Reviewer's report

Title: Child maltreatment and hypertension among young adults

Version: 2
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Reviewer: Jodi Ford

Reviewer's report:

This is a well written paper that contributes to the mounting evidence on the negative effects of child abuse on future health outcomes. The use of an objective measure of blood pressure and nationally representative data are significant strengths of this study. I have a few comments and suggestions that I think would strengthen the paper further and recommend this as a revise and resubmit.

Major revisions

1. The prevalence of hypertension among the young adults in the Add Health study is considerably higher than what has been found in other nationally representative studies of young adults conducted around the same time frame. (See Yoon SS, Burt V, Louis T, Carroll MD. Hypertension among adults in the United States, 2009-2010. NCHS Data Brief. 2012:107:1-8.). To avoid critique from others, the researchers should address the disparate prevalence in hypertension between the two national samples --- two studies have been published examining potential reasons for the differences, which may be helpful. (1) Nguyen QC, Tabor JW, Entzel PP, Lau Y, Suchindran C, Hussey JM, Halpern CT, Harris KM, Whitsel EA. Discordance in national estimates of hypertension among young adults. Epidemiology 2011;22:532-541 and (2) Chyu L, McDade TW, Adam EK. Measured blood pressure and hypertension among young adults: A comparison between two nationally representative samples. Biodemography Soc Bio. 2011; 57: 184-199.

2. The authors found significant associations between sexual abuse and hypertension for females but not for males. They discuss potential measurement error in the section with respect to differences between their overall findings and prior research. However, sex differences in stress-related health outcomes have been found in extant studies, which researchers hypothesize may be attributed to biological and/or social (e.g. gender norms) factors. The disparate findings in this study for males and females in response to sexual abuse adds to this growing body of research. A discussion of potential reasons for the sex differences would further highlight this important finding and the significance of this study.

3. The researchers mention that activation of the autonomic nervous system as a consequence of the chronic stress associated with abuse may be a mediator linking abuse to hypertension. I think it would be useful to include a little more discussion on what activation of the ANS means, particularly for readers who may not be familiar with its role in hypertension.
4. The researchers discuss sample attrition in their limitation section, but they don’t include a discussion about missing data from their study. Specifically, it would be useful to include the results of analyses that examine how those participants who were listwise deleted from their study due to missing data differ from those included in their final analytic sample, particularly with respect to exposure to abuse and hypertension.

Minor revisions:
1. In the methods section- the last sentence of the measurement of hypertension:
   “Hypertension was defined as having an elevated systolic blood pressure $\geq$ 140mmHg or diastolic $\geq$ 90mmHg or reported using use of antihypertensive medications (N=379)”

   Also I recognize the N=379 refers to the number of participants on antihypertensive medications, but a reader could misconstrue that to be the number who have hypertension according to the study’s definition.

2. In the results section, second sentence of second paragraph…
   “No statistically significant differences were noted on the relation between child Men who experienced neglect (31% vs. 28%), sexual abuse (30% vs. 28%) or whose families were investigated by social services (32% vs. 28%) had a higher prevalence of hypertension compared to those who did not endorse those experiences, however these were not statistically significant differences.” This sentence is a bit confusing.

**Level of interest:** An article of importance in its field

**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.