

**Before the Fall: Support First Responders with Mental Health Crises**

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### **Abstract**

**Background:** First responders (FRs) face a variety of hazards and trauma on any given day. Regular exposure to these traumatic events such as fatal accidents, burn victims, drug overdoses, suicides, murder etc. can take a toll on an individual's well-being and mental health (MH).

**Aims:** The aim of this literature review is to examine recent, empirical studies to determine adequacy of MH resources available for contemporary FRs.

**Methods:** Empirical literature search included Justice Institute of British Columbia Library database, Google Scholar and two non-scholarly website sources.

**Results:** Several linear themes that emerged in relation to the research question. These themes include proactive mental health initiatives, trauma-informed perspectives, de-stigmatization, peer support, and barriers to access resources.

**Conclusions:** Considering the complexity of trauma-related MH issues facing FRs, further research is warranted. FRs, as well as mental health care providers require more thorough understanding of the issues in order to provide better assistance for mental health.

**Key words:**

First responders, mental health, prevention, resilience, resources, peer support.

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## **Before the Fall: Support First Responders with Mental Health Crises**

### **Background**

First responders (FRs) face a variety of hazards and trauma regularly as part of their occupations. A 2008 study of mental health (MH) and suicide showed that police officers and firefighters are more likely to die from suicide than from a work-related incident (Heyman et al., 2018). Increases in MH issues, post-traumatic stress disorder (PTSD) and rates of suicide have prompted research into what FRs need to maintain good MH (Joyce et al., 2019).

### **Objective**

The aim of this research study is to examine currently available information, data and statistics to determine if there are adequate resources available for today's FRs. It will acknowledge the current crisis of MH issues affecting FRs and examine the readily available resources for workers who want to reach-out. Utilizing data acquisition through sources such as Justice Institute of British Columbia Library database and Google Scholar, this review attempts to answer the following research question: Are sufficient and appropriate resources accessible to support FRs dealing with MH crises?

### **Defining Research Question**

The research suggested that there are potential gaps, barriers, accessibility issues and stigmas related to MH issues for FRs (Heyman et al., 2018). The question behind this study is to confirm whether or not existing programs and resources are sufficiently available to support first responders and to identify the barriers that prohibit FR's from accessing these programs when they are experiencing MH crisis. This review uses mixed methods to 1. Identify the problems surrounding MH for FRs, 2. Identify intervention methods and tools that are used and accessible for FRs, 3. Compare the methods and tools available, and 4. Discuss the desired

outcome of interest.

### **Problem**

A recurrent gap and theme identified through research is an overall lack of funding and research into appropriate initiatives and programs for FRs MH. A deeper in-depth discussion and consideration of MH issues -specifically for FRs- is imperative to understand the correct implementation of effective versus ineffective strategies to generate a meaningful and positive change for this prevalent issue of MH.

Barriers noted in study findings (Heyman et al., 2018; Jones et al., 2019) are contributing factors faced by FR's experiencing MH issues in early stages, all the way to late and chronic stages of symptoms. The studies reviewed present prevalent barriers: i.e., lack of easily accessible resources, overall lack of education in the subject, fear of being a burden on family, psychosocial culture creating negative stigmas, feelings of being alone in the struggle, negative experiences coming from therapy, lack of buy-in from peers, administration, and workers' unions/associations. Without addressing and attempting to resolve these barriers, little forward progress will be made to improve help-seeking behaviours. Good section

### **Interventions**

Mental healthcare is an extremely important component of personal well-being for FRs. The data analyzed shows clear benefits of MH training, and education programs for staff and management which would in-turn promote peer support initiatives. Other ways of intervening backed by the studies are methods such as self-assessment tests (available online or internally) through the FR agencies. While the research shows positive benefits from these methods of intervention, findings show the need for more research and resources. This study attempts to

highlight both effective means of intervention, as well as the need for further research and accessibility of these interventions.

### **Comparisons**

Considering there is no definitive way to eliminate barriers to an individual's help-seeking behaviour and at what stage of crisis that they choose to seek help, a range of methods and intervention tactics should be available and accessible. More research into the area of methods and intervention would contribute to determining the levels effectiveness of MH treatment. However, it is difficult to say one method or intervention tactic is unequivocally better than another due to the individual nature of someone's mental state. This study reviewed examples and studies that highlight the effectiveness of various methods of assisting FRs who are afflicted by MH from exposure to job-related trauma(s).

