Author’s response to reviews

Title: Factors associated with institutional delivery practice among women in pastoral community of Dubti district, Afar Region, Northeast Ethiopia: a community-based cross-sectional study

Authors:

Wassie Sadik (sedikwassie50@yahoo.com)
Alemayehu Bayray (alemayehub35@gmail.com)
Ayal Debie (debieayal@gmail.com)
Tsegaye Haile (tsegishg27@gmail.com)

Version: 1 Date: 22 Jul 2019

Author’s response to reviews:

To: BMC Reproductive Health Editorial Office

Subject: Resubmitting a revised manuscript for Publication

Dear Sir/Madam,

First of all, we would like to thank your editorial office for your valuable comments and/suggestions. We have learnt a lot from your comments and/or suggestions raised by editor and your reviewers. Then, we are trying to address all the points raised by the editor and your reviewers. Furthermore, we reviewed the language of the manuscript based the language expertise recommendation particularly in all sections of the manuscript. We made rewording, and rephrasing some part of the paragraphs of the manuscript. We also ensured you that all changes including language editing are indicated in the revised track change manuscript. Finally, we are resubmitting a revised article entitled with “Factors associated with institutional delivery practice among women in pastoral community of Dubti district, Afar Region, Northeast Ethiopia: a community-based cross-sectional study” to your editorial office for consideration of it for publication. We have also submitted point by point responses for editor and reviewers’ comments.

Yours faithfully,

Tsegaye Gebremedhin

Correspondence author
Point-by-point response for reviewers’ comments

Reviewer’s and editor’s comments and suggestions  Authors’ responses

Editor’s comments/suggestions

1. The three reviewers raised serious concerns about aspects of the writing of your article and suggest you to send this to an English-speaking editor. Dear editor thank you for your constructive comments/suggestions. The manuscript was reviewed by English language expertises and we have modified based the expertise suggestions. Please see the whole components of the clean version of the manuscript.

2. Please delete the definition of maternal death in the text. Dear editor thank you for your comments. We have deleted the definition of maternal death. Please see the background section of the manuscript.

3. Also, the background section is too long and a lot of information about the global burden of maternal mortality can be avoided. An Introduction can be written in three paragraphs containing the following: the motifs that lead you to do this study, literature support for your hypothesis and objectives of your study. Dear editor thank you for your comments. We have revised the background section of the manuscript. Please see the background section of the clean revised version of the manuscript on pages 5 and 6, lines 64 to 91.

4. I wonder if you can do a better organization of your Discussion section. Please see some suggestions about the organization of this section.

Please follow this structure:

• Statement of principal findings of the study. Summarise key results with reference to study objectives

• Strengths and weaknesses of the study

• Strengths and weaknesses in relation to other studies, discussing important differences in results and what your study adds. Whenever possible please discuss your study in the light of relevant systematic reviews and meta-analyses (eg Cochrane reviews)

• Meaning of the study: possible explanations and implications for clinicians and policymakers and other researchers; how your study could promote better decisions

• Unanswered questions and future research  Dear editor thank you for your constructive comments/suggestions. We have reorganized our discussion section as per your the
suggestion. Please see the revised section of the manuscript under discussion section of the clean revised version of the manuscript on pages 10 to 13, lines 97 to 261.

5. After the decimal point use only one decimal when the number has two or more digits. When the number has a single digit it is valid to use two decimals. Dear editor thank you for your comments. We have revised the decimal points throughout the manuscript. Please see the whole components of the clean revised manuscript.

Reviewer 1: comments/ suggestions

1. The phrase "Factors associated with" may be better than "Determinants" given your study design (and analysis). Dear reviewer thank you for your constructive comment. We have revised the title of the manuscript as per your suggestion. Please see the clean revised version of the manuscript on page 1 lines 1-3.

2. The abstract could be improved, particularly give a background to the statement "However, there was limited evidence about institutional delivery in the study area." Dear reviewer thank you for your constructive comments. We have incorporated a background statement as per your comments. Please see the clean revised version of the manuscript on page 3, lines 36 to 42.

3. The plain English summary needs improvement. For example, the 1st sentence / paragraph is not clear. Dear reviewer thank you for your constructive comments. We have revised the plain English summary of the manuscript. Please see the clean revised version of the manuscript on page 2, lines 17 to 34.

4. P-values were never included in the results, any reference to them is idle. Dear reviewer thank you for your constructive comments. We have not included p-values in the result section instead we used AOR with 95%CI for reduction of duplication of effort. Additionally, most literatures used AOR with 95%CI while they had used logistic regression model for analysis. They did not present p-values in the result section unless the analysis model is other than binary logistic regression. However, they had been considered for discussion for such variables that are significantly associated with the outcome variable expressed only by p-value. Similarly, we had also considered these factors in our situation if any.

5. Please provide a reference(s) and time frame(s) for the statements "An estimated 287,000 maternal deaths occurred worldwide." and "Ethiopia was one of the leading contributors for maternal deaths in Sub-Saharan African countries with Maternal Mortality Ratio (MMR) of 676 per 100,000 live births." Dear reviewer thank you for your constructive comments.
We have cited a reference and time frame for the mentioned statement. Please see the clean revised version of the manuscript on page 5, lines 67 to 69.

