Reviewer's report

Title: The association between war-related trauma exposure and mental health symptoms in post-war adolescents in northern Uganda: the moderating role of childhood adversity

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Reviewer: Kirsi Peltonen

Reviewer's report:

This paper reports findings from study involving Ugandan adolescents exposed to armed conflict on the Gulu district. Self-report measures were used to assess the exposure to war atrocities and childhood adversity as well as symptoms of PTSD, depression and anxiety. This study examines the impact of military trauma on adolescent's mental health. It further assesses the role of childhood adversity in the link between war related trauma exposure and mental health. This is an important topic of study, examining an under-researched area of complex traumatization. Other strengths include a large sample and valid measurements. It utilizes a correlational, cross-sectional study design. However there are some factors that limit the potential contribution of the manuscript. These are detailed below.

Major Compulsory Revisions:

1. It seems that authors have conceptualized PTSD, Depression and Anxiety as Internalizing symptoms and use this term throughout the paper. I do not fully agree with this simplification but would prefer the use of original mental health outcomes PTSD, Depression and Anxiety for example in Background, third and fourth paragraphs as well as in Data Analysis, first paragraph and in Discussion, all paragraphs.

2. In the title as well as in the last paragraph of Background the authors write that the moderative role of childhood adversity is examined. I think the statistical analysis are adequately conducted in light of this research question, and Tables and Figures offer clear answers to that question. However, there are some misunderstandings in interpreting and reporting of these results. First, I think there is some mix up between mediators and moderators. In Data Analysis, second paragraph it is said that "our moderator hypothesis proposes that high childhood adversity scores DOMINATES when present and MINIMIZES the effects of other variables". I think this hypotheses is closer to mediator- than moderator hypothesis. The moderator effect exists if the variable changes the strength or direction of relationship between two other variables (as the writers report in abstract text). Mediator effect exist if the variable explains or serves as an underlying factor of relationship between two other variables. In this case the mediator variable minimizes the effect of some other variable to outcome variable. Second, in Discussion, third paragraph, it is said that "we found that ACE was a significant predictor of avoidance symptoms, above and beyond the
role of war-related exposure”. This was not the case in light of the results presented on Table 5 and Figure 1. The SWE was a significant predictor of avoidance symptoms as well as the interaction term between SWE and ACE. The interesting finding of this interaction (presented in Figure 1 and consistent with earlier findings) was that adolescents with higher exposure to childhood adversities were less reactive to war-related trauma than individuals without experiences of childhood adversity. In other words, the moderating role of childhood adversity existed. This is NOT to say (as stated in the above mentioned sentence) that ACE predicted the avoidance symptoms above and beyond war-related exposure.

These miss-interpretations must be corrected.

3. There is one serious careless mistake in Results section. In paragraph of “Internalizing symptoms and associated factors” it is said that statistically significant interaction existed for INTRUSION symptoms. In light of the Tables and Figure it should be AVOIDANCE symptoms.

4. Given that the most of the participants were under-aged were the parents or guardians informed about the study and/or were the consent asked from them?

Minor Essential Revisions
1. In Method, first paragraph the sentence "...all information gathered was subject to signed consent/assent of the study participants" is unclear.

2. It would help the reader if in Data analysis section as well as in the Result section the concepts (such as childhood adversity and depression) were used instead of corresponding measure (such as ACE and HSCL-37A).

3. Discussion, first paragraph ends with the notion that exposure could have led to learned symptom response. This term would need a brief clarification.

Discretionary Revisions
1. In Background, third paragraph it is said that the impact of PARTICULAR childhood adversities have not been adequately explored in earlier studies. In Discussion in Limitations paragraph it is said that in current study "using count scores summing up conceptually diverse childhood adversities assumes an arithmetic relationship between these experiences, an assumption that may not be valid”. Given these two statements would it be useful to build an interaction terms between SWE and some most important ACE items?

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**
I declare that I have no competing interests