### **Outcomes**

The desired outcome of this study is to highlight the importance of FRs mental healthcare, both personally and professionally. A healthy FR workforce benefits the FR and their family as well as the general public at large as they are more capable of meeting their mandate for community safety and assistance. By revealing the prevalence of MH issues among FRs, organizations can encourage crucial steps be taken in a forward direction through research and positive change. Removing the psychosocial stigma associated with FRs who are seeking assistance may help those currently in crisis, as well as those who may experience crisis in the future. Implementation of comprehensive MH education and training for all levels of staff in FR agencies would inherently improve peer support initiatives and could potentially minimize the amount of MH cases reaching chronic or crisis stages.

## **Research Methodology**

### **Selection**

The selection of studies was accomplished by first examining all titles and abstracts, then reviewing the remaining content to identify key information that supports the research question. Some of the main inclusion criteria were: studies conducted after 2010, peer-reviewed literature, research-based on statistical data or surveys, subject matter that focused on FRs, prevention, assessment, treatment, stigma(s), peer support, exercise, training, MH apps and resilience. Studies were located utilizing key-words (First responders, mental health, prevention, resilience, resources, peer support, Apps) in searches utilizing multiple electronic databases 1. Justice Institute of British Columbia Library Database and 2. Google Scholar. Current and reliable, empirical research, using accurate and current data, served as base materials used to answer the research question (see Table 1).

### **Inclusion and Exclusion Criteria**

#### **Inclusion**

Inclusion criteria included peer-reviewed literature published after 2010. Studies focused on FRs: wildland firefighters, urban firefighters, career firefighters, volunteer firefighters, emotional support workers, federal police, provincial police, municipal police, paramedics and military personnel. Additionally, studies examined prevention assessment and/or treatment, social stigmas, help-seeking behaviours, resilience, peer support intervention, benefits of exercise, internal agency prevention programs/education/trainings and MH apps. Sources searched include qualitative and/or quantitative methodology.

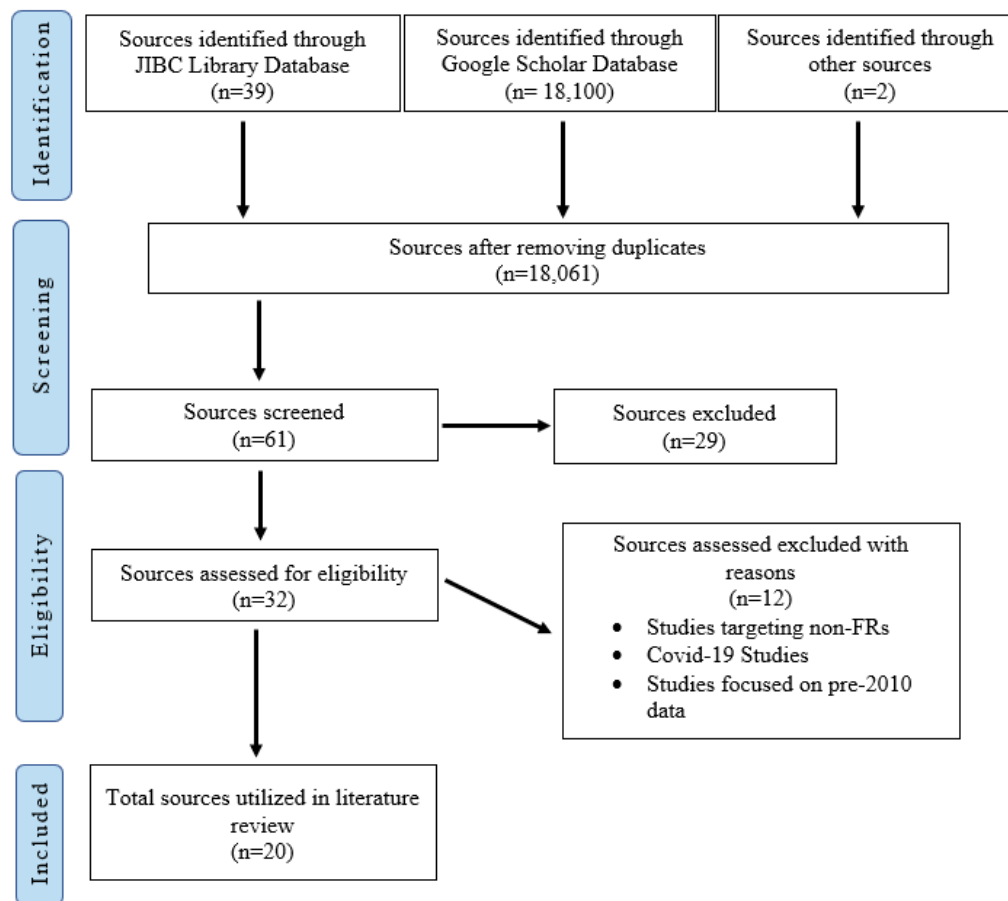
#### **Exclusion**

Demographics such as age, gender, culture and religion are not part of this research study. To ensure a narrow focus of information and reliable sources, this research study excluded sources from popular magazines, newspapers, studies that are not specific to FRs, non-English publications, opinion pieces, Covid-19 related studies and studies published before 2010.

