PTSD and Supporting Paramedics Through Work Related Stress

(Recent Results of Windsor Essex Paramedic Research)

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Preamble

- Military experience with PTSD
- Real experiences with health care error
  - Hospital
  - Paramedics
- What is the best way to help
Learning Objectives

Upon completion of this Webinar, the paramedic will be able to:

• Identify sources of paramedic stress and posttraumatic stress,
• Describe how posttraumatic stress evolves to become a disorder, and
• Identify paramedic stress resources.
Introduction

• Paramedics are routinely exposed to a variety of stressors endemic to the profession, all of which may contribute to stress reactions like posttraumatic stress disorder (PTSD).

• These stressors may be related to:
  • the provision of patient care (critical incident stress)
  • the organization and the culture in which the responder is working (organizational stress)
  • the stresses associated with working on an ambulance (operational stress).
Introduction

• Paramedics may seek help from a variety of sources to mitigate the effects of stress on their health, family life, and ability to work safely and effectively. Greater clarity is needed in understanding how paramedics would seek help in anticipation of providing and funding needed resources in treating work related stress.
What is stressful about EMS?

• Critical incident stress
  • Any situation faced by personnel that causes them to experience unusually strong emotional reactions that have the potential to interfere with their ability to function on scene or after the call.

• Every day stresses (chronic stress)
  • Enduring problems, conflicts, and threats that many people face in their daily lives.
What do you mean by chronic stress?

• Organizational stress
  • Stressors associated with the organizational culture

• Operational stress
  • Stress associated with doing the job
How do we react to workplace stress?

- Workplace stress has been linked with:
  - Low job satisfaction
  - Poor physical health
  - Depression
  - Fatigue
  - Burnout
  - Posttraumatic stress
What is PTSD?

- Posttraumatic stress
  - Occurs after a traumatic exposure
  - Symptoms may include:
    - Re-experiencing the event
    - Avoidance of stimuli associated with the trauma
    - Persistent symptoms of increased arousal
    - Symptoms persist for at least one month
    - The symptoms described above have a great negative impact on your life, interfering with work or relationships
PTSD vs. PTSS
(posttraumatic stress symptomatology)

• It is important to note that this is **NOT** a black and white issue

• Even people with sub-clinical symptoms of posttraumatic stress can be impaired

• Not everyone with symptoms of PTSS needs treatment; sometimes symptoms resolve on their own. The key is to be aware of what is going on and to take care of yourself.
Research Objectives

The objectives of this study were

1. To investigate how different types of occupationally-related stress may contribute to stress reactions for paramedics working in a county-based service in southwest Ontario

2. To determine how paramedics access different types of support in a Canadian EMS service.
• Paramedics in a municipal-based Ontario service (annual calls 80,000) were invited to complete a 167 item online questionnaire examining self-report levels of operational stress, organizational stress, critical incident stress, and posttraumatic stress.

• Online survey, with a prize
Research Methods?

• Participants were asked to report likelihood of seeking help from a supervisor, a partner or other co-worker, a union representative, a base hospital educator, family, or a therapist.

• Pearson correlation coefficients were used to estimate linear dependence between stress variables. Ordinary Least squares (OLS) regression determined predictor variable independently associated with posttraumatic stress symptomatology (PTSS).

• Repeated measures analysis of variance (ANOVA) strategies were utilized to analyze the social support data.
Research Results

• 145 paramedics (a 54% response rate) completed the questionnaire.

• Analysis revealed a significant relationship between:
  
  • Operational stress and PTSS ($r=0.508; p<0.001$)
  
  • Organizational stress and PTSS ($r=0.419, p<0.001$)
  
  • Critical incident stress and PTSS ($r=0.433, p<0.001$)
Research Results

• In multivariate analysis, two significant predictors were identified. Operational stress retained its significant relationship with PTSS ($p<0.001$)
• Further, critical incident stress interacted with operational stress ($p=.001$) to create a robust final model ($R^2$ of 0.391)
## Unstandardized Coefficients from OLS Regression of PTSS

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Research Results

• Respondents were more likely ($p<0.001$) to seek support from family or a paramedic work partner than from any other source.

• Respondents were less likely to seek support from (sequentially) a co-worker, a therapist, a union representative, a supervisor, or a base hospital educator.
Research Results

• As access to employee assistance services for respondents is administered by the supervisory structure, stress levels were analyzed for individuals that were more or less likely to seek support from their supervisor.

• Analysis revealed higher levels of organizational (p<0.001) and operational (p<0.05) workplace stress in those individuals who were unlikely to seek support from their supervisor.
Research Results

• Exposure to a multiplicity of stressors increases the risk of paramedics developing a posttraumatic stress reaction.

• Operational stress independently increases the risk for a post traumatic stress reaction; critical incident stress interacts with operational stress to further exacerbate the risk.
Research Results

• These findings indicate that:
  
  • Health and wellness initiatives should address the impact of both critical stress as well as chronic work related stress.
  
  • Investments in awareness and education on accessing help for paramedics suffering from work related stress should be spent on peer programs, and open houses with family and friends rather than sending supervisors for extra training in stress identification.
Research Results

• Thought should be given to create confidential access to employee assistance programs for work related stress issues to promote easier non-threatening access.

• Further work with paramedics needs to be done to remove the cultural stigma involved in coming forward to seek assistance.
Limitations

- Non-experimental design
- Modest response rate
- Not generalizable
- Open to non-response, self report, and recall biases
Acknowledgements

- Paramedics taking time to do the surveys
- Management for researching paramedic stress
Questions???
Thank You

• Thanks to Elizabeth Donnelly for sharing her work and experiences with us.