6. In the study setting, kindly define what "kebeles" (and Logia) is/are. You may also inform the reader if all the 4 sampled kebeles were rural or not? Dear reviewer thank you for your constructive comments. We have defined kebeles “which is the smallest administrative unit in Ethiopia”. Please see the clean revised version of the manuscript on page 6, lines 95 and 96.

Logia is the neighbor district of Dubti in the region which has similar characteristics and we had also described about the selected kebeles in the study area. Please see the clean revised version of the manuscript on page 8, lines 138 and 139.

7. It is good you clearly describe the sample size calculation. Dear reviewer than you for your suggestions. We have tried to describe clearly the sample size calculation. Please see the clean revised version of the manuscript under the sub-section of sample size and sampling procedure section on pages 6 and 7, lines 102 to 112.

8. Did you use "proportionate stratified random sampling" based on birth rates of the kebeles? Otherwise, when you state that "Finally, a systematic random sampling technique was used to select the study participants," is there a specific technique you refer to? Also, you need to describe what you did at selected kebeles to identify the participants. Dear reviewer thank you for your comments and we really appreciate your concerns. We have used proportionate stratified random sampling technique to select the study participants.

Initially, we have selected 4 kebeles (one urban and 3 rural) from a total of 14 kebeles, then we had allocated the sample proportionally based on their estimated women who had under one year children to each selected kebeles. Next, we have selected the first women through simple random lottery method. Then we have selected every other household starting from the first selected household. Accordingly, when two or more women who had lived together within one household we had to select one of them through simple random lottery method. Please see the clean version of the revised manuscript on page 7, lines 114 to 121.

9. What is/are the Reference/s for the source questionnaire(s) that you adapted to get your study tool. Dear reviewer thank you for your comments. We have cited the source references that we had used during tool development. Please see the clean revised version of the manuscript under the sub-section of data collection tools and procedure on page 7, line 132.

10. In the data analysis, candidly state the reason for inclusion of parameters in the multivariate analysis. Dear reviewer thank you for your comments. Our criteria for entering variables to multivariable logistic regression analysis was those independent variables having p-value of less than 0.2 during bivariable analysis could have a chance to be significant in multivariable
logistic regression analysis. This is supported by different literatures and that is why we are using it as a criteria for inclusion of variables in multivariable analysis.

RESULTS

11. Ability to read and write refers to literacy and not education (formal or informal). Literacy was not in your variables of interest, otherwise one would like to know which how your questionnaire picked information on ability to read and write. Dear reviewer thank you for your comments/suggestions. Most literatures had been used the educational status and literacy interchangeably. So that our interest was also to measure the literacy level of women. As a result, we have revised the word educational status by literacy level and we have discussed through reviewing of literatures and we agree that the classification should be state as it is. Please see the revised version of the manuscript on page 20 and 25, table 1 and 4.

12. About the fraction of ANC service users, it would be better to maintain the n as 381, so that you emphasize the lower number of 4th ANC visit attendees in the region. Dear reviewer thank you for your comments. We have modified as per your comments. Please see the clean revised version of the manuscript on page 9, lines 172 to 182.

13. For knowledge and attitude, one needs to look at your Questionnaire and data used to determine these, since table 2 does not show how you reach those conclusions "good knowledge" and "favorable attitude". Dear reviewer thank you for your comments. We have incorporated how we were measuring knowledge and attitude of the women towards institutional delivery and how we were concluded as having “good knowledge” and “favorable attitude”. Please see the clean revised version of the manuscript under sub-sections measurement and variable on page 7, lines 124 to 130.

14. Regarding how far health facilities were, how was this assessed? Distance should be measured in kilometers or miles. You seem to have used "hours to HF" which has many other determinants that affect speed used, like means of transport, maternal condition, terrain, ... Distance = Speed x Time? Dear reviewer thank you for your comments / suggestions. We have measured the distance of their home to health facility in hours because most of the women were unable to estimate the distance between their home and the health facility in kilometers. That is why we were using time for measuring the distance. The means of their transport was on foot and the speed of the participants had not been determined because of their unable decide their speed per time.

15. You stated that 65.29% mothers faced vaginal bleeding during labor and delivery! Bleeding after birth is normal, what is abnormal is excessive bleeding. So, do you mean PPH was 65%
among the participants or 35% did not even have lochia? Was this an incidence in the most recent childbirth or a prevalence in their past deliveries? Dear reviewer thank you for your constructive comments. From the total study participants, 121 (31.8%) women had faced complication during labor and delivery. Of these who had faced complications, 79 (65.3%) had excessive vaginal bleeding during post partum period (PPH). Please see the clean revised version of the manuscript on page 9, lines 181 to 183.

16. What exactly do you mean by "Women who had ANC follow up during their recent pregnancy...? Is it those that came for other visits, those who came for at least 4 visits, or those that were visited by the health workers / HEWs? The numbers used in the 2x2 suggest another factor! Dear reviewer thank you for your comments. We have tried to mention that the women who came for at least once to the health facility for ANC service utilization. Please see the clean revised version of the manuscript on page 9, line 165 to 167.