## Results

**Table 1**

### *Result Search Methodology*



*Note:* The table shows the research methodology process for study selection, including process of elimination.



### **Literature Review**

In the following review, 17 studies and two websites were analyzed to define the research problem and to contribute to discussion and future recommendations. A description of each study was included, as well as quotes and statistics.

A study on the Road to Mental Readiness or R2MR program. Szeto et al. (2019) details the creation of the R2MR program in 2013, the content of the R2MR program provided to FRs, and a research study of significant data points on efficacy provided by participants of various FR groups.

The R2MR program was designed to be used as part of a participant's organizational training with the expectation that "program completion would decrease mental illness stigma and increase resiliency when compared with assessments conducted before the program" (Szeto et al., 2019, p.20S). Data collection additionally included a follow up with participants three months post R2MR program completion. Szeto et al. (2019) valuation of the program included positive results indicating "that R2MR was effective at increasing participants' perceptions of resiliency and decreasing stigmatizing attitudes at the pre-post review, which was mostly maintained at the three-month follow-up" (p.21S). The data compiled with this study suggested that the R2MR program "helped to shift workplace culture and increase support for others" (p.21S). This study was of value due to the R2MR program's pre-emptive strategy towards harm reduction and resiliency building, and the positive outcome provided in the studies results.

"Responding to First Responder Mental Health" is a research study prepared by Isabel Ruediger (2021), for the University of Calgary, which examined current MH trends that focus on proactive initiatives for FRs that support resilience and psychological readiness in response to occupational exposures to trauma. Her research indicated that existing MH programs are largely

reactive and could benefit from incorporating proactive indicators to best support the MH of FRs. In her research study, Ruediger asserted that, “First responder mental health has historically been addressed in a reactive manner rather than preventative once exacerbated symptoms have set in, such as depression, acute stress, burnout, or PTSD” (Ruediger, 2021, p.16). This paper supported the research question, that there is a need for more sufficient MH resources for FRs.

The study “Supporting the Mental Health and Well-Being of First Responders from Career to Retirement: A Scoping Review” (Smith et al., 2021) focused on identifying effective strategies to support MH, both during and after the first responder's career. Rather than placing the responsibility on the FRs to reach out, their findings suggest holistic approaches that encourage organizations to “reach in” to FRs regarding mental health needs. This study was valuable because it discussed proactive MH strategies, harm reduction, and the importance of holistic MH approaches.

The Ruderman White Paper on “Mental Health and Suicide of First Responders” by Heyman et al. (2018), addressed the importance of adopting strategies to help raise awareness on the psychological tolls that incidents exert on FRs. This study demonstrated how dangerous it is to ignore the MH crises among our FRs. Researchers interviewed emergency workers from several different professions, including police officers, police communicators, paramedics, and child protection workers. This study also sought to raise awareness of MH well-being among FRs to alleviate stigma and facilitate access to services. According to Heyman et al. (2018), “It is critical to address this issue in order to destigmatize mental illness so that our heroes are able and comfortable to access the care that they need” (p. 9). The study suggested debunking cultural barriers within professions and departments, eliminating perceptions of MH and enforcing

adequately funded policies and programs would help in reducing the recent MH crisis amongst FRs. The President of the International Association of Chiefs of Police (IACP) has said, “In a profession where strength, bravery, and resilience are revered, mental health issues and the threats of officer suicide are often ‘dirty little secrets’ – topics that very few want to address or acknowledge” (International Association of Chiefs of Police [IACP], 2014, p. III).

Table 2 displays the staggering comparison of the prevalence of issues relating to alcohol abuse, depression, thoughts of suicide and PTSD when numbers of the general population are compared with FRs. These figures are based on the sample base from the Heyman et al. (2018) study.

