



## FIRST RESPONDER MENTAL HEALTH: A LITERATURE REVIEW OF CURRENT INDIVIDUAL AND ORGANIZATIONAL ISSUES.

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**Abstract:** *First responders are exposed to potentially traumatic events (Ricciardelli, Czarnuch et al. 2020; Carleton, Afifi, Taillieu et al., 2019). Although, they may not be traumatized by said events (Yehuda et al., 1998). This paper examines three themes emerging in the current literature surrounding first responder mental health. These themes are individual mental health knowledge and exposure to trauma; stigma and resilience training; and mental health at the organizational level. This review acknowledges that much of the current literature is flawed although still provides valuable information and results. We conclude with recommendations on improving current and future research as well as first responder mental health.*

**Keywords:** *first responder, resilience, stigma, mental health, review*

### Introduction

First responders are ninety percent more likely to be exposed to a potentially traumatic event (PTE) more than eleven times in their lifetime, whereas the general population is likely to be exposed to much fewer (Ricciardelli, Czarnuch et al., 2020; Carleton, Afifi, Taillieu et al., 2019). PTSD is classified in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) as a Trauma- and Stressor-Related Disorder (American Psychiatric Association, 2013). It is estimated to affect first responders at an estimated rate of ten to twenty-two percent (Carleton, Afifi, Taillieu et al., 2019; Carleton, Korol et al., 2018; Skeffington et al., 2016; Szeto et al., 2019); however, PTSD is no more probable than major depression or other mood disorders following a traumatic exposure and there are substantial numbers who do not develop PTSD or other mental disorders (Yehuda et al., 1998).

Current interventions and trainings include the Road to Mental Readiness (R2MR) program, Critical Incident Stress Management (CISM), Peer Support Training and Programs, Crisis Intervention Stress Debriefing (CISD), defusing, Psychological First Aid, psychoeducation, the NOVA program, the Raphael, and Dyregrov Models of Debriefing, Group Stress Debriefing (GSD), emotional decompression, Multiple Stressor Debriefing (MSD), and Demobilization (Beshai & Carleton, 2016). There is split evidence on whether these interventions should

be used as stand-alone interventions or as part of broader CISM programs (Beshai & Carleton, 2016).

Based on current literature, mental health training for first responders is severely under achieving and cultivating a piece of the current stigma in the workplace. There are minimal preventative programs, and most interventions are completed after critical incidents and retention and learning is minimal (Beshai & Carleton, 2016; Carleton, Korol et al., 2018; Ricciardelli, Andres et al., 2020). There is also a disconnect between supervisory or management staff and frontline workers regarding mental health training, stigma, and a lack of acceptance of potential mental health issues among both groups (Knaak et al., 2019; Ricciardelli, Andres et al., 2020; Ricciardelli, Czarnuch et al., 2020). An overhaul of mental health and resiliency training needs to be conducted with programs that involve check-ins, refreshers, and preventative measures for all mental illnesses. There are three fundamental areas of focus these trainings should cover: individual mental health knowledge; stigma, and resilience training; and mental health at the organizational level.

### Individual Mental Health Knowledge and Exposure to Trauma

A key theme that emerged from a study on attitudes and practices for hiring first responders was that many current employees found that many new hires would be unaware of the mental health issues that

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could arise from repeated exposure to PTEs (Ricciardelli, Andres et al., 2020).

Results from an Australian-based firefighter study collected results of PTE exposures with 90% of participants having at least one exposure and less than 40% using adaptive coping strategies (Skeffington et al., 2016). These results imply that there is more at play in preventing mental wellness issues due to repeated traumatic exposure than knowledge, training, and positive coping strategies (Skeffington et al., 2016).

Moreover, a study on the potential pre-trauma risk factors for PTSD and major depression (MD) in paramedics conducted in London U.K. indicated that the paramedics at risk of developing PTSD or MD could be identified within their first week of training and that these paramedics could benefit from increased mental health training to boost resilience (Wild et al., 2016).

A study on Canadian first responders exploring the relationship between PTEs and positive screens for mental disorders found positive screens can occur for many kinds of trauma exposures but never found that one mental disorder could be a result of one type of trauma exposure and the opposite was also indicated in that no singular traumatic event could be the cause of a singular mental disorder (Carleton, Afifi, Taillieu et al., 2019).

A study conducted on paramedics in Switzerland found that most participants did not report PTSD symptoms (Streb et al., 2014). They attributed this to having available psychological help at work, high resilience, and a sense of coherence with others (Streb et al., 2014). This is indicative of the importance of having peers help support you to minimize mental wellness issues (Beshai & Carleton, 2016).

In 2018, a study on Canadian first responders' likeliness of exhibiting suicidal behaviours found police and firefighters were least likely to exhibit suicidal behaviours whereas, paramedics had the highest rates in both past-year and lifetime prevalence categories (Carleton, Afifi, Turner et al., 2018). The researchers attributed this to rates of trauma exposure, mental disorders, and organizational stressors (Carleton, Afifi, Turner et al., 2018). This concept leads to implications of organizational barriers and questions the importance of workplace relationships in preventing first responder mental wellness issues.

## **Stigma and Resilience Training**

First responders need to be resilient and need to know that exposure to trauma is a regular occurrence and be able to manage that (Ricciardelli, Andres et al., 2020). A 2016 study concluded that paramedics with

low perceived resilience and the exposure to traumatic events during training uniquely predicted the risk of an episode of depression (Wild et al., 2016).

