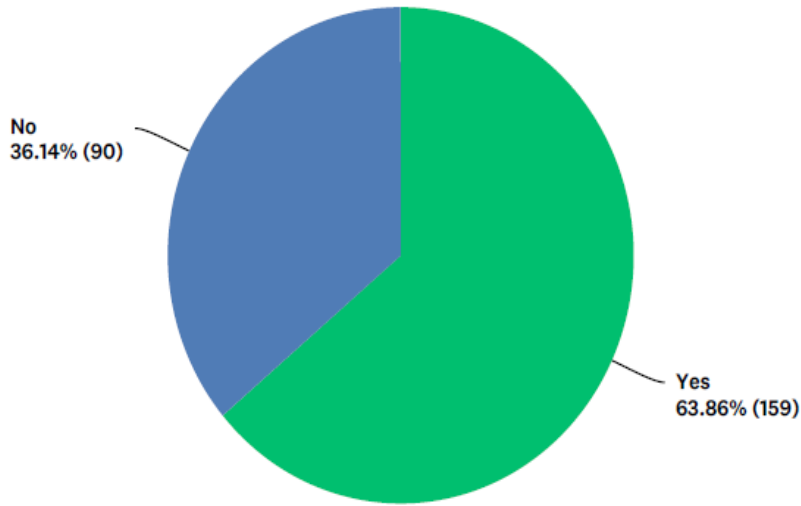
Answered: 254 Skipped: 3



ANSWER CHOICES	RESPONSES	
Yes	62.60%	159
No	37.40%	95
TOTAL		254

### Q9 Do you feel you would benefit from treatment or external support?

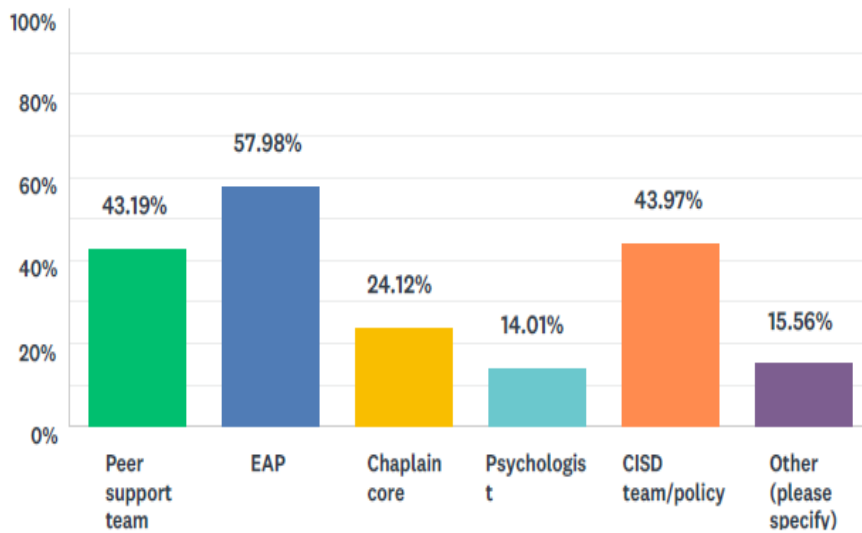
Answered: 249 Skipped: 8



ANSWER CHOICES	RESPONSES	
Yes	63.86%	159
No	36.14%	90
TOTAL		249

### Q10 What are the components of the program?

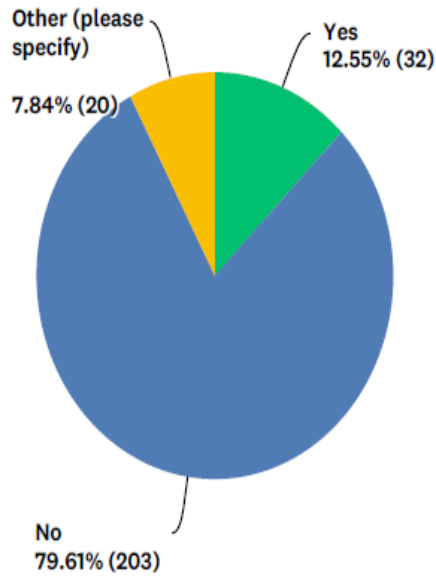
Answered: 257 Skipped: 0



ANSWER CHOICES	RESPONSES	
Peer support team	43.19%	111
EAP	57.98%	149

### Q12 Does your department utilize a fire psychologist in any fashion?

Answered: 255 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	12.55%	32
No	79.61%	203