Author’s response to reviews

Title: The prevalence and predictors of domestic violence among pregnant women in southeast Oromia, Ethiopia

Authors:

kalkidan Yohannes (kalkid29@yahoo.com)
Lulu Abebe (luluabe93@gmail.com)
Teresa Kissi (biniamwolde9@gmail.com)
Wubit Demeke (wubeit@yahoo.com)
Solomon Yimer (sopsycha@gmail.com)
Mohammed Feyiso (mohmmmed@yahoo.com)
Getinet Ayano (babiget2015@gmail.com)

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Author’s response to reviews:

Point by point responses for comments

Dear Mariana Seijo, Editor, Reproductive Health

we would like to thank you very much for giving us the opportunity to rerevise our manuscript entitled “The prevalence and predictors of domestic violence among pregnant women in southeast Oromia, Ethiopia” (Ref: REPH-D-19-00011).

We would also like to express our sincere gratitude to the reviewers for sharing their expertise, detailed reviews and providing us with valuable suggestions and constructive comments on our manuscript. We have made every attempt to fully addressed these comments in the revised manuscript.

We believe we have resulted in a significantly improved manuscript, which you will find uploaded alongside this document.

Comments:

Editor and reviewers comments
Reviewer 1:

Q1. In the methods part: The use of substance has been mentioned and later on a significant risk is also found for it. For this, it would be better if a clear mention is made about 'the pattern of use' i.e., abuse, dependence, binge. Pls do mention the manner in which this is assessed as well. If not, kindly add this as a limitation of the study.

We addressed this concern accordingly. We included the following statement in the method section for clarification “In this study, substance use such as alcohol indicates lifetime use of those substances. Those participants who had a history of substance use in their lifetime were considered as positive for substance use”.

Q2. Also, I assume that 'exclusion of major psychiatric morbidities in men and women ' is not carried out. Pls, look into this aspect. If any data is available on comorbid psychiatric problems or psychological problems in women and men, pls do include it in your analysis. In case it was left out, it may have served as a confounding factor between the Odds ratio established for domestic violence and other variables

We addressed this concern of the reviewer in our revised manuscript. We included the following statement in the limitation of discussion “The limitation of this study includes not measuring the effects of the existing mental disorders which may overestimate the odds of exposure in our results. These could have an influence on these results”.

Q 3. - 3. If possible pls clarify 'facing maltreatment as a child'. Do these people qualify for being 'children of alcoholic families ' or facing 'child maltreatment/abuse/neglect' or any other developmental issues in the past?

We did not evaluate the effects of childhood maltreatment as well as having parents who were alcoholics in the current study. So, it's not possible for us to clarify or reanalyze the data.

Q 4. In the table 1, I find certain characteristics missing; however, these have been incorporated later on (e.g. education of husband, occupation of husband). Pls add this data in table 1 as well.

We addressed this concern accordingly. We highlighted the changes in the document

Q 5. Additionally, pls add the limitations, strengths, implications (clinical and research) of the study in the discussion and conclusion.

We addressed this concern accordingly. We included the following sub-sections and contents in the discussion part of the study

The implication for future research and clinical practice
This study has found some implications for future research and clinical practice. First, in our study a remarkable proportion of women had experienced DV during pregnancy which implies the necessity of screening of DV among women in the ANC setting and the possible early interventions based on the findings; Second, the integration of educations DV into the existing maternal health program is recommended; thirdly, future longitudinal studies focusing on the basic determinants of DV among pregnant women are warranted.

The strength and limitation of the study

This study has several strengths. First, the sample is adequate and from a well-defined catchment area. Second, we used the standardized instrument for measuring PTSD (standard and structured WHO multi-country study questionnaire on women health and domestic violence).

The limitation of this study includes not measuring the effects of the existing mental disorders which may overestimated the odds of exposure in our results. A These could have an influence on these results. Another limitation is the association between different factors and DV does not imply causation due to the cross-sectional nature of the study.

Q6. Pls add any qualitative information in the discussion segment, if you have gathered it while collecting information from the participants

We did not collect qualitative data.

7. Additionally in the result tables, kindly remove the ' *=p<0.05, **=p<0.01'. This is an old way of writing. As per the current style you may only mention the confidence intervals and remove the p values. A general statement of 'p=0.05 being considered for the study as statistically significant', can be written in the data analysis part.

Addressed accordingly.

