Author's response to reviews

Title: Common Types of Tuberculosis and Co-Infection with HIV at Private Health Institutions in Amhara Region of Ethiopia: A Cross Sectional Study

 Authors:

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Author's response to reviews: see over
Reviewer's report

Title: Common Types of Tuberculosis and Co-Infection with HIV at Private Health Institutions in Amhara Region of Ethiopia: A Cross Sectional Study

Version: 2
Date: 20 December 2013
Reviewer: Fidele Kanyimbu Mukinda

Reviewer's report:

"Common Types of Tuberculosis and Co-Infection with HIV at Private Health Institutions in Ethiopia: A Cross Sectional Study"

This study is very important and very interesting. However, the comments below should be considered for improvement.

Authors’ response: Thank you very much. We have tried to incorporate your comments as shown below.

- Major Compulsory Revisions

Methods

- Paragraph 1:
  “Data were collected randomly at different times of the year from each private health institution”. Please describe how “randomly”

Authors’ response: We appreciate the comment. The detailed process of selection of healthcare institutions and study participants is now explained in the first paragraph of the methods section. Please see the revised version.

“We believe the random nature of data collection times will not cause any significant bias to the findings of the research”. This sentence is not important at this stage, I would suggest mentioning this in the Discussion section.

Authors’ response: We accepted the comment, and therefore deleted the sentence out of the first paragraph of the methods section. Please see the revised version.

- Paragraph 2:
  “The study was done in 15 different private health institutions…” How did you select these 15 institutions? How many private health institutions are there in your setting from which you selected the 15? Please elaborate.

Authors’ response: There were a total of 32 private health institutions during the study period that gave treatment and care to TB patients. Out of those health institutions, 15 were selected by using a lottery method. This is now elaborated in the revised version (first paragraph of the methods section)
“Data were collected with the help of WELL structured and pretested questionnaires…” “WELL ORIENTED health professionals were assigned at each private institution to collect data supervised by medical doctors.”

Suggestion: Remove WELL as it subjectively overemphasizes what was done. Who are these health professionals (doctors? Nurses?) I would suggest to name them and re-structure the sentence.

Authors’ response: Thank you for the comment. We have now made the modifications. The term WELL is now removed, and the nature of data collectors elaborated. Please see the revised version.

“Analysis is handled by statistical summarizing methods like measures of central tendency, measures of dispersion, tables and diagrammatic presentation of data.”

There is no diagrammatic presentation of data; please check.

Authors’ response: Comment accepted, and the phrase ‘diagrammatic presentation’ removed!

“Moreover, patients were asked for their permission.”

Which permission is this? Do you mean informed consent?

Authors’ response: Yes, we mean ‘informed consent’. Please see the last paragraph of the methods section in the revised version. The following sentence is now used:

“Moreover, verbal informed consent was obtained from patients.”

Results

- Paragraph 1:

“The age variation ranges from a minimum of 2 years to a maximum of 82. The mean age was 31.6 years with a standard deviation of 13.5 years.”

Suggestion: The mean age was 31.6 years (Standard deviation: 13.5; range: 2 to 82)

Authors’ response: Comment taken, and modifications made. Please see the revised version. We have taken your suggestion directly.

“T test was done to see if there was age difference between female and male patients.” Suggestion: Put this sentence in the methods section.

Authors’ response: Comment accepted. We have now taken the mentioned sentence to the fourth paragraph of the methods section. Please see the revised version.
“The result showed that there was a significant age difference with a mean age difference of 3.8 years (95% CI: 2.2 to 5.4)."
Suggestion: T-test showed a significant difference in mean age between male and female patients (Mean age = 3.8 years; 95% CI: 2.2 to 5.4)

Authors’ response: Comment taken, and modifications made. Please see the revised version. We have taken your suggestion directly.

- Paragraph 2:
  “…and 70% had been married at least once”
Comment: Please report N(%) not only %. Consider this in the rest of the paragraphs as well.

Authors’ response: Comment well taken, and corrections made throughout the results section. The discrepancies observed are also explained now. Please see the last sentence of the fourth paragraph and a couple of sentences under table 1 in the revised version.

- Paragraph 3
  “Living areas of the study participants were classified into 5 settings: urban, semi-urban, rural, semi-rural and mobile.”
Comment: Please add the definition of “mobile” in your methods

Authors’ response: Thank you for the comment. It is a key comment. The definition is now included in paragraph 5 of the methods section. Please see the revised version.

- Paragraph 4
  “Regarding the types of tuberculosis, just above 50% of the participants were diagnosed to have PTB out of whom 57% were smear positive PTB patients”
Suggestion: Regarding the types of tuberculosis, N?(%) participants were diagnosed with PTB; N?(57%) of whom were smear positive PTB patients

Authors’ response: Suggestion accepted and changes made. See the fourth paragraph of the results section in the revised version.

