

BREAKING BARRIERS, CHANGING LIVES:

INVESTIGATING MENTAL HEALTH AND WELL-BEING
AMONG VICTORIAN WOMEN IN EMERGENCY SERVICES



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MAY 13TH, 2020



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Interactive Qualifying Project

THIS INTERACTIVE QUALIFYING PROJECT IS PRESENTED TO PROFESSOR FABIO CARRERA AND PROFESSOR STEPHEN MCCAULEY OF THE INTERDISCIPLINARY AND GLOBAL STUDIES DEPARTMENT AT WORCESTER POLYTECHNIC INSTITUTE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE. THIS REPORT REPRESENTS WORK OF WPI UNDERGRADUATE STUDENTS SUBMITTED TO THE FACULTY AS EVIDENCE OF A DEGREE REQUIREMENT. WPI ROUTINELY PUBLISHES THESE REPORTS ON ITS WEB SITE WITHOUT EDITORIAL OR PEER REVIEW. FOR MORE INFORMATION ABOUT THE PROJECTS PROGRAM AT WPI, SEE [HTTP://WWW.WPI.EDU/ACADEMICS/PROJECTS](http://www.wpi.edu/academics/projects).



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Abstract

This investigation provides the Emergency Services Foundation (ESF) of Melbourne, Victoria with information on the barriers preventing women in emergency services from seeking mental health support. This project included introductory interviews, a survey, and focused interviews and discussion groups. The main finding of this project was that to improve work culture, the biggest inhibitor of mental health and well-being of women in the emergency services, focus is needed towards bettering mental health literacy and interpersonal intelligence for line managers.

Executive Summary

Breaking Barriers, Changing Lives was produced for the Emergency Services Foundation (ESF), a non-profit, Melbourne-based organization that exists to improve the mental health and well-being of emergency services workers in Victoria. People working within the emergency services are expected to routinely face physically and mentally straining situations. Issues with mental health and well-being are different for every person who experiences them. This means that mental health and well-being can be viewed as a spectrum where every person has their own unique experiences and ability to handle mental trauma. If left unacknowledged these mentally straining situations can continuously compound onto one another. In the case of emergency service workers this can be further deteriorated by the traumas they face in their everyday jobs. One in every two and a half emergency service employees and one in every three volunteers report being diagnosed with a mental health condition compared to one in eight Australians (Beyond Blue, 2018). These shocking statistics help provide justification for the need to better understand the experiences and perspectives of mental health and wellbeing among women within the emergency services. The ESF encouraged the team to investigate how stigmas and barriers inhibit help seeking, to understand work culture, as well as the attitude differences among women from varying agencies, different ages, frontline or support positions, and paid or volunteer positions.



The team's method was to conduct introductory interviews, analyze survey results and conduct focused interviews and discussion groups with women in various roles in order to create a description of mental health and wellbeing among women in the Victorian emergency services along with recommendations that target areas in need of change. The figure to the left details these objectives.

Much of the team's inspiration for this project came from the 'Answering the Call' study undertaken by Beyond Blue. Gender was included in the demographic information collected on the over 21,000 respondents in addition to factors such as sector type and paid or volunteer role. Their study indicated that there were no significant differences between the genders in their levels of wellbeing and in support-seeking (Beyond Blue, 2018). However, Beyond Blue's work did find gender differences in how women see their mental health, what factors impact it and how they respond to distress, as well as factors that influence health seeking behavior. The small

and exploratory nature of this study is different from that of the Beyond Blue study. While there are overlaps in the findings between the two, such as how women often recognize they need help, this study focuses on the reasonings, experiences, perspectives, and unique needs of the women. Insight into the women's lives is important because workplace interventions and policies should be tailored accordingly to their experience of mental health and wellbeing. Both reports present evidence that individuals in emergency services delay seeking help for their mental health and wellbeing is a stigma. Specifically, both find that individuals tend to show support for colleagues experiencing mental health conditions but are hesitant to seek help themselves due to stigmas, such as the fear of what others may think and financial or time barriers. The information and recommendations provided will begin conversations on mental health and well-being as well as encourage women to seek leadership roles in order to increase gender balance in alignment with the gender and equity strategy developed by the Victorian Government.

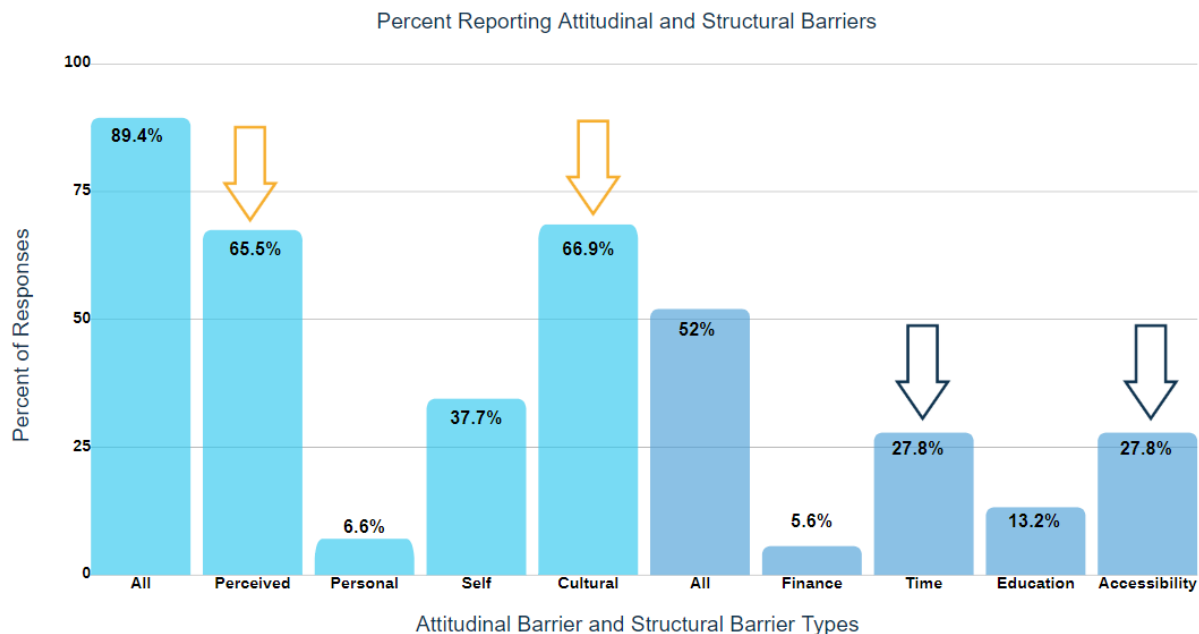
The team showed that mental health and well-being was an area that the women in emergency services struggled with. Many of the interviewees and survey respondents shared personal experiences of situations in their life or workplace that impacted their mental health and well-being. The team found that the women rate their mental health and well-being at 3.28 out of 5, and when it came to seeking help for stresses or feelings that impacted their mental health, 44% reported that they had delayed seeking care. This indicates that the barriers they report are indeed having a large impact on their willingness and capability to seek help.

Attitudinal Barriers Impact Mental Health Support-Seeking More Than Structural Barriers.

A little over half of the survey respondents reported structural barriers, with time and accessibility being the most common at 27.8%. The team found that responsibilities both outside and inside of the respondents' emergency services work had a large influence over the amount of free time she had and ability to focus on themselves. At home, caring responsibilities such as children were reported to dictate whether the women had the time to prioritize their own mental health and well-being and to seek care. At work, having managers that give them too many assignments and make them overburdened causes them to struggle to finish on time. In a culture where the women report having to "try twice as hard" in order to be seen as equal to their male counterparts, having the time to seek care is so close to impossible.

Compounding the structural barriers the women in emergency services experience, the vast majority (89.4%) of respondents reported that stigmas (attitudinal barriers) have a large impact on their mental health and well-being as well as their willingness to seek care. The most prevalent attitudinal barriers were cultural (i.e., the awareness of cultural norms; 66.9%) and perceived (i.e., what an individual believes is the opinion of those around them; 65.5%). Fear of social and work repercussions, appearing "emotional" and stereotypically feminine, and the command and control work environment commonly associated with the emergency services are strong inhibitors preventing women from speaking about their mental health and well-being as well as seeking the help they need. It was also observed that there are differences in reported attitudinal barriers depending on the role of the women in their workplace. Women in first

responder (i.e., front line roles) reported greater discomfort around their mental health and well-being than women in support roles. Specifically, they were less comfortable talking about their mental health with their managers and reported higher levels of self-stigmas. Through conversations it was suggested that the militaristic culture the front line workers are exposed to leads the women to feel as though they have to hide their emotions in order to adhere to the work culture’s emphasis on “strength”. Through these findings it was determined that stigmas related to culture was the biggest contributor to the mental health and well-being of women in the emergency services.



Work culture was the biggest contributor to the concerns of women in the emergency services in regards to their mental health and well-being.

Work culture was the biggest contributor and indicator to the mental health and well-being of women in the emergency services, being reported by 62.9% of the surveyed women. One interviewee stated this assertion shared by many, “from my colleagues and the people that I talked to, you get more stressed about working with someone who's awful... than the emotional response of going to a job where somebody dies.” Work culture is the environment that the women are exposed to through their paid or volunteer emergency work. It is the cultural norms, the unwritten rules, the hierarchy, the expectations, and the attitudes of peers. The women reported that the current workplace resembles that of a “boy’s club” and a command and control structure that impact’s everyone’s mental health and well-being, not just the women. Work culture includes the level of normalization of conversations and care, how women have reported that they feel they cannot display emotion for fears of being a “stereotypical” woman and being labeled as “hysterical” and “unfit” for their job. Though the women say that the culture has recently started to shift away from the “hyper masculine” culture, it still has created a lag in care

and support. Because of the work culture, the women said that they feel the higher ups (i.e., managers and organizations) do not care enough about them, volunteers feel their mental health and wellbeing was secondary to their organization, many hide their problems for fear of repercussions, and sexism and harassment still exist within the workplace. Thus work culture impacts women’s mental health well-being in many different ways, even going so far as to be impacted by the majority of the other themes the team identified throughout their investigation.

Women report a need for more acknowledgement and proactive help from organizations and managers, as well as less ignorance and emotional unavailability.

The women reported that there is a need for change in the managers and the organizations. The word cloud on the right shows keywords that women reported wanting their managers to do better or more of (the bigger the word, the more prevalent it is, according to frequency in responses). They indicate there was a lack of emotional support, a lack of acknowledgement, a lack of resources, and a lack of security. The women feel the higher ups (i.e., managers, and organizations) do not care enough about them, volunteers feel their mental health and wellbeing was secondary in the eyes of the organization, everyone hides their problems for fear of repercussions, and sexism and harassment still exist within the workplace. Women reported that the lack of acknowledgement by their organizations contributes to this negative tone in the workplace. One woman stated that “apparently safety is a priority [to the organizations], but how much of a priority is it really? ... We haven’t got our back end supported and resourced appropriately.” They feel that the agencies need to “walk the talk”, and that there needs to be more proactive help available. Specifically, respondents say that if organizations were to help managers foster their ability and knowledge on how to properly acknowledge the situation, provide emotional support, and create beneficial conversations, it would create a better work culture.



Mental health literacy, emotional intelligence, and interpersonal intelligence are the most important features to foster and build the framework for better mental health and well-being for women in emergency services.

The women say that in order for there to be change, they feel there needs to be more education to help prevent ignorance on the subject and build awareness. Knowledge of mental health and well-being is essential to promote conversation, support, and acknowledgement by peers and organizations. Based on the survey and focused discussions, the team believes that more education on emotional and interpersonal intelligence, as well as symptom identification, will provide beneficial changes for the culture, especially when it comes to conversations about such sensitive topics. The women report a need for a focus on encouraging people to have real discussions to offer support and to not be uncomfortable when the other is not “okay”. These two

themes are tied together, and it is necessary that they be addressed in order for the women to feel comfortable talking about their own mental health and well-being, as well as offering support to those around them.

It is worth noting that the women say that things are getting better and change has already begun taking shape in their workplaces. There are more resources, more conversations, and more support now than ever before. However, though the organizations and work culture seem to be moving in the right direction in the women's eyes, there is still a reported need for more change. Working off these conclusions, the team was able to make a list of recommendations to the ESF and to emergency services organizations. The recommendations are as following:

For the ESF:

1. Share this report widely so that leaders across the sector are made aware of women's perspectives and needs for their mental health and well-being.
2. Drive a sector wide health literacy campaign so that people are broadly and consistently exposed to key mental health and well-being messages and tools.
3. Further explore how those with external caring responsibilities could be aided during mandatory training and short-notice emergency response.
4. Bring women from across the sector together to create events / forums that increase camaraderie, support, and acknowledgement.
5. Explore how regionalized sector wide thank you events could be generated for emergency services employees and volunteers.

For the organizations in the emergency services sector:

1. Consider how mental health and well-being training and development for leaders and managers can give more focus to having better conversations with team members that normalize the topic, help to better understand individual needs, aid in better symptom and fatigue identification, and build a sense of community.
2. Consider how mental health and well-being training for paid and volunteer workers can give greater emphasis to holistic self-development and personal advocacy.
3. Give greater emphasis to promoting personal success stories and resource availability so people can develop greater confidence and trust in the support services provided.
4. Provide greater access to external support service providers to increase anonymity.
5. Explore how units and teams can expand and promote camaraderie, holistic well-being and support networks, with a specific focus on volunteers.
6. Create forums for women within the same agencies to network, build confidence, voice issues, and create a better sense of community.

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Authorship

All authors contributed to each portion of the project and have focused efforts on areas of their expertise. They find it difficult to claim portions of the project as they all wrote, modified, and tweaked every aspect. Every author each felt as though they put in what they could in terms of effort, quality, and time.

Acknowledgements

We would like to acknowledge the Emergency Services Foundation for their partnership and to Siusan MacKenzie, CEO of the ESF, for her tireless dedication to the success of our project and her adaptability given the circumstances of COVID-19. We would also like to thank Dr. Sarah Hewat and the rest of the ESF team for their understanding of the desire to better understand the mental health and well-being needs of women in emergency services. We would also like to thank Professor Stephen McCauley and Professor Fabio Carrera for their continued encouragement, wisdom, and advice throughout the project terms. Additionally, we would like to thank Professor Deeya Mitra for her help in the preparatory term, we are thankful for her guidance and compassion. We would like to thank all of the women we interviewed - while we are unable to share them all by name, each shared a unique and honest perspective necessary for meaningful research. We would like to thank Counselor Charles Morse and Professor James Doyle for their expertise in conducting thoughtful discussion groups and advising the team on how to discuss sensitive topics. A special shout out goes to the WPI Police department for sharing some of their personal experiences with us and for keeping the WPI community safe! We also wanted to take a moment to thank each other - our team worked incredibly hard to keep morale up, demonstrate resilience, and everyone offered an individualized skill set to ensure a high quality, meaningful project was completed, even as circumstances changed drastically. Thank you also to our family and friends who offered listening ears during this time. Finally, we would be remiss if we did not send a special thank you to those in emergency services all over the world. We are thankful for the mental and physical sacrifices you make every day to ensure the safety of our communities!

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1. Introduction

Mental health is the foundation for how individuals interact with the world. It is the extent to which individuals are able to realize their own potential, handle the normal stresses of life, and contribute to society (WHO, 2018). In recent years, funding has been further allocated to pursue research and services towards the understanding and impact of mental health. In 2017, 22.3% of Australian women and 17.9% of Australian men had a diagnosed mental health disorder (Australia Bureau of Statistics, 2019). To provide help to those individuals, in 2018 the Australian government doubled its budget from the previous year to \$338.1 million, with a focus on prevention, care, and research for mental health (Cook, 2018).

While acknowledging the growth in awareness and education surrounding mental health and well-being, there is still a disparity between those diagnosed with mental health illnesses and those that seek services to address such issues. In Australia, only an estimated one third of people with a disorder sought services in 2007 (Australia Bureau of Statistics, 2010). This difference is due to attitudinal and structural barriers that hinder one's desire and ability to get aid for their mental health and well-being, which will be discussed further in this report. Although the current trend in Australia shows an increase in mental health services, it should be noted that there is also an increase in diagnoses of mental illnesses, insinuating that the percentage of those seeking help and those diagnosed still face a disparity.

The severity of a mental health illness relies heavily on proximity, duration, and intensity of exposure to potential traumas and triggers (Benedek, Fullerton, & Ursano, 2007). Emergency services employees and volunteers are individuals that are expected by their jobs to encounter these traumas and stresses on a frequent basis. Issues with mental health and well-being are different for every person who experiences them. This means that mental health and well-being can be viewed as a spectrum where every person has their own unique experiences and ability to handle mental trauma. The repetitive cycle of first-hand traumatic experiences puts emergency services workers at an increased risk of depression, anxiety, and substance abuse (Counson et al., 2019). These conditions can continue to compound if left unacknowledged and lead to a person descending into the more concerning side of the spectrum. This can lead to a severe inability to cope or even actions such as suicide as indicated in a United States (U.S.) 2015 governmental report, where the women in the protective service industry (e.g. first responders) had the second highest rates of suicide among employed women (Centers for Disease Control and Prevention, 2018). Furthermore, emergency service providers do not always have access to help for the mental health and well-being for fear of the repercussions on their work. This could include a loss of career, losing the ability to carry firearms, or being taken off the front-line. In order to take steps towards decreasing these mental health barriers, the state of well-being of emergency services workers needs to be explored.

Much of the team's inspiration from this project came from the 'Answering the Call' study undertaken by Beyond Blue. Gender was included in the demographic information collected on the over 21,000 respondents in addition to factors such as sector type and or paid/volunteer role. Their findings indicated there were no significant differences between the

genders in their levels of wellbeing and in support-seeking (Beyond Blue, 2018). While the study indicated that men are more likely to be exposed to workplace violence, binge drink, and have increased levels of suicide ideation, it found that women are more likely to report increased stress, troubles, and traumas outside of the workplace and that they tend to report more social support. Per information provided by the ESF, women are a minority within the emergency services population, comprising only 31% of Victoria's emergency service workers (ESF, 2020). Insight into gender is important because if the experience of mental health, and responses to stress and mental injury vary by cohort, then workplace interventions and policies should be tailored accordingly.

The objective of this research project is to better understand the state of mental health and well-being of women in emergency services to provide the ESF and organizations with impactful and beneficial recommendations that they can consider and implement. This will be done by conducting thorough background research and through the analysis of surveys, discussion groups, and interviews. In order to do this, there is a need to explore and describe the cohort's perspectives and experiences of mental health and well-being and mental health care services. The project entails working with the Emergency Services Foundation (ESF) to provide more insight into this problem, and thus will aid their mission of promoting, addressing, and supporting women in the emergency services sector of Victoria, Australia.

2. Background

Mental health affects all aspects of a person, establishing their psychological and emotional well-being. It determines how they feel, act, and cope with stress, which contributes significantly to their ability to function in society. Research shows it may also impact one's physical health (Bambling, 2006). Mental health and well-being issues are commonly found and increasingly recognized throughout the entire world, including Australia. In 2007, a study found that roughly 45% of Australian citizens experience a mental disorder in their lifetime. Out of those diagnosed, 38% had two or more disorders in the previous year, indicating that mental health problems may compound depending on trauma exposure and predisposition (Australia Bureau of Statistics, 2010). In addition to the significant amount of Australian citizens who report disorders, there is also a notable increase in the percentage of professional diagnoses. Within 2017, 20.1% of the population was diagnosed with a mental health disorder, rising from 17.5% in 2014 (Australia Bureau of Statistics, 2019). Thus, many things can impact one's state of mental health, including traumatic events, genetics, and pressure from society.



Figure 1: What is Mental Health?

Certain careers and cultural expectations expose specific groups of people to different stresses that may lead to an increased risk of mental illnesses. In terms of career, people working within the emergency services are more often witnesses to repetitive traumas, which may put them at a greater risk of developing symptoms of mental health disorders. This is further evident by the fact that one in every two and a half paid emergency service workers and one in every three volunteers report being diagnosed with a mental health condition compared to one in eight Australians (Beyond Blue, 2018). In terms of gender, women have a greater risk of experiencing mental health disorders as suggested by the increase in diagnoses from men (17.9%) to women (22.3%) (Australia Bureau of Statistics, 2019). Therefore, there is a need to collect more information to better comprehend the effects of increased trauma exposure within emergency services roles as well as the main inhibitors for women working within such positions in order to better understand how to support their mental health and well-being.

