Reviewer's report

Title: Traumatic physical health consequences of intimate partner violence against women: What is the role of community-level factors?

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Reviewer: Jill Messing

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This is an interesting and well written paper. The literature review is clear and concise. The dataset is very interesting. And I love the inclusion of the ecological model and community-level factors. However, there are some major issues with the conceptualization of the analysis. Specifics are outlined below.

Major Compulsory Revisions

1. Table 1, bivariate analyses: I am not sure why you looked at the associations you examined. For example, you examined the bivariate associations between controlling behavior and bruises. This is a significant association. I assume that the direction is that the presence of controlling behaviors is associated with bruises, though this would be easier to tell if % in each cell was specified. There was never any hypothesis or lit review that sets up the examination of this association. Certainly, controlling behavior does not cause bruises. As a reader, I can make the leap that controlling behavior indicates IPV which would be associated with more bruises. However, given that we have the association between IPV and bruises, and this is not significant, this is not really a sound logical conclusion. Also, given that the bruises are not necessarily caused by IPV, this is not a sound conclusion. I am not sure why the association between controlling behaviors and bruises is important. It may be interesting to examine the association between IPV and controlling behavior. I have the same issue with the rest of the bivariate associations. You either need to justify the examination of these associations, or consider examining different associations. If you were to find associations between IPV and controlling behavior, for example, this would do more to set up the multivariate analysis. You might then want to include only variables where the bivariate association with IPV is significant at the .10 level.

2. You may want to consider (if there is enough power) looking at the multivariate models only among women who experience IPV. You could also use a multinominal logistic regression to examine the outcome of no, minor and severe injuries given that women had experienced IPV. This would decrease the chance of Type I error due to multiple models. Again, I am not really sure that it is interesting to look at associations between variables such as controlling behaviors and bruises when we don't know how those bruises were obtained. Either the rationale for the examination of these relationships needs to be significantly strengthened or the analysis needs to be reconceptualized.
3. I love the examination of community level variables and relative income etc, and believe that this is an important contribution. Again, it would strengthen the paper if you were examining only women who experienced IPV as the conclusions could be more straightforward - among women who experience IPV, community level variables

Minor Essential Revisions

ABSTRACT:

4. 2nd sentence in the abstract does not really follow. Connect it to the research (maybe in the following sentence, as you appear to be looking at community level factors).

LITERATURE REVIEW:

5. It would be helpful to have additional information about Nigeria. What does the reader need to know about the country to understand the context of this research? Some of this information is provided in the discussion, and might be additionally helpful in the literature review.

METHODS:

6. Some words are missing throughout the methods section. Please proofread. For example, Participants: Data on IPV were collected from 21,468 women… and Traumatic physical consequences: …broken teeth or other serious injuries.

7. Why use numbers for some lists and roman numerals for others? Be consistent.

8. Might you want to break up emotional, physical and sexual IPV given that they would necessarily be associated differently with injury?

9. Justifies wife beating and decision making autonomy do not seem to be indicators of relationship control. The way that these are presented, it seems that they are general measures of a woman’s understanding of the acceptability of violence or patriarchal attitudes. They are not specifically about the woman's relationship, but about her general attitudes regarding the justification of wife beating or the decision-making autonomy of women.

10. Change the use of wife beating to IPV.

11. Under decision making autonomy, I don’t understand the grouping of option “respondent and other person in household” with “no” – this other person in household is not her husband, but it does appear to indicate that she has some autonomy in decision making if she can make these decisions with another person in the household (and, particularly, without her husband). I am not sure about the conceptualization of this variable.

12. In terms of relative earnings, the “does not contribute” refers to the respondent? This would be “less,” correct? Please clarify, or remove as it may
just be confusing things. “More” indicates that the male spouse is older, earns more money and/or had more education than the female spouse, correct? State this.

13. Occupation: are the occupations, for example, of “clerical, sales and skilled manual” grouped together? Please clarify.

RESULTS

14. Bruises were the most common consequences of what?

15. Table 1 includes a lot of information that is not discussed.

16. It is not clear how each Model 1 in Table 2 is different than the bivariate associations between IPV and injury in Table 1 (except a different statistical technique).

DISCUSSION

17. Given that you found an association between communities with a high tolerance of wife beating and greater injuries, you should connect this to the discussion point on the association between wife beating and patriarchal societies.

18. May want to spend more time on examining and explaining null findings.

STRENGTHS AND LIMITATIONS

19. It is my understanding that women reported information on physical trauma, not the traumatic physical outcomes of IPV.

CONCLUSIONS

20. Given your analysis, you can’t really make the claim that your independent variables are related to IPV. They are related to injury, and that injury may or may not be the consequence of IPV.

Level of interest: An article of importance 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.