8. Lastly pls recheck your spellings and punctuation. In some place’s errors related to same are present

We addressed the editorial issues accordingly

Reviewer #2:

Q1. Although the language is more often correct than not, more work must be done to make the text more succinct and precise. For example, in the abstract, the first two sentences in the Methods section could be combined into a single, relatively short sentence. And line 28 of the
abstract is not quite right - because confounders are only adjusted for in multivariable models, not also binary, as the sentence suggests.

All paragraph should be separated by an empty line (press return twice).

Capitalization is a bit erratic. Husband doesn't need to be capitalized.

We addressed these concerns and highlighted the changes in yellow.

Q2. Page 5, line 21: reported or found, not note

Edited as: has been found in 3-13% of pregnancies in many studies around the world

Q3. Page 5, line 24-30: remove all the institutions in the sentence and cite the study instead

We addressed this concern accordingly.

Edited as: In 2013 a more recent analysis based on existing data from over 80 countries, found that globally 35% of women have experienced either physical and/or sexual intimate partner violence or non-partner sexual violence. Most of this violence is intimate partner violence (4). According to this study, globally, 38% of all murders of women are committed by intimate partners (4).

Q4. Page 6, line 11: 'Half of Turkish women...’ would be shorten

Shortened as: In a study conducted in Turkey, 58.3% of the participants reported violence and educational deprivation will be solved by allowing women to work in a paid job and advance professions.

Q5. Page 6, line 21-30: Where? in which population? And same again for lines 33-39

We addressed this issue accordingly (See the corrections below)

In a study conducted among pregnant women in Turkey, regular smoking, unwanted pregnancy, low education level of husband, low family income and being in the second trimester were determined to be the main predictors of overall violence during pregnancy.

Furthermore, in a study conducted in Brazil including 1,379 pregnant women found that adolescent intimate partner and witnessing physical aggression before 15 years of age were found to be linked with psychological violence. Whereas, having intimate partner who uses drugs and does not work were linked with physical/sexual violence. Moreover, low level of education, having history of physical aggression during childhood and intimate partner consumes
alcoholic beverage twice or more weekly were linked with psychological and physical/sexual violence.

Q6. Page 7: it seems weird to have so many sub-headings. If these aren't specified by the journal, remove most of them.

We addressed this issue accordingly. We tried to merge some of the subheadings together and highlighted the changes in method sections.

Q7. Page 7, line 41: is C.E. meant? Don't need it anyway

We edited accordingly. 2002 in Ethiopian Calendar or 2010 in others. So, we edited as 2010.

Q8. Page 7, line 52: when was the data collection period? How many days over how long a period? Was data collected for a whole day at a time, or only certain hours? Also, what was the response rate?

We addressed this issue accordingly.

We included the following statement in method sections: Institutional-based cross-sectional study was conducted from April to May 2014 in Gedo hospital, which is found in Oromia regional state of West Shewa zone, Ethiopia. The response rate was 100% (see result section lone 2)

Q8: Page 7, line 57: I don't really understand what 'systematic sampling' means in this case - all women present at the time of data collection were asked to participate, right?

We included the following statement in sampling technique section: We used a systematic sampling technique to select the two hundred and ninety-nine (299) pregnant women who were included in our survey. We determined the sampling interval by dividing the total study population who had to follow up during the 1-month data collection period (800) by total sample size (299). Therefore, the sampling fraction is 800/299 ≈ 3. Hence, the sample interval is 3. We selected the first study participant by lottery method and the next study participants were chosen at regular intervals (every 3rd interval) and interviewed by data collectors.

Q9. Page 8, line 8: sounds like a face-to-face interview. Please state the interview type.

Edited as; Data were collected by trained nurses by face-to-face interviewing of the participant.

Thank you very much
Q10. Page 8, line 29: what is index pregnancy? is it the current pregnancy?

Yes, it is the current pregnancy. We tried to clarify in methods section in the revised version.

Clarified as: Data were collected by trained nurses by face-to-face interviewing of the participant (women who were currently pregnant).

Q12. Page 9, line 26: e.g. 'two-thirds of women were Protestants

Edited, thanks.

Q13: Page 9, line 54: 'most common', not commonest

Edited.

Q14: Page 10: the factors associated with domestic violence section is interesting and presented well, although attention is also needed here on the language e.g. page 10, line 55-57 is confusing and seems to express a slightly different idea than is defined in Table 3 (women family history of violence)

Edited as: On the other hand, mothers whose education levels primary school were 4.73 times more likely to be experienced domestic violence compared to those pregnant women whose education were diploma and above [OR=4.73; 95%CI: 1.69, 13.20].

