Reviewer’s report

Title: The Critical Incident Inventory: Characteristics of Incidents which Affect Emergency Medical Technicians and Paramedics

Version: 2 Date: 29 May 2012

Reviewer: Clare Henn-Haase

Reviewer’s report:

Discretionary Revivions:
A. Abstract:
Well written and clear.
B. Background:
1. Paragraph 1: You state that is it unknown which of the characteristics identified by EMT/paramedics are associated with acute distress, short-term impairment..... It is unclear what is meant by short-term impairment which overlaps with acute distress that may last up to 4 weeks. Or are you referring to depression, anxiety? It would be helpful to clarify this statement.
2. Goals are clearly defined and well stated.
C. Methods:
1. First Paragraph - It is unclear in this paragraph what an "index" critical incident is. It would be helpful to define "index" here rather than under "Survey Content and Administration".
Under "Characteristics of Critical Incident" - here and elsewhere you refer to the index critical incident as "troubling" but what does that mean? It seems that you are using "troubling" critical incidents to include characteristics of any distressing incident that may not necessarily meet DSM's criteria for a true Criterion A in which the EMT experiences some sort of life threat or serious injury to self or other. It would be helpful to clarify that you are using all perceived "troubling" incidents and are not using any criteria to define the incident other than "troubling" or distressing.
2. Under "Duration of reactions to critical incident:" it is unclear how you measured the 5 components of the Acute Stress Reaction
3. Under "Posttraumatic Symptoms" it would be helpful to state the time period for measuring symptoms per the self-report instructions.
D. Data Analysis:
1. Paragraph 1: Please clarify what the threshold is regarding retention of potential characteristics and their relationship with peritraumatic distress.
Results:
Table 1: Demographics: There is no information on ethnicity which may play a
critical factor in your findings. It would be helpful to give the ethnic/racial breakdown of your sample and refer to this in your findings even if there are no significant correlations. Second, it would be interesting to look at "living together" as a marital status category because often a partner will offer similar support that you will find under the "married/common law" category. Both areas would add to your manuscript but not essential.

Discussion:

1. Second paragraph: Your reference to critical incidents involving children as not associated with peritraumatic distress may also be due to the medical training provided to EMT's. This finding is surprising and contrary to the literature.

2. Second Paragraph: Discussion referencing that the results suggest systemic characteristics do not help in identifying events as critical incidents and contribute less to the consequences of the events is in line with our findings with police officers. However, we do not include any critical incidents that do not meet Criterion A. This finding is contrary to our findings with police officers who are more distressed by "systemic" incidents (though not necessarily "critical incidents" but seems to be more related to work stress. Perhaps it is the EMT's perception of systemic characteristics that seems less troubling and it may be that EMT's are provided with more support within their organization.

3. Third Paragraph: It is unclear how the Critical Incident Inventory could help de-stigmatize the expression of vulnerable emotions. It would be helpful to clarify this statement.

4. Fourth Paragraph: It is not surprising that burnout was not strongly related to posttraumatic stress symptoms; but would more likely be related to systemic characteristics. Did you explore this? If not, it would be interesting to examine this criteria.

Enjoyed reading this manuscript which is well written.

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.