- Paragraph 5:
  “One hundred sixty three patients (14.4%) reported that they had some sort of contact with a chronic cougher.”
Suggestion: 163 (14.4%) patients reported that they had some sort of contact with a chronic cougher

Authors’ response: Suggestion accepted and changes made. See the fifth paragraph of the results section in the revised version.

- Paragraph 6:
  “However, 334 (29.3%) patients did not undergo the testing.”
Comment: None of the totals from the categories (Sex, Age Group, Marital status, etc.) in table 3 correspond to 334. Please check the numbers.
Authors’ response: Comment appreciated! We have included the following footnote below table 3 based on your comment:
“The totals under the categories above vary because the data for each category were not complete. Some patients’ data were not documented, and it was difficult to trace patients after they were sent home.”

“Out of those patients tested for HIV, 161 (20%) tested positive.”
Comment: Discrepancy with the numbers in Table 3. None of the numbers in categories add up to 161. Please check.

Authors’ response: For this comment too... Comment appreciated! We have included the following footnote below table 3 based on your comment:
“The totals under the categories above vary because the data for each category were not complete. Some patients’ data were not documented, and it was difficult to trace patients after they were sent home.”

Discussion

- Paragraph 1
“This study has shown that TB occurs” Suggestion: This study showed that TB occurs

Authors’ response: Correction made based on the comment. Please see the revised version.

“A significant age difference was seen among female and male TB patients. The mean age of male TB patients (33.3 years) was found to be 3.8 years higher than that of female TB patients (29.5 years).
Suggestion: Delete the second sentence since it is part of the results. Read: “A significant age difference was seen between female and male TB patients.”

Authors’ response: Second sentence deleted based on the comment.

- Paragraph 2
“Possible factors which may be related to TB HIV co-infection like marital status, patient residence and type of TB are investigated in this study”
Suggestion: TB/HIV co-infection like marital status, patient residence and type of TB WERE investigated in this study

Authors’ response: Correction made!

 “…most of the TB patients encountered were from rural or semi-urban settings.”
Comment: Are you suggesting that, in your setting, rural and semi-urban patients are more likely to consult private facilities than urban patients? How pragmatic is this finding bearing in mind the accessibility in terms of distance, cost, etc?

Authors’ response: Instead, we were thinking most of the TB patients who were visiting the private institutions were rural and semi urban dwellers indicating that TB
is mainly common in rural areas to the extent that considerable number of patients visit even institutions located in urban areas. And TB is less common in urban areas so we had lesser number of urban TB patients. After all, it is the finding. We, however, understand your concern.

“This is in line with data from many different observations.14,18”
Suggestion: This is in line with data from OTHER observations.14,18

Authors’ response: Comment taken and correction made. Please see the revised version.

- Paragraph 3
“Quite a big number of patients were not screened for one or another reason.14,20,21,22,23”
Comment: Please check your referencing style

Authors’ response: We did the following change in listing the references. Let us know if that is not what you actually meant.

“Quite a big number of patients were not screened for one or another reason.14,20-23”

- Paragraph 4
“The rate of TB and HIV co-infection in Ethiopia was shown by SOME PAPERS to be in the range of 40-70%.”
Suggestion: The rate of TB and HIV co-infection in Ethiopia was SHOWN by OTHER STUDIES to be in the range of 40-70%.

Authors’ response: Comment accepted and correction made!

“This STRONG link between HIV and tuberculosis…” Suggestion: Delete STRONG, subjective overemphasizing.

Authors’ response: Comment accepted and correction made!

Please discuss any limitation of your study. How did you deal with possible bias (selection bias, information bias, etc?)

Authors’ response: According to your comment, we have now included the following as the last paragraph of the discussion section:

“This study is strong in that it considered many private healthcare institutions that are alternative healthcare areas to government institutions, and hence the results will complement data from government institutions. However, the fact that different healthcare professionals were involved in assessing patients and making diagnoses might have resulted in information bias. Seasonal selection bias may not be a serious issue as patients who came at different seasons of the year were recruited to the study.”
TABLES
- Table 1. Table showing the types of TB identified at selected private health institutions in Amhara National Regional State, 2008/09
Suggestion: Table 1. Types of TB identified at selected private health institutions in Amhara National Regional State, 2008/09

Authors’ response: Suggestion accepted, and correction made!

Total 1140. Please explain the difference in numbers because you reported in the result a total of 1153. This comment stands for all tables.

Authors’ response: This comment is already addressed above. Please see our responses above.