Q15. Page 13, line 8: do you really mean that educated woman can control their own behaviour better and therefore don't get beaten? If so, I think this need explaining better.

No, we do not.

See the discussion section: Finally, the low level of women’s education was highly associated with domestic violence. This can be explained by the fact that educated women have the knowledge about their rights and relationships and can control their behaviors properly; and this study is in line with other studies [16, 17, 19, and 20].

Q16: Discussion section has no limitation section. A limitation as I see it would be the use of face-to-face interview (if I understood correctly). There must be literature on the effect of the interview method on the accuracy of violence victimization reporting. This should be cited and discussed.

Included.
The strength and limitation of the study

This study has several strengths. First, the sample is adequate and from a well-defined catchment area. Second, we used the standardized instrument for measuring PTSD (standard and structured WHO multi-country study questionnaire on women health and domestic violence).

The limitation of this study includes not measuring the effects of the existing mental disorders which may overestimate the odds of exposure in our results. These could have an influence on these results. Another limitation is the association between different factors and DV does not imply causation due to the cross-sectional nature of the study. As this study is a cross-sectional study recall bias might affect the observed prevalence.

We used face-to-face interview as recommended by the instrument we used to measure DV.

Table 1: the age categories are strange. Why were they used?

We used from previous published studies.

Q17: Table 2: sometimes italics, sometimes not.

Edited

Reviewer 3:

Q1. * Grammar, style, and spelling

Addressed accordingly

Q1. No short forms in the abstract ("it's the violation")

Edited

Q3. The paper has several typos: such as "176-kilo meter away" and extra spaces throughout the entire text

Addressed accordingly

Q4. This sentence requires a structural change to make sense: "It's the violation of human right and associated with numerous adverse outcomes for mothers and the offspring"
Edited as: domestic violence is a violation of human right and associated with numerous adverse outcomes for mothers and the offspring

Q5. o "Husband's alcohol consumption" - husband without capital letter
o "husband history of arrest" - husband's
Edited accordingly

Q6. o Rephrase: "The findings suggest screening for domestic violence among pregnant women visiting antenatal care clinic and appropriate intervention, and it's also better to integrate health education program on domestic with a maternal health program"

We edited this sentence as: The findings suggest screening for domestic violence among pregnant women visiting antenatal care clinic and early intervention based on the findings. Integrating health education program on domestic with the exiting maternal health program is warranted.

Q7. Rephrase: "Domestic violence (DV) in this study defined as physical, sexual, psychological or emotional violence that are inflicted on a pregnant woman by a family member" and No parenthesis inside other parenthesis: (i.e. former partner))
Edited accordingly.

Domestic violence (DV) in this study refers to physical, sexual, psychological or emotional violence or abusive behaviors that are directed to a pregnant woman by a family member (i.e. an intimate male partner, marital/cohabiting partner, parents, siblings, or a person very well known to a family or significant other such as former partner) when such violence often takes place in home

Q8. They also associated with" - if this "they" refers to DV it should be "it"
Edited.

DV is also associated with series adverse health outcome for the affected women as well as their offspring.

Q9. Spelling mistakes: "They are also associated with series adverse health outcome for the affected women as well as their offspring's" - outcomes in plural, offspring should be singular.
Edited
DV is also associated with serious adverse health outcomes for the affected women as well as their offspring.

Q10. "Oromia regional state of health bureau" requires capital letters

Edited as: Oromia Regional Health Bureau

Q11. The word "means" is repeated in the section Data Analysis

"specialized hospital and UOG were approved" --- delete "were"

Edited as:

We obtained ethical clearance after approval from the Institutional Review Board (IRB) of the College of Medicine and Health Sciences, the University of Gondar and from Amanuel Mental Specialized Hospital. The data collectors have clearly explained the aims of the study to the study participants. Information was collected after obtaining written consent from each participant. Written informed consent was obtained from the informants and the comparison subjects after they were received oral information about the study, including an assurance that they could withdraw from the study at any time.

Q12. If the main occupation that was found to be significantly associated with domestic violence is a farmer, that should be stressed in the results of the abstract (since no other occupation was associated)

We addressed this issue accordingly. From the husband’s occupation framer and self-employee was signfically associated with DV. We edited this in abstract as well as discussion sections including self-employee which we do not mention it in the abstract section just due to editorial issues.