**Table 2**

*Mental Health Outcomes*

<i>Mental health outcome</i>	<i>Fire fighters</i>	<i>Police officers</i>	<i>General population</i>
PTSD	14.6% - 22% <sup>1</sup>	35% <sup>2</sup>	6.8% (in one’s lifetime) <sup>3</sup>
Depression	11% <sup>4</sup>	9% <sup>5</sup> - 31% <sup>6</sup>	6.7% <sup>7</sup>
Thoughts about suicide	46.8% (ever)	7.8% (pervasive)	unknown

*Note:* This table displays the comparison of the prevalence of issues relating to alcohol abuse, depression, thoughts of suicide and PTSD when numbers of the general population are compared with FRs. From “The Ruderman White Paper on Mental Health and Suicide of First Responders” by Heyman et al., (2018)

[https://www.firefightermentalhealth.org/system/files/First%20Responder%20White%20Paper\\_Financial.pdf](https://www.firefightermentalhealth.org/system/files/First%20Responder%20White%20Paper_Financial.pdf). Copyright 2018 by Meriam Heyman et al.

“Can Resilience be Measured and Used to Predict Mental Health Symptomatology Among First Responders Exposed to Repeated Trauma?” was a study conducted by Joyce et al. (2019) in order to determine if implementing resilience measures among FRs could help protect their long-term MH. This study used a multivariate linear regression to examine the correlation between baseline resiliency and future MH symptomatology following repeated trauma. The baseline sample included 143 FRs from New South Wales, Australia (FRNSW).

According to Joyce et al., (2019), studies have shown that despite the regular mental risks FRs encounter daily, they are very reluctant to access MH services. It states many FRs would rather engage in harmful and maladaptive coping strategies to manage their mental distress. This study identified “One benefit of examining resilience is that this construct is malleable, learnable and responsive to change and can thus be targeted in early interventions” (Joyce, S. et al., 2019, p.286). The findings further outlined that “Studies have indicated psychological resilience may serve as a protective factor which may alleviate the negative impact of work-related stressors among first responders.” (Joyce et al., 2019, p.286).

This study relates to the research question as it outlined the importance of resiliency programs for FRs. It also confirmed its use in helping FRs with MH illness.

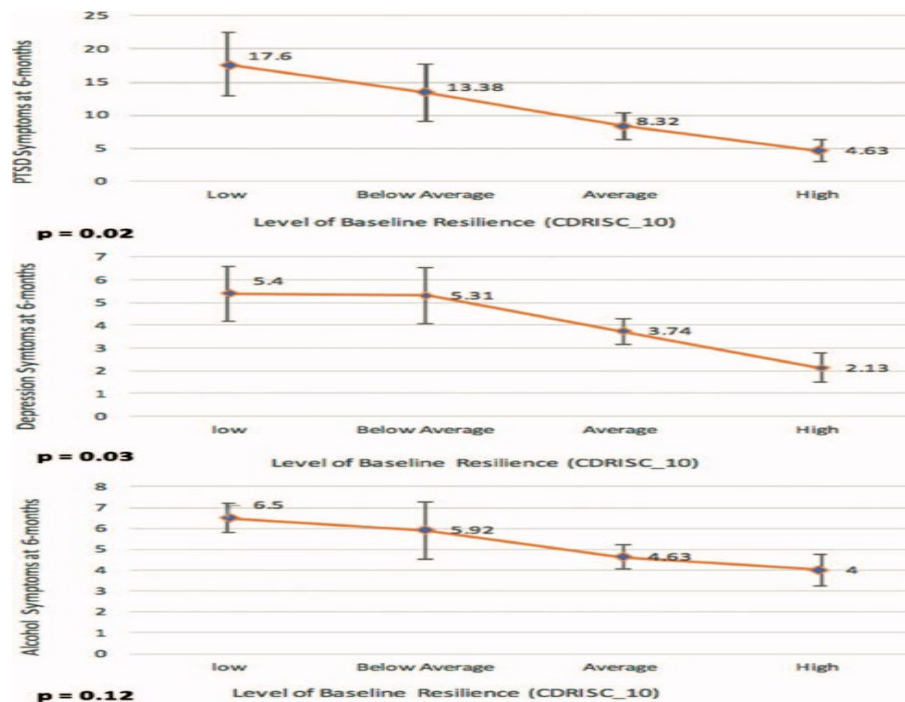
**Table 3**

*Demographic Characteristics of Low and Average to High Resilience Groups at Baseline.*

Variable	N	Low Resilience N (%)	Average to High Resilience N (%)	P-Value
Mean age (SD)		49.1 (8.40)	42.6 (7.58)	0.02
Education				
High school	14	6 (60)	8 (17)	0.07
TAFE	27	3 (30)	24 (52)	
Graduate degree	12	1 (10)	11 (24)	
Postgraduate degree	3	0 (0)	3 (7)	
Gender				
Male	53	8 (80)	45 (98)	0.08
Female	3	2 (20)	1 (2)	
Years worked with FRNSW				
1–5	4	0 (0)	4 (9)	0.03
6–10	11	1 (10)	10 (22)	
11–15	16	1 (10)	15 (33)	
16–20	5	2 (20)	3 (7)	
>20	20	6 (60)	14 (30)	
Number of trauma events in course of career				
1–5	7	0 (0)	7 (16)	0.99
6–10	6	2 (20)	4 (9)	
11–15	5	1 (10)	4 (9)	
16–20	5	3 (30)	2 (4)	
>20	32	4 (40)	28 (62)	
Number of trauma events over the 6-month follow up				
1–5	44	6 (60)	38 (83)	0.22
6–10	8	4 (30)	5 (11)	
16–20	3	0 (0)	3 (7)	
>20	1	1 (10)	0 (0)	

P-values based on chi-squared or Fisher exact test for categorical variables, chi-squared for lineal trend for ordinal variables or Student t test for continuous variables. FRNSW, Fire and Rescue NSW.

Note : (Joyce, S. et al, 2019, p. 287)



The 10 item Connors- Davidson Resilience Scale; PTSD, post- traumatic stress disorder.  
(as cited in Joyce, S. et al., 2019, p. 288)

*Note:* The relationship between baseline resilience levels and symptoms of PTSD depression and alcohol misuse at 6-month follow-up.

In a US-based meta-analysis study, statistics showed that 33.1% of all FRs endorsed stigma items such as fears regarding confidentiality, negative career impact, scheduling issues and simply being unaware of how or where to seek assistance (Haugen et al., 2017). The Haugen et al. (2017) research study concluded that there is an extreme lack of research in the area and there is a need for further research to recognize and assist the issues. Self-stigma can show itself as low self-esteem, feelings of insignificance, secrecy, embarrassment and retraction from social interaction (Boyd et al., 2014). The perceived stigma felt by some individuals can create a barrier that may prevent someone who has been exposed to traumatic event(s) from seeking help. These symptoms need to be recognized by the afflicted individual or by peers so that the individual can receive appropriate help.

“A review of cardiorespiratory fitness-related neuroplasticity in the aging brain” was a study by Hayes et al. (2013), that identified that resiliency as one of the most important deterrents for FRs because of its focus on training mental strength through attention and awareness. Developing strong resiliency can assist in preventing the impact that trauma can have on an individual. This study also looked at the resiliency effects of exercise shows promising data that can be of benefit to FRs. They found through their research that brain changes can be exercise-induced stating that “researchers found overlap among the brain regions affected by post-traumatic stress disorder (PTSD) and brain areas impacted by aerobic exercise. This suggests that exercise-induced brain changes or neuroplasticity may positively impact PTSD symptoms” (Hayes et al., 2013, p.10).

Firefighters experience varied exposure to unique traumatic events frequently, while cases of PTSD are understandably not uncommon within this group. A nationwide study (2018) in South Korea gathered data on PTSD and barriers to treatment among all currently employed firefighters at the time (n = 39,562) (Kim et al., 2018).

Out of the sample group, 5.3% (n = 1,995) were found to harbor probable cases of PTSD and among those affected, only 9.7% had sought out or received any type of help or support. While perceptions regarding barriers to accessibility (23.9%) and concerns of potential stigma (38.8%) were the reasons for not seeking treatment (Kim et al., 2018). The Korean study highlighted the need for novel approaches in promoting mental healthcare for firefighter FRs. In the discussion section, Kim et al., (2018) talks about firefighters’ fear of stigmatization and of being ‘weak’ or ‘vulnerable’.

The Australian Journal of Psychology published a study by Rikkers et al., (2021) titled “Mental health help-seeking experiences and services use among Australian first responders”.

This study's aim was to better understand and highlight patterns of FRs reaching out for help regarding PTSD and psychological distress.

The authors utilized data received from The Australian National Survey of the MH and wellbeing of police and emergency services' initiative entitled *Answering the Call*. The study was conducted between October 2017 and March 2018. Sample participants (n = 14,868) were selected using stratified random sampling from 33 separate firefighter, police and state emergency service agencies.

The results suggested that 3 out of 5 employees felt the need for MH assistance within the previous 12 months, but less than half of those actually sought help. The study also stated, "There were a concerning number of people exhibiting symptoms of serious mental health conditions who recognized they had a problem, but who did not think they needed any help (5.9% with severe PTSD; 27.9% with high and 18.5% with very high psychological distress; and 15.5% who experienced suicide ideation in the previous 12 months)" (Ridders et al., 2021, p.31).

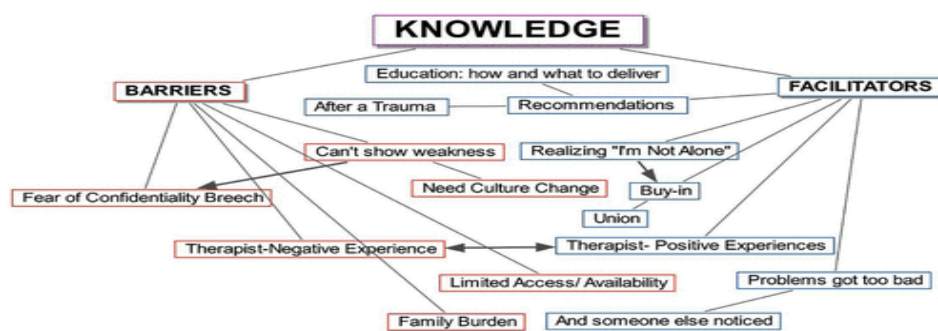
The study's findings revealed less than optimal results in help-seeking behaviours among FRs and indicates the possibility of poor psychosocial work environments for these employees. This could mean that access to resources does not necessarily guarantee outcomes.

A study out of the *Journal of the American Psychiatric Nurses Association* conducted by Jones et al., (2020), interviewed firefighters and medical technicians/paramedics from across the State of Arkansas to gain a better understanding of barriers and facilitators to seeking mental healthcare. Facilitators to Help-Seeking Behaviours (FHSB) are defined as programs, initiatives, policies, organizations and include measures, interventions and workplace culture that serve to assist and enable afflicted individuals (experiencing MH issues) to reach out for appropriate assistance. Individual qualitative interviews took place in private settings that were most

convenient for the participants. Analysis of the answers from the sample group ( $n = 32$ ), indicated 3 main factors which influenced help-seeking behaviours 1. General Knowledge of available resources, 2. Barriers to help-seeking behaviours, and 3. FHSBs (Jones, S. et al., 2020). Jones et al. (2020) findings presented unique perspectives that shed light on how FRs prefer to address their MH needs and issues. Participant answers regarding the FHSBs seemed to have common themes after analysis: 1. The feeling of not being alone was a theme that arose from questioning. 2. Knowing that other FRs could be going through the same issues and 3. Seeing the possibility of recovering the same way as others were motivating factors in seeking assistance. Interestingly, ‘buy-in’ was a term used by 14 of the participants. Buy-in refers to having acceptance and support from peers, administration and the labour union supporting mental healthcare. For example, one participant answered: “Every safety thing comes down from usually the national level or [International Associations of Fire Fighters] IAFF or whatever... You take the IAFF, okay, our goal is to assist the mental health of our first responders, firefighters, whatever. You see that push and you get that change in the mentality, I think that’s when it changes” (Jones et al., 2020, p.49). Sadly, for some FRs they do not seek help until they are at their lowest point and reaching out is the only viable option.

**Figure 1**

*Perception of MH problems and engagement.*



*Note:* Analysis of the interviews generated three broad factors that influenced FRs’ perception of MH problems and engagement in MH services: (a) Knowledge, (b) Barriers to help-seeking, and (c) Facilitators to help-seeking.



(Jones, S. et al, 2020, p. 48)

This study suggested that FRs, as well as mental healthcare providers, required a more thorough understanding of the deeper issues in order to provide better assistance for MH crises.

### **Critical Analysis**

While the studies reviewed varied in technique and methods, there were common threads identified which affected the recognition and treatment of MH issues. One of the most frequently noted was the fact that due to the nature of the work performed, FRs are reluctant to ask for help because of the perceived stigmas attached. Education and Training at all levels was also identified as lacking. The training issue could be related to a gap in funding for these programs.

### **Barriers**

#### ***Stigmas***

The research considered for this review consistently portrayed stigma as a significant barrier to help-seeking behaviour. The study by Heyman et al., (2018) stated that stigma and shame are the strongest barriers between FRs and help-seeking behaviour. There are many factors that contribute to stigma regarding MH for FRs, but the consistent theme is that the most common feelings of stigma for FRs revolve around showing weakness or vulnerability by seeking help.

