Author’s response to reviews

Title: Vitamin D deficiency among newly diagnosed tuberculosis patients and their household contacts: a comparative cross-sectional study

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Version: 2 Date: 15 Mar 2017

Author’s response to reviews:

Author's response (2) to reviews

Vitamin D deficiency among newly diagnosed tuberculosis patients and their household contacts in Gondar, North-West Ethiopia: a comparative cross-sectional study

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Manuscript version 3: Date: March 15, 2017

With regards!
From: Meseret Workineh
Correspondence Author (mwmesi@gmail.com)
March 15, 2017
To: Archive of Public Health, Editorial Board

Subject: Submitting a revised version of manuscript

Object: Manuscript ID= AOPH-D-17-00020: Vitamin D deficiency among newly diagnosed tuberculosis patients and their household contacts in Gondar, North-West Ethiopia: a comparative cross-sectional study

We would like to thank the reviewers and editor for sharing their view and experience. The comments are very important which will further improve the clarity of our manuscript. The point-by-point responses for each of the comments and the revised manuscript are provided in the attached documents.
Point by point response

Editor: the manuscript should be revised by a native English speaker

Reply: Thank you for your valuable comment and suggestion. The final version of the manuscript has been copyedited by English language expert.

Reviewer #2: The authors have responded to most of the comments dressed by the reviewers. However, there are still some weaknesses in this manuscript that should be resolved.

Abstract:

1. Please add unit to all values. This is valuable for the abstract, the entire text and all tables.

Reply: Thank you for your valuable comments. We have addressed the comments.

2. There is confusion between house hold contacts, community controls and healthy blood donors. Please keep the same terminology all across the abstract and the manuscript.

Reply: in this version of the manuscript, we used the term ‘community controls’ consistently throughout the manuscript.

3. (Presence or absence of TB): it is not clear if it is the presence or the absence of TB who is a predictor of severe vitamin D deficiency.

Reply: Thank you for the comment. We made a change to the statement (in the revised manuscript) to show which the predictor is, and which category is comparator as follows:

After controlling for potential confounders using multivariable binary logistic regression model, low BMI level (AOR=2.13; 95%CI: 1.02, 3.28) and being positive for tuberculosis (AOR=1.93; 95%CI: 1.06, 2.86) were significant predictors of severe vitamin D deficiency.
Methods:

1. Page 7, line 143: revise the sentence

Reply: The sentence is rephrased.

2. Data collection: this paragraph should be revised. Indeed it is still not clear which data were collected in which of the groups. If data were not collected for one type of group, authors should give a reason to argue this missing information.

Reply: Thank you for the comment. We have revised the paragraph. All household contacts had data on age and sex; but not regarding level of education, occupational status, alcohol use and tobacco use. In the manuscript we have defined a household contact as a person who lives together (> 6 months) and spends more than 12 hours per day with a TB patient. Thus, the household contacts share many socio-demographic characteristics with TB patients. In addition to this we have used only vitamin D data of household contacts to compare it with both TB patients and community controls. That is why we didn’t collect the socio-demographic data for the household contacts.

3. Authors should precise they checked the normality of their data and precise the statistical test used for.

Reply: The comment is well accepted, and we have checked the normality of the data by Q-Q plot. Thus, parametric tests were used when there was a normal distribution.

4. Which statistical test has been used for bivariate analysis?

Reply: Thank you for the comment. Binary logistic regression analysis was used and we have stated it in the revised version of the manuscript.
5. Authors should group all information regarding univariate analyses (Chi² for categorical data and .... for continuous data).

6. Reply: Thank you for the comment. We have addressed the issue in the statistics part of this version of the manuscript.

Results

1. All over the results part, as well as in the abstract, results regarding household contact are missing.

2. Reply: The comment is well accepted. As we have mentioned above, all household contacts had data on age and sex; however, no data were collected regarding level of education, occupational status, alcohol use and tobacco use. Thus, we have put the results of their age and sex (table 1), the comparison of their mean vitamin D levels (table 2) and the vitamin D deficiency prevalence (table 3) and we have put their results in the abstract and the result sections as well.

3. Additional information of table 1 should be explained in the manuscript.

   Reply: Thank you for the comment. We have mentioned some additional information in this version of the manuscript.

4. Some of values presented in table 2 do not correspond to what is written in the text.

   Reply: Thank you for your valuable comments. We have addressed the comment in this version (table 2).
The presentation of table 2 is confusing. The reviewer does not understand the presentation of the two first column and associated values. Moreover, 95% CI do not correspond to mean values. Please remove standard error and 95% CI from the table for a better understanding.

Reply: Thank you for your valuable comments. We have addressed the comment in this version (table 2).

5. Please change Figure 1 by Table 3 in the text.

Reply: Thank you. We have addressed the comment.

6. Results of the multivariate analyse are not correctly presented in the text. Please revise this.

Reply: Thank you for your valuable comments. We have revised the paragraph in the manuscript.

- Table 4:

  o please add % for each number.

Reply: Thank you. We have added the %.

  o Authors wrote that a* indicates p<0.05 but no * is given for COR

Reply: Thank you for your valuable comments. We addressed the comment.

  o P-values should be reported for COR

Reply: Thank you for your valuable comments. We have added the p values in the revised manuscript.
Footnotes should explain why only 3 data were included in multivariate model.

Reply: Thank you for your valuable comments. We addressed the comment in the revised manuscript (table 4).

Discussion

- Please report the strengths and weaknesses of this study

Reply: Thank you for your valuable comments. We addressed the comment in the revised manuscript (Discussion, last paragraph)

Thank you!!