2.1 Mental Health in Emergency Services

Emergency Service workers are expected to routinely face physically and mentally straining situations. These stress-inducing experiences are associated with the development of new mental health conditions and the increased severity of pre-existing ones (Auxéméry, 2012; Haugen, McCrillis, Smid, & Nijdam, 2017). Research previously done by Beyond Blue showed a result of this impact by indicating that of Australian emergency services employees, 21% report high levels and 9% report very high levels of psychological distress, a large increase in

comparison to the respective 8% and 4% within the general Australian population (Beyond Blue, 2018).

The impact of these experiences on one’s mental health differs depending on the employment sector of emergency service. Each employment type has different job expectations, different stresses, and different situations to which they are required to encounter and respond. Issues with mental health and well-being are different for every person who experiences them. This means that mental health and well-being can be viewed as a spectrum where every person has their own unique experiences and ability to handle mental trauma. If left unacknowledged these mentally straining situations can continuously compound onto one another, leading to a downward spiral into the side of the spectrum where individuals struggle with their ability to cope or get the help they need. In the case of emergency service workers this can be further deteriorated by the traumas they face in their everyday jobs. As referenced in Table 1, the percentage of emergency management workers who have experienced suicidal thoughts, plans, or attempts within 2018 vary between the sectors of the emergency service community. The rate of attempts is notably higher for Ambulances and firefighters in comparison to police officers (0.5% and 0.7% versus 0.3%), which may be correlated to

Table 1: Percentage of Suicidal Thoughts, Plans, or Attempts in 2018 for the Australian Sector. Data from Beyond Blue (2018)

	THOUGHTS	PLANS	ATTEMPTS
GENERAL POPULATION	2.3%	0.6%	0.4%
ALL EMERGENCY SERVICES	5.3%	2.0%	0.3%
SES	4.5%	2.9%	0.0%
POLICE	4.7%	1.6%	0.2%
AMBULANCE	6.5%	3.0%	0.5%
FIRE AND RESCUE	6.9%	2.6%	0.7%

BEYONDBLUE 2018

increased exposure to graphic situations (Beyond Blue, 2018). There is an association between increased suicidal tendency and being an emergency management worker, providing justification for the need to understand and address such mental health issues before effects worsen.

Besides the employment sector, the mental strain of this daily trauma differs between career and volunteer services. This inconsistency is a result of different training standards, access to resources, and the balance of additional stressors (e.g. other employments and financial income) between them (Stanley, Boffa, Hom, Kimbrel, & Joiner, 2017). A study in the United States in 2017 showed that volunteer firefighters reported higher levels of depression (16.85%) than their career counterparts (13.06%) (Stanley et al., 2017). This difference is also apparent in the gender of the volunteer worker: 38.5% of female volunteer firefighters reported developing depression compared to 22.2% of female career firefighters (SAMHSA, 2018). Studies have also shown that there is also a significant difference between female and male emergency services workers, as will be explained further in the next section.

2.1.2 Mental Health of Women in Emergency Services

Women within emergency services are a particular area of interest due to their minority status and the global underrepresentation of women-focused mental health research. Though they are a minority, at 31% of Victoria's emergency services sector, it is important that more attention is brought to the state of their mental health (ESF, 2020).

Although women within the sector are exposed to similar levels of trauma as their male counterparts as a result of their employment, they may have the additional stresses on their mental health and well-being such as harassment, discrimination, external responsibilities, and societal expectations as a result of their gender. Moderate to severe levels of harassment have been associated with a higher likelihood of experiencing suicidal ideations and mental illnesses within female emergency responders (Jahnke et al., 2019).

It is important to consider that the rise in mental stress reportings between Australian women and men may not be solely caused by an increase in mental health conditions. Canadian female firefighters and female municipal or provincial police are more likely to report symptoms associated with mental disorders than their male counterparts (Carleton et al., 2018). However, when considering that Australia's young adult women are 1.75 times more likely to recognize symptoms of depression within themselves than men (Cotton, Wright, Harris, Jorm, & McGorry, 2006), the assumption can be made that women firefighters and police in Australia are more likely to report a greater frequency of mental illness symptoms since they may be better skilled at identification. Even though women are more likely to report symptoms, there may be further underlying issues leading to an increase in mental health trauma, thus more research is necessary to better understand the scope of women-specific stresses and any limitations in self-reporting. As recognition of mental health symptoms is essential in order to understand the best steps towards seeking any form of help, this skill may provide useful information towards understanding and diagnosing mental illnesses.

2.2 Mental Health Care

Mental health support is the multifaceted approach toward seeking treatment and help for mental health illness. The more commonly sought approaches are professional services (i.e., mental health care) (Hom, Stanley, Spencer-Thomas, & Joiner, 2018). These include medication, psychotherapy, psychologists, counselors, general practitioners, or psychiatrists. Before seeking professional services, there are multiple stages through which an individual typically progresses. First, the patient must experience the symptoms, then they must determine the severity of the symptoms, and determine if symptoms cause any decrease in their quality of life. The patient then assesses whether treatment is a realistic option based on what the treatment may entail and whether the treatment is accessible and feasible (Sareen et al., 2007). If the individual does not progress all the way through these stages, they may instead seek help through support networks (e.g. friends, family, colleagues, religious leaders, and anonymous support groups), personal coping mechanisms (e.g. personal care, hobbies, alcohol, drugs, exercise, music), and confidential hotlines or texting services.

2.2.1 Seeking Mental Health Care as an Australian

Due to many barriers of reported mental health care use, there is a discrepancy between the number of people who have a mental illness and the number of people who seek help. These discrepancies can be correlated to the country the patient resides in, socioeconomic factors, and the type of mental illness they face. In Australia, it was reported that in 2009 out of all the people diagnosed with a mental condition, only 46% had used mental health services in the previous year (Australian Institute of Health and Welfare, 2014). The difference in the socioeconomic backgrounds is evidenced by

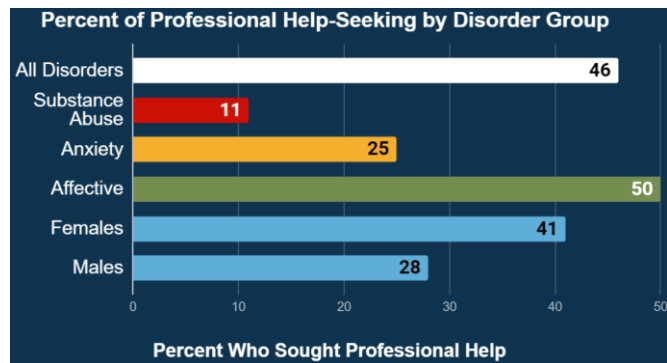


Figure 2: Percent of Disorder Group Seeking Professional Mental Health Care. Data from (Australian Bureau of Statistics, 2010)

the findings that those raised in lower socioeconomic communities were less likely to seek mental health care. The primary reason reported was that they did not believe professional help would ease their symptoms (Sareen et al., 2007). The types of mental disorder symptoms the individual faces also play a role in how likely they are to seek help. As referenced by Figure 2, there is a large difference between the help-seeking of affective disorders (50%) versus the substance-use disorders (11%). There is also a gender difference, as 41% of women with mental health disorders sought help compared to 28% of men (Australia Bureau of Statistics, 2010). A reason behind the overall mental health care discrepancy is that Australia struggles to educate on possible mental health treatments. In a study involving an Australian clinic specializing in anxiety, all of the patients reported a delay in seeking professional help by over a month (Thompson, Hunt, & Issakidis, 2004). These discrepancies are correlated to barriers that impede individuals from seeking care.

2.3 Barriers Surrounding Mental Health Care

Barriers are any factor or influence that inhibits or demotivates one from seeking any form of mental health support for psychological trauma or illness. These barriers are the reason behind the differences seen between people who have a mental illness, those who seek help, and those discussing their mental illness(es) with others. For example 51% of surveyed Australians in 2015 with either depression, anxiety, or both, concealed or hid their mental health problems from those around them (Beyond Blue, 2015). The barriers arise from a wide variety of influences and can be further rationalized into categories to aid in identification and intervention.

The barriers currently reported by numerous research articles and papers show that these impediments can come from a large variety of factors but can be broadly classified under two categories: structural and attitudinal (Sareen et al., 2007; Thompson et al., 2004; Beyond Blue, 2015). Although these two categories are diverse and thorough, it is common for barriers to be multifaceted and fall within both categories.

2.3.1 Structural Barriers to Seeking Mental Health Care

Structural barriers are external, tangible factors that impede help-seeking. These include a lack of education on mental health services, a lack of funds to be able to pay for help, a lack of time to dedicate towards seeking help, and difficulty getting to or having the accessibility to a mental health service provider (SAMHSA, 2018). In Australia, seeking help for mental health treatment can be expensive, as Medicare provides rebates for only up to 10 sessions with a psychologist annually, with the patient paying the difference out of pocket if the cost of treatment is greater than the rebate after a referral from a general practitioner, a psychiatrist, or a pediatrician (Australian Psychological Society, 2020). Besides the financial deterrent that may be present among those of lower economic backgrounds, an Australian clinic specializing in anxiety reported that of its patients who delayed seeking treatment, did so due to a lack of education about mental illnesses or available services (Thompson et al., 2004). This educational deficit could take several forms: an individual may be unaware that they should seek mental health help for their illness, may believe their illness would go away with time, may lack knowledge regarding available options, or may not know how to start seeking help.

2.3.2 Attitudinal Barriers to Seeking Mental Health Care

Attitudinal barriers, more commonly referred to as stigmas, are intangible internal factors conceptualized as negative and erroneous attitudes about a person that eventually leads to detrimental actions (Haugen et al., 2017). Personal, perceived or public, self, and structural or cultural, are all categories within attitudinal barriers (Beyond Blue, 2015; Haugen et al., 2017). Personal stigmas are an individual's attitudes and beliefs of others who use mental health services; which includes projections of ostracism, discrimination, perception of dangerousness, and marginalization (Beyond Blue, 2015; Thornicroft et al., 2016). Perceived or public stigma is the extent of a person's awareness about what others believe about people who use mental health services; this category includes their awareness of what family members, friends, coworkers, or employers think.

Self-stigmas are the views that individuals have of themselves, usually connected with internalized devaluation and disempowerment (Haugen et al., 2017), and have been reported higher among males than women (Beyond Blue, 2015). This classification of stigma is commonly tied to perceived stigmas: what an individual believes others think has an impact on their personal views. If an individual knew that someone else erroneously perceived mental illnesses as a characteristic of neediness or attention-seeking, the individual with the mental illness may feel shamed, guilty, or embarrassed and thus would not seek mental health support or a professional diagnosis.

The last category of stigmas is structural or cultural. Different from structural barriers, these stigmas are cultural norms or institutional policies that deter the opportunity to utilize mental health services or alienize people from those around them. An example of a structural norm would be the stigmas tied to the individual's workplace: not wanting to be labeled as too "lazy... [or] incompetent" (Beyond Blue, 2015) for their jobs and concern over negative changes in employment opportunities (e.g. change in work shift, loss of employment, and promotional

bypass). These fears may be why 43% of Australians in 2014 did not disclose their diagnosis to their employers (Beyond Blue, 2015).

Though attitudinal and structural barriers are unique entities, there is a lot of overlap between the two, contributing to delays in seeking or following through with a treatment regimen. For example, an individual may have the structural barrier of the unavailability of free time due to the attitudinal fear of their boss perceiving them as unmotivated. An individual's mental health education is greatly determined by the cultural norm of the society they grew up and currently reside in. The governmental policies of an individual's country will determine the prevalence of fund allocation to mental health care and insurance policies, creating possible financial deterrents. The barriers change based on the culture of both the country and the work environment, thus the understanding of the barriers specifically in the Australian emergency responder community is needed for any future aid to be implemented.

2.3.3 Barriers to Mental Health Care in Emergency Services

The emergency services community is no stranger to barriers surrounding mental health and mental health support. In 2017, a meta-analysis in the U.S. determined that 33.1% of first responders reported the existence of mental health stigmas in their workplace (Haugen et al., 2017). It is also worthy to note that an estimated 30% of first responders in the U.S. develop behavioral health conditions (SAMHSA, 2018) and the overlapping number of people reporting diagnoses and stigmas is unknown. Several different studies in the U.S. found that the most frequently reported stigmas in the emergency services community were fears regarding confidentiality and negative career impact (Haugen et al., 2017; Nemecek, 2018). The fear of a breach in confidentiality can stem from not wanting co-workers and employers to know and any resulting career repercussions (e.g. negative evaluations done by coworkers or supervisors and undesired changes in job duties) (Haugen et al., 2017). Their fears of work consequences are not without reason, as an Australian study found that only 19% of emergency services workers think that an employee's career is unaffected when they recover from a mental health condition (Beyond Blue, 2018). Within the structural category, the most frequently endorsed barriers were not knowing where to get help and scheduling concerns, such as not having time to get access to health care due to a shift at work or other commitments (Haugen et al., 2017). These barriers are more likely to be reported among volunteer firefighters than their career counterparts (Stanley et al., 2017) and may differ between genders.

2.3.3.1 Barriers to Mental Health Care for Women in Emergency Services

Women working in emergency services may encounter a higher frequency of barriers than their male counterparts. In a study of 120 American female firefighters with a history of suicidality (i.e., suicidal thoughts, plans, or attempts), 61.3% reported at least one attitudinal barrier and 56.3% reported at least one structural barrier inhibiting their care. The most common two attitudinal barriers were concerns about being treated differently by their coworkers (52.9%) and being seen as weak (51.3%). Of structural barriers, the three most commonly reported barriers were the cost of the treatment (48.7%), scheduling an appointment (26.9%), and receiving time off to pursue care (22.7%). It is also worthy to note that those who sought services

for their mental health problems were more likely to report stigmas. Furthermore, this issue is complicated by attitudinal barriers that prevent people from seeking help such as embarrassment or shame if confidentiality is breached (Hom et al., 2018). There are organizations currently providing forms of support or conducting inquiries into the barriers surrounding such support among women and general emergency services communities (Beyond Blue, 2015; ESF, 2020).

2.4. Supporting, Addressing, and Promoting Women's Mental Health

Although the barriers and stigmas surrounding mental health and well-being seem daunting, there are a variety of methods and options to combat these inhibitors and provide the best opportunities for women within emergency services to get the help they need. The ESF has recently shifted its organizational mission away from general help for emergency services workers to a more direct approach of supporting mental health needs. The organization has been working to form a comprehensive foundation towards combating mental health stigma and providing resources to approximately 125,000 Victoria emergency responders, including approximately 87,000 volunteers and 39,000 women, in order to encourage seeking help for mental health trauma. The ESF was established upon the principle of making the resources for relief and help readily available to emergency service workers and their families (ESF, 2020). To achieve their goal, they aim to bring people together, drive research on mental health and well-being, foster innovation and form strategic partnerships. Furthermore, they have shared through personal communication the beginnings of collaboration with organizations such as Beyond Blue to allow workers to share their experiences, ideas for best practices, distribution of educational content, and the compounding of information and efforts necessary to combat mental health stigma.

3. Methodology

The ultimate goal of this project is to help the Emergency Services Foundation (ESF) with their mission of increasing mental health and mental health care awareness in the emergency service community of Victoria, Australia. There is a lack of information on mental health care, on barriers (attitudinal and structural), and the reported use of said services in Australian emergency services. There is an even greater deficit of data when focusing specifically on women. The team collected more information on these topics to provide a groundwork for future studies. To address the goal of increasing awareness of mental health and well-being barriers and utilization, the team has developed materials and strategies directed towards growing women in emergency services and their managers' knowledge on both the current state of mental health within their community and the mental health care available to them. The team has analyzed a survey sent out by the Emergency Services Foundation and engaged in informative introductory interviews, discussion groups, and focused interviews, via the video calling software Zoom, with women within the emergency services community. The survey provided both quantitative and qualitative data and the interviews provided supplemental qualitative information on being a woman in the emergency services workplace and on mental health care in the community (e.g. the opinions, reported use, barriers encountered, and its impact). The current lack of information surrounding this topic was addressed through the analysis of this data to better comprehend the utilization and need of mental health care within Victorian women emergency service workers.

The following section provides a detailed methodology on the team's completed course of action to achieve the ultimate goal of aiding the ESF with their mission of promoting, addressing, and supporting mental health awareness through bringing people together, driving research on mental health and well-being, fostering innovation, and forming strategic partnerships with a focus on women within the Victorian emergency services community.

3.1 Understanding Women's Experiences in Emergency Services

To begin the data collection portion of this project, the team first sought to understand the culture within the emergency services field with a specific focus on the perspectives of women. To avoid any bias in information or unequal representation, the team organized remote interviews with individuals from six different agencies present in Victoria (i.e., Victoria Police, Country Fire Authority, Red Cross, Victoria State Emergency Service, Ambulance Victoria, and Metropolitan Fire Authority). The team's networking was facilitated by the ESF. These introductory interviews were designed to be thirty minute long informal conversations and were aimed at collecting each individual's experience as a woman working in the emergency services. The conversations covered topics like general expectations, workplace culture, gender inequality, as well as mental health and well-being. Additionally, the team gathered information on the change of each topic as time progressed in order to understand the evolution the emergency services had undergone over an approximate 30 year span. Though the team had specific topics prepared to guide the conversations, the interviewees were given the autonomy to provide as much information and elaboration as they felt comfortable sharing. Each interview was

consensually recorded and the team analyzed the transcriptions to combine perspectives, identify similarities and differences across the emergency services realms (e.g., police, fire, and ambulance), and for future use when creating recommendations for addressing mental health and well-being for Victorian women in emergency services.

3.2 Analyzing Quantitative Survey Results to Identify Prevalence and Trends in Mental Health and Well-being Among Women in Emergency Services

Mental health care for women within emergency services is largely understudied. This deficit of information creates the scope for this objective, as the team strategically gathered quantitative information from the survey the ESF conducted. While the survey was initially planned to be distributed at the International Women's Day Forum on March 8, it was not possible due to the COVID-19 Pandemic and was instead distributed via email to the members of the Australasian Women in Emergencies Network. The questions in Appendix A include a line of questioning that the team was initially interested in learning more about, while Appendix D includes the final questions that were compiled by the ESF and their stakeholders and distributed as the survey. The questions explored topics on mental health care in women emergency services workers. In addition to anonymous demographic information, the questions included how participants felt different facets of their mental health and well-being were addressed in their workplace within the past month. Depending on the question, the respondents answered using a sliding scale, selected a multiple choice answer, or responded using an open response prompt.

All data was manually reviewed before processing to ensure integrity (i.e., any responses that were off-topic were stricken out and any survey submissions that did not answer any questions were removed). Two types of data analysis were performed: descriptive and inferential. Through descriptive data analysis, the team used definite statistics (i.e., means, medians, modes, ranges, and frequencies) to categorize scaled questions, multiple choice questions, and the created free response classifications. Inferential data analysis was used for inferences of variances, regressions, and trends based on correlations using categorizations of demographic data in conjunction with the open response answers.

The quantitative data collected from the survey was produced through the analysis of both multiple choice and open response questions, allowing the team to determine the levels of reported attitudinal and structural barriers, the current workplace (i.e., coworkers and line managers) mentality behind mental health care for women workers in the emergency services field, the woman's own mental health and well-being, and how willing the individual was to get help.

To analyze the open response survey questions in a way that would reduce bias, the team first categorized the responses individually before coming together as a team to determine the most fitting barriers and overall themes. First, the team individually evaluated each of the women's responses and identified which previously researched and defined barriers were present (i.e., attitudinal barriers such as perceived, personal, self, or cultural, and/or structural barriers such as financial, time, accessibility, or education). Next, the individual evaluations and findings were combined and discussed in order to determine the most accurate barrier representation. All

of the barriers discovered were then analyzed to determine their prevalence in each free response question. While categorizing the responses into the predetermined barriers, the team also analyzed the free response questions to find themes. To do so, each team member individually read through all responses to find patterns, which entailed them identifying their own themes. Finally, the team compared their individual analyses and combined them into a focused and centralized list of team defined themes. Once this process was completed, the responses were then dispersed into their respective theme that best encapsulated the data. The frequency of responses in each theme was then determined.