A longitudinal assessment of the R2MR program in Canadian police found results that imply that the program may not be as effective as hoped (Carleton, Korol et al., 2018). The study found no significant changes in mental health knowledge nor resiliency scores across time (Carleton, Korol et al., 2018). Furthermore, there was a decrease in stigma immediately following the training, but the decreases were not significant at the six- and twelve-month markers (Carleton, Korol et al., 2018); yet a different study on the R2MR program for all first responders found improvements in resiliency and stigma in a span of three months (Szeto et al., 2019).

Results from a study on mental health knowledge stigma and service use intention for Canadian first responders indicated that higher mental health knowledge was associated with lower stigma and higher willingness to seek professional help with exceptions being found in firefighters and paramedics regarding stigma and service use intention respectively (Krakauer et al., 2020).

A study on mental health training and screening positive for mental disorders found that when participants were given some form of mental health training their chances of screening positive for any mental disorders declined (Carleton, Afifi, Turner et al., 2020). The study also found that any mental health training increased perceived access to mental health support (Carleton, Afifi, Turner et al., 2020).

Current research is being done on resiliency building, and evidence from that research is being used to build better programs that need to be implemented as preventative measures to help others understand the hiring practices of first responders (Ricciardelli, Andres et al., 2020). Resiliency training should be included before exposure to trauma, and refresher resiliency training that target modifiable predictors of PTEs should be compulsory (Wild et al., 2016).

## **Mental Health at the Organizational Level**

In first responders' organizations, organizational stressors may be causing poor mental wellness among frontline staff. A study found that a higher sense of coherence within the workplace led to less severe, if any, PTSD symptoms among paramedics (Streb et al., 2014). Another study suggested that the likelihood of suicidal behaviours among first responders could be attributed to organizational stressors (Carleton, Afifi, Turner et al., 2018).

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A study that explored the balance between individual and organizational issues when it comes to hiring first responders identified a need for organizations to be clearer about what is expected on the job when hiring (Ricciardelli, Andres et al., 2020). Many participants said their organizations need to be better at hiring people who can manage the job stress and that there are discriminatory practices in place for when first responders need to take time off for a mental illness (Ricciardelli, Andres et al., 2020). A 2019 study identified perceived or real lack of support from leadership, poor recognition of mental health issues, and poor workplace culture among tri-service as primary issues (Knaak et al., 2019). Changing these perceptions would be useful in reducing the mental wellness issues within policing organizations (Knaak et al., 2019).

Some participants stated that organizational issues were more stressing than the traumatic incidents they regularly faced (Ricciardelli, Czarnuch et al., 2020), more participants said that there was unequal treatment of colleagues by supervisors, harassment, and general mistreatment of employees by supervisors and administration, and workplace bullying both by colleagues and supervisors trying to push personal agendas in a Canadian study (Ricciardelli, Czarnuch et al., 2020). The authors address the lack of human resources in these organizations as another issue (Ricciardelli, Czarnuch et al., 2020), and suggest that organizations need to examine the accessibility of their policies and practices to create a more positive work environment, provide better training programs, and lobby for more budget allocations to provide the necessary resources to first responders (Ricciardelli, Czarnuch et al., 2020).

## Strengths and Limitations

Many of the studies used were compounded by limitations. However, they were still included due to a lack of research in the field. The largest and most common limitation was that of self-report bias by participants due to the sampling method which allowed for many more issues such as erroneous or missing data (Carleton, Afifi, Taillieu et al., 2019; Carleton, Afifi, Turner et al., 2018; Carleton, Afifi, Turner et al., 2020; Carleton, Korol et al., 2018; Krakauer et al., 2020; Ricciardelli, Andres et al., 2020; Ricciardelli, Czarnuch et al., 2020), and use of the same survey, which was self-selected leading to less reliability (Carleton, Afifi, Taillieu et al., 2019; Carleton, Afifi, Turner et al., 2018; Carleton, Afifi, Turner et al., 2020; Krakauer et al., 2020; Ricciardelli, Andres et al., 2020; Ricciardelli, Czarnuch et al., 2020).

There was a mix of qualitative (Knaak et al., 2019; Ricciardelli, Andres et al., 2020), quantitative (Carleton, Afifi, Taillieu et al., 2019; Carleton, Afifi, Turner et al., 2018; Carleton, Afifi, Turner et al., 2020; Carleton, Korol et al., 2018; Krakauer et al., 2020; Skeffington et al., 2016; Streb et al., 2014; Szeto et al., 2019; Wild et al., 2016), and mixed method (Ricciardelli, Czarnuch et al., 2020) studies with more emphasis on quantitative studies, which provides clear statistical analysis opportunities and allows for generalizability. Diagnostic screens were often basic standardized tests which do not prove diagnoses.

## Conclusion

This literature review has drawn many conclusions for first responder mental health. Primarily, there needs to be more research done with stronger methodologies and better sampling methods to gain more conclusive and generalizable results. Furthermore, fixing some organizational issues such as changing and enforcing poor policies and practices to prevent harassment and improve workplace culture will reduce first responder mental wellness issues. There also needs to be changes regarding stigma and resilience training such as implementing better evidence-backed training programs with refresher courses to ensure retention and continuing to reduce stigma. There also needs to be more education at an individual level about mental health and trauma exposure effects on the individual so new hire first responders are better prepared and able to get support for their mental health if needed so they can stay in the field. More research needs to be conducted for better education, training, and organizational supports to be evidence-backed and useful in the long term.

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## Conflicts of Interest

The authors report no conflicts of interest.