17. For women whose husband involved in decision making on the place of delivery were 4.42 times..., was the question on male involvement in decision making, or primary decision maker? Dear reviewer than you for your comments and we appreciate your concern. The primary decision-makers in pastoral community particulary in our set ups were husbands as a result of male (husband) dominancy is common this community.

DISCUSSION

18. The objective once result is discussed in much detail. Dear reviewer thank you for your suggestions.

19. For the discussion on "mothers who had previous history of stillbirth were 4.34 times more likely to attend..." please provide a comparison to other literature. Dear reviewer thank you for your comments. We have cited a comparison reference. Please see the cleaned revised version of the manuscript under sub-section of discussion on page 11 and 12, lines 231 to 239.

20. The last paragraph of the discussion has no basis in your results and the explanation does not match. Dear reviewer thank you for your comments. We have revised it again. Please see the clean version of the revised manuscript on page 12, lines 252 to 256.

21. What were the study strengths and or limitations? Dear reviewer thank you for your comments. We have included the strengths and limitations of the study. Please see the clean revised version of the manuscript on page 13, lines 257 to 262.
TABLES

22. Table 1. Disband ability to read/write from education. Otherwise, I would expect the percentage for Able to read and write to be 100 - Unable to read and write, e.g. for women I would expect a 35.7%. Might you have other permutations like Unable to read but able to write, able to read/ unable to write, ... Dear reviewer thank you for your comments. Here we would like to express the maternal literacy or educational status. When we say able to read and write we need to explain the women who had not attend formal education(primary,secondary,etc), but they had ability to read and write. This might be happened when the women had attended informal education such as adult education, learned from their family member and other religious institutions. So that it did not mean that the percentage for able to read and write to be 100 - unable to read and write.

The permutations for unable to read but able to write could happen when the women is unable to communicate due to hypoglossal nerve damage which could affect her tongue, but they can ability to write in such a situation. On the other hand, the women could able to read but unable to write if the women had full deformity of the upper extremities (both hunds fully deformed) this result in a woman could read but not write. However, both the above situation had not been happened in our study.

23. Table 2. Complete the phrases as necessary. e.g. Knowledge of women on... Dear reviewer thank you for your comments. We had completed as per the comment. Please see the clean version of the revised manuscript on page 21, line 372.

24. Table 3. For the Reasons for HF delivery, who was source of the information? Did the 315 mothers that did not decide for themselves get reasons from the decision makers? For Type of complication that faced during labour, the Figures do not add up to any declared n. How do percentages for prolonged labor and fast labor compare visa viz their numbers? Why include Transport problem and Far HF in this variable? Consider revision of Reasons for home delivery, as the figures do not add up, and it ought to be aligned with reasons for HF delivery. Dear reviewer thank you for your comments. The source of information was women. Even if the decision makers for place of delivery has made by their husband for about 315 women, but they could able to know the reasons because they can get information when they had attended different maternal health services such as ANC, family planning, child immunization,etc.

We have revised the type of complication that had faced during labour and the figures can add up and give a declared n. Please see the clean revised version of the manuscript on page 23, table 3.
We have included transport problem and far health facility as a reasons for home delivery since this were among the reason explained by the women. If you add up the reasons for home delivery it gives 247. So that we have requested you to recheck it. The reasons for health facility delivery and reasons for home delivery might not be hundred percent aligned. Because the reasons for home delivery has been responded by home delivered women, where as the reasons for facility delivery was responded by health facility delivered women. As a result, they might have some variations.

25. Table 4. Disbanding education from literacy could give different results that are significant.
   For calculations on decision on delivery place, why do these figures refer to the 134 that delivered at HF only? Wouldn't the opposite (home births) be equally significant? Dear reviewer thank you for your comments. Sorry, we did not understand this question clearly. As to our understanding, Yes, the figure that was 247 was similar in decision making and disbanding education that delivered at home.

Reviewer 2: comments/suggestions

1. Title: Can be made more concise Dear reviewer thank you for your comments. We have revised the title of the manuscript. Please see the clean revised version of the manuscript on page 1 lines 1-3.

2. Background: Correction of grammatical mistakes Dear reviewer thank you for your comments. We have edited the grammers based on expertise suggestion. Please see the clean revised version of the manuscript under sub-sections of background on pages 5 and 6, lines 65 to 91.

3. Methods: Can be written more concisely Dear reviewer thank you for your comments. We have review our write up of the methods section and rewrite it. Please see the clean version of the revised version of the methods sections of the manuscript on pages 6 to 8, lines 92 to 152.

4. Results: Ok and can be written concisely again Dear reviewer thank you for your comments. We have rewritten the results section of the manuscript. Please see the clean revised version of the results sections of the manuscript on pages 8 to 10, lines 153 to 196.

5. Discussion: References should have been written as superscript. Dear reviewer thank you for your comments. We have revised the references style as per your recommendation. We had made the referencing in superscript style. Please see th clean version of the revised manuscript.