Evaluating the effects of repeated exposure to trauma for paramedics and pre-hospital workers in rural and remote Western Australia
Western Australia

- The total land area occupied by the state is 2.5 million km$^2$
- 2.3 million inhabitants, 85% of whom live in the south-west corner of the state.
- Perth's metropolitan area had an estimated population of 1.55 million in 2007 (75% of the state).
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St John Ambulance Australia (WA)

- Patients: 199,917 (2009)
- Staff (full time): 701 (2009)
- Vehicles: 432 (2009)
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Objective

Paramedics and pre-hospital workers are repeatedly exposed to traumatic scenarios as part of their work. St John Ambulance together with Royal Perth Hospital and The University of Western Australia investigated how exposure to traumatic scenes at work affects impacted mental health outcomes among paramedics and pre-hospital workers in rural and remote Western Australia.
Methods

1000 questionnaires were distributed to each ambulance station or post throughout rural Western Australia of which 204 (20.4%) were returned.
Methods cont,

The questionnaire package included a series of standardised questionnaires which:

- Measured the frequency and nature of dealing with trauma exposure while at work or completing duties.
- Evaluated experience of support services,
Methods cont,

- Measured experiences of mood and coping,
- Measured post traumatic stress (PTSD), depression, and anxiety symptoms,
- Evaluated alcohol consumption, general health and well-being, level of work stress, and perceived organisational support.
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Results

Of 2000 questionnaires distributed throughout WA, 204 (20.4%) were returned from all seven major regions in WA,

- 3.5% Kimberly,
- 12.9% Pilbara Gascoyne,
- 2.9% Midwest Murchison,
- 25.7% Wheatbelt,
- 12.3% Goldfields,
- 19.3% Southwest,
- 23.4% Great Southern
Results cont,

- Respondents comprised 94% volunteer ambulance officers (M age 47 years, 55% female), and 6% paramedics.

- Mean time working as a pre-hospital worker was eight years (SD = 8.16)

- No significant differences across demographic characteristics were identified with the exception of gender with more females being among the ambulance volunteers compared to paramedics.
Results cont,

- 86% of participants reported receiving 10 or more hours training within the last six months.

- Approximately 54% had received training in disaster relief and 28% of respondents had assisted with a disaster relief effort.
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Results cont,

- Respondents were invited to report the most stressful event that they had experienced within the last year, and responses were coded according to the type of stressor.
- Among both paramedics and ambulance volunteers, the highest proportion of respondents reported that the most stressful event that they had experienced was a fatality at the scene, followed by responding to an attempted or completed suicide, and personal life events.
Results cont,

- Of the most commonly experienced stressful events, pre-hospital workers reported highest levels of fear for unavailability of trained medical personnel, unavailability of suitable transport, and unavailability of reliable communication.

- Fifty-five per cent and 16% of respondents reported being exposed to verbal abuse and physical abuse respectively, and 10% sustained damage to property while on the job.
Results cont,

- Only 5% and 3% of respondents reported post traumatic stress and depressive symptoms above clinical cut-offs on standardised tools. Yet, 31% of respondents reported seeing a mental health professional for emotional difficulties, 21% reported taking medication to assist with emotional difficulties, and 11% were regularly drinking alcohol at harmful levels.
Results cont,

- Job burnout and secondary trauma were both significantly and positively associated with the severity of PTSD and depressive symptoms ($p < .001$), however no significant relationships were observed between the number of years that participants had been working as pre-hospital workers and psychological function.
Conclusion

These early findings suggest that resource limitations unique to rural and remote parts of Western Australia may be among the most stressful traumatic exposures experienced by pre-hospital workers in these areas. Very few pre-hospital workers reported experiencing symptoms suggestive of mental health disturbances on formal measures of psychological function, however nearly a third had sought treatment for emotional difficulties.
Questions?

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