

First responder mental health, traumatic events and rural and remote experience

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1 | FIRST RESPONDERS

First responders (another term for emergency service professionals) refers to personnel that respond to traumatic and life-threatening incidents in the pre-hospital/community setting and include paramedics (ambulance officers, emergency medical technician [EMT]/medic), police officers and firefighters (Jones et al., 2022). First responders are often called to respond to situations that are high risk, traumatic and complex; these situations have the potential to endanger the personal safety of the responder and impact their mental health (Jones et al., 2022; Lee et al., 2022). Situations first responders are often called to can include unpredictable, violent or complex situations, situations involving biohazardous agents or contagions, responding to large scale disasters and unstable environments (e.g. hurricanes, bush fires, floods), responding to life-threatening situations, accidents involving deaths and situations that are traumatic, emotional and involve human suffering (Jones et al., 2022; Lee et al., 2022). It is known that health workers can experience intense emotions and ongoing distress in the aftermath of such events (Buhlmann et al., 2022).

2 | MENTAL HEALTH IMPACT ON FIRST RESPONDERS

Reports have recently highlighted mental health and suicide risk of first responders (Lee et al., 2022; Szeto et al., 2019), with prevalence rates reportedly much higher compared to the general population (Jones, 2017; Szeto et al., 2019). Prevalence rates of post traumatic stress disorders (PTSD) vary with rates reported between 10% and

23.2% (Petrie et al., 2018; Szeto et al., 2019), and other mental health illnesses (depression and anxiety) reported between 16.6% and 44.5% (Roberts et al., 2021; Szeto et al., 2019). A systematic review of mental health and PTSD illness in paramedics by Petrie et al. (2018) reported PTSD as the most common disorder with average prevalence rates across included studies reported as 11% for PTSD, 27% psychological distress and 15% for both anxiety and depression.

Research on the impacts of COVID-19 on the mental health of first responders in a rural population (along with community nurses and child protection workers) reported a 16.6% score of depression (moderate or severe), a 17.1% score for anxiety (moderate or severe), with 27.4% considering leaving their profession (Roberts et al., 2021). Roberts et al. (2021) also reported three specific domains that impact stress and well-being in workforce staff: individual factors, the nature of the work and the organization. Individual factors include previous experience with trauma, resilience skills, personality and family support (Roberts et al., 2021). The nature of the work includes day-to-day tasks such as responding to complex violent situations, traumatic events, callouts during pandemics and large-scale disasters, and dangerous violent situation that place first responder's safety at risk (Gray & Collie, 2017; Jones et al., 2022; Lee et al., 2022), shift work, unpredictable hours and fatigue, all of which increase the risk of developing a mental illness and PTSD (Petrie et al., 2018).

3 | VIOLENCE IN THE WORKPLACE: SAFETY ISSUES FOR FIRST RESPONDERS

Workplace violence is a significant contributor to mental illness and PTSD for first responders. The unpredictable nature of the work

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of first responders means that they work in an environment where safety is uncertain, and every incident can present a threat to the safety of attending personnel. Rates of violence towards first responders varies, with between 57% and 93% of first responders reportedly experiencing physical and/or verbal violence throughout their career (Murray et al., 2020). A study conducted by Jones et al. (2022) explored paramedic and police experiences responding to methamphetamine related violence in Australia. In that study, first responders describe how they often feared for their safety and that of their co-workers, discussed how violent situations often escalated rapidly requiring vigilance and outlined how responding to patients under the influence of drugs or experiencing excited delirium increased the risk to personal safety (Jones et al., 2022).

Incidence of violence reported by first responders included, verbal abuse, physical violence (with and without a weapon), sexual harassment and sexual assault, intimidation (e.g. direct and indirect threats) and property damage or theft (Jones et al., 2022; Murray et al., 2020). Physical violence or acts of violence included stabbing, shooting, punching, spitting, slapping, scratching and biting (Murray et al., 2020). The injuries sustained from violence ranged from minor injuries (facial injuries, fractures, sprains, contusions, abrasions, lacerations and dislocations) to fatalities (Murray et al., 2020). Perpetrators of violence included patients, patients' family members and bystanders (Murray et al., 2020). Dangerous situations involving violence can be traumatic resulting in psychological and emotional distress (Jones et al., 2022), and increased severity of the traumatic events are linked to increased rates of PTSD (Jones, 2017). Additionally, repeated exposure to traumatic events (medical and/or violence related) also increased the likelihood of developing PTSD (Petrie et al., 2018).

4 | WORKING IN RURAL AREAS: INCREASED SAFETY CONCERNS AND IMPACT ON MENTAL HEALTH

First responders in rural and remote areas are likely to have different safety concerns, increased mental health impacts and may require different support needs compared to their metro counterparts. Rural and remote areas usually have limited resources, facilities and staffing which reportedly increases the safety risk to first responders (Jones et al., 2023). Additionally, reduced staffing levels and a lack of specialized staff (e.g. intensive care paramedics) impacts how first responders manage dangerous and violent situations (Jones et al., 2023), and exacerbates workloads (Roberts et al., 2021) increasing the impact on first responder's safety and their mental health (Roberts et al., 2021). Excessive workloads can result in staff burnout (Roberts et al., 2021), burn out and workloads effects staff retention, and staff retention potentially impacts workload, safety and mental health of first responders working in rural and remote areas. While there is a growing body of evidence reporting on mental health and safety of first responders, there is a lack of evidence available related to rural and remote first responders. More research in this area could help

to highlight the specific needs and requirements of first responders working in rural and remote areas, improve resource allocation and staff retention.

5 | TAKE AWAY MESSAGE

There has been a significant increase in the recognition of mental health issues with first responders and an increase in initiatives to manage their mental health (Petrie et al., 2018), to help counteract the day-to-day safety risks of being a first responder. Current initiatives include mental health screening, education, well-being checks and post-incident support/debriefing (Petrie et al., 2018). However, there are barriers to reporting mental illness (Jones, 2017) and more is needed with a focus on rural and remote first responders' mental health to make a significant change. First responders working in rural and remote areas may also be affected by limited resources including reduced staff and facilities available to respond to violent situations and to manage first responder mental health concerns once they arise. Jones (2017) suggests first responders may require regular mental health evaluation including a clinical interview and highlights the importance of using appropriate assessment measures to determine mental health impacts. Additionally, the effectiveness of post-incident debriefing is in question with literature demonstrating these sessions can actually increase PTSD in some cases (Jones, 2017). To combat workforce shortages, reduce safety risk to first responders and improve mental health support, more research on rural and remote first responders is needed focusing on mental health concerns, workloads and safety risk. Researchers need to consider methodological approaches that gather lived experience of rural and remote first responders and undertake strategic review of mental health strategies (including post-incident debriefing and clinical interviewing for identifying mental health issues) and services available in rural and remote settings to determine effectiveness for this cohort of population. Additionally, as mental health is a major concern for first responders, undergraduate training and continually professional development training needs to include preventative mental health and resilience education.

AUTHOR CONTRIBUTIONS

Manuscript Idea: Rikki Jones, Debra Jackson & Kim Usher. Manuscript preparation; Rikki Jones, Debra Jackson & Kim Usher. All authors have met the authorship criteria and agree with the submission and content of this manuscript.

ACKNOWLEDGEMENTS

None. Open access publishing facilitated by University of New England, as part of the Wiley - University of New England agreement via the Council of Australian University Librarians.

CONFLICT OF INTEREST STATEMENT

None.

DATA AVAILABILITY STATEMENT

Research data are not shared.

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How to cite this article: Jones, R., Jackson, D., & Usher, K. (2024). First responder mental health, traumatic events and rural and remote experience. *Journal of Advanced Nursing*, *80*, 835–837. <https://doi.org/10.1111/jan.15856>

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