To determine whether there were any correlations or trends between the demographics of the respondents and data from the quantitative questions and the free response, the team performed a series of statistical tests using the Statistical Package for the Social Sciences (SPSS) program. These included one-tailed bivariate correlational tests using Pearson correlation coefficients and independent-sample t-tests with a 95% confidence interval. The team used the IRB's software SPSS to analyze the quantitative survey data gathered by the ESF. Initially, the data was imported into a new SPSS file in the form of an excel sheet. All unanswered questions were left blank and data was then categorized into numerical values with appropriate values entered into the variable view. Once all of the data was converted and imported properly, correlational tests were run between each demographic answer and each mental health focused question individually. The themes and barriers identified allowed the team to identify the topics found to be most prevalent and those that resonate with women in emergency services, granting the formulation of a more tailored line of questioning for optimized interview data collection.

3.3 Collecting Focused Perspectives from Women in Emergency Services to Augment Survey Findings

Through the carefully formulated questions created in Section 3.2, the team conducted follow up focused interviews and discussion groups to explore the themes that emerged from the survey. Their perspectives augmented the statistics by providing first-hand accounts of the work culture and the current state of mental health care (i.e., awareness, ideology, barriers, and help utilization) in the emergency services industry. The key individuals for remote structured interviews, and some discussion groups, included those in leadership positions (e.g. line managers, captains, lieutenants, or equivalents). Along with insight into the survey results, leaders in the industry also shared insight on the quality of employer mental health programs and whether there were any noticeable trends in discussions or opinions amongst general workers within emergency services. The team also conducted both focused interviews and discussion groups with women not in leadership positions. The differences in these two methods of data collection are that the structured interviews were aimed at gathering specific information from an individual who provided a unique perspective about an event, experience, or pattern. The discussion groups were designed in order to allow individuals the autonomy to collaboratively express shared experiences, feelings, and perspectives while giving them the freedom and time to share what they believed was important concerning themselves, their peers, and their workplaces. The team put in a lot of effort to ensure that the discussion groups were conducted in

a safe and welcoming remote environment. For example, women were also given the option to do one on one interviews if they preferred to maintain greater anonymity, the women's names in the discussion groups were hidden and or changed, and the women were assured that if they ever needed to leave for a breather or to go to the bathroom they were free to do so. However, it was noted that all the women within the discussion groups knew each other, and thus the team could not completely ensure said anonymity. Though the team originally attempted to counter this, due to COVID-19 complications and a 14-15 hour time difference, it was difficult to reach out to enough women and coordinate a time themselves. Instead, the team coordinated the discussion groups with the help of one person in each agency. In order to recruit women to take part in focused interviews and discussions, the team sent out emails (Appendix F) to women who they had already met with for introductory interviews.

3.4 Using Findings to Describe Mental Health Care and Barriers of Australian Women in Emergency Services.

Due to the dearth of applicable statistics regarding Australian women in emergency service workers' mental health and mental health care use, triangulation was implemented to create parallels of relevant information between the team's collected information and previously published research. This method took into account the quantitative data collected through the survey and qualitative data gathered through the remote discussions. All information analyzed and corroborated by previous published findings provided a descriptive analysis of the overall mental health care situation for Australian women in emergency services. This description includes the perspectives of women within the cohort on mental health care, the prevalence and experiences that surrounded reported attitudinal and structural barriers to care, and the types of mental health services that the women perceived to be beneficial. The data was also analyzed to locate any possible fields that may require more attention in future studies.

3.5 Developing and Recommending Interventions to Increase Awareness and Promotion of Mental Health Care

As a derivative of the main objective, the team created suggestions for the development of educational and social interventions to provide resources for the ESF and Victorian emergency service organizations regarding increasing awareness of mental health care in women emergency service workers. This guidance provided resources and methods on combating the various attitudinal and structural barriers discussed in this document. Developed from available materials and information gathered, these suggestions take the form of written documentation and concise lists. This data was collected via surveys, focused and introductory interviews, and background research on beneficial educational and social interventions. More details about interventions can be found in Appendix B. In-depth research and analysis on successful interventions from other organizations such as Beyond Blue addressing similar mental health trauma were used to infer the best methods the ESF could approach for instating the team's recommendations if desired. Ultimately, the team left the ESF with a possible plan of action that proposes the optimal methods for women in regards to seeking help, in addition to solidifying and legitimizing the suggestions provided.

4. Results

The following section contains the results from the preliminary interviews discussed in section 3.1, the survey from section 3.2, and the interviews and discussion groups from section 3.3. As provided in Figure 3, the team conducted eight introductory interviews with women in leadership positions in the emergency services (4.1). Next, the team collected the results of a survey that was distributed after the International Women’s Day event hosted by the ESF on March 8, 2020, and among the Australasian Women in Emergencies Network (4.2). It provided the team with both quantitative data (4.2.1) and qualitative data (4.2.2). After creating a focused set of questions (Appendix E) based on the survey findings, the team conducted five focused interviews and three discussion groups (4.3) to augment the information found in the survey.



Figure 3: Diagram of Results Procedures

4.1 Findings from Preliminary Interviews with Female Leaders

Eight preliminary interviews were conducted with women in leadership positions in emergency service agencies in Victoria. This was essential in order for the team to develop a framework and broader understanding of what it was like to be a woman in the emergency services environment. The team met with representatives in the following organizations: Australian Red Cross, Metropolitan Fire Brigade (Melbourne), Country Fire Authority, Victoria Police, Ambulance Victoria, and Victoria State Emergency Service. Although there were some differences, there were a significant amount of similarities between the six different agencies on the biggest themes and barriers women reported to be inhibiting their mental health or ability to seek help for it. The word cloud (Figure 4) represents the various different themes that the women reported with work culture, accessibility to resources, community and a sense of teamwork, conversation about sensitive topics, and acknowledgement by their peers and managers being the most commonly reported themes. This is designated by the fact that the bigger the word in the word cloud the more prominent or often that theme was mentioned.



Figure 4: Word Cloud of Keywords in Introductory Interviews

4.2 Results of the Survey

The following subsections contain the information gathered from the survey the ESF distributed as an email among the attendees of the International Women’s Day Forum and the members of the Australasian Women in Emergencies Network (discussed further in section 3.2). Though the number of people who received the survey is unknown, there were a total of 167 responses. The survey in its entirety can be found in Appendix D. The survey included 16 questions, with a total of 167 responses but an average of 124 for each question, for a 74% engagement rate.

4.2.1 Results and Statistical Tests of Quantitative Survey Results

This section includes a detailed statistical analysis of the data collected from the survey sent out by the ESF. First, using the Cochran’s formula, a 95% confidence interval, 5% margin of error, and the ESF’s estimate that females make up about 31% of the Victorian emergency services population, over 243 completed surveys were needed in order for the sample size to be representative of the Victorian population. Due to societal circumstances and complications of Covid-19, there were only 164 responses. Since the survey was sent out as an email, the team was unsure of how many people the survey was sent out to, where exactly the individual works, the agency each respondent was affiliated with, and how representative the responses were with each agency. To better understand the information that was collected, the team ran numerous statistical tests using IRB’s software SPSS to determine any significant (a p-value less than 0.05) correlations between demographics and reported answers.

4.2.1.1 Demographic Question Results

The following two tables contain the demographic information collected from the respondents. The team asked for information pertaining to their type of employment, Table 2, and personal information, Table 3.

Table 2: Question 1 and 2 on Employment Information of Respondents.

Type	Position	Prevalence	Frequency (%)
Paid	Front Line/First Responder	52	39
	Support Role i.e. corporate or administration	88	61
Volunteer	Front Line/First Responder	59	52
	Support Role i.e. corporate or administration	43	42

Note: There were 135 responses for question 1 (“Paid”) and 102 for question 2 (“Volunteer”).

Table 3: Question 3, 4, and 5 on Personal Information of Respondents.

Question	Response	Prevalence	Frequency (%)
Relationship Status	Single	40	25
	In a Relationship	118	75
Caring Responsibility	Parent/carer of a child/adolescent/children	67	74
	Principle carer of an older person	17	19
	Principle carer for a person with a disability	6	4
Age Range	18-25	3	2
	26-35	20	13
	36-50	77	48
	51 and over	60	38

Note: Question 4, “Relationship Status”, had 158 responses. Question 5, “Caring Responsibility”, had 90 responses. Question 6, “Age Range”, had 160 responses.

4.2.1.2 Scaling Question Results

The following information provides the data collected on questions pertaining to the respondent’s ideals on mental health and well-being. First, in question 6 the respondents were asked to rank their mental health and well-being on a scale from 1 to 5. By looking at Table 4 and Figure 5, one can see that the majority of the respondents reported their mental health and well-being at a “3”.

Table 4: Question 6 on Respondents’ Own Ranking of their Mental Health and Well-being

Thinking about the past month or so, on a scale of 1 to 5 (5 being the most positive) how would you rate your mental health and wellbeing?		
Response Option	Prevalence	Frequency (%)
1	4	3%
2	29	18%
3	58	36%
4	56	35%
5	13	8%

Note: There were a total of 160 responses for this question.

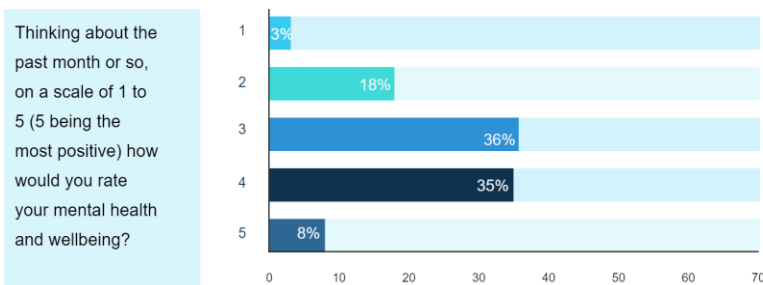


Figure 5: Question 6 Visual Representation of Data.

Question 7 asked the respondents how comfortable they were discussing their mental health with their line managers. Table 5 and Figure 6 show that the majority of the people “agree” that they are comfortable. Additionally, more people agreed or strongly agreed that they are comfortable than those who did not.

Table 5: Question 7 on Respondent’s Comfort on Mental Health Conversations with their Manager.

I would be comfortable to raise concerns about my mental health and wellbeing with my line manager (paid or volunteer)		
Response Option	Prevalence	Frequency (%)
Strongly Disagree	15	9
Disagree	35	22
Neither Agree nor Disagree	32	20
Agree	54	34
Strongly Agree	24	15

Note: There were a total of 160 responses for this question.

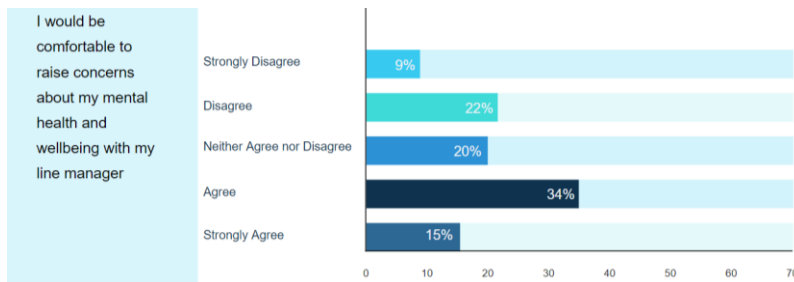


Figure 6: Question 7 Visual Representation of Data.

Question 8 asked the respondents if they had delayed seeking help for their mental health. Through Table 6 and Figure 7 one can see that the majority of the people “agreed” that they had delayed seeking help. Additionally, more people agreed or strongly agreed that they delayed seeking help than those who disagreed or strongly disagreed.

Table 6: Question 8 on Delaying Help-Seeking

I delayed seeking help for the way I am/was feeling		
Response Option	Prevalence	Frequency (%)
Strongly Disagree	10	6
Disagree	39	25
Neither Agree nor Disagree	39	25
Agree	55	35
Strongly Agree	14	9

Note: There were a total of 157 responses for this question.

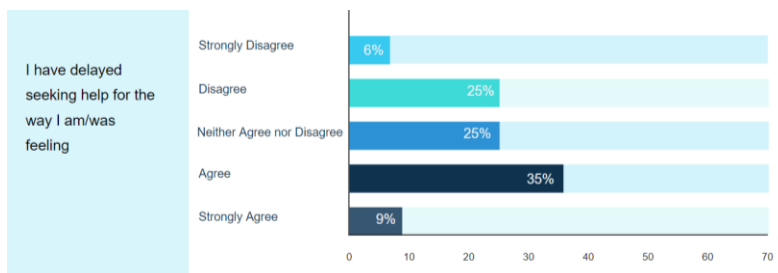


Figure 7: Question 8 Visual Representation of Data.

Question 9 asked the respondents whether they made caring for their mental health and well-being a priority. Through Table 7 and Figure 8 one can see that most of the respondents reported that they “agree” with the statement. Additionally, more people agreed or strongly agreed that they make their health a priority than those who disagreed or strongly disagreed.

Table 7: Question 9 on Respondent’s View of Prioritizing their Mental Health.

I make nurturing my own mental health and wellbeing a priority		
Response Option	Prevalence	Frequency (%)
Strongly Disagree	2	1
Disagree	26	16
Neither Agree nor Disagree	41	26
Agree	70	44
Strongly Agree	20	13

Note: There were a total of 159 responses for this question.

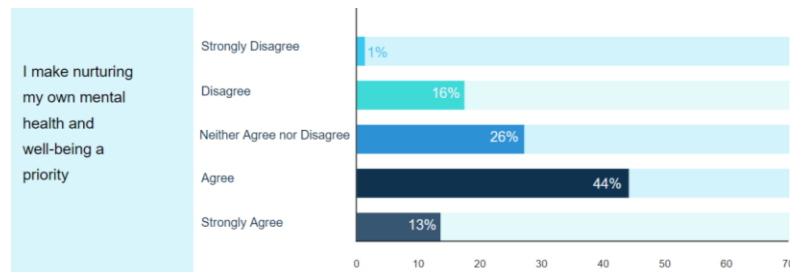


Figure 8: Question 9 Visual Representation of Data.

4.2.2 Results of Free Response Questions

4.2.2.1 What Do You Think Stops Women From Seeking Support In the Workplace/or Where They Volunteer if They are Feeling Mentally Unwell?

The first free response question asked respondents to elaborate on what they felt were the leading causes preventing women from seeking support in the workplace or where they volunteer if they were feeling mentally unwell. The following information contains the data extrapolated from the first free response question, which had 142 responses with an 85% engagement rate. Table 8 presents the prevalence and frequency of attitudinal and structural barriers reported by survey respondents. Additionally, Figure 9 shows a visual comparison of the data such to better understand the differences and significance between the reported barriers. Through this question it was identified that attitudinal barriers were reported far more frequently than structural barriers. Additionally, perceived barriers were the most common attitudinal barrier and time was the most common structural barrier. This question was essential in helping the team understand what attitudinal (i.e. perceived, personal, self, and cultural) and structural (i.e. financial, time, accessibility, and education) barriers were the most significant inhibitors for females in emergency services. After the team performed an in depth analysis of the barriers present in each response, they determined that attitudinal barriers were reported in 89.4% of responses with the perceived barrier being reported by 55.6% and being the most evident. Furthermore, they determined that structural barriers were reported in 31.7% of responses with time and accessibility being the most prominent at 16.2% and 14.1% respectively.

Table 8: Free Response 1 Prevalence and Frequency of Barriers

Barrier		Prevalence	Frequency (%)
Attitudinal	All		89.4
	Perceived	79	55.6
	Personal	4	2.8
	Self	39	27.5
	Cultural	56	39.4
Structural	All		31.7
	Finance	8	5.6
	Time	23	16.2
	Accessibility	20	14.1
	Education	9	6.3

Note: There were a total of 142 respondents (some responded more than once).

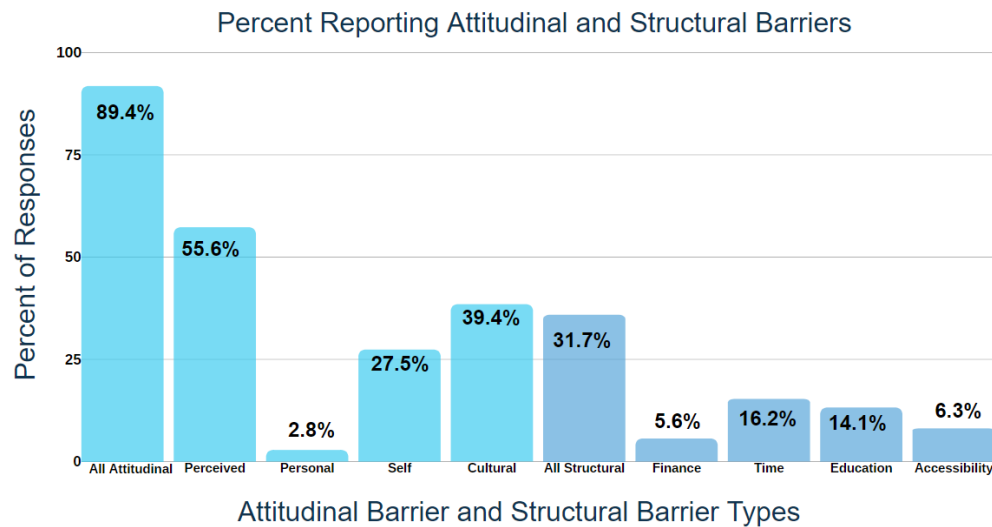


Figure 9: Free Response 1 Attitudinal and Structural Barrier Frequency Graph.

From this, the team formulated nine central themes that best captured the biggest obstacles for females in emergency services when seeking support for their mental health. The themes determined to be present in free response question one are accessibility, control, emotional, gender, support, responsibility, trust, weakness, and work culture. Accessibility was defined as wanting help, but not receiving enough or any of the necessary resources. Control was defined as when people felt they were not in charge of one aspect (or multiple) in their life and with women who felt opportunities were taken away from them. Emotional was the respondent reporting negative labels due to expressing emotion at work. Gender addressed gender stereotypes, discrimination, and sexist remarks. The team defined needing support as a result of both colleagues and managers providing less than adequate assistance. Responsibility was defined as work expectations, having a family, personal expectations (e.g. classes, hobbies, or appointments), and other caregiving expectations. Trust was defined as when the respondent expressed concern over the reliability, dependability, and confidentiality within her team or organization when it comes to sensitive topics. The team defined weakness as the participant reported a label of appearing “lesser” than someone else such as their line managers or male counterparts. The team termed work culture as the general environment while on the job, how management handled employees, the women’s potential for future career growth and

opportunities, and colleague interactions. Of these nine themes, accessibility (i.e. wanting access to help but not getting the resources), control (i.e. wanting more of a voice in the workplace and fear of repercussions), weakness (i.e. appearing lesser than others and seeming incompetent), and work culture (i.e. issues with management and fear of losing their jobs) were the most often reported. The highest reported theme, work culture was reported by 42.3% of participants while accessibility was reported by 29.6%, control by 28.9% and weakness by 26.8% of participants. The following Table 9, provides the determined prevalence and frequency of each theme post analyses:

Table 9: Free Response 1 Prevalence and Frequency of Themes

Themes	Prevalence	Frequency (%)
Accessibility	42	29.6
Control	41	28.9
Emotional	16	11.3
Gender	33	23.2
Support	11	7.7
Responsibility	28	19.7
Trust	19	13.4
Weakness	38	26.8
Work Culture	60	42.3

4.2.2.2 What Do You See as the Most Critical Issues Affecting the Mental Health and Well-being of Women in the Emergency Management Environment?

The second free response question on the survey asked participants what they felt were the most critical issues that affect mental health and well-being of women in the emergency services environment. This question was asked with the hope of gaining more knowledge about what females felt were the most obstructive problems within the sector in terms of seeking or receiving support for their mental health and well-being. The following information contains the data extrapolated from the answers given to free response question two, which had 111 responses with a 66% engagement rate. Table 10 provides the calculated prevalence and frequency of barriers, first looking into the reported amount of attitudinal (84.7%) and structural (49.5%) barriers, and then going further to differentiate between the subtypes within the two main categories of barriers. Cultural stigma was determined to be the most prevalent type of attitudinal barrier, where 65.8% of the question’s respondents reported it. Time and accessibility were the most common structural barriers with reported frequencies of 23.4% and 21.6% respectively. Furthermore, Figure 10 provides a visual comparison of this data to provide a deeper understanding of the differences and significance between the reported barriers. Through these two displays of data, one can see that attitudinal barriers are far more frequently cited than structural barriers, with cultural stigmas being the most common specific barrier.

