Author's response to reviews

Title: Intimate partner violence and help-seeking - a cross-sectional study of women in Sweden

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Author's response to reviews: see over
Dear Editor,

BMC Public Health

Comments to the reviewers of manuscript (MS:1068489340789092) – “Intimate partner violence and help-seeking – a cross-sectional study of women in Sweden”.

We would like to thank you and the reviewers once again for valuable comments and suggestions that have helped to improve our manuscript. Below is a point by point list of the revisions we have made with reference to the manuscript.

Best regards,

Mariana Dufort

Reviewer 2

Major Compulsory Revisions

1. It is still not clear to me why the authors claim that small numbers will not allow for foreign born and IPV in the past year to be included in the model, particularly when other variables that are included (in a relationship with perpetrator, new partner) have cell sizes that are just as small. However, it is not possible to know exactly how many women fall into each category because the total number analyzed in each group is never stated in the text or in the tables. It would have been helpful to have a better explanation about why the two covariates are excluded from the model; from the information given it does not seem like the cell sizes should be too small, and the variables are significantly different in the help-seeking and non-help-seeking groups which makes their inclusion in the model seem crucial. However, the authors did explain how the results differed by the foreign-born and IPV in last year subgroups which was helpful.

1. Response:
   It is right to point out this issue; we have been unclear in our explanation. In addition to their skewed distribution, the variables foreign born and last incidence of violence are correlated with other independent variables and interact significantly with other independent variables in the multivariate model. The initial correlation matrix including all studied variables showed significant correlations between these two and other independent variables. Therefore, when analyzing these variables in the multivariate model we had control for possible interactions by including correlation variables. Results from the full model showed significant interactions but uninterpretable results. Thus, the few amount of non help-seekers born outside Sweden or with an experience of
IPV during the last year, was not big enough to include in the multivariate analyses even if these are not the smallest categories when compared to other variables. A clarification has been added, see page 15 (1st line from the top).

Minor Essential Revisions
2. Please provide the number of women included in the final analysis in the help-seeking and non-help-seeking groups.
   Response: Done, see page 13 (2 lines from the bottom) and table 3.

Reviewer 3

Major revisions
Abstract
3. The background is too long. It needs to be more precise and focus on the issue under discussion. The term psychosocial health it’s too abstract. A definition must be added so that the reader can be clear about the study aim. Also, the definition needs to specify what psychological and social aspects were assessed in this study.
   Response: The background has been shortened, see page 2 (lines 1 to 4 from the top). We agree with Reviewer 3 and the term psychosocial health has been replaced with social and psychological characteristics which better describes the variables included in the study.

4. The results must provide answers to the study aim. Currently, the results does not clearly answer the study aim (“aims to examine psychosocial health among IPV exposed women who have not sought help from the social services or women shelters due to IPV.”). For example, the study is not about help seeking thus the as it is written, the first line of the results section does not have to do with the aim of the study.
   Response: We have rewritten the aim and hopefully increased coherence between aim and results, see page 2 (4 lines from the top) but also throughout the entire paper.

Conclusion
5. The last sentence presented on this section advocating for IPV screening at health services it is not clearly supported from the data presented in this manuscript.
   Response: We agree with the reviewer, we have been unclear in our conclusion of results. The conclusion has been rewritten, see page 2 (4 lines from the bottom).

Background
6. IPV and domestic violence are different concepts. It is necessary to make this distinction when using them thought all the text
   Response:
The sentence concerning domestic violence has been removed and only intimate partner violence is now considered in the text, see page 4 (2nd paragraph, 4 lines from the top).

7. On page five a lot of space is dedicated to the concept of health seeking. It makes me wonder that if the focus of the study is psychosocial health, why the authors should need to be go in-depth about the help seeking concept?
7. Response:
We assume reviewer means help-seeking. In previous revisions we have been asked to put attention to help-seeking in the introduction section. However, the aim has been rewritten and hopefully the relevance of help-seeking is now clearer, see point 4.

Study aim
8. The study aim presented on page 7 is different from the study aim presented on the abstract. As it is now it confuses the reader.
8. Response:
Thank you for pointing out this error. The aims in the abstract and main text has been rewritten and are now in accordance to each other, see page 2 (4 lines from the top) and page 6 (10 lines from the bottom).

Methods
9. The first paragraph describing the participants should be located under a different section, might be under the description of the instrument used.
9. Response:
We respectfully disagree and consider the paragraph describing the study’s participants and definitions of concepts to be relevant in its current position.

