Reviewer’s report

Title: Women Decision-making Capacity and Intimate Partner Violence among Women in Sub-Saharan Africa

Version: 0 Date: 13 Nov 2017

Reviewer: C Stock

Reviewer's report:

This is a generally well written manuscript on an important topic. The strength of the article is the large data used from different countries in Sub-Saharan Africa. However the manuscript has also important weaknesses that are not addressed in a limitation section.

The most important weakness is that main outcome measure of intimate partner violence (IPV) only comprises emotions and sexual IPV, while physical IPV as one of the most prevalent forms of IPV are not assessed. Why? And how does this impact the IPV prevalence reported?

Another weakness of the measure is the fact that only lifetime IPV is assessed, but not IPV in the last 12 months. This makes comparisons to other existing data very problematic, as the prevalence largely depends on the age composition of the sample. This problem is not addressed in the manuscript. Also connected to this the logistic regression analyses certainly need to be adjusted for age, which does not seem to be the case. The analysis also miss to address the cluster sampling (women nested in countries), which should be taken into account since the prevalence of IPV largely differs by country. I suggest to use either a multilevel model with country as random effect or to include country as a dummy variable into the models.

In addition, I do not think that the variables on decision making capacity used in the study can be used as a measure of individual empowerment. Although they are directly linked to empowerment, empowerment is a broader concept and should be measured with the available empowerment scales. I recommend to call the index variable "decision making capacity" and only discuss a link to women empowerment.

Other comments:

Introduction:

In the introduction authors should be named e.g. in line 30.
Methods

The terms "Binary and multivariate logistic regression models" are used in a wrong manner. Binary means only that the outcome is binary, therefore the right term is univariate.

I am confused to read about "reproductive decision making index, decision making on condom use and decision making of sexual intercourse" in the methods, although the variable is not mentioned in any of the analyses.

In the statistical analysis the way of adjustment needs to be explained and the above mentioned adjustment for age and country needs to be done.

Results

The tables would be easier to read, if the "no" answers would be left out.

On page 8, line 36-40 results of univariate logistic regression analyses are reported with referring to Table 3, although Table 3 does not show these results. I recommend to state the corresponding odds ratios in the text.

The sentence page 8, line 40-41 is incomplete.

Discussion

The discussion is lacking a limitations section, where sampling and other limitations (see above) are discussed.

The words "women" and "Sub-Saharan Africa" need a consistent spelling throughout the manuscript.

Page 10, the comparison with Garcia Moreno does not seem to be adequate, because only sexual IPV was considered.

Page 10, Line 43-49: Are there any explanation for country differences? Policies and legislations?
Page 11, line 46-50: Check grammar of this sentence. Also, you should not comment on physical violence from your findings, because you have studied only emotional and sexual IPV

Page 12, line 15-18: I do not understand this highly problematic conclusion ("It can therefore be assumed restriction the number of women to formal education in certain cultures could reduce the prevalence of IPV"), since higher education is protective in your and many other’s studies.

Due to your findings "Our data suggest that women who were empowered were more likely to experience sexual or emotional violence compared to those who were not empowered" there is a need to explain better, why you rightly suggest "The findings thus clearly indicate the need to governments in Africa to Invest more in girl child education and empowerment programs to help empower more women." How can the risk of IPV for more empowered women and women in employment be overcome?

**Level of interest**
Please indicate how interesting you found the manuscript:

An article of importance in its field

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable
Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal