Reviewer’s report

Title: Post-Traumatic Stress Disorder and its predictors in Emergency Medical Service personnel: A cross-sectional study from Karachi, Pakistan

Version: 0 Date: 08 Apr 2017

Reviewer: Sam Mullinax

Reviewer’s report:

This is an interesting topic at the intersection of geopolitical events, public health, emergency medicine, and psychiatry. The population you are studying greatly benefits from having these questions asked and the issues facing them have been fascinating to read about.

Throughout the paper, "determinants" seems to be used interchangeably with "predictors". Given that this is a cross-sectional study design, using the word "determinants" implies a causal relationship between a set of variables and PTSD that cannot be established with this type of study. By showing correlations, you can describe which variables are associated with PTSD, but not necessarily that PTSD is caused by the aforementioned variables. "Predictors" is a better word choice given this limitation.

The second paragraph of your background section describes fatalities due to terrorism nationwide, along with nonspecific lethal violence in Karachi and physical and verbal abuse of medical personnel. Are you suggesting that all three of these factors equally contribute to PTSD among EMS personnel or has the background literature been more specific? In the next paragraph in the methods you seem to suggest that it is largely the political and sectarian violence in the country, but then in the discussion you mention that the study was conducted during an increased period of violence in the city. Are you referring to the same period of violence? Are they being affected by hearing about nationwide violence, which is more abstract, or discrete incidences of violence that they are witnessing, which are more concrete? Further, you cite studies in the first paragraph of the discussion claiming that EMS personnel are more susceptible to PTSD than policemen because they are around people at high risk of injury or dying, they are at high risk of injury or death themselves, and are chronically exposed to traumatic events. Isn't the same true of policemen in Karachi? What actually distinguishes EMS personnel from these other rescue workers and puts them at greater risk of PTSD? It could be useful to administer the same psychological assessments and scales you described in this paper to firemen and policemen for comparison.

Only one EMS group was sampled for this study, and it sounds like their responsibilities are somewhat different than the other services which "scoop and run". Is the group you interviewed representative of the population of EMS workers of Karachi if they have a different job description? Do the other companies only employ men as well? Your study flow diagram seems to have 7 people unaccounted for. What happened to them?

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

No

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

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Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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