The psychosocial culture among FR agencies seems to be the most significant contributor to the feelings of stigma. The very traits and characteristics that are seen as making a good FR such as perseverance, toughness, courage, selflessness and grit are, on the other hand, barriers to FRs seeking the help they need at the right time. Help-seeking behaviour doesn't seem to fit within these strong traits. FRs are one of the few lines of work where individuals are continuously exposed to traumatic incidents that can eventually take a heavy (even fatal) toll on

MH and well-being. These jobs, where attitudes of mental toughness and fortitude are essential to staying focused and effectively doing their jobs, are great strengths that potentially become liabilities when seeking out MH solutions (Kim et al., 2018).

Stigma becomes especially insidious when individuals are at a chronic stage, where they feel that help is necessary but refuse to ask for help - due to stigma. The stigma studies in this review concluded that more research is decisively needed to understand and address the issues surrounding the barrier of stigma. Some responses regarding FHSB are rich fodder for future research in order to further develop initiatives that could create a positive shift in the number of FRs who are experiencing MH issues and not exercising help-seeking behaviours.

### ***Gaps***

A recurrent gap identified in the studies reviewed was an overall lack of funding for, and research into, a more in-depth discussion and consideration of first responders' MH. Additional studies are needed for more complete understanding of the potential of proactive initiatives necessary to build resiliency skills in FRs. There is a clear call and obligation identified within these studies, indicating that baseline resilience training for FRs be implemented and cultivated to prevent more serious conditions developing over the course of a responder's career.

Governments at all levels must recognize the statistics and the high rates of FRs afflicted with MH issues caused by repeated exposure to trauma while performing a service to their citizens. Investment into research, programs, intervention methods and initiatives are the next imperative steps toward the improvement of this issue.

### ***Training/Education Programs***

The study (Hayes et al., 2013) selected for this review indicate that existing MH programs available to FRs have been largely reactive in nature, and further identified a need to

emphasize and incorporate *proactive* strategies and initiatives. The research defined and displayed meaningful positive outcomes associated with: 1. resiliency training, 2. peer support training, 3. programs aimed at pre-emptive MH awareness and de-stigmatization, and 4. changing the psychosocial work environment to promote help-seeking behaviors for FRs.

### ***Exercise***

Exercise has many physical and MH benefits. The implementation of exercise regimens and self-care are also found to be a positive means of promoting resiliency, as well as physical and psychological health. Professions such as firefighting and law enforcement inherently require many aspects of physical fitness at the professional baseline. However, less physical occupations such as nurses, doctors, and emotional support FRs may best benefit from the implementation of exercise plans, whether done personally or as an agency-wide initiative. Meckes et al., (2021) study exemplified how physical activity and MH determining factors were related to the specific roles in being a FR. The results from the study showed a positive correlation between physical activity and emotional support FRs, and a very low correlation for traditional frontline FR. The bona fide occupational requirement for physical fitness and agency implemented fitness standards may require some FR sub-groups (Firefighters, rescue workers, paramedics etc.) to not only exercise to meet job standards, but also may require demanding physical tasks when responding to emergency incidents. Fitness requirements for other roles in FRs may be significantly less and implementing a physical fitness program could be beneficial toward generating positive MH benefits.

Developing and strengthening resiliency among FRs can significantly contribute to reducing and even preventing the impacts of trauma related MH issues. Resiliency is one of the most important deterrents for FRs because it focuses on training mental strength through

attention and awareness. The research done by Hayes et al., (2013) specifically points to aerobic exercise as a main contributor toward beneficial changes in the brain regions that are directly associated with PTSD. Although this research was not specific to FRs, it does display the potential benefits of applying aerobic fitness as a method for improving symptoms of PTSD among affected FRs.

The benefits of exercise are positive in most applications and could be seen as an appropriate method of resiliency and even recovery for FRs. A key takeaway from the studies reviewed on the benefits of exercise as a key component of maintaining a FRs mental health fitness. This would be an excellent initiative for FRs because it not only benefits psychological health, but also physical health which in turn would inherently improve work performance.

### **Discussion**

This research study revealed several linear themes that emerge in relation to the research question. These themes included proactive MH initiatives, trauma-informed perspectives, destigmatization, peer support, and barriers to access resources. Critical studies such as these must ultimately be communicated decisively and backed legislatively and implemented departmentally by those in leadership, leadership education and interdepartmentally.

Overall, the study provided a positive scope of results with respect to pre-emptive resilience building and harm reduction programming. Some of the commonly agreed upon recommendations that would have a positive impact on FRs are: addressing resource barriers, establishing baseline self and peer awareness, and connecting with developed, well studied programming.

As for deficiencies, the studies brought forward cannot be generalized in their respective scopes due to their focus on a specific sample group. Most of the studies suggest resolutions without providing a definitive endpoint.

The topic of MH crises facing FRs is a challenging one, as there is no clear or simple answer to how to solve this issue. Psychological issues for an individual can vary greatly. However, MH is an extremely important aspect of being a FR and must be looked at in-depth in order to maintain a strong workforce for community safety and response. The gaps that still exist stem from a lack of comprehensive research on the subject matter, thus making the need for both qualitative and quantitative analyses to take place. The positive response from programs focused in peer support, reducing social stigma and encouraging help-seeking are clear from the research analyzed. Good section.

### **Recommendations and Direction for Future Research**

This research study illuminates the need to prioritize recognition, resources and treatments of MH issues caused from FRs exposure to trauma(s). The following section provides recommendations and potential directions for future research from conclusions derived from the collected and analyzed sources of this research study.

For FR agencies to address stigma appropriately, there needs to be a collective sense of security, where FRs feel as though they can disclose the issues they are experiencing, without fear of repercussions to their personal lives and/or career. Seeking help for MH issues in a line of work, where MH issues are prevalent, must be viewed as a healthy, positive, and proactive action. The research findings of Smith et al. (2021) suggested holistic approaches to supporting MH for FRs that encourage organizations to reach-in, rather than placing the full onus of seeking help on the FR. This also supported the idea of the peer-support initiative. By encouraging a

supportive culture from the top down, open communication opportunities where FRs can discuss stressful situations with their social supports, FRs could manage their MH more proactively. In the research study by Jones et al. (2020), “buy-in” was a term used by interviewed FR participants referring to the acceptance and support of FR mental healthcare from peers, administration and their union. Comprehensive support from the level of leadership down is necessary in order for the associated stigmas related to MH issues can be diminished and/or eliminated.

Training and education programs for all levels of staff in FR agencies are essential methods to not only inform the dangers of exposure to trauma, but also increase resiliency, promote empathy for colleagues, provide methods of self-intervention and create positive change. From analysis of the research, further research into the elements of an effective FR MH program or training is needed. While programs such as *The Working Mind* (Mental Health Commission of Canada, 2022 a), *Here For My Peer* (Horan et al., 2021), and the online delivered *Mental Health First Aid* (Chowdhary et al., 2019) education program have shown to be an effective way for agencies to support their FRs, the high rates of PTSD, self-harming behaviours and trauma induced stresses support the need for further research.

### **Conclusion**

In 2017, in the United States of America 93 firefighters and paramedics died performing their jobs while in the same year, 103 committed suicide (Heyman et al., 2018). This alarming figure shows the absolute necessity for appropriate resources to be accessible to FR’s dealing with MH crises. This research study has covered many topics regarding gaps, barriers to help-seeking behaviour, stigma and accessibility of resources for FRs. Critical analysis of the research gathered shows that there is no one single solution when creating programs to identify and treat

MH issues FR experience throughout their careers. Considering that being a FR inherently involves regular exposure to traumatic incidents, the need for MH programs, mental healthcare initiatives and awareness is essential to promoting a stronger and healthy FR workforce for communities. Gaps still exist and are a result from lack of comprehensive and in-depth research in the subject matter.

Positive impacts on stigma reduction, resiliency, and proactive strategies were observed (Smith, et al., 2021). Smith et al. (2021) study suggested that organizations should teach and train proactive resilience training amongst FRs as significantly beneficial to them, improving their judgment, decision-making actions and quality of life (Smith, et al., 2021). Furthermore, providing opportunities for crisis debriefing and social support are extremely important as it allows FRs to interpret and appropriately process stressful situations (Smith, et al., 2021). The goal of this approach was to normalize communication opportunities that enable FRs to openly discuss stressful situations with their social support systems. Smith et al. (2021) further identified stigma as an ongoing barrier that prevented FRs from proactively seeking help, suggesting that 90% of respondents (in this U.S study) concluded that stigma was the main barrier to seeking support for their MH.

The information presented identifies a need for future qualitative and quantitative research to take place. There are obvious benefits of peer-support, use of apps, and destigmatizing help-seeking behaviours that have been presented in the data from the reviewed studies. However, considering the complexity of trauma related MH issues facing FRs, further research is warranted and FRs as well as mental health care providers require more thorough understanding of the issues to provide better assistance for mental health crises.

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