The prevalence and correlates of Post-Traumatic Stress Disorder among ambulance personnel in the Western Cape Province

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INTRODUCTION/BACKGROUND

- **The Western Cape Province has seen an escalation in attacks and exposure to traumatic incidents aimed at ambulance personnel [1].**
- **Exposures linked with stress reactions such as PTSD and other trauma related conditions [2].**
- **Previous PTSD prevalence of 6.67% (in 2005) and 16% (in 2014) found in South African ambulance personnel [2, 3].**
- **Psychological impact of this rise in attacks needs to be investigated.**

MATERIALS AND METHODS

- **Cross-sectional study: 388 voluntary participants (24% response rate)**
- **Self-administered questionnaires completed: Impact of Event Scale-Revised (IES-R), EMS Critical Incident Inventory, EMS Chronic Stress Questionnaire, SF-36 Quality of Life questionnaire (SF-36) and Connor-Davidson Resilience (CD-RISC) Scale**

- **High PTSD prevalence** in the study population (30% overall).
- Ambulance personnel are at increased risk of PTSD compared to the general population and other emergency/frontline workers.
- **Correlates of PTSD** identified offer starting points for i**nterventions** aimed at reducing the burden and impact of PTSD.
- **Barriers to accessing support** include fear that services are not confidential or fear career will be negatively affected.
- **Support from family/friends/spiritual leaders** preferred to employer services
- **Lack of training** on work related stress and services offered highlighted

RESULTS

Table 1: Occupational & environmental correlates with PTSD (bivariate analysis - Spearman rho correlation)

Risk factors	Correlation with PTSD score
SF36 QoL score (role limitation)*	- 0.22 (p = 0.006)
Resilience (CD-RISC score)	- 0.25 (p < 0.001)
Operational stress	0.56 (p < 0.001)
Organizational stress	0.46 (p < 0.001)
Chronic workplace stress†	0.56 (p < 0.001)
Critical incident stress	0.34 (p < 0.001)
Posttraumatic stress	1

**SF36 Quality of Life score (role limitations due to emotional problems)*

† Chronic workplace stress (operational stress and organizational stress combined)

Table 2: Adjusted logistic regression analysis of PTSD correlates (N = 388)

Predictors	Adjusted multivariate analysis* OR (95% CI)	P value
Current smoker	1.76 (1.05 - 2.95)	0.033
Alcohol misuse (n= 200) (CAGE score 2 – 4)	3.86 (1.80 - 8.23)	0.001
Current drug/illicit substance use	16.4 (1.87 - 143.86)	0.012
Feel need to use prescription drugs to manage WRS	4.51 (2.48 - 8.20)	p < 0.001
Work location (within province): Rural areas	0.90 (0.84 - 0.97)	0.006
Mental health diagnosis	3.52 (1.78 - 6.97)	p < 0.001
On treatment for other medical condition	2.19 (1.29 - 3.73)	0.004
Emotional problems with regular work (past 4 weeks)	6.00 (3.57 - 10.10)	p < 0.001
SF36 QoL score (role limitation)	0.99 (0.98 – 1.00)	0.012
Resilience (CD-RISC score)	0.95 (0.92 - 0.99)	0.004
Chronic workplace stress†	1.06 (1.04 - 1.07)	p < 0.001
Critical incident stress	1.04 (1.02 - 1.06)	p < 0.001

*Data adjusted for age, gender and education.
† Chronic workplace stress (operational stress and organizational stress combined)

RESULTS

- **Participants characteristics**
  - **Predominantly female (55%)**
  - **Median age 38 (IQR; 31 - 44) years**
  - **Professional qualification (83%)**
  - **Job role: 71% operational vs 29% support services**
  - **Job role change in past 5 years (25%)**
  - **Substance use: Smoking (30%), alcohol use (50%), alcohol misuse (27%), illicit drug use (4%)**

CONCLUSIONS

- **High PTSD prevalence found (30%)**
- **Those with a mental health condition, receiving treatment for a medical condition, self-reported substance use, working in an urban area and exposure to high chronic and critical incident stress were at increased risk.**
- **Possible interventions to reduce burden and impact of PTSD should:**
  - **Address the high rates of organizational and work-related stress experienced**
  - **Address the strong associations between PTSD and substance use and**
  - **Barriers to accessing available support**

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Further information

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