Author’s response to reviews

Title: Prevalence and determinants of erectile dysfunction among diabetic patients attending at hospitals of Central and Northwestern Zone of Tigray, Northern Ethiopia: a cross-sectional study

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Title: Prevalence and determinants of erectile dysfunction among diabetic patients attending at hospitals of Central and Northwestern Zone of Tigray, Northern Ethiopia: a cross-sectional study

Author’s response to Reviewer comments:

Response to Reviewer #1 comments:

1. In the Abstract, Background and methods are combined. Kindly give the methods section separately.

Response: accepted

2. Introduction can be made short and crisp for easy reading.

Response: we will try to abridge it. It is written in accordance with journal guideline

3. Give reference for operational definition of ED.

Response: accepted
4. In Table 1, the "type of diabetes" variable can be added.
Response: Planned to create additional table to describe clinical variables

5. Did the authors leave out the 24 subjects who were single from the analysis or they were also included?
Response: they are also included. Even though they are single they have girl friends and other sexual partners. The IIEF-5 tool is also applicable if they made sex for the last six months

6. Figure 1 doesn't add value to the article and hence it can be removed.
Response: the result can be described with text. Hence, it can be canceled.

7. In Figure 2 and 3, the data values can be corrected to one decimal.
Response: accepted

8. For Figure 3, the authors need to add axis titles.

9. In the Discussion section, first paragraph can be rewritten as some of the sentences do not read well. The authors need to add more reference articles for discussion which is lacking here.
Response: We will try searching additional literatures. But studies conducted on this area are rare.

10. In Page 12, the authors had said that the prevalence of ED varies between 35 and 90% worldwide, however in contrast to the above sentence, later in the same paragraph they have said there might be some discrepancy from the study conducted in Tanzania and Iran as their ED prevalence was 55 and 59.5%. Kindly explain.
Response: Of course the finding of this study lies within the global range. But when it is compared to nearby African countries it is somewhat higher with the difference of 10%.
Response to reviewer # 2 Comments

1. It is mentioned in the methods section that informed consent is obtained from the study participants. Was it written or oral informed consent?

Response: There is a well prepared written informed consent translated to the local language but for those who cannot read, data collectors use oral consent before data collection. The written consent form is attached with this manuscript.

2. What was the criterion used for the diagnosis of diabetes? How was fasting and post-prandial blood sugar levels measured? These details should be included in the methods section.

Response: Data is gathered from both chart and self-report of patients. The diagnosis of DM is made by physicians (internists) working at each study hospital. They are using WHO criteria that if FBS ≥126mg/dl the patient is diagnosed as diabetic. Otherwise, Hb1c is not feasible in our setup. FBS is measured using glucometer immediately before breakfast when they arrive at Diabetic/chronic disease follow up clinic of each respective study hospitals. we can include the detail in the manuscript.

3. The methods section is also lacking in other important details like the method of measurement of blood pressure and criteria used for the classification of obesity.

Response: Manual sphygmomanometer (BP cuff) is used to measure BP and WHO criteria is used to classify BMI. Again the detail can be added. Data collectors are clinical nurses who are very much experienced and working in the study areas.

4. The results section mentions about the poor glycemic control of the study participants. Was HbA1c data available for the study subjects? If so, the mean levels should be provided.

Response: As it is mentioned before HbA1c test is not available in our case. We are judging glycemic control based on FBS result. The mean is 187.5mg/dl which is above the normal range (70-100mg/dl). Post-prandial glucose is also not used

5. It is important to include clinical variables like mean age, BMI, Blood pressure, Fasting and post-prandial blood sugar, HbA1c as a separate table or in table 1.

Response: accepted
6. The study findings show that old age is a significant predictor of erectile dysfunction which is already known. Hence it would be interesting to exclude subjects > 60 years of age and identify the predictors of erectile dysfunction in the younger population which is a far more important research question.

Response: Of course I agree with you. But under normal health circumstance the specific age at which erectile function of males’ stops or declines is not yet determined. Even they can have satisfying sexual intercourse in 80’s. But studies showed that diabetic cause ED 10-15 years earlier than ED that comes through normal aging process. This study also demonstrates the risk in this age group is 15 fold higher than young population. It enables to give due attention for these population in diabetic clinics.

7. Data on the prevalence of alcohol consumption and smoking are available for the study subjects. What is the prevalence of ED in subjects who smoke and don’t smoke and in subjects who are physically active and sedentary and in those who consume alcohol and don’t?

Response: Even though no association is seen with above variables, the prevalence of ED against these life style variables can be presented using cross tabulation. Yes I accept it gives more sense if it is presented like that.

8. Figure 2: data presented in figure 2 can be included in any of the tables instead of showing it as a separate figure

Response: If I create additional table that describes clinical variables the pie chart can be omitted.

9. Line 49-51 state that “The results on type of diabetic showed 63.1% are Type 1 and the remaining 36.9% are Type 2 DM”. Type 1 and Type 2 diabetes are diseases with distinct pathologies, the former an autoimmune disorder and the latter a metabolic disease. Hence all the data should be presented separately for type 1 and type 2 diabetes patients as it is not appropriate to combine both disorders. Further, the title should be modified to reflect that both type 1 and type 2 diabetes patients are included in the study.

Response: Though the underlying pathology is different, both types of DM have an impact on erectile function of patients. Type of DM was tested if it has any association with ED but there was no association demonstrated. Whenever it is necessary to compare some results against the
type of DM it can be presented separately. For instance, as it is presented in the manuscript the prevalence of ED among type 1 and Type 2 DM is distinctly presented. As to my understanding, presenting every finding separately is not as such appropriate even similar studies conducted elsewhere didn’t present separately.

Regarding correction of the title as I mentioned earlier the study targeted on Both types of DM. If it was planned to study on only one type of DM I completely agree that it should be specified on the title. Otherwise we understand that by default when we say on diabetes we are referring the two types of DM. There are different studies that write their title similar to your comment but they are studying only in one type of DM.

10. What is the meaning of ‘Adjusted odds ratio’? What are the confounders adjusted?

Response: Well! Adjusted Odds Ratio is one of the means of controlling confounding variables during analysis. It is relationship between one dichotomous response variable and many explanatory variables. It is type of odd ratio resulted in multivariate logistic regression analysis. Once different independent variables are tested for association independently with the outcome variable, those variables which show association with a p value of ≤ 0.2 will be entered to multivariate Logistic regression analysis. It will be further refined by removing variables with high p-value. Before deciding to use this model Hosmer and Lemeshow is used to test model fitness.

11. Minor comments

Please correct the typo in Line 8 ‘Severe’

12. The abbreviation IDF is not used in the text

13. “Duration of illness” should be corrected to duration of diabetes.

14. The references should be formatted uniformly according to the journal’s style

Response: the manuscript will be revised as indicated.