See the discussion section: The current study also found that the husband’s occupational status was significantly associated with domestic violence. Farmers and self-employed were more likely violated against their women than a government employee. Probably, the stress of job and stress of business and trade in the private sector increase the risk of abusing the wives by their husbands. Other studies on the associated factors of domestic violence showed the same result.

Q14. It would be relevant to specify how the participating women were actually contacted and the ethical aspects considered in the study, as it deals with sensitive information and experiences. Was there any advice offered to the participating women who reported DV?

We elaborated the ethical consideration section to incorporate the comments as: We obtained ethical clearance after approval from the Institutional Review Board (IRB) of the College of
Medicine and Health Sciences, the University of Gondar and from Amanuel Mental Specialized Hospital. The data collectors have clearly explained the aims of the study to the study participants. Information was collected after obtaining written consent from each participant. Written informed consent was obtained from the informants and the comparison subjects after they were received oral information about the study, including an assurance that they could withdraw from the study at any time. Confidentiality was maintained through the study. Participants who were found to have DV were referred for further investigations and support.

Reviewer 4:

Q1. The conclusion is just repetition of the result not interpretation.

We addressed this concern accordingly.

We revised as: In summary, this study revealed that a remarkable proportion of pregnant women had experienced domestic violence in their lifetime (64.6%).

Q2. In the body of the manuscript, method, what is the time period of the study?

We addressed this issue accordingly.

An institutional-based cross-sectional study was conducted from April to May 2014 in Gedo hospital, which is found in Oromia regional state of West Shewa zone, Ethiopia

Q3. Recall bias for the previous pregnancies may result in underestimation of the prevalence

We included this as a limitation.

We included the following sentence: As this study is a cross-sectional study the occurrence of recall bias needs to be considered which might affect the observed prevalence.

Q4. For the index pregnancy the time of the interview should be considered

We clarified this in the method section. The study included pregnant women at the time of data collection.

Reviewer #5:

Abstract
Need to explain why the focus was on the pregnant women and not the rest of the womenfolk?

We tried to rewrite the sentence to address this concern. We focused on pregnant women mainly for two reasons (1) limited studies and (2) it’s linked with negative outcomes on the affected women and their child.

See the abstract section: Domestic violence is a violation of human right and associated with numerous adverse outcomes for mothers and the offspring. However, research on domestic violence and predictors against pregnant women is limited in Ethiopia.

Q2. Conflicting statements on sampling technique- you talk of systematic sampling and random sampling at the same time.

Need to be clear on how the 299 participants were sampled

We clarified this issue as: We used a systematic sampling technique to select the two hundred and ninety-nine (299) pregnant women who were included in our survey. We determined the sampling interval by dividing the total study population who had to follow up during the 1-month data collection period (800) by total sample size (299). Therefore, the sampling fraction is 800/299 ≈ 3. Hence, the sample interval is 3. We selected the first study participant by lottery method and the next study participants were chosen at regular intervals (every 3rd interval) and interviewed by data collectors.

Q3. Introduction: The introduction does not explain why settled on pregnant women, southeast Oromia etc. Not clear on the selection of participants

We clarified this in the revised version of our manuscript (See the method section and the above response (Q2).

Background

The background is well articulated with relevant studies. However, besides the studied in Ethiopia being limited, it would be in order to justify the need for the study further

There is also needing to justify why focus is on pregnant women and not women in general?

We addressed this concern accordingly.

Despite this significant health problem, previous studies conducted in Ethiopia focused on the magnitude and associated factors of DV against women in general. Hence, studies focused on the magnitude of domestic violence and predictors is against pregnant women are limited in Ethiopia
as well as in the study area. Therefore, the aim of this study was to assess the magnitude and predictors of domestic violence among pregnant women in southeast Oromia, Ethiopia.

Q4. There was also need to be clear on the study objectives for ease of understanding study design in terms of data collection, analysis, conclusions and recommendations

We addressed these concerns in method sections and highlighted the changes in yellow.

Q5. How did you arrive at 299 women? How did you calculate the sample size? Did you consider additional questionnaire to cater for spoilt/non-response?

We addressed this concern accordingly and also included the details in method sections.