The information collected on identified barriers are as follows:

Table 10: Free Response 2 Prevalence and Frequency of Barriers

Barrier		Prevalence	Frequency (%)
Attitudinal	All		84.7
	Perceived	28	25.2
	Personal	7	6.3
	Self	26	23.4
	Cultural	73	65.8
Structural	All		49.5
	Financial	0	0.0
	Time	26	23.4
	Accessibility	24	21.6
	Education	12	10.8

Percent Reporting Attitudinal and Structural Barriers

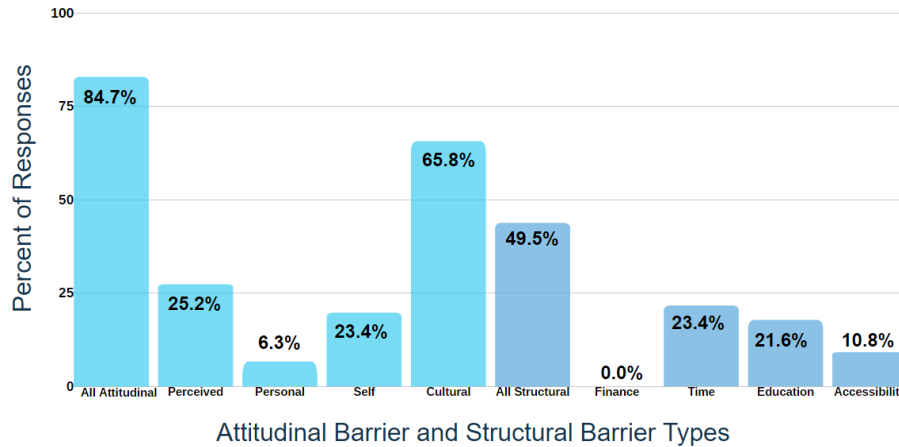


Figure 10: Free Response 2 Attitudinal and Structural Barrier Frequency Graph.

Along with identifying barriers, the team created a list of nine core themes for this free response question. The themes for free response question two are the same as those of free response question one: accessibility, control, emotional, gender, support, responsibility, trust, weakness, and work culture. Table 11 presents the prevalence and frequency of each theme as determined post analyses. Through the table, one can identify that the three most common themes were: work culture, followed by control, and then gender.

Table 11: Free Response 2 Prevalence and Frequency of Themes

Themes	Prevalence	Frequency (%)
Accessibility	36	32.4
Control	52	46.8
Emotional	13	11.7
Gender	48	43.2
Support	42	37.8
Responsibility	31	27.9
Trust	6	5.4
Weakness	12	10.8
Work Culture	60	54.1

4.2.2.3 What Do You Need Your Line Manager to Do More of to Support Your Mental Health and Well-being?

The following information was extrapolated from the answers provided to free response question three. There were 94 responses with a 56% engagement rate. The themes identified were: acknowledgement, conversation, education, nothing, normalization, resource,

self/motivation, team, time/workload, trust, support, and work culture. Acknowledgement included responses indicative of wanting their line managers to confirm that there was a problem and to know what mental health means for their employees. Conversation was defined as a more informal way of supporting team members through talking and bringing up mental health and well-being in the workplace. Education was defined as the need for more formal, mandatory, face to face, or continuous instruction on mental health and well-being, along with instructing the use of appropriate terminology. The theme of nothing meant that the respondent felt no action was needed. Normalization was defined as creating an environment where it is normal, comfortable, and safe to discuss mental health and well-being. In discussing what the women need more of, the theme of resource was defined as needing more formal or structured mental health care. Self was defined as the internal motivation to take care of oneself or to seek help. Team was the ability to cooperate as a member of the organization and for a stronger sense of community. Time was the ability to make availability for self-care or trying to balance external responsibilities as well as a heavy workload with their mental health state. Trust was defined as faith in the confidentiality and fair treatment by the line manager and/or the organization. Support was defined as what the women needed the office to do in terms of aid to increase mental health and well-being; this theme is different from resource in that support was the line manager providing emotional help whereas resource was the agency providing formal care. Work culture was defined by the company’s opinions towards the employees as well as the covert behaviors and attitudes among the chain of command. As can be noted in Table 12, which presents the prevalence and frequency of each theme as determined post analyses, the most prevalent themes were acknowledgement, work culture, and conversation.

Table 12: Free Response 3 Prevalence and Frequency of Themes

Theme	Prevalence	Frequency (%)
Acknowledge	41	43.6
Conversation	35	37.2
Education	22	23.4
Nothing	14	14.9
Normalization	9	9.6
Resource	19	20.2
Self/Motivation	9	9.6
Team	12	12.8
Time/Workload	16	17.0
Trust	19	20.2
Support	9	9.6
Work Culture	37	39.4

4.2.2.4 What Do You Need Your Line Manager to Do Less of to Support Your Mental Health and Well-being?

The following information was extrapolated from the free response question four. This free response question had 66 responses with a 40% engagement rate. The themes identified are: abusive, dishonest, everything, ignorance, inaction, inequality, micromanage, nothing, over action, sexism, unavailability, and unpreparedness. Abusive behavior was described as being mean, harassing, or taking advantage of the respondent. Dishonesty was defined as trust being broken, breach of confidentiality, and lies or “cover-ups”. Everything and nothing were themes

identified when the participant gave vague information about what was happening in their agency. Ignorance was defined as an unwillingness to approach or an unknowingness about the problem. Inaction was defined as the department or agency not doing enough. Conversely, over action was defined as too much being done in a way that was ineffective or management overreacting to smaller problems instead of the larger mental health situation. Inequality was when the women felt there was a lack of opportunity due to discrimination or due to unequal work distribution. Some respondents also felt that there was a strong feeling of being micromanaged. Another theme was sexism, which was defined as harassment or discrimination due to gender. The team defined the theme of unavailability as when respondents found that members on their team or managers were emotionally unable or unwilling to help them. Another theme was unprepared, defined as line managers willing to help but were unable to due to insufficient resources or education on the topic. Table 13 presents the prevalence and frequency of each theme as determined post analyses:

Table 13: Free Response 4 Prevalence and Frequency of Themes.

Theme	Prevalence	Frequency (%)
Abusive	8	12.1
Dishonest	7	10.6
Everything	1	1.5
Ignorance	24	36.4
Inaction	8	12.1
Inequality	4	6.1
Micromanage	12	18.2
Nothing	11	16.7
Overaction	8	12.1
Sexism	4	6.1
Time	9	13.6
Unavailability	17	25.8
Unprepared	14	21.2

4.2.2.5 All Free Responses

The following Table 14 and Table 15 include the total prevalence and frequency of each barrier. The information shows which barriers were said more frequently overall. Figure 11 is a graphical representation of the data.

Table 14: Total Prevalence and Frequency of Attitudinal Barriers.

Barrier		Prevalence	Frequency (%)
Attitudinal		135	89.4
	Perceived	99	65.5
	Personal	10	6.6
	Self	57	37.7
	Cultural	101	66.9

Table 15: Total Prevalence and Frequency of Structural Barriers.

Barrier		Prevalence	Frequency (%)
Structural		80	52
	Finance	8	5.6
	Time	42	27.8
	Accessibility	42	27.8
	Education	20	13.2

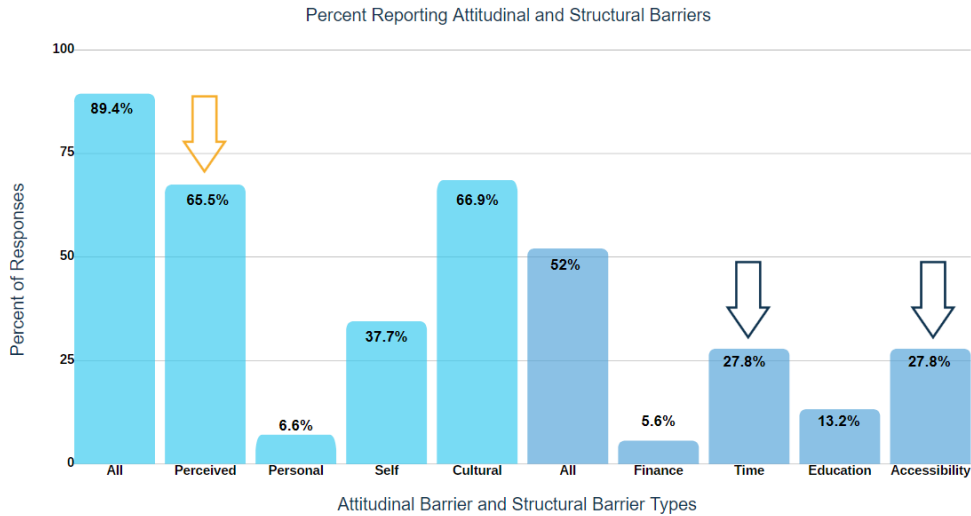


Figure 11: Graph of the Total Frequency of Barriers

4.2.3 Statistical Analysis of the Survey Results

The survey includes aggregated results based on sector type (support role, front line, and volunteer), age group, and women who have external caring responsibilities. All results that the team used to make claims were statistically significant. Please see Appendix G for a more thorough explanation and the r-values and p-values.

4.2.3.1 Statistical Difference Between Emergency Sector Types

The following assertions provided to be statistically significant correlation differences between women in support roles and front line roles, as well as between volunteer and paid positions.

- Front line reported less attitudinal stigmas than support roles.
- Front line reported less time barriers than support roles.
- Support roles reported more comfort speaking to their line managers about their mental health and well-being.
- Support roles reported less self stigma than front line.
- Support roles reported more cultural stigmas than front line.
- Volunteer support roles reported less perceived stigmas than paid support roles.
- Volunteer support roles report less sexism than paid support roles.

4.2.3.2 Statistical Differences Between Age Groups

The following assertions are statistically significant correlations found between age groups and their responses.

- Older age groups reported prioritizing mental health and well-being more than younger ones.
- Older age groups reported delaying seeking mental health help less than younger age groups.
- Older age groups reported less responsibility pressures than younger age groups.

- Older age groups reported gender pressures less frequently than younger age groups.

4.2.3.3 Statistical Differences Between External Responsibility Types

The following assertions are statistically significant correlations found between the caring responsibilities and their responses.

- Those who are not carers for an elderly parent reported less structural barriers.
- Those who are carers of an individual with a disability reported to be less comfortable speaking to their line managers about their mental health and well-being than other carer types.

4.3 Focused Interviews and Discussion Groups

Five focused interviews and three discussion groups were conducted with women of leadership positions and women of non-leadership positions in Victorian emergency services. To get a better understanding of themes and barriers identified in the survey, specific questions were asked and can be found in Appendix E. Table 16 includes the prevalence of identified key themes from the focused interviews and discussion groups.

Table 16: Total Prevalence and Frequency of Themes.

Theme	Prevalence	Frequency (%)
Work Culture	37	17
Gender	46	21
Education	27	12.5
Conversation	19	8.9
Support	20	9.3
Acknowledgement	14	6.5
Responsibility	29	13.4
Control	11	5.1
Resources	13	6

4.3.1 Frequent Reports of Poor Work Culture, Sexism, and Heavy Workloads

In speaking with all of the women, it became transparent to the team that work culture was the largest inhibitor in women being satisfied with their mental and well-being in the workplace, being explored 37 times. Those with leadership positions reported higher levels of mental health and well-being literacy availability and feeling of being better supported.

One of the biggest themes addressed over the entirety of the questions was gender, appearing roughly 46 times. In areas that are more rural, it was found that the women are given more stereotypically feminine jobs and have stereotypically masculine opportunities taken away. Many participants shared similar feelings that since they were a woman, they had to work harder to "prove" themselves to be equal to their male colleagues. This was reported to impact their mental health and well-being as they felt a lack of control.

Autonomy, or control, was the least reported theme, only coming to fruition 11 times in all of the discussions. Areas that these emergency services workers worry about include: loss of ability to get promotions or bonuses, organization isolation, deteriorated image, rumors and labeling, bullying and harassment, equipment and job suspensions, reduction of opportunity and responsibility, and loss of employment.

The theme of responsibility proved more prevalent in the discussion groups than in the surveys with time, workload, or caring responsibilities being mentioned approximately 29 times across the responses from the various women. The theme of responsibility was distributed into two main categories: responsibility at work and responsibility at home. Many of the respondents, both volunteer and paid, reported feeling overburdened by the workload expected of them. The respondents reported that even though the women may have the same work as a male counterpart, they typically have the additional stress of being the primary carer for children.

4.4.2 Repeated Reports of Need for Change in Education and Increase in Acknowledgement, Support, and Conversations

The theme of education references the need to increase training, info, sessions and knowledge regarding mental health in support roles, managers, traditional front-line, and volunteer women in emergency services. The theme of education was mentioned 27 times across the responses of all interviewees. Respondents reported a need for more short, targeted modules that have relevant information as well as interactive tips to be sent out regularly. Almost all of the interviewees reported a need for greater education on emotional and interpersonal intelligence, specifically on symptom identification in oneself and others, how to properly interact with others, awareness and response to potential triggers, and how to handle stress.

Conversation was indicated as a simple and effective option for people to begin normalizing mental health and crucial to facilitate action to promote positive change for women in the emergency services workplace. The theme was mentioned 19 times, and the interviewees reported there was not enough being done in the agency as a whole. There was a reported need for an increased level of mental health and well-being knowledge.

The topic of support, which includes emotional unavailability felt by peers and the general sense of community, was mentioned by the interviewees 20 times. Some respondents report that volunteers have to put in much more effort than paid staff to make connections with their peers, and since they spend less time with them then their peers may not realize they need help. Additionally, some reported that support among peers also depends on the personality and knowledge of the manager, saying that leaders set an example for what is expected or standard in that team. Besides mental health literacy, the lack of security and control felt by women in emergency services was reported to impact on how peers interact. Overall, they all stated that as on average there needs to be great improvement in support offered by peers and management.

Acknowledgement, being its own theme in itself, was also reported about 14 times with women. Some participants have reported that their agencies have started to acknowledge the situation of unhealthy behavior and protocols in the workplace, but have not taken sufficient action towards stunting such problems. Nearly all participants say that their organizations need to “walk the talk” more, and start to normalize mental health and well-being, and standardize equality in their communities.

5. Discussion

The following sections include discussion of the results gathered in each of the data collection methods.

5.1 Women's Perspectives and Experiences in Emergency Services

The eight participants identified strengths and weaknesses of their respective agencies, expressed they were happy that there was research being conducted about this topic, and were excited to participate. The following two sections focus on two overarching topics found to be more prevalent in the interviews, the work culture and the mental health of the emergency services communities. All of the preliminary interviews were kept anonymous and individual agencies were not disclosed.

5.1.1 Emergency Services Work Culture

The preliminary interviews had reported inequality within the workplace. Multiple interviews touched upon sexism and the danger it presented. One interviewee reported that she was “concerned that [he] sees me as a woman, not as a firefighter.” It was explained further that that sexist view could be “dangerous on the fire ground” as she should “be seen as a person doing a job” not a gender enforced by stereotypes. Many interviewees did state that genders are less noticed once workers are out on the field, but it was primarily the public and leaders that would bring gender back into play once a job was finished. This reigned especially true when multiple interviewees touched upon the lack of gender-neutral terminology in the culture. Many felt that hearing the term “firemen” was an issue due to how much of “a demoralizing comment” it can be as it makes females in the field “invisible”. Not only that, but it’s effects on young aspiring firefighters, for “you actually take away any job opportunity for any woman who thinks she could become a firefighter simply by you talking about firemen.” Not only does this exclusive terminology affect women, it also affects “nonbinary genders as well.” Gender neutral terminology was only one portion of the gender injustices discussed within these preliminary interviews.

Topics such as sexual harassment, unequal opportunities, lack of representation and inclusion, and the struggle to be heard when speaking out were discussed. One woman even reported that sexual harassment was still evident in stating “it still goes on, a lot of it is hidden as well [...] it’s more underground than overt these days.” A general consensus was that when an individual would try to modernize the PPE (personal protective equipment) and bring the covert issues to light, they would be labeled as a “troublemaker” and that “women are making things more difficult.” This was a concern to many because it impacts potential support and can make emergency situations more dangerous due to a lack of trust. This sexism and lack of inclusion was only one part of the topics within work culture that affect mental health and well-being of women within the field.

The preliminary interviews also revealed that work culture was reported to be the biggest contributor to the mental health status of females in the emergency services sector. One woman stated, “From my colleagues and the people that I talked to, you get more stressed about working

with someone who's awful... then the emotional response of going to a job where somebody dies.” Therefore it is essential to foster a workplace setting where it is okay to be struggling with mental health and peers and managers are educated on the best ways to support women who approach them with sensitive topics. Reacting in a negative light will only create that growing “emotional response” and lead to further deterioration of the person’s mental health and well-being. Addressing these themes will be essential in creating a work environment that normalizes the implications of mental health and well-being and teaches women that it is okay to come forward about their concerns and get the help they need. Another common response towards combating this issue was focused on the need to establish a more sound sense of community, with greater acknowledgement and support by leaders and peers. Although there has been gradual change and evolution in the emergency services community, the underlying militaristic culture presents itself as an obstacle for females in their respective sector. One female interviewee expressed that this command and control approach contributed to the deficit in the mental health of front line and volunteer emergency services workers, creating a negative environment that ultimately reduces resilience. Furthermore, in all discussions, the need for each emergency services sector to provide a means for individuals to talk and help each other was expressed, with the suggestion that there needs to be a stronger emphasis on community and working to hold each other up, with one interviewee saying that the “key element of recovery is bringing people together”. This transparency would provide the steps necessary to give females in the emergency services sector the opportunity to grow to be the best that they can be.

Not only did these preliminary interviews indicate a strong need for improvement in terms of community, but many felt that in the emergency services sector there needs to be less of a focus on “weaknesses and vulnerabilities” and more on the strengths that females in the sector bring to the table.

While working in the emergency services sector there appears to be a culture formed around this sense of “hero guilt” where many first responders are left feeling as if they have to “tough it out” in order to be successful or survive in the work environment. This “hero guilt” centers around the idea of not wanting to let people down, and wanting to live up to expectations, with one interviewee making it clear that emergency services workers prefer to avoid the word “hero” due to all the additional pressures and stigmas that come with it. One interviewee expressed her own unique perspective that emergency services workers were more “second responders” than “first responders”. She went on to defend this point saying that “we want to generate a resilient society where the first responders are us [the community], and the second responders are the people in uniform, lights, and sirens.”

5.1.2 Mental Health in the Emergency Services Community

Emergency services agencies were founded with a militaristic, command and control culture. Though effective in emergency scenarios, this type of environment has proven not ideal for mental health and well-being in modern settings. According to the interviewees, the culture has only recently started to evolve away from the demanding hyper-masculine ideals. However, it lingers and has created a lag in the availability of mental health resources and care. One

interviewee said that a way to help the organizations realize the situation was through a agency-wide review on the mental health of their employees and care accessibility. To strengthen this idea, another interviewee shared that a report done on their organization did indeed help to increase awareness on the severity of trauma and lack of available resources. The report made the organization acknowledge the situation, and since then new measures have been implemented and have helped significantly. Most, but not all interviewees, told the team that their organizations have a peer support system in which individuals volunteer to go through training to converse with peers and offer support. Though conversations help, this system was reported to not be infallible. Help is based entirely on the caliber of the volunteer and thus effectiveness varies widely. There have also been mentions of breaches in confidentiality that have resulted in negative work implications. Due to this, the vast majority of the interviewees said more external, confidential, and trauma-informed psychologists are needed. Having this resource would provide a source of care that would help the employees feel secure in both knowing that their bosses are not aware of what was discussed and that the psychologist understands the work emergency services people go through and how to approach certain topics. With this, two interviewees were vocal about wanting mandatory and periodic check-ins with said psychologists.

In terms of mental health in the workplace, most interviewees stated a need for more mental health literacy within their organization. The team defined mental health literacy as traditional textbook literature regarding knowledge surrounding disorders and their symptom identification, methods of coping, and prevention. Though some educational material was available online, interviewees state a lack of motivation or awareness to look for these sources. They recommend face-to-face teaching where people are more actively learning about the subject. Specifically, there was a stated need for more knowledge on how to self-care, how to identify symptoms, how to interact with other people, and on appropriate terminology. Organizations are already starting to teach more on mental health, where one interviewee stated that they are “building that baseline mental health literacy has fostered those broader conversations and built confidence, and its reducing the stigma... breaking down those barriers,” but all interviewees confirm that there was a lot more needed.