- “Table 2. Table showing the types of isolated extrapulmonary TB cases at private health institutions in Amhara National Regional State, 2008/09”
Suggestion: Table 2. Types of isolated extrapulmonary TB cases at private health institutions in Amhara National Regional State, 2008/09

Authors’ response: Suggestion accepted, and correction made!

- “Table 3. Table showing the HIV status of TB patients in relation to their sociodemographic characteristics at selected private health institutions in Amhara National Regional State, 2008/09”
Suggestion: Table 3. HIV status of TB patients in relation to their sociodemographic characteristics at selected private health institutions in Amhara National Regional State, 2008/09

Authors’ response: Suggestion accepted, and correction made!

Comment: This table seems to be very busy while being the most important one. I would suggest to add N(%) under the headings [e.g: Positive N(%), Negative N(%) Test done N(%)] and delete all the % inside the table. The 100% in total does not have any meaning; could you consider instead the % of the total study population [e.g. Male 599 (53.4%)]

Authors’ response: Comment well taken, and corrections made. Please see the revised table 3.

- Minor Essential Revisions

- Tuberculosis vs TB: Please be consistent throughout the text. Use Tuberculosis (TB) and the remaining use only TB (i.e. abbreviation)

Authors’ response: Comment well taken, and corrections made.

- Please define before using abbreviations (EPTB, PTB)
**Authors’ response:** Comment well taken, and corrections made.

- References: Please check all your references for consistency in writing e.g.: Ref 1: “21-27” write 21-7; ref2:“269-276” write 269-76; ref3: “1500-1507” 1500-7; etc

**Authors’ response:** References corrected accordingly. Please see the revised list of references.

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**
I declare that I have no competing interests

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**SECOND REVIEWER**

**Reviewer’s report**

**Title:** Common Types of Tuberculosis and Co-Infection with HIV at Private Health Institutions in Amhara Region of Ethiopia: A Cross Sectional Study

**Version:** 2  **Date:** 17 March 2014

**Reviewer:** Jose Manuel Ramos

**Reviewer’s report:**

Major Compulsory Revisions

1. Introduction

The authors made a huge introduction about TB, HIV/TB, and TB in Ethiopia, but they don't introduce the contribution of the private clinic in the control of the HIV/TB. The unique time that the authors write the word private, the authors should changes the introduction and should be included these recommendations, so contribution of public-private to TB case case notification.

**Authors’ response:** Thank you for the comment. We appreciate it. The following is now included as the fifth paragraph of the introduction section:

“To the authors’ knowledge, there is no study done in Ethiopia that shows TB burden and HIV coinfection. In addition the contribution of private health institutions in TB case detection and the overall care is not documented. Studies are lacking, but are important to design how private institutions should contribute.”
2. The authors should explain the type of private health institutions (private-non profit, private-profits, etc).

**Authors’ response:** Private-profit health institutions were the ones included in the study. Based on your comment, this is now included in the last sentence of the introduction section.

3. The authors should explain the proceed of randomized used

**Authors’ response:** We appreciate the comment. The detailed process of selection of healthcare institutions and study participants is now explained in the first paragraph of the methods section. Please see the revised version.

4. How many private institutions there are in Amhara National Regional State which offer therapeutic services to tuberculosis patients as well as with HIV screening facilities. With percentage is of total of institutions which offer therapeutic services to tuberculosis patients as well as with HIV screening facilities (relation public - private)

**Authors’ response:** There were a total of 32 private health institutions during the study period that gave treatment and care to TB patients. Out of those health institutions, 15 were selected by using a lottery method. This is now elaborated in the revised version (first paragraph of the methods section). HIV care was limited to government institutions only.

Minor Essential Revisions
1. This sentence in the results should be elimite, because is explain in material and methods. Living areas of the study participants were classified into 5 settings: urban, semi-urban, rural, semi-rural and mobile.

**Authors’ response:** Comment accepted, and the specified sentence now deleted. Please see the revised version.

2. However the authors have not explained the meaning of mobile?

**Authors’ response:** Comment accepted, and the definition is now included. Please see the methods section of the revised version.

3. Why is hight prevalence of patients did not undergo the HIV testing “334 (29.3%)”

**Authors’ response:** HIV testing was offered for all of the study participants, but it was rejected by 29.3%. We did not ask for their reasons. We hope this does not create a serious problem to our findings.

4. What type of TB is Cold abscess?
Authors’ response: Cold abscess is a type of abscess that collects in soft tissues anywhere in the body that was diagnosed clinically or laboratory wise to be due to TB. This definition is now added to the methods section of the revised version.

5. Revise the bibliography

Authors’ response: It is now revised and a few corrections were made. Please let us know the specific things to be revised if our current correction doesn’t satisfy you.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests: 'I declare that I have no competing interests'