Sample size and sampling technique

Sample size (n) was calculated based on single population proportion formula, by assuming 95% confidence level, the prevalence of domestic violence among pregnant women which was found to be 77% in Butajira rural health study and a precision of 5% between the sample and the parameter was taken. \( \alpha = 0.05 \) (95%) = 1.96

\[
\begin{align*}
    n &= \left( \frac{z\alpha}{2} \right)^2 \times p(1-p) \\
    &\quad \left( \frac{d}{0.05} \right)^2 \\
    n &= 1.96^2 \times 0.77(1-0.77) \\
    &\quad \left( 0.05 \right)^2 \\
    &= 272
\end{align*}
\]

By considering a 10% non-response rate the final sample size was 299.

Q5. What about data management and quality control measures?

We included section for this issue.

Data quality control issues

Training was given to the data collectors and supervisors on the data collection tool and sampling techniques by the researcher. Supervision was held regularly during the data collection period both by the researcher, co-investigators and supervisors to check on a daily basis for completeness and consistency.

Q6. Ethical Approval
Clarify what you mean by informants and also the comparison subjects? It is also not ethical to refer to study group as subjects but perhaps use respondents/participants

Clarified as: Edited as:

We obtained ethical clearance after approval from the Institutional Review Board (IRB) of the College of Medicine and Health Sciences, the University of Gondar and from Amanuel Mental Specialized Hospital. The data collectors have clearly explained the aims of the study to the study participants. Information was collected after obtaining written consent from each participant. Written informed consent was obtained from the informants and the comparison respondents/subjects after they were received oral information about the study, including an assurance that they could withdraw from the study at any time.

Q7. Top sociodemographic variable

We highlighted in table1 and the comments are noted.

Q7. Discussion

We double checked based on the comments.

Q8. Conclusion

Looks too summarized. Cleary make conclusion based on prevalence which could also be linked to socio-demographics and also make conclusions based on predictors. Don't loose focus of the study objective

Edited

Q9. Limitation of the study

Not provided yet there are issues covered within discussion that demonstrated that there were limitations of the study such as sample size, relying entirely on a hospital-based study

Remember the results is largely indicting men as the main perpetrators with less mention on the role of women in promoting DV

Analysis tables

We included strength and limitation sections to address this concerns
The implication for future research and clinical practice

This study has found some implications for future research and clinical practice. First, in our study a remarkable proportion of women had experienced DV during pregnancy which implies the necessity of screening of DV among women in the ANC setting and the possible early interventions based on the findings; Second, the integration of educations DV into the existing maternal health program is recommended; thirdly, future longitudinal studies focusing on the basic determinants of DV among pregnant women are warranted.

The strength and limitation of the study

This study has several strengths. First, the sample is adequate and from a well-defined catchment area. Second, we used the standardized instrument for measuring PTSD (standard and structured WHO multi-country study questionnaire on women health and domestic violence).

The limitation of this study includes not measuring the effects of the existing mental disorders which may overestimate the odds of exposure in our results. These could have an influence on these results. Another limitation is the association between different factors and DV does not imply causation due to the cross-sectional nature of the study. As this study is a cross-sectional study the occurrence of recall bias needs to be considered which might affected the observed prevalence

Q9. The tables from the analysis should form part of the study and not appendix coming after the Reference. Fit the table appropriately within each finding areas.

What was the reference as you do analysis for association/logistic regression?

We included as a key.

We used journal formats for the appendix.

Reviewer 6:

Q1: Reviewer #6: It is hospital-based study and number of sample is limited but title demands bigger samples with broad coverage

We understood the reviewer's concerns regarding the adequacy of sample size, but we used standard methods to reach the sample size so that it was adequate representative for those women in the study area. The sample size is the representative for the pregnant women in the study area who are pregnant during the study period.

We elaborated this in the revised version of the manuscript in the method section.
Q2. Operational definition for computed variables not sufficient

We addressed this concern accordingly and highlighted the changes in the method section.

Q3. Analysis of association is not clearly mentioned in methods. However, associations established in results and conclusions. Further, it is mentioned that cross-section study.

We clarified this issue.

An institutional-based cross-sectional study was conducted from April to May 2014 in Gedo hospital, which is found in Oromia regional state of West Shewa zone, Ethiopia.

Both bivariate and multivariate logistic regression analysis were carried out to see the association of each independent variable with the outcome variable. A p-value of less than 0.05 was considered statistically significant, and an adjusted odds ratio with 95% CI was calculated to determine the association.

Thank you so much