10. Page 7 and 8. I suggest to add a more clear subtitle such as “sample size and sampling strategy”. The way that the non help seeking group of women were selected it is not clear. A flow chart describing the process can be a good way to make it easier for the reader to understand it.
10. Response:
A flow chart describing selection of non help-seekers has been added, see figure1. We have considered the suggestion of new subtitles but decided to keep current subtitles and hope that the flow chart will suffice.

11. Response
We consider it important to motivate the factors included in the study by previous research findings. However the “Measures” section has been restructured see page 9, (from 3rd paragraph).

12. Page 11. It is not clear how to interpret the cut off score of 44 (for the psychosocial functioning variable). Reduced psychosocial functioning means a score of 44 or higher or is it the opposite?
12. Response:
A higher score on the OQ indicates more impairment. This is stated in the sentence previous to the cut off description, see page 11 (1st paragraph).
Missing values
13. How were the missing values handled? What happened to those variables or questionnaires?
13. Response
There were few missing values, see pages 12 (4 lines from the bottom) and 13 (1st paragraph) and no significant differences were found between respondents and non respondents, therefore a list wise deletion of missing data was approached. This has been clarified in the text, see page 14 (8 lines from the bottom).

Statistical analysis
14. It is said that Spearman’s rank order correlation was used to assess relationships between binary variables. This statistic it’s usually used to measure correlation between continuous variables with a distribution different than normal. Why was it used here? Why not used chi2 statistic?
14. Response:
A correlation matrix was compiled to get an overview of the data before further analyses. Spearman’s rank order correlation was used because, in contrast to Chi$^2$, it is applicable on continuous, categorical and non-parametric data, thus all variables could be analyzed together.

15. In logistic regression, variable inflation factor and tolerance statistics are used to assess collinearity between the variables included in the model. Why were not evaluated here? It seems that other methods were used to assess collinearity. Please provide a reference to it.
15. Response
Measures variable inflation factor and tolerance statistics are only available in linear regression models. In logistic regression models interaction is usually tested by creating interaction variables (i.e. $X_1 \times X_2$). In this study we started by looking at a correlation matrix (showing binary correlations between all independent variables according to Spearman’s rank order correlation) and tested thereafter for interactions by creating correlation variables created and including those in a full multivariate logistic model. This way, we could check for collinearity between independent variables in our logistic model.

16. Page 15. A number of cases were excluded from the analysis. Was there any significant difference between the cases included and those excluded from the analysis? Were other statistical procedures to deal with missing data considered before deciding to eliminate some cases?
16. Response:
Analyses concerning missing cases showed no significant differences between respondents and non respondents, see page 14 (6 lines from the bottom).

Tables.
17. Tables 1-2. Report only two decimals. The sample size is not big enough to provide that level of precision. No sample size is described in the table for each group included. Specify what unit of measurements were used; i.e age (years) and so on.
17. Response:
Done, see table 1-3.

18. Table 3. Delete constant. Report only two decimals. The sample size is not big enough to provide that level of precision.
18. Response:
   Done, see table 3.

Results
19. Page 17. Experiences of violence. It is mentioned that no difference in violence exposures was found. However, from table 2, it is possible to identify that exposure to any form of violence was higher among women looking for help than among those not looking for health.
19. Response:
   A sentence has been added about group differences concerning violence exposure in prior relationships, see page 16 (6 lines from the bottom).

20. Page 18. Second paragraph. It is important to show the table depicting the differences between women born or not in Sweden if the so much text is used to describe it any way.
20. Response:
   We acknowledge that results from additional analyses concerning variables foreign born and last incidence of violence would be easier to follow if a table is added. However, the second paragraph in page 17 describes not only results from additional bivariate and multivariate analyses concerning the variable foreign born. It also includes results from bivariate analyses concerning last incidence of violence. Showing all results in tables would add considerable space to the manuscript and since the purpose of the additional analyses was to control findings from the final model rather than a stipulated aim in this study we chose not to show results from additional analyses in any tables. Bivariate tests for all variables have already been conducted between help-seekers and non help-seekers and shown in tables 1 and 2.

Discussion
21. Subtitles are needed in order to make it easier for the reader to follow the discussion structure.
21. Response:
   Subtitles have been added, see pages 18 (2nd paragraph), 19 (3rd paragraph) and 20 (top of 3rd paragraph and last line).

22. The discussion on alcohol consumption and the citizenship of the women is difficult to follow because this is not clearly shown on the result section of the manuscript.
22. Response:
   Differences in alcohol use in relation to help-seeking between foreign born and native women are described at the end of the results section, see page 18 (1st paragraph, 3 lines from the top). Moreover, the discussion about alcohol consumption has been rewritten, see page 19 (3rd paragraph).