The term conversation was repeatedly mentioned as an effective way to break down attitudinal barriers surrounding mental health in the workplace. This would allow for continual support in situations where the need for professional care is not acute. Continuous conversation allows for increased communication lending to a stronger rapport between an emergency services employee and her colleagues. Interviews indicated that more needed to be done to normalize mental health and well-being. In describing stigmas surrounding mental health leave, one woman equated it to breaking a leg. When you break a leg, you need the time off to recover and then you are ready to work again, there are not any long-term repercussions. However, she reported that upon returning to work from a mental injury, the treatment from peers was significantly different since they are worried about your ability to safely do the job, are afraid to put too much responsibility on you, and treat you as if you are fragile. Multiple people described

how challenging it can be to assimilate to work after taking a leave of absence related to their mental health and well-being. One manager told us how she tries to combat this by regularly calling her employees who are on leave and having a friendly conversation. She does this to help create trust and a sense of community so that the employees do not feel isolated by either their absence or mental injury.

While many women did make a point to say they felt their colleagues cared about them, many suggested increased interpersonal intelligences across the agency may help the colleagues to say the appropriate thing or offer the most effective support system. This may in turn increase emotional intelligence, or the ability for women to advocate for their needs. One woman stressed the importance of creating a mandatory framework for all emergency services sectors to conduct an in-depth analysis to understand what systems are currently in place and to create comprehensive, systematic policies of structure and governance. She feels that with buy in and accountability from all agencies, more can be done to support mental health and address small incidences before they become dangerous to work in. Other comments were made among the interviewees about the continuous need for resilience building to allow for teammates to work together towards common goals instead of competing for recognition. This would also allow for people in emergency services to achieve new goals instead of being bogged down by lower expectations.

5.2 Survey Results

The following three sections contain discussions of the main findings stemmed from the analyzed survey results. The first section details the findings from the demographic and quantitative survey questions, including statistical analysis to determine correlations in the responses. The second section contains an analysis on the free response question's barriers and themes. The final section is a summary of the overall findings.

5.2.1 Analysis of Quantitative Survey Results and Statistical Tests

The following section discusses the statistically significant correlational findings from the survey responses. The team found that there are statistically significant differences between those that are employees or volunteers in the emergency sector, between age groups, and between external responsibility types. The statistics from the analysis will provide the base for a discussion on rationale behind the potential reasoning of the correlative data.

5.2.1.1 Support Roles Report High Levels of Stigmas

Support roles are employees or volunteers who are not typically on the front line of an emergency. They often work in administrative and support roles and are responsible for coordination of disaster relief efforts or emergency preparedness. They may also help with ensuring responders are equipped to respond to a situation based on training to focus on their mental, physical, and emotional well-being.

The vast majority of those with support-type roles reported attitudinal stigmas, significantly higher than those in the front line. For example, statistically higher levels of cultural barriers were identified among the support role workers than with workers serving on the front

line. This indicates a difference in the culture of both work environments that need to be taken into consideration when creating the lines of questioning and recommendations. When not in an emergency scenario, peers may interact more with each other in a more casual or not commanding way, which may be why attitudinal and cultural barriers appear more often in support roles than in first responding roles. Additionally, perceived stigma appears to be more prevalent among those in paid support role positions in comparison to those who are volunteers, but no significant difference was found between support roles and first responders. Since paid roles may be spending more time at work and interacting with other individuals than volunteer roles, it may provide more opportunities for harassment or judgement between peers, thus yielding greater perceived barriers. For example, there was also more reporting of sexism among paid support roles than volunteer support roles.

In terms of structural barriers, those in paid support roles reported the barrier of time more frequently than those in paid front line roles. This would include areas of additional responsibility, a greater workload, and less time to focus on their mental health and well-being. While the daily tasks of those with support roles vary greatly than those who are on the front line, the data suggests that these individuals are still under a lot of stress to make sure administration efforts are conducted with high efficacy and speed. They are often under pressure to compensate for front line responders who require additional assistance as well. While the types of support needed may be different than those of front line workers, they still need support systems in place to ensure their mental health and well-being are a priority to ensure they are able to serve.

5.2.1.2 First Responders Report High Levels of Discomfort Around Mental Health

The majority of paid front line responders reported having a higher level of discomfort talking to their line managers about their mental health, significantly more so than support roles. A line manager is a person who is responsible for managing the employees and resources of a specific brigade within the emergency services sector. This increase in discomfort may be because of the highly reported command and control work culture that front line workers are exposed to. This culture would create more fears of appearing “unfit” for their paid or volunteer work if they did open up to their line managers. Additionally, there were reports of not enough conversations about mental health in front line teams, which means that mental health and well-being was not normalized to the point where individuals are aware that talking about the subject was okay.

Not only are women in front line roles more uncomfortable speaking to their managers about their mental health and well-being, but they also report higher levels of self-stigma than support roles. This could be evidenced by the fact that front line responders often report high levels of “hero guilt” and a large number of respondents mentioned a fear of somehow appearing weak or inadequate if they were to seek assistance for their mental health. Having this additional fear would make women more hesitant to seek help for care, or to even realize that their feelings could be significant enough to warrant help. Additionally, volunteer front line roles report more of this stigma than paid front lines roles. This further self-stigma could be attributed to them

feeling as if because they are just a volunteer they do not deserve the same access to treatment or care as paid front line responders. This self-stigma and negativity can only lead to further mental health complications in both volunteer and paid front line responders.

5.2.1.3 Older Women in Emergency Services Roles Prioritize Their Mental Health and Well-being More Than Younger Women.

There were several statistically significant results across all emergency services types (i.e., first responder, support role, and both). First, the team explored possible correlations between age and responses, in order to understand whether different generational cultures yielded differences in perspectives and experiences. In terms of age versus mental health, it was determined that as the respondent increased in age, they also increased in affirmation that they have delayed seeking help for their mental health and well-being, meaning that the older generations seek help quicker. It also determined that an increase in age also correlated with an increase in agreement that they make their mental health a priority. These two findings do indicate that there was a difference in mental health literacy or perspective across the generations, implying that there may be a need to create interventions that target specific age groups. Additionally, as the age increases it was found that they reported less and less the theme of responsibility pressures. This may be because as individuals age they have less responsibility for children (as they may be of self-sufficient ages) and may have been in their emergency services work for a longer period of time and thus are more knowledgeable with juggling tasks and responsibilities. It was also found that after the age of 35, the reporting of gender stereotypes, discrimination, and harassment. This could be because older women may be of a higher standing in their organization, may be more established in their positions, are generally less sexually objectified, and may be more confident and assertive.

5.2.1.4 External Responsibility Type Impacts Barriers

Emergency services workers are often not only juggling the daily responsibilities of being at work, but also with at-home responsibilities (e.g. caring for children, elders, or someone suffering from a disability). Of the 90 survey respondents to this particular question, 74% reported responsibilities towards caring for children, 19% reported being the principal carer for an elderly person, and 7% reported having to care for someone suffering from a disability. Upon further analysis, there was a correlation between the worker's caring responsibilities and with their level of comfort raising concerns about their mental health and well-being in the workplace. Those who took care of an individual with a disability reported more discomfort than those who did not. Additionally, those who took care of an elderly family member reported more structural barriers than the other types of responsibilities. This could be due to time constraints, worry that the repercussions may affect their employment or volunteer status, or fear of being unfit to continue to provide for their loved ones.

5.2.1.5 Barriers Inhibit Mental Health and Well-being Regardless of Prioritization

With the analysis of question 6, as a whole it appears that people in emergency services have an average rating of 3.28 for the scaled question on how they scale their mental health and

well-being. Though the ranking was not ideal and means that as a whole they perceive their mental health to be neutral, it is good to note that the average for whether they make their mental health a priority was 3.5 (i.e. half way between neither agree nor disagree and agree), with the most frequent responses being agree (i.e., 4) at 44%, which indicates that the respondents are attempting to ameliorate their mental health and well-being. Additionally, most of the respondents agree that they are comfortable talking with their line managers about mental health, with the average of 3.23 and the most frequent response being “agree” at 34%. However, there was an observed difference between wanting help and getting it. The average for delaying seeking mental health care was 3.15, with the most frequent response being “agree” (i.e., 4) at 35%. These responses mean that the majority of the respondents have delayed seeking mental health care, indicating that there are barriers that inhibit them from seeking care even though that on average they make their mental health and well-being a priority.

5.2.2 Discussion of Barriers and Themes Identified in the Qualitative Survey Questions

The following four sections include an analysis on the free response questions asked at the end of the survey.

5.2.2.1 The Community Dictates Support-Seeking

The first free response question asked respondents to elaborate on what they felt were the leading causes preventing women from seeking support in the workplace or where they volunteer if they were feeling mentally unwell. This question was essential in helping the team understand what attitudinal (i.e., perceived, personal, self, and cultural) and structural (i.e., financial, time, accessibility, and education) barriers were the most significant inhibitors for females in emergency services. After the team performed an in depth analysis of the barriers present in each response, they determined that attitudinal barriers were reported in 89.4% of responses with the perceived barrier being the most reported. Furthermore, they determined that structural barriers were reported in 31.7% of responses with time and accessibility being the most prominent. There was a significant increase from structural barriers to attitudinal barriers, suggesting that attitudinal barriers are more important in the eyes of the respondents, and thus interactions between individuals have a more significant inhibitory effect on seeking mental health care for the women in emergency services.

The team also formulated nine central themes, which are reported in Figure 12 that best captured the biggest obstacles for females in emergency services when seeking support for their mental health. Of these nine themes, work culture (i.e. issues with management and fear of losing their jobs) was the most frequently reported, then accessibility (i.e. wanting access to help but not getting the resources), control (i.e. wanting more of a voice in the workplace and fear of repercussions), and weakness (i.e. appearing lesser than others and seeming incompetent). It is important to note that while accessibility is determined by the organization, all of



Figure 12: Free Response 1, Word Cloud and Frequency of Themes

the evident themes can be rooted in how the work culture is. An individuals' willingness to get help is impacted by the social repercussions they think exist. Appearing weak is made more severe when the work culture surrounding them is intent on only showing "strength". Cultural barriers are reported by more than half of the respondents, and thus the opinions and norms of the community surrounding the women have a great impact on the support-seeking.

These results suggest that there was a lack of understanding and resources available in the workplace, that are only further inhibited by stigmas within the work culture such as appearing and sounding weak. Additionally, with perceived stigma being the most reported attitudinal barrier and time and accessibility being the most reported structural barriers this only provides more evidence that females in emergency services are being continually afflicted by how others perceive them. This occurs when peers and line managers place labels and expectations that inhibit one's ability to seek mental health and have access to support within and outside of the workplace. Furthermore, the commitments of everyday life especially for women with young children or elderly family members, and busy work schedules find that lack of time was a significant inhibitor, often making it near impossible to get the help they need.

5.2.2.2 Work Culture the Biggest Mental Health Indicator

The second free response question was asked with the hope of gaining more knowledge about what females felt were the most obstructive problems within the sector in terms of seeking or receiving support for their mental health and well-being. Though this question yielded similar results as the previous question, where attitudinal barriers were far more frequently reported than structural barriers, the respondents indicate that instead of perceived barriers having the greatest impact on their mental health and well-being it was instead cultural barriers. This means that the cultural norms, unwritten rules, organizations policies, and the work expectations have the greatest toll on the women.

Along with identifying barriers, the team created a list of nine core themes for this free response question. This list of themes, their prevalence, and the frequency of the four most reported themes can be seen in Figure 13. Work culture was the most common theme throughout this free response question with over half of participants (54.1%) reporting it as a critical issue. This may suggest that the culture of the workplace itself was one of the main deterrents for women when seeking help and support for their mental health and well-being in the emergency services field. The next most prevalent theme determined was that of control, in this analysis defined as when the participant felt out of control in one or more aspects of their life and had opportunities taken away from them. This theme was found in 46.8% of participant's responses, insinuating that nearly half of the participants felt that feeling out of control played a large impact on their mental health and well-being. After control, the most common theme was gender, meaning gender stereotypes and blatant sexism (e.g., sexist remarks, devaluing of coworkers based on gender, preoccupation with physical appearance, etc.). With nearly half of responses reporting accounts of negative gender bias, it can be inferred that this theme within the emergency services workplace was one

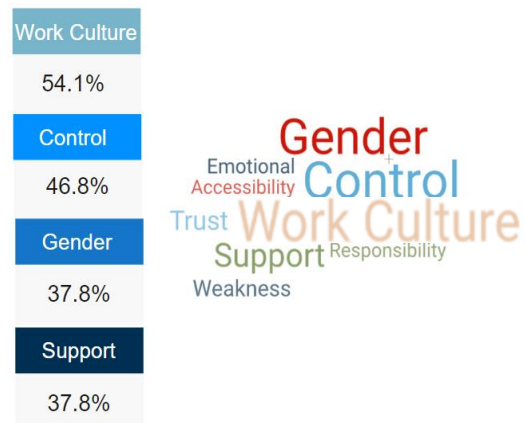


Figure 13: Free Response 2, Word Cloud and Frequency of Themes

that needs to be addressed and looked into further. The results suggest that sexism and misogyny in the workplace does produce a work environment that negatively impacts the women’s mental health and well-being, correlating the previous research found. Following the theme of gender was the theme of support. This includes emotional assistance for women in the emergency services workplace. Support was a theme found within 37.8% of the responses, indicating that a sufficient amount of the participants felt that a lack of support or help provided additional stress or feelings of isolation. An interesting note to discuss was the drop in reported accounts of the theme of weakness from the first free response question and this question. The previous question hailed results of 26.8% responses containing the theme of weakness, meanwhile the second question had only 10.8% of responses mentioning the theme of weakness. This could potentially be due to the first question focusing on why women do not seek support in the workplace and the second question addressing critical issues that directly affect the mental health and well-being of women in the workplace. Furthermore, this could be seen as the second question gathered information on what harms a woman’s mental health and well-being within the emergency services workplace, while the first question then focuses on why the women affected do not seek help. Following this train of thought allows one to consider the correlation between themes in the second question and their effects upon the results of the first question of the survey. Looking at the results of this survey and how they influence each other could lead to understanding of the work cultures and potential key issues from the structure of the workplace itself.

5.2.2.3 Acknowledgement and Interactions Ameliorate Mental Health Support

Free response question three asked what the respondents want their line managers to do more of in order to increase their mental health and well-being in the workplace. These responses support the previous questions and provide suggestions for how work culture can be improved. Looking at Figure 14, one can see the frequency of the most reported themes as well as the work cloud for all of the themes. The most prevalent theme was acknowledgment as it was reported by 43.6% of respondents. This suggests that the women would like to feel seen, rather than ignored.

Their jobs are stressful as is and the acknowledgment reduces the feeling of isolation and can build a feeling of community within the agency. Furthermore, the respondents indicated they wish more could be done to improve the work culture. Work culture can improve how difficult situations are addressed and may help break down the chain of command barriers to help all emergency services to receive the support they need. Women also reported that they would like their line managers to increase conversation in order to understand the needs of others, be understood by their peers, create better relationships, promote selfcare, increase confidence, and give others in the workplace more value. Additionally, the women reported the need for increased education to provide tangible resource availability and accessibility (including confidentiality) as well as increased education on emotional and interpersonal intelligence resources in order to recognize the needs of oneself and peers. Similarly, 20.2% respondents expressed the need for resources such as regular interactions with trained professionals, in

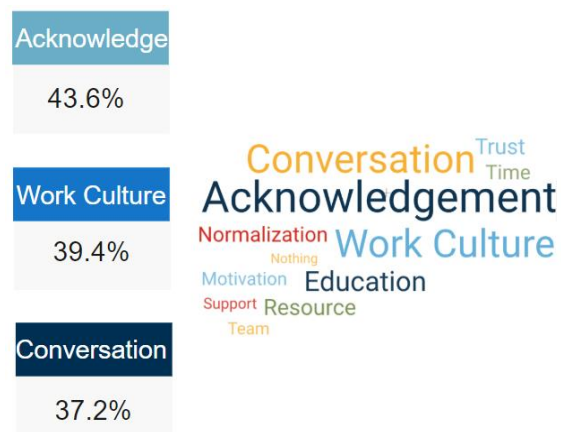


Figure 14: Free Response 3, Word Cloud and Frequency of Themes

particular those who have a background in dealing with mental struggles regarding trauma experienced at work. The same amount of respondents indicated the need for trust. This suggests that if they are willing to share sensitive information, they have the expectation that others would take care to protect their privacy to prevent repercussions.

Overall, the greatest takeaway from this question was that more needs to be done by peers and the agency (through acknowledgement) to promote conversation and understanding. This will normalize discussions on mental health and well-being in order to reduce stigmatization. Increased interpersonal skills and awareness will help create open spaces for people to give and receive support in the workplace.

5.2.2.4 Ignorance of the Problem and the People is Detrimental

Free response question four asked what the respondents want their line managers to do less of in order to help with their mental health and well-being at the workplace, which when combined with free response question three helped the team gather an understanding of what needed to be changed in terms of the work environment. A list of the themes can be seen in the word cloud in Figure 15, along with the frequencies of the three most common themes.

When focusing on the most common theme, ignorance, respondents reported that their line managers did not have sufficient mental health literacy (e.g., did not understand mental health difficulties, did not know how to approach the topic, were not able to identify the symptoms in others), or were oblivious (either a subconscious unawareness or a conscious disregard) to their employees. This means that there

was a need for more training to increase interpersonal intelligence and on symptom identification. The second most common theme, unavailability, was when respondents reported a desire for their line managers to be less unapproachable or unsupportive. Women report wanting their managers and organizations to provide support for the problems caused through work, they reportedly should not sweep things under the rug. The responses from the women suggest that they want a manager who will see them as an individual instead of a being who completes tasks. Combining

the frequency of ignorance and unavailability (45.5% of respondents reported either or both themes) led the team to believe that the line managers need to not “ignore, be closed minded, be unapproachable,” as one respondent said. The third most reported theme, unprepared, was defined as the line manager wanting to provide some sort of care or support but not being able to do so due to a lack of resources or knowledge on mental health, this means that organizations should provide more resources to their employees and volunteers. The organizations should place a greater focus on mental health literacy and interpersonal intelligence to improve interactions between employees, decrease attitudinal stigmas, and create an environment that improves mental health and well-being instead of weakening them.

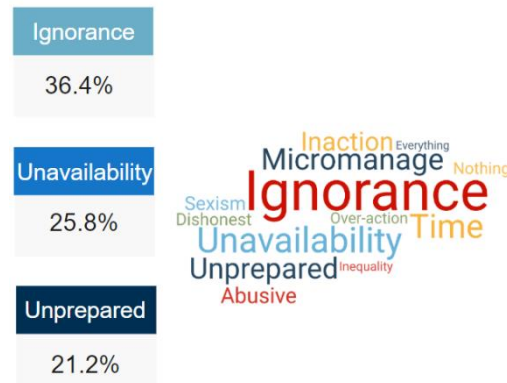


Figure 15: Free Response 4, Word Cloud and Frequency of Themes

5.2.3 Summary of Survey Findings

When looking at the survey as a whole, the most apparent discovery was that the workplace environment (e.g., work culture, conversations, interactions, trust, and a sense of community) has the biggest impact on the respondents' mental health and well-being. Organizations are suggested to foster an environment where mental health literacy is standardized and need to allow for normalization of mental health conversations. Since these do have a top-down effect, it is important that these changes start with the leaders and managers as their leadership sets the precedence for how workers respond. Based on the findings, the team devised a set of discussion group questions, shown in Appendix E that will target these areas to create a deeper understanding and to create a more tailored set of recommendations to help the ESF with their mission of promoting, addressing, and supporting conversations and awareness of mental health and well-being in emergency services communities.

5.3 Analysis of Focused Interviews and Discussion Groups

The following two sections include the analysis of the perspectives and experiences shared by the women in the focused interviews and discussion groups, where the questions targeted the frequent themes and barriers identified in the survey analyzed in section 5.2 of this report. The women in the interviews appeared to be honest in their sharing, though it did seem to the team that they needed time to open up about their experiences, they did share insightful information. Though the discussion groups were originally aimed to be composed of women who did not know each other for sake of anonymity and comfort, due to the COVID-19 epidemic and the shift to remote research, this could not be done. In all of the discussion groups the women knew each other on a first name basis. It should be noted that though this may have impeded some to share more personal accounts and insights, the team did find that the women did share some concerning insights into the work culture in the emergency services.

5.3.1 Work Culture Plays a Large Role in the Inclusivity and Autonomy Women Feel as Important to Mental Health and Well-being

As it was found that work culture was the largest inhibitor to women being satisfied with their mental health and well-being in the workplace, the theme of gender begins to tie into the workplace culture. While all of the agencies are male dominated, there are varying demographics as to how represented women are. This command and control structure makes it very challenging and more difficult to seek help. The expectations of the sectors create significant amounts of guilt in their female staff and volunteers. The women have expressed that sometimes human resources and upper management “[do] not get it” or are “out of touch” and women feel the need to have to choose between themselves or the places they work for. Furthermore, in unprecedented times, while the expectations are increased and multifaceted, many feel as though there was not enough incentive or compensation to make up for the extra efforts needed. The work culture contributes to a significant amount of the stress the interviewees reported and tends to be more prevalent among those who are in higher or managerial positions, as they feel the pressure to look after the well-being of those they lead. It was noted that those with leadership positions reported higher levels of mental health and well-being literacy availability and feeling

of being better supported. While many women indicated there has been a positive shift in the past decade to promote normalization of mental health and well-being, the culture shift was predominantly occurring on a local level, prompting the need for the agency to change their mindset as a whole. One woman commented on the boy's club attitude of the emergency services, she said, "the culture has been very traditional in many, many other units. I think women are relegated to..., the sort of backup roles or the sort of secretarial type rolls or making the... afternoon tea or something. There's still a lot of that in part of the culture." Many are aware of the difficulties faced regarding work culture and the need to work on changing the mindset of all in the sector in order to promote an inclusive and collaborative working environment.

The theme of gender was apparent throughout the entirety of survey responses, affecting women in the emergency services in ways such as limiting opportunities, causing a harder workload, and more. Many participants shared similar feelings that since they were a woman, they had to work harder to "prove" themselves to be equal to their male colleagues. This was reported to impact their mental health and well-being as they felt a lack of control. Standing against this discrimination was noted to potentially cause further problems within the workplace for these women. One participant explained that "if you don't step aside you are bullied and harassed, and sometimes sanctioned or reported to higher levels of management". Alongside this issue, it was also reported that some of the few female leaders pushed down other women, telling them that they need to toughen up and care less. It was stated that the women in management typically "convert to masculine traits because you have to". This idea was very common, with many of the respondents reporting that they had to hide emotions and act tough because they had "to be more like men to succeed". Additionally, one reported that there needs to be "recognition that [people] actually don't need male genitalia to do these roles", that the organizations need to set up more protocols and procedures to ensure that opportunities are not being subjectively taken away from women. It was discussed that even when one shows useful skills in the field, they noticed that "men were quite intimidated" and seemed to see the woman "as a target", feeling the need "to keep her down and shut her up". This extends beyond attitudes within the workplace. For example, one participant shared that a male colleague of hers had been given sole recognition for work that she had done, even though she had previously been told that the work would not be formally recognized. There are also issues of "blocking" within the services where "a lot of male people say, 'Oh, she got that job just because she wears a skirt and she's a woman", causing women to feel the need to "prove" themselves. The constant fight to show you are worthy of the position you hold has reportedly "taken its toll, especially when the recognition hasn't been there at the end". The sexist culture within emergency services causes women within the organization to "not feel confident or safe to bring up these topics," creating a negative and internalized state of mental health and well-being.

Autonomy, or control, came to light whenever , most women suggested that they would like a secure and reliable way to speak about mental health or to seek help without feeling as though they will lose their autonomy in their emergency services work. Specifically, some of the respondents reported that many in their organizations felt that if they seek help then they will

have a target on their back and will have opportunities taken away from them. Areas that these emergency services workers worry about include: loss of ability to get promotions or bonuses, organization isolation, deteriorated image, rumors and labeling, bullying and harassment, equipment and job suspensions, reduction of opportunity and responsibility, and loss of employment. One interviewee even reported experiencing some of these herself, saying that she has “faced extreme repercussions and threats by management when [she] voiced experiences with mental health and gender discrimination.” Additionally, some of the emergency services women report frustration when they know a specific incident occurred, but cannot take action since those affected do not feel comfortable or secure enough to come forward with details that include the offender's name or any possible identifying evidence. This provides a negative environment that allows for the same people to possibly get away with repeated negative behavior. Some interviewees have also stated that the lack of autonomy or sense of control in their situation has pushed many to seek help outside of the organization for fear of further repercussions, causing them to spend additional time and money towards seeking care for their mental health and well-being. Issues of trust and rapport between colleagues and managers can be created by this fear and experience, impacting the sense of community and emotional support that was needed for mental health and well-being in women.

The theme of responsibility seems to correlate with the idea that women, more so than men, have the tendency to possess more nurturing qualities and thus often find themselves responsible for young children, elderly family members, and disabled relatives on top of the demands of their work in the emergency services. Therefore, the theme of responsibility was distributed into two main categories: responsibility at work and responsibility at home. Many of the respondents, both volunteer and paid, reported feeling overburdened by the workload expected of them. Respondents expressed concerns about time and burning out as more and more requirements are piled upon them. In terms of familial responsibility, the respondents reported that even though the women may have the same work as a male counterpart, they typically have the additional stress of being the primary caregiver for children. This makes juggling time commitments, doing work at home, and having to cook and clean a greater burden on their mental health and well-being. One woman expressed that “a lot of people who come along to volunteer in any of these services don't suddenly leave their personality or their life experience or their circumstances at the door when they come in. If they have other events and other circumstances outside of their volunteering life, that doesn't suddenly disappear. So they might be bringing with them, never mind about the trauma we might face and some of the confronting events that we attend, but they may also be bringing with them other issues that are occurring just in their general life or their work life or personal life.” In addition, volunteers particularly reported that even though they have various external work commitments, the agencies expect them to put in 100% of their effort. Many of these respondents reported a need for more help with their work life balance, as with feeling more important in the eyes of their organizations, and with not feeling that their mental health was secondary because they “chose” to help. Thus

there is a need to facilitate strategies into the emergency services work place that better accommodate these pressures and responsibilities for women in their respective sectors.

5.3.2 Knowledge of Mental Health and Well-being is Essential to Promote Conversation, Support, and Acknowledgment by Peers and Organizations

The theme of education was referenced frequently by participants; especially the need to revise the current systems of education for people within emergency services. Many women expressed it would help to increase awareness and acknowledgement of the importance of nurturing one's mental health and well-being, and help to provide access to mental health care in the workplace. While the amount of resources available has increased drastically in the past decade, there still needs to be more done for people to get help that is tailored to their needs. One respondent stated that, "there's a lot of material that gets sent out, but it's not necessarily read... people don't access it. And I think having those little tips all the time, sort of continuously, would help. [...] What is it when someone is stressed out? What does that look like? ... We need more of those tools." In order to combat this, respondents reported a need for more short, targeted modules that have relevant information as well as interactive tips to be sent out regularly. Additionally, there was a call for more face to face intervention such as women's forums and specific networking events to foster a more engaging experience. Almost all of the interviewees reported a need for greater education on emotional and interpersonal intelligence, specifically on symptom identification in oneself and others, how to properly interact with others, awareness and response to potential triggers, and how to handle stress. One respondent stated that, "The senior managers are not always competent at dealing with personal issues or individuals issues". Therefore, more education is needed for managers on how to handle and proactively help with the mental health and well-being of those they oversee.

Interviewees that reported conversation, did so in a manner than indicated there was not enough being done in the agency as a whole. Some went on to suggest that in alignment with the ESF's purpose, sector wide conversations might progress mental health and well-being in a more efficient way than by working to individually change each agency. In order to begin appropriate conversation as well as be interpersonally and emotionally intelligent, there was a reported need for an increased level of mental health and well-being knowledge. One woman was reported as saying there was a need to learn how "to actually start the conversation and keep it going. All too often we go, 'you're okay, aren't you?' Because we know the answer is going to be yes or no." Many felt these conversations would contribute to increased levels of acknowledgement and feeling understood. This comment seemed to resonate particularly during the time of the COVID-19 pandemic when people are working remotely and are more distant from their peers. Those who engage in regular team meetings expressed feeling more connected and being better able to advocate for themselves. On the flip side, while talking about your concerns, experiences, and feelings can be a very healthy way to cope, some also made a point to say that encouraging thorough listening and responding tactfully was equally important, stating "particularly in the workplace now, there has to be more focused on perhaps encouraging people to ... ask the question in the right way, rather than asking it so that you hope that you don't get an answer that

you don't want.” Conversation can be a healthy way to improve work culture, create better relationships, promote self-care, increase social skills, and give value to others.

The topic of support in the brigades and teams was directly tied to the sense of community that the interviewees felt, thus for there to be more support for mental health and well-being the women need to be interacting and bonding with their peers. Concerns about equity for volunteers within emergency services and support were raised, specifically noting that volunteers were required to be more proactive and nearly solely responsible for making connections. This may be due to the less time spent with other volunteers in the emergency services as compared to emergency service employees time together. It was also mentioned that the limited amount of emotional support was tied to the lack of knowledge among peers on how to have beneficial conversations and how to offer good help, indicating that there was a large need for proper mental health and well-being education in order for there to be proper conversations. The top-down, hierarchical scheme of the emergency services positions was also brought up in the context of leaders setting the expectations for the teams and brigades. Essentially, it was reported that if one did not receive a manager who was setting a good example, then one would be in a negative and unsupportive work environment. This means that stronger basic universal education or training among managers is needed to help set a good sense of community in all of the teams and so that managers do not intentionally or unintentionally negatively impact the mental health and well-being in their teams. Lack of security and control within the workplace also affects the amount of support perceived, with one participant saying that repercussions of speaking up about or seeing mental health help made “peers [frightened] of giving assistance for fear of them then facing similar sanctions.” Overall, though some of the women spoke that their team and peers offered support, they all stated that as on average there needs to be great improvement in support offered by peers and management.

The recurring theme of acknowledgement suggests that if there was more acceptance by managers and attention to detail concerning mental health and well-being struggles a better work culture could foster better mental health care needs. It was notably reported that agencies have begun to acknowledge unhealthy behavior and protocols in the workplace. With that being stated, participants reported that there was not a sufficient amount of action that was being taken towards stunting such problems. One interviewee stated that “apparently safety is a priority, but how much of a priority is it really?” Though there was more acknowledgement surrounding larger critical incidents, one interviewee stated that there was almost nothing done for bullying or harassment by peers. An overwhelming majority of participants reported wanting to see their organizations take more accountability of negative behaviors and implement proper repercussions for such behavior. Organizations taking such steps can potentially start to provide the normalization of mental health and wellbeing as well as begin to standardize equality as nearly all participants have reported wanting. Many of the interviewees stated that “we all understand that it's okay to actually say that you're not okay,” and that greater education and support on the matter will help normalize and promote mental health and well-being in the workplace. It was noted that a part of helping people acknowledge mental health and well-being

within the workplace is “recognizing the different spectrum that people experience”. Acknowledgement is important to ensure that people feel safe and supported coming forward about any concerns they may have.

In speaking with the women, many felt as though there were a wide range of resources available, although the type, their accessibility, and encouragement for use appeared to vary across agencies. While specific resource recommendations will be presented later in the report, this section will discuss the quality of the current resources the women feel they have. One major concern was confidentiality. While women tend to be more open about their emotions, they report to become very closed off if they feel that what they say will not be taken seriously, or worse, it was shared with other bodies that will not treat the information carefully. One interviewee expressed the need for resources that serve as tools to identify, observe, and engage with people in safe and calm ways. She thinks these well-developed tools could help to support people who are involved but are of varying ages, genders, and demographics. Another concern expressed was that with the increase in mental health and well-being awareness and advocacy, there was “a lack of resources to provide mental health support. Since the organization made this a priority, there has been a massive increase in reported mental health issues amongst staff” suggesting there was a disparity between supply and demand.

6. Conclusion and Recommendations

Women within the emergency services have a rigorous lifestyle. They are routinely exposed to traumatic and stressful experiences due to the nature of their careers. These experiences, if not addressed, can lead to severe mental repercussions that inhibit psychological functioning in and outside of the workplace. Mental health barriers continue to broaden the scope of this issue leading to hesitations in seeking help, isolation from one's family and coworkers, and self-degradation. Recommendations need to be discussed and implemented such that it fits the lifestyle and mental health and well-being needs of the women in emergency services. By instilling a deeper understanding of the experiences and perspectives of the women, along with providing a set of recommendations that target areas reported to be in need of change, this report hopes to help intervene against barriers and promote mental health and well-being. The findings and ideas presented in this concluding section will help guide the ESF and emergency services agencies towards promoting, addressing, and supporting the mental health and well-being of women in the emergency services.

6.1 Current Mental Health and Well-being of Australian Women in Emergency Services

Through the investigation the team was able to create a description of the mental health and well-being for women in emergency services. This description introduces individuals to the current situation and will help them to understand the importance of the recommendations formulated by the team and provided later in this document. Though there has been research looking into the mental health of emergency services workers, there are very few studies that take a gendered lens. In order to address this, this report aims at bridging that gap to help the ESF and the Victorian emergency service agencies address barriers and promote the mental health and well-being of women within the field. Thus, the following description was based off of the analysis completed, including that of introductory interviews with women working within the emergency services community, data from the ESF survey, and focused interviews and discussion groups with women of varying rank within the emergency services sector.

Throughout the length of this investigation, it was clear that mental health and well-being was an area that the women in emergency services struggled with. Many of the interviewees and survey respondents shared personal experiences of situations in their life or workplace that impacted their mental health and well-being. In addition, some women shared stories of times when they had sought mental health care. The team found that the women rate their mental health and well-being at 3.28 out of 5, and when it came to seeking help for stresses or feelings that impacted their mental health, 44% reported that they had delayed seeking care. However, it was seen that with an increase in age, women in emergency services made mental health and well-being a priority and delaying seeking less than those in younger age groups. Nevertheless, a large number of the women are delaying seeking help, indicating that the barriers they report are indeed having a large impact on their willingness and capability.

Of the barriers that the women reported to impact their mental health and well-being, a little over half of the survey respondents reported structural barriers, with time and accessibility

being the most common at 27.8%. After discussion with women of various backgrounds, the team found that responsibilities both outside and inside of the respondents' emergency services work had a large influence over the amount of free time they had and their ability to focus on themselves. At home, caring responsibilities like children were reported to dictate whether the women had the time to prioritize their own mental health and well-being and to seek care. For example, many said that they have to "do it all" and it has taken too great of a toll on them. At work, having managers that give them too many assignments and make them overburdened causes them to struggle to finish on time. Some even reported having to bring their work home and finish once they put their kids to bed or cooked food. In a culture where the women report having to "try twice as hard" in order to be seen as equal to their male counterparts, having the time to seek care is so close to impossible. Thus, it is necessary to implement options for women to be able to take the time for their mental health and well-being without the need to worry about how this may inhibit external responsibilities or work.

Compounding the structural barriers present, the vast majority (89.4%) of women reported that stigmas (attitudinal barriers) have a large impact on their mental health and well-being as well as their willingness to seek care. The most prevalent attitudinal barriers were cultural (66.9%) and perceived (65.5%). Harassment, judgement, appearing "weak", a culture that values toughness, and fears of confidentiality are all common stigmas and fears that the women experienced. It was also observed that there are differences between reported attitudinal barriers and the role of the women in their workplace. Women in first responder/front line roles reported greater discomfort around their mental health and well-being than women in support roles. Specifically, they were less comfortable talking about their mental health with their managers and reported higher levels of self stigmas. Through conversations it was suggested that the greater militaristic culture leads to less normalization of speaking about their mental health and well-being. Due to this, the women feel as though they have to hide their emotions in order to adhere to the work culture's emphasis on "strength". This, in turn, leads the women to internalize more feelings and develop more self stigma about their mental state. Additionally, women in support roles reported overall more attitudinal barriers and more cultural barriers. After speaking with the women, the team hypothesized that this may be due to more casual interactions between managers and peers in a non-command and control environment that invites more opportunities for the development of negative cultural norms.

Work culture was the biggest contributor and indicator to the mental health and well-being of women in the emergency services, being reported by 62.9% of the surveyed women. One interviewee stated this assertion shared by many, "from my colleagues and the people that I talked to, you get more stressed about working with someone who's awful... than the emotional response of going to a job where somebody dies." Work culture is the environment that the women are exposed to through their paid or volunteer emergency work. It is the cultural norms, the unwritten rules, the hierarchy, the expectations, and the attitudes of peers. The women reported that the current workplace resembles that of a "boy's club" and a command and control structure that impacts everyone's mental health and well-being, not just the women. Work

culture includes the level of normalization of conversations and care, how women have reported that they feel they cannot display emotion for fears of being a “stereotypical” woman and being labeled as “hysterical” and “unfit” for their job. Though the women say that the culture has recently started to shift away from the “hyper masculine” culture, it still has created a lag in care and support. Because of the work culture, the women said that they feel the higher ups (i.e. managers, and organizations) do not care enough about them, volunteers feel their mental health and well-being was secondary to their organization, many hide their problems for fear of repercussions, and sexism and harassment still exist within the workplace. Thus this theme impacts women’s mental health well-being in many different ways, even going so far as to be impacted by the majority of the other themes the team identified throughout their investigation.

Women reported that the lack of acknowledgement by their organizations contributes to this negative tone in the workplace. The women say that “apparently safety is a priority [to the organizations], but how much of a priority is it really? ... We haven’t got our back end supported and resourced appropriately.” They feel that the agencies need to “walk the talk”, and that there needs to be more proactive help available. Many reported that organizations need to be responsible such that they carry out plans that ameliorate problems in a way that best support the lifestyle and time of the women in emergency services. Specifically, it was important for them to consider focusing more on augmenting and ameliorating resource availability and education in order to set a higher standard for how mental health and well-being is handled in their organization. The women reported that there was a need to start with the managers, as it may be hard for organizations to focus on all people, since the managers create the microenvironment of their teams. Respondents say that fostering their ability and knowledge on how to properly acknowledge the situation, provide emotional support, and create beneficial conversations would create better culture in their organization. However, there should be an exploration on how to properly do this in a way that does not add too much of a burden on the leaders and allows them to prioritize their own mental health and well-being as well.

The women say that in order for there to be change, they feel there needs to be more education to help prevent ignorance on the subject and build awareness. Knowledge of mental health and well-being is essential to promote conversation, support, and acknowledgement by the peers and organizations. If an individual does not know how to properly identify symptoms in themselves, they may not realize what they are feeling is a mental illness. If an individual does not know how to properly offer support, they may end up stressing the other individual even more. Based on the survey and focused discussions, the team believes that more education on emotional and interpersonal intelligence, as well as symptom identification, will provide beneficial changes for the culture, especially when it comes to conversations about such sensitive topics. Conversations are essential and can help drive support and normalization of mental health and well-being. The women report a need for better conversations, conversations where someone does not only ask “you’re okay, aren’t you? Because we know the answer is going to be yes or no [...], you hope that you don’t get an answer you don’t want.” They report a need for a focus on encouraging people to have real discussions to offer support and to not be awkward when the

other is not “okay”. 31.7% of respondents reported a need for more conversations, and 37.8% reported a lack of support was impacting their mental health and well-being. These two themes are tied together, and it is necessary that they be addressed in order for the women to feel comfortable talking about their own mental health and well-being, as well as offering support to those around them.

It is worthy to note that the women say that things are getting better and change has already begun taking shape in their workplaces. There are more resources, more conversations, and more support now than ever before. Programs have begun implementation to foster this need for greater support and education. Reviews have been conducted on organizations and the interviewees have seen a beneficial growth in understanding since then. The interviewees as well as 57% of the respondents reported that they are seeing more people make their mental health and well-being a priority. However, though the organizations and work culture seem to be moving in the right direction in the women’s eyes, there was still a reported need for more change.

6.2 Recommendations that will Support, Address, and Promote Mental Health and Well-being for Women in Emergency Services

Addressing the mental health and well-being of women in emergency services is essential in order to provide the necessary impactful and reliable resources to best aid these women in getting the help they need. Women have indicated that there is a need for alternatives to traditional resources and an openness for creative and innovative solutions. Based on finalized data and reports by various respondents and interviewees, the team has concluded that mental health literacy and interpersonal intelligence are the most important features to foster better mental health and well-being for women in emergency services. To address these points, the team has drafted a series of recommendations (listed below) that provide insight into how managers and organizations can better support women in emergency services in Melbourne, Victoria. These recommendations specifically focus on ways to ameliorate the current work culture by creating a more inclusive and understanding environment.

Our conclusions lead us to make recommendations in two areas:

For the ESF:

Table 17: Recommendations for ESF for Benefit of Women's Mental Health and Well-being.

For the ESF	
■	Share this report widely so that leaders across the sector are made aware of women's perspectives and needs for their mental health and well-being.
■	Drive a sector wide health literacy campaign so that people are broadly and consistently exposed to key mental health and well-being messages and tools
■	Further explore how those with external caring responsibilities could be aided during mandatory training and short-notice emergency response.
■	Bring women from across the sector together to create events / forums that increase camaraderie, support, and acknowledgement.
■	Explore how regionalized sector wide thank you events could be generated for emergency services employees and volunteers.

For the Organizations in the Emergency Services Sector:

Table 18: Recommendations to Organizations for Benefit of Women's Mental Health and Well-being.

For Organizations	
■	Consider how mental health and well-being training and development for leaders and managers can give more focus to having better conversations with team members that normalise the topic, help to better understand individual needs, aid in better symptom and fatigue identification, and build a sense of community.
■	Consider how mental health and well-being training for paid and volunteer workers can give greater emphasis to holistic self-development and personal advocacy.
■	Give greater emphasis to promoting personal success stories and resource availability so people can develop greater confidence and trust in the support services provided.
■	Provide greater access to external support service providers to increase anonymity.
■	Create forums for women within the same agencies to network, build confidence, voice issues, and create a better sense of community.
■	Explore how units and teams can expand and promote camaraderie, holistic well-being and support networks, with a specific focus on volunteers.

6.2.1 Rational of the Recommendations for the ESF

To address the mental health and well-being of women in emergency services it is essential that organizations and leaders become more aware of the current situation the women face. It would be beneficial if the ESF could share this report to start conversations and introduce interesting findings within the various emergency services organizations, in order to provide the necessary acknowledgement and resources.

Based on the team's findings and those of other published research papers (i.e., those of Beyond Blue), the team recommends that the ESF drives a sector-wide health literacy campaign. The campaign will ensure that the employees, volunteers, and leaders are consistently exposed to key mental health and well-being messages and tools. Though some leadership interviewees stated that there may have been an overflow of emails concerning mental health and well-being, these messages will target specific findings or tools and may be displayed as posters or social media posts.

Another recommendation that the ESF and various organizations can explore is providing women (or other cohorts) that have external responsibilities (e.g. children, elderly family members, and disabled family members) additional resources during mandatory training and short notice emergencies. For example, if the organizations were able to guarantee safe and engaging childcare with a moment's notice, that might incentivize parents with young children to volunteer with no advance notice. Programs such as this would be beneficial and promote flexibility and will help women to juggle external responsibilities and her role at work or in the volunteer space. Additionally, having this help with children may incentivize more women of family age to volunteer within the emergency services. This would be meaningful to promote inclusivity or feelings of equality for all ages and roles, even more so for those who volunteer.

Another of the recommendations stemmed from this project's information was support groups for women across the whole of emergency services. As women within a predominantly male-based industry face similarities within their individual positions (whether career or volunteer) it would help to increase conversation and emotional support to have a space to discuss with people going through similar experiences. These groups would work to increase support outside of emergency services duties, build communication across different sectors, and help form anonymity for women sharing their difficulties.

A final recommendation to the ESF is exploring how regionalized sector wide thank you events could be generated. An example of this could include a community day highlighting the work that those in the emergency services do. It could be a positive way for those in the community to appreciate those who serve the community and motivate those in the emergency service sector. A small carnival, lawn games, or a barbecue could be ways to encourage involvement. It would also be beneficial to teach the community about the different roles in emergency services and help introduce them to ways to appropriately give thanks, i.e. ways that will not increase "hero's guilt".

6.2.2 Rational of the Recommendations for Emergency Service Organizations

In order to support, address, and promote the mental health and well-being of women in emergency services, the team recommends that organizations consider the need to focus on advancing the education of peers and managers, as well as, encouraging more support and acknowledgment in the work-place for sensitive issues. Targeting the ideas of mental health literacy and interpersonal intelligence are essential to normalize discussions and acceptance of mental health and well-being in addition to setting the framework to begin to create a more healthy work environment for women in their respective sectors. To make the biggest impact, it is important to ensure organizations and their managers are well educated on the various implications that entail women's mental health and well-being. Therefore, as the organization sets the precedence for the managers, they need to improve mental health literacy such that their employees know how to prioritize mental health and well-being as well as how to encourage stronger leadership and team camaraderie. Building this sense of team is essential in order to continue normalizing mental health and well-being support through a sense of community and understanding.

Throughout the study many women expressed the need for supportive line managers that were knowledgeable about mental health and well-being, were proactive in offering support, and were able to have good conversations on the subject without the women feeling judged or uncared-for. Fostering these conversations and acknowledging the mental health and well-being of these women in the workplace is the basis for creating a better work culture and environment. Additionally, there needs to be a greater focus on interpersonal intelligence, thus education focusing on the needs that will best support and provide for women struggling with their mental health and well-being through interactions with managers and peers. These interactions need to be a reliable resource where women can openly express their concerns without fear of repercussions. Ultimately, organizations and their managers need to have the skills to address these issues head-on and provide women the most reliable options for getting and receiving the help and support they need.

6.2.2.1 Education-Based Recommendations

Almost all interviewees stated that within the organizations there needed to be greater knowledge on emotional intelligence, interpersonal intelligence, symptom identification, and mental health and well-being care. Though organizations may have some of these teachings in place, interviewees stated that they were predominantly online, optional, or were too tedious and long. They said that because of this their peers were unmotivated to pay attention or struggled to find the specific information they required, especially if they were already experiencing stress. If the training online was mandatory, many were observed to skim over the information, neither retaining nor understanding the importance of the content displayed. Work culture is highly dependent on the factors mentioned in the first sentence, since knowledge impacts how individuals interact with each other, how they offer support, and how well they know how to take care of themselves. Therefore, there is a greater need for educational interventions, and several meta-analysis studies have seen a correlation between educational intervention and the reduction

of personal and self-stigma (Griffiths, Carron-Arthur, Parsons, & Reid, 2014), which will also therefore reduce perceived stigmas others feel (as one's personal stigma on others correlates how those others perceived the individual's opinions). To tackle this need, the team has developed three education-based recommendations the organizations should implement so that their managers are more knowledgeable and can set a better work microenvironment, and so that peers may better help themselves and others.

The first educational recommendation is agency-organized mental health and well-being training. Though some agencies have similar training in place, this new training should be succinct, in-person, and target specific topics of interest. They can be completed as a mini-series to accommodate availability and interests, with each session focusing on a specific tools individuals should learn or practice. Areas that are beneficial to cover are: self-care (including proper ways to manage stress and how to avoid fatigue or burn-outs), stress and symptom identification (in self and in others), and proper ways to approach individuals who need help (proper conversational topics and words to avoid).



Figure 16: Education Recommendations Aid in Mental Health Literacy

The second of these recommendations is an agency-organized reflection-based workshop that will guide individuals towards self-development, personal advocacy, and greater emotional intelligence. These workshops are aimed towards both leaders and non-leaders alike, aimed at helping individuals become more aware of their actions towards others, how they can help themselves manage stress, and possibly re-evaluate previously conceived ideas about mental health and well-being. These workshops are in person and require engagement, therefore ensuring attention and helping individuals retain knowledge. Ultimately, this recommendation is aimed at ameliorating work culture, creating more normalized conversations on mental health and well-being, instilling a better sense of community, and helping motivate individuals towards spending more time prioritizing their mental health and well-being. These interventions should be available to everyone, but managers should be specifically targeted.

The third educational recommendation is for agencies or managers to organize collaborative information sessions where individuals can hear "success" stories from others that have sought care through the organization and have not faced repercussions on their careers, where employees and volunteers can learn more about what their organizations offer in terms of resources (and external resources), so that individual ultimately feel more secure and confident in the support provided by the organizations. The goal of this recommendation is that individuals who are more knowledgeable in the resources available to them, grow in confidence and trust in the resources, mental health care becomes more normalized and conversed about, and therefore the individual's motivation and willingness to get care is less inhibited by barriers.

6.2.2.2 Social-Based Recommendations

Women have indicated that support or proactive actions are a necessary component to ensure a work culture where members feel acknowledged and valued. Increasing their feelings of self-worthiness will contribute to feelings of motivation, leading to increased productivity in the workplace. Receiving and offering support are personal experiences, but the principle of this type of intervention focuses on providing and encouraging social support for those who are experiencing acute stress or have a mental illness, specifically, women in emergency services. One study found that this type of social intervention led to statistically significant short-term improvement in the attitude towards stigma as well (Thornicroft et al., 2016). As the data has indicated, there is a discernible overlap in the role that increased social education plays in improving the quality of support that is provided, lending to reports of more suitable working environments.

One specific recommendation for each organization is to consider the use of external mental health and well-being practitioners. It was indicated that practitioners who specialize in mental health disorders as a result of exposure to accident trauma or those who work specifically with those who are involved with the emergency services would be most beneficial. This is because they are familiar with and respond effectively to individuals who are encountering those sorts of stressors. While some agencies shared there are internal practitioners available, the most common concerns reported were that the meeting might go on their personal record.

This could be problematic if the individual was a contender for recognition or a promotion. Furthermore, many women shared that their mental health or well-being state was temporary or from an isolated incident and did not warrant concern about their suitability to carry a weapon or complete their responsibilities safely. Another concern was the confidentiality provided from the internal practitioner. Some suggested that information was being spread, causing more detrimental effects and damaging their integrity. While they are there to provide support, some found that the therapist was providing more of a ‘pep talk’ than addressing the situation in a holistic manner. It is possible this is to prevent having to distribute labels to the conditions of people, thus making them a liability to the organization. Having the same external practitioner work with those in the emergency services on a regular basis could improve trust and open the door for conversation by building and maintaining a safe sharing environment while providing unbiased methods for healing or coping.

Another recommendation for the general emergency services organizations is to create women-only discussion forums within each agency. This will help provide a safe and supported space where women in the organization can network, build confidence, voice issues, and create a



Figure 17: Social Recommendations Aid in Interpersonal and Emotional Intelligence

better sense of community within the sector. It will help women make connections with others and relate to each other, showing that they are not alone in the struggles they face. As one participant shared, “an army makes you stronger and more willing to tackle the hard things”. These forums will provide the women within the sector with a group of people facing similar difficulties and will allow them to encourage and support each other, increasing levels of camaraderie within the sector. It will also provide extra training for those who need direction in creating and maintaining a safer environment.

Throughout the research, the team has discovered that a sense of community and inclusivity is an important factor for women’s mental health and well-being, playing a large role in the work culture that they are exposed to. It is recommended that organizations look into ways to build more of a sense of teamwork among their employees and volunteers in order to help build a stronger support network within their organizations. Additionally, the team found that volunteers specifically struggle within this area. Volunteers do not spend the same amount of time within emergency services as career workers, causing a reduced feeling of a sense of community. To remedy this, companies could host events or external team meetups to help strengthen volunteer’s sense of trust and ensure the volunteers that they are not simply just an “extra” person in the eyes of the organization. Examples of this could include team building activities together outside of working time such as a ropes course or paintball. These activities, though fun, encourage communication, advocacy, and teamwork, all of which develop skills that are transferable to their volunteer work. To expand how the organizations can diversify how they support those in emergency services of varying involvement, the organizations could explore the implementation of special interest groups. Examples of this could include meditation clubs, cooking clubs, book clubs, or equivalents to Men’s sheds. While it is known that making additional time for activities that are not necessary may be a deterrent, people may be more inclined to join if the focus is on something they care about. In addition to being great coping mechanisms, the conversations held at these events can be beneficial in increasing self-confidence, as well as encouraging understanding and creating better relationships with colleagues which could inadvertently improve the work culture. Facilitating interactions and bonding between volunteers and paid workers to create a greater sense of community will help improve team effectiveness, a sense of community, a sense of support, and increase levels of perceived acknowledgement.

6.3 Deliverables, Ethics, and Obstacles

The team provided the ESF with four project deliverables. The first of these deliverables was this detailed report on the mental health and wellbeing of Victorian women in emergency services. This report includes in-depth analysis, statistics and details that encompass the entirety of the data the team collected over the past 5 months as well as their methodology and in-depth background research. The second deliverable consists of a graphical booklet providing an eye-catching summary of the details in this report and a description of the current state of mental health and well-being care for women emergency service workers in Victoria. Furthermore, this booklet provides an explanation of the team’s findings concerning the ideologies surrounding

mental health care, accessibility and prevalence of support, and the frequency of barriers the interviewees and respondents stated as impeding their ability to seek help. The team's third deliverable consists of detailed and tangible recommendations provided to the ESF and the emergency services organizations for the best interventions regarding the barriers surrounding mental health care and well-being of women within emergency services. These methods were based upon research conducted in the preparatory and project terms on educational and social interventions as well as how to best implement them in the workplace. The interventions focus on providing the best mental health care resources for women in emergency services, tailored such that they are relevant and impactful to the specific cohort. Additionally, these interventions were structured to ensure they are replicable and reusable for long-term purposes. The final of these deliverables was a remote webinar presentation of the team's deliverables, rationales, and findings to the ESF Executive Board and the ESF Workwell Network. This network consists of a consortium of organizations, including Beyond Blue, who are also dedicated towards combating mental health barriers for those in emergency services through furthering similar missions to that of the ESF. This webinar was published to the team's website and shared by the ESF and the ESF Workwell Network on their website to ensure easy accessibility to any interested parties. The team's overall goal in the finalization of these deliverables was to tie back into the need to aid the ESF in their mission of supporting, addressing, and promoting a conversation on understanding the importance behind combating mental health barriers specifically in women emergency service workers.

Research ethicality was taken into careful consideration throughout the course of the project. In order to conduct effective and ethical discussions, the team met with both a trained psychologist and a Licensed Mental Health Counselor to determine the best question framework to get results that contributed to the research without inadvertently introducing bias. No identifying information was reported unless given consent. All participants involved in focused and introductory interviews needed to provide the team with oral consent (all participants will be over 18) for anonymity and audio recording. Such recordings were destroyed at the end of the project. The team maintained anonymity of participants up to the extent required by law. At the time of project submission, this was not necessary, but the sponsor has a record of who the team spoke with. However, since the results were reported, confidentiality could not be maintained. Over the course of the project, there were opportunities to discuss sensitive topics. The team wanted to ensure participants felt comfortable and safe in the remote questioning environment, so they were able to provide honest answers. Once qualitative and quantitative results were received, the team ran multiple statistical tests to locate any outliers and identify whether the reported results were statistically significant. The team worked closely with the WPI Institutional Review Board as well as the ESF and their stakeholders to make sure all procedures and reports were completed to the highest level of integrity possible given time and resource constraints.

Resource boundaries are one of the biggest obstacles that the team faced over the scope of the project. Due to the COVID-19 pandemic, the team was quarantined separately within different areas of the United States. This provided a great deal of challenge as the project

participants were located in Australia (a typical 14 hour time difference). Financial resources for this project were limited. Furthermore, networking was a boundary which challenged the team's ability to find a variety of individuals to interview. It is also important to note how resource intensive the remote interviews were (e.g. schedule a time, internet access and strength, the quality and integrity of the Zoom software, and transcription of the interviews). These challenges were also dependent on the recruitment of people willing to participate in surveys and to be a part of the remote interviews due to logistics, the impact of the pandemic, and sensitivity of the topic. Additionally, the team had limited professional credibility, relying on input from industry professionals (i.e., counselors and psychologists) to aid in the understanding of how to address mental health and well-being topics, how to effectively lead interviews and analyze surveys, as well as how to produce quality work that will be used as a credible tool. Another boundary the team needed to overcome is not receiving enough data to be considered statistically significant for the all women in the Victorian emergency services community. Since the team believes that is the case in some instances, the team has reported the findings while minimizing bias.

6.4 Considerations for Future Research

While the team took a multifaceted approach to understanding mental health and well-being for females in emergency services, some modified activity would be more beneficial if a similar social sciences project were to take place. If a similar survey were to be sent out, it would be beneficial for the data collectors to ask more demographic questions so the analysis can provide specific results. Examples of this include asking what agency each respondent is affiliated with, how long they have been at the agency, and if their workplace is more suburban or rural. After conducting survey analysis, the team also decided it would be helpful to know whether the line manager of the respondent identifies as being a female and how many female colleagues the respondent works with on a daily basis. To understand response rates, the team would also have utilized information regarding exactly how many people the survey was sent out to and ensure that all respondents were from the area of interest (Victoria, Australia). It should also be noted that for certain appropriate multiple choice questions (i.e. the respondents caring responsibilities) there was no 'other' or 'not applicable' response option nor was it possible for the respondents to fill in two categories that may have been applicable forcing participants to either skip the questions or giving their best answer.

While the team believes that the semi-structured interviews went well, there were many logistical issues in hosting discussion groups that were a result of the COVID-19 pandemic. One of the largest issues was trying to get our leads to respond to our emails. Ideally, we would have liked to have networked on our own in Australia in order to create a rapport with potential interviewees in order to build their trust in our credibility as researchers. Their honesty is an integral part of our ability to accurately report our findings and offer ESF feasible suggestions. One concern the team had was conducting discussion groups with women who are all from the same agency and potentially work together (some of which may have been the manager of others). This brought up concerns about whether the women would feel that they had the freedom to speak about their experiences without the fear of repercussions (e.g. stigmas or

different treatment from coworkers). While we have the ability to guarantee anonymity in our reporting, we could not guarantee that all interviewees would keep the information confidential. Furthermore, we knew that everyone has a different story to share regarding mental health and well-being, but that it is important for stories to be shared regardless so we wanted to make the dynamics of the conversation as comfortable as possible. In trying to coordinate these groups, the team was told that we should reach out to women (most of which already have some sort of managerial role) that we interviewed for the semi-structured interviews to coordinate the discussion groups. While the team has limited resources to coordinate such an event, we found it to be an unreasonable burden for women who are already in trying times to undertake such a big task, especially since there was nothing we were able to do to help incentivize or motivate people to join. Due to this challenge of trying to have others coordinate a day and time to meet, it has been challenging to get a response from people. In the future, this should have been anticipated sooner. While we did raise concerns to our sponsor, she remained hopeful that there would be lots of interest in the group; but once there was not, there was a bit of a scramble to find participants who were more willing to meet one on one in the timeframe the team allotted to the sessions in order to stay on task. There was also some concern as to whether the quality or consistency of the data was impacted by the need to transition to both interviews and discussions instead of picking one. This was also complicated by the fact that there was limited time we could meet daily due to the time difference. Furthermore, the team had hesitations about conducting the discussion groups online as we feared we would miss out on important behavioral social clues that we would normally pick up on if we were there in person (e.g. uncomfortable shifting in the seat or hesitation to make eye contact). There were also some concerns as to whether the number of women the team spoke with were representative of their agencies, as well as an equal representation of those in various managerial roles and would recommend this to be considered in the future.

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Appendices

The purpose of this section is to provide supplemental information, data, and research to the main work of this project. Included are the survey and interview questions that will be implemented, information supporting optional interventions for the Emergency Services Foundation, and the IRB application and consent form.

Appendix A. Survey Questions

This section lists the team's proposed survey and interview questions. These questions were formulated with the aid of Psychology Professor Doyle and Counselor Morse from Worcester Polytechnic Institute. The questions were ordered strategically in the hope of introducing the interviewer to the topic with tact. Furthermore, it includes questions that would allow researchers to further understand cohorts among the women in the emergency services.

Demographics

What is your employment sector?

- EMT/Ambulance Technician
- Firefighter
- Police
- Other

What is your employment type?

- Career
- Full-time
- Part-time
- Volunteer
- Other

Please state your title/rank in your employment i.e., Lieutenant Captain, Commissioner, Ambulance Commander, Firefighter Volunteer, etc:

Where do you work?

- New South Wales
- Northern Territory
- Queensland
- South Australia
- Tasmania
- Victoria
- Western Australia

What is your gender?

- Female
- Male
- Non-Binary
- Other
- Prefer not to say

What is your current relationship status?

- Single
- Committed
- Married
- Separated/Divorced
- Widowed
- Other

Is your experience primarily urban, suburban, or rural?

- Urban
- Suburban
- Rural

How long have you been, or were you in your field?

- <1 year
- 1-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- 21-25 years
- 26-30 years
- 31-35 years
- 36-40 years
- >40 years

Possible other demographic questions:

- Income
- Size of the fleet
- Work benefits

Focused Questions

During the past year, how often have you discussed with coworkers about mental health?

- On an almost weekly basis
- On a monthly bases
- Once every few months
- Rarely
- Never
- I would rather not say

During the past year, how often have you had discussions with coworkers about mental health care (therapists, counselors, group sessions, self care, etc.)?

- On an almost weekly basis
- On a monthly bases
- Once every few months
- Rarely

- Never
- I would rather not say

What have you noticed about the topic of mental health at your job?

- I have noticed an increase in discussions concerning mental health
- I have noticed an increase in discussions concerning seeking mental health care
- I have noticed an increase in support concerning seeking mental health care
- I have noticed a decrease in discussions concerning mental health
- I have noticed a decrease in discussions concerning seeking mental health care
- I have noticed a decrease in support concerning seeking mental health care
- I have noticed no difference
- I would rather not say
- I do not know
- Other: _____

On a scale of one to seven with one being very uncomfortable and seven being very comfortable, how do you feel about discussing your mental state in the workplace?

1 2 3 4 5 6 7

On a scale from one to seven with one being strongly disagree and seven being strongly agree, do you think your employer offers an adequate amount of mental health services?

1 2 3 4 5 6 7

Please describe any mental health resources that you see offered by your workplace:

On a scale of one to seven with one being strongly disagree and seven being strongly agree, do you feel that the mental health services provided at your work are utilized by your co-workers?

1 2 3 4 5 6 7

On a scale of one to seven with one being not accessible and seven being easily accessible, do you feel that the mental health services provided at your work are accessible?

1 2 3 4 5 6 7

Outside of work, what stressors play a role in your mental health?

- Finance/Insurance
- Family
- Friends
- Physical health
- School
- External Commitments
- Other employment
- Other _____

During the past year, how often have you been exposed to events while on the job that have triggered or contributed to symptoms related to mental health disorders?

- On a daily basis
- On a weekly basis

- On a monthly basis
- A few times throughout the year
- Once or twice
- I have not experienced recurring symptoms
- I would rather not say

In the past year, have you experienced recurring symptoms of a mental health disorder (i.e., anxiety, depression, PTSD, or anything else)?

- Yes, on a daily basis
- Yes, on a weekly basis
- Yes, on a monthly basis
- Yes, a few times throughout the year
- No, I have not experienced recurring symptoms
- I would rather not say

On a scale from one to seven, one strongly disagree and 7 strongly agree, do you believe the recurring symptoms warrant a need to seek help for mental trauma or problems?

1 2 3 4 5 6 7

If you have sought help for your mental health, what form of help do you seek/have you sought? Please check all that apply.

- A psychologist/therapist/counselor
- Friends and family
- Significant other
- Therapy animals
- Online resources
- Support groups
- Hobbies
- A service provided through work
- Other: _____
- I would rather not say
- Not Applicable

If you have sought care in any of these forms, using a scale from one (being not helpful) to seven (being extremely helpful) how beneficial were they? Note: zero is “not applicable”

0 1 2 3 4 5 6 7

If you did not seek help or delayed seeking help, which of the following reasons made you do so? Please check all that apply

- I was concerned about appearing weak
- I was concerned about my image
- I was concerned about my gender’s stereotypes (I felt I should not look for help due to my gender)
- I was concerned about confidentiality
- I was concerned about a negative change at work

- I was concerned about being fired
- I was concerned about my coworkers finding out
- I was concerned about my coworkers treating me differently
- I was concerned about my significant other treating me differently
- I was concerned about my friends and family other treating me differently
- I thought help would not do any good
- I thought the problem would get better on its own
- I wanted to solve the problem on my own
- I did not know how to get help
- I did not know where to get help
- I did not have enough free time due to work
- I did not have enough free time due to familial responsibilities
- I could not get an appointment
- I had financial reasons
- I do not know
- Other: _____
- Not Applicable
- I would rather not say

On a scale of one to seven with one being not at all influential and seven being very influential, do you feel that your gender plays a role on mental health expectations at work?

1 2 3 4 5 6 7

Feel free to elaborate: _____

If you have any comments about this subject, please write them here or contact us at gr-mpc-esfd20@wpi.edu: _____

Appendix B. Background Research for Optional Effective Interventions for Women in Emergency Services

Through information gathered from a variety of studies and meta-analyses surrounding mental health barriers and its interventions, the evidence based ways of combating them can be broadly divided into two categories: social-based and educational-based interventions (Beyond Blue, 2015; Griffiths, Carron,-Arthur, Parsons, & Reid, 2014; Thornicroft et al., 2016).

Educational Interventions

Educational interventions pertain to educational and informative media such as infographics, flyers, pamphlets, movies, etc. that present facts to combat the false implications of mental health stigma. This informative approach, when used in pertinent meta-analyses and studies, presented a correlation between educational intervention and the reduction of personal and self stigma (Griffiths, Carron-Arthur, Parsons, & Reid, 2014).

Social Interventions

Social interventions orient interpersonal connections through discussion with therapists, friends, family, coworkers, and social media (Beyond Blue, 2015; Thornicroft et al., 2016). Therefore, the principle of this intervention type focuses on providing and encouraging social support for those who struggle with mental health and wellbeing, specifically for those that are emergency management workers. One study found that this intervention type led to statistically significant short-term improvement in the attitude towards stigma (Thornicroft et al., 2016). The question then persists whether or not prolonged social intervention can lead to permanent or long-term positive attitude changes. Furthermore, creating a secure social connection within one's community opens the door to many opportunities, resources, and supportive measures to help each other assimilate, process, and reflect on traumatic experiences (Prati & Pietrantonio, 2010).

Leaders and Interventions

The use, understanding, and adaptation of educational and social interventions will be critical towards the implementation of methods to aid the ESF towards their goal of combating mental health stigma. To be successful, however, this goal will take more than just the work done by the ESF and its workers but it will also take the work of leaders among emergency services who can help to encourage acceptance and awareness among their workplace. Leaders in the emergency services community have a significant degree of influence. Some of the stigma surrounding seeking mental health care can be attributed to one's fear of facing leaders about their issues due to the consequences they may face towards their future or career. The irony in this fear is that leaders among the emergency services have also experienced a severe degree of mental trauma and can relate to their employees. Stigma within the workplace can be reduced by leaders encouraging group discussion settings, promoting a deep understanding of self-care, and ensuring proper training and support. Furthermore, leaders should work towards establishing clear communication, buddy systems, and mental health debriefs and training as well as group sessions to create a more accepting environment for themselves and their employees. It is important that psychologists are available, and workers are aware of their help options, i.e.,

healthcare providers, local contact programs such as the ESF itself, and key groups (SAMHSA, 2018).

Appendix C. Considerations for Ethical Engagement with Research Participants

Protocol - The student team will be partnering with the Emergency Services Foundation (which supports over 125,000 emergency service volunteers and workers) in Victoria, Australia, to prevent, promote, and address the high prevalence of mental injury and barriers to supportive care. The sponsor has also indicated the team will be working with other partnering organizations such as the Australasian Women in Emergencies Network and with sector diversity officers.

The goal is to reach a representative sample of adult women in emergency services in Melbourne. The first part of our research will include distributing a survey electronically to members of the Australasian Women in Emergencies Network. The team has been in contact with the sponsors regarding best practices to increase survey participation. The survey will contain no identifying information such as name, address, or employment location, but the team hopes to gather comprehensive demographic data on the participants such as age. However, there will be an option at the end of the survey for participants to provide their contact information if they would like the team to follow up on any comments.

Although there is limited information available regarding how many of those in emergency services are women, the team used an estimate of 31% based on data provided from ESF. With a confidence interval of 95% and a margin of error of 10%, the team was able to use Cochran's formula to estimate that 83 completed surveys would be statistically significant to gather information. Once the data has been anonymously collected, it will be screened for integrity. The team will ensure responses are complete, although if necessary, a question can be answered with 'not applicable'. The team will look at each individual's response before analysis to ensure consistency and determine if there are any outliers.

Demographic data will then be grouped into categories while scaled questions will then be grouped into their own categories. A combination of descriptive and inferential data collection will then take place (Bhatia, 2018). In all responses, the team will look for definite values such as the mean response, median, mode, frequency, and range (for scaled questions). Analyses will then be correlated to specific variables or create a regression or prediction based on trends. The team will also analyze variance as well between different demographic data such as age, employment type, and caring responsibilities.

Interview questions will be determined based on the responses to the survey and where the team feels more data is necessary to provide better conclusions and offer more effective recommendations. Example questions are included. The team met with a counselor and a psychologist on campus to determine how to approach sensitive questions and how to conduct interviews. The team hopes to recruit about 10-15 participants for introductory and focused interviews with help from the sponsor. These women will be of varying roles, ages, and sectors and will include those in leadership roles.

The team will begin by asking for consent and then proceeding to ask the questions. One of the interviewers will act as a leader and make sure all questions are being asked while the others take notes. These notes will be reviewed right after the session for detail and accuracy and

then will be reviewed for content, themes in narratives, and their discourse (how routines impact results) at a later date. The team will take the qualitative analysis along with the quantitative analysis to provide recommendations for the ESF that are also grounded in affirmed psychological theory.

The team is aware that they are unable to provide any medical advice or assist in medical intervention of any sort. Measures will be taken to be empathetic listeners, but no advice or counseling will be given. A script the team could use is “That must have been (hard/sad/challenging). Tell me more about it” or “We are not qualified to provide advice, but let me guide you to some resources that may be able to help.” The goal of these focused and introductory interviews are not to listen to accounts of trauma in the workplace, but rather understand how repeated exposure to trauma interferes with daily life.

Appendix D. Final Survey Questions

The following section includes the final survey questions created and sent out by the ESF.

IWD survey questions:

ESF is dedicated to improving mental health and well-being for the Victorian emergency services sector and wants to gather the thoughts of women to inform that work. The following short survey can be completed anonymously.

1. Paid

Front line / first responder

Support role i.e., corporate or administration

2. Volunteer

Front line / first responder

Support role i.e., corporate or administration

3. Relationship status

Single

In relationship

4. Caring responsibilities

Parent / carer of a child/adolescent/children

Principal carer for an older person

Principal carer for a person living with a disability

5. Age range

18 – 25

26 – 35

36 – 50

51 and over

6. Thinking about the past month or so, on a scale of 1 to 5 (5 being the most positive) how would you rate your mental health and well-being?

7. I would be comfortable to raise concerns about my mental health and well-being with my line manager (paid or volunteer)

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
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8. I have delayed seeking help for the way I am/was feeling

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
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9. I make nurturing my own mental health and well-being a priority

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
-------------------	----------	----------------------------	-------	----------------

10. What do you think stops women seeking support in the workplace/ or where they volunteer if they are feeling mentally unwell?
11. What do you see as the most critical issues affecting the mental health and well-being of women in the emergency services environment?
12. What do you need your line manager to do more of to support your mental health and well-being?
13. What do you need your line manager to do less of to support your mental health and well-being?

Appendix E: Focused Interview and Discussion Group Questions

The following information is the script and questions used in the focused interview and discussion groups. Please note the capitalized words indicate the theme the question was addressing based on results from both the survey and introductory interview.

Thank you for joining us! For our university research project, our team has partnered with the ESF (we were actually supposed to complete this work in Melbourne before the pandemic) to complete an in depth report on mental health and wellbeing with a focus on women in emergency management. We have spent a lot of time over the past five months researching published literature regarding women in emergency management. We have also spent time analyzing the results of a survey sent out after the International Women's Day event that the ESF hosted and have tailored to discussions based on those findings. All of the results we gather will be part of a report we present to our school and the ESF. We have a few specific questions we would like to ask but feel free to bounce off of each other whenever you have an idea!

Mental Health and Wellbeing:

Our main part of the project is on mental health and wellbeing of Women in emergency management, so we would like to understand first:

1. What does mental health and wellbeing mean to you?
2. Where do you believe the majority of your stress comes from in your current emergency management role??

Work Culture:

A survey we conducted found that work culture, so interactions with peers and the command & control structure, is the most reported determinant for mental health and wellbeing in the emergency management workplace.

3. **WORK CULTURE** - Do you believe that the command and control, stereotypically masculine work culture is in some way impeding you or your female peers' willingness or ability to speak about mental health or mental health care?
4. **GENDER** - A gender stereotype is that women are more emotional, weak, etc. Do you think that women in this work culture feel they have to try harder to prove themselves and that this may inhibit them from seeking support for their mental health and wellbeing because they may not want to appear this way?
5. **EDUCATION** - What do you feel about the current level of mental health knowledge at your workplace, in terms of identification of symptoms, coping mechanisms, learning how to interact with others? Do you feel like there needs to be more knowledge on the subject matter?
6. **CONVERSATION** - Mental health knowledge is important for conversation, and Survey respondents indicated that they want their managers to have more conversations with them so that they feel acknowledged and better understood in relation to their mental health and wellbeing needs. What do you think about the current climate for conversations?

- a. What do you think could be done to help managers foster better understanding at having these sort of sensitive conversations?
7. UNAVAILABILITY/SUPPORT/COMMUNITY - What do you feel about the level of emotional support provided by your managers when times get rough? What about your peers?
 - a. How would you describe your comfort talking to your superiors about your mental health and wellbeing?
8. ACKNOWLEDGMENT - Do you feel that your organization has sufficiently acknowledged that mental health is of importance and is actively attempting to help?
 - a. What would like to see changed with the mental health resources provided by your organization?
9. RESPONSIBILITY - Some results from the survey reported that at-home responsibilities such as caring for a child or elderly family member while juggling the demands of work created additional stress. Can you think of ways that managers or the organization could better support these women that would better their mental health and wellbeing?
10. CONTROL - We are interested in your ideas about another issue that came up in the survey – autonomy. Women want to have faith that they will not face discrimination, and will not have opportunities unavailable to them due to their gender or mental health. What would need to change to build the autonomy and equality that was reported to be needed?
 - a. Have you seen any negative repercussions when women would voice their experiences of mental health and/or gender discrimination? Has this affected their mental health and wellbeing?
11. RESOURCES One thing we were asked to find out was whether you think there needs to be mental health and wellbeing resources and services that are specifically designed for women?
 - a. What might that be? What issues should they address?
12. What would you do or recommend to be done that would make the biggest difference to support the mental health and wellbeing of women in your sector?

Appendix F: Emails Sent Out For Discussion Group Planning

Hello _____,

Thank you again for meeting with us _____(last week, yesterday, etc)! Your insight is invaluable to our research and we are appreciative of your time and excitement for our work. With that being said, we are hoping to organize a small discussion group in the **next two weeks with about six women from your agency** (insert agency) (working from afar is tricky and we are constrained by university deadlines!) to help deepen our understanding of the data we collected from the survey.

We understand you are likely to be very busy but if you have the time and are willing to help us coordinate the people and online meeting time, we'd be very grateful.

Included (*note: this included a hyperlink to Google slides with dates and times we were available to meet) is a link with our team's availability; since we do not know the work schedules the majority of the women have, if you would be willing, we kindly ask you to determine a one hour period that would work best, and then mark the sheet in red to prevent double booking with the different agencies.

We have included an email script below to help recruit women for this discussion (at the bottom there is a blank where you can place the date and time you chose).

Please remember to include us in the calendar invite you issue (gr-mpc-esfd20@wpi.edu)

Please let us know if you have any questions! We thank you in advance for your efforts!

Best,

Alexis Boyle, Elizabeth Inger, Manon Miller, and Krys Waters

Hello,

I have been approached for assistance with a project by Alexis, Elizabeth, Krys, and Manon, four university students from Worcester Polytechnic Institute located in the United States. They are working with the Emergency Services Foundation in Melbourne to create a report on mental health and wellbeing of women in the emergency management sector and we are very interested in the report they will prepare.

The students have analyzed a survey undertaken by women from across the sectors and would now like to have a video discussion group with a small group of women from ----- (agency) to better understand the themes which emerged from the survey responses.

The discussion group will be informal and last for approximately an hour. The discussion themes will be aggregated, and agencies and individuals will remain anonymous in the report.

I'd be grateful if you would participate in their online discussion group which is scheduled for _____ (insert time and date). I will issue a calendar invite and the meeting link.

Appendix G: Statistical Test Results

This section includes the results from statistical analysis tests of the survey sent out by the ESF. First, using the Cochran's formula, a 95% confidence interval, 10% margin of error, and the ESF's estimate that females make up about 31% of the Victorian emergency services population, over 82 completed surveys would be needed in order for the sample size to be representative of the Victorian population. Due to societal circumstances and complications of Covid-19, there were 164 responses. Since the survey was sent out as an email, the team was unsure of how many people the survey was sent out to, where exactly the individual works, the agency each respondent was affiliated with, and how representative the responses were with each agency. However, the team believes that all responses are from Australian women. Therefore, it is fair to assume the results reported are representative of the sector, but might not be representative of each agency within the sector. To better understand the information that was collected, the team ran numerous statistical tests using IRB's software SPSS to determine any statistical significance (a p-value less than 0.05, as set by the team) among correlations between demographics and reported answers. The correlation coefficient r (henceforth referred to as r -values) measures the strength and direction of a relationship between two variables, most commonly viewed upon a scatter plot. R -values can be anywhere between -1 and 1 (a negative number indicates a negative direction of correlation, while a positive number shows a positive direction of correlation). The closer the absolute value is to 0, the weaker the correlation, while an r -value of 1 or -1 shows a perfect correlation. It is important to note that a weak correlation can still be statistically significant, however it may suggest there could be other confounding variables impacting the results.

Statistical Difference Between Emergency Sector Types:

- **Front line reported less attitudinal stigmas than support roles.** The r -value of this 1-tailed correlation test proved to be a negative correlation of medium significance at -0.222 . The value also shows a weak negative correlation between the two variables. The p -value was significant at 0.016.
- **Front line reported less time barriers than support roles.** The r -value for this 1-tailed correlation test was -0.151 , indicating a weak negative correlation. The p -value was also significant at 0.039.
- **Support roles reported more comfort speaking to their line managers about their mental health and well-being.** The r -value for this correlation test was 0.223, indicating a weak positive correlation. There was a significant p -value of 0.028, calculated with a 2-tailed test.
- **Support roles reported less self stigmas than front line.** This 1-tailed correlation test had an r -value of -0.147 , indicating a weak negative correlation, and a p -value of 0.045, indicating significance.
- **Support roles reported more cultural stigmas than front line.** This 1-tailed correlation test proved to be of significance with a r -value of 0.152, indicating a positive correlation between the two variables. The p -value also determined this to be significant at 0.040.
- **Volunteer support roles reported less perceived stigmas than paid support roles.** This correlational test had an r -value of -0.213 . This shows a negative moderate correlation between the emergency sector types. The p -value of this correlation was 0.020, proving significant.

- **Volunteer support roles report less sexism than paid support roles.** The r-value for this correlation test was -0.188, indicating a negative correlation. The 1-tailed test produced a p-value of 0.036, indicating the finding's significance.

Statistical Differences Between Age Groups:

- **Older age groups reported prioritizing mental health and well-being more than younger ones.** The r-value of this correlation test was .160, showing a positive correlation. Additionally, the 2-tailed test calculated a p-value of 0.044, indicating statistical significance.
- **Older age groups reported delaying seeking mental health help less than younger age groups.** The r-value of the correlation test was -.157, indicating a negative correlation. Additionally, the 2-tailed test had a p-value of 0.05, indicating significance.
- **Older age groups reported less responsibility pressures than younger age groups.** The r-value of the correlation test was -.149, indicating a negative correlation. The 1-tailed test presented a p-value of 0.030, indicating statistical significance.
- **Older age groups reported gender pressures less frequently than younger age groups.** The r-value of this correlation test was -.151, indicating a negative correlation. The 1-tailed test produced a p-value of 0.028, indicating statistical significance.

Statistical Differences Between External Responsibility Types

- **Those who are not carers for an elderly parent reported less structural barriers.** The r-value of this correlation was -0.225 with a p-value of 0.033, showing a statistically significant negative medium value correlation.
- **Those who are carers of an individual with a disability reported to be less comfortable speaking to their line managers about their mental health and well-being than other carer types.** The r-value of this correlation was -0.225, indicating a negative correlation. Additionally, the significant p-value of 0.033 was calculated by the 2-tailed test.