Author's response to reviews

Title: Management of pulmonary tuberculosis patients in an urban setting in Zambia: a patient's perspective

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Author's response to reviews: see over
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Version: 1 Date: 26 October 2010

Author’s response to reviews: see over
Dear Editor,

Re: MS 1762972112424942 “Management of pulmonary tuberculosis patients in an urban setting in Zambia: a patient's perspective.”

We are sincerely grateful to you and the reviewers for your time and helpful comments on our manuscript. We have addressed the reviewers concerns and updated the manuscript accordingly.

Reviewer 1

Version: 2 Date: 3 September 2010
Reviewer: Dag Gundersen Storla

Reviewer's report:

1. My overall impression is that the article covers a very important issue, as it tries to explore into treatment adherence and success seen from the patient's point of view. But this is also a demanding position; it is its strength and weakness. The data entry is indeed retrospective; the patients are asked after a long time about what they remember the TB service provider told them, asked them, did or did not, etc. Considerable recall errors must be expected. Besides, the danger of skewed reports is also high; it is well known that if the interviewer is considered to represent the authorities or health care system (which is likely here), they tend to bias their answers in the way they expect they should be to please them (to report better behaviour by the TB health worker than it actually was). An indicator of this could be that it is reported of a prolonged delay even among the patients who suspect their condition to be TB with prominent symptoms. Maybe this avoidance comes because rumours has it that the behaviour is not so good, the humiliation of DOTS, Stigma, etc. These aspects are not properly discussed.
1. In the discussion section (last paragraph) we have acknowledged and stated as one of the limitations of the study: “Admittedly, because this study asked about the past, participants’ recall may have biased our results”.

2. We have removed the word ‘nurse’ to avoid confusion. The research assistants used were from the TDRC and not from the health centre facilities. Although they have a nursing background, for this study their role was as research assistants. Further, they were not dressed in nursing uniforms nor did they introduce themselves as nurses. Additionally, during the informed consent procedure participants were assured of confidentiality. Therefore, we consider the bias of ‘pleasing the interviewer’ to be minimal in this study.

3. The aspect of possible reasons for patient delay is alluded to in the discussion section on pg 14.

“Whereas it is possible that respondents were truly unaware of TB symptoms prior to TB treatment, several other studies have shown that there are various reasons why patients delay seeking care at a health centres. Loss of income, health centre systems or staff attitudes, stigma of the HIV association, severity of disease, lifestyle, for example, alcohol abuse, are among the many explanations [9,10,11,12,13]. The most common reasons in our study, ‘I was thinking the symptoms will go away’ or ‘I did not think it was serious’ also appear to be common in different settings [8,12]. This may be reflective of the commonly practiced self-treatment, which may ameliorate initial symptoms thus temporarily masking the severity of disease and consequently ‘buy them time’ to continue with their daily income generating endeavours. Only 17% of our study population were in formal employment suggesting that for most respondents an income was dependent on their daily efforts and therefore may not afford the time at the health centre. Further, the period of the study, were the early days of scaling up of free antiretroviral therapy in Zambia and so people may still have been feeling helpless against HIV infection.”

On page 4 it is written in line 9 that Zambia has 100% DOTS coverage. We assume first that this is not likely, and secondly: the authors mention later in the article that also private practitioners are giving TB treatment. Are 100% of them also providing treatment utilizing the DOTS strategy?

1. This is the WHO report we are referencing, nonetheless we have added the word “officially” to the sentence on pg 5, second paragraph. We agree with the reviewer that this is probably not true but we have no other data to use and this is perhaps another topic for investigation.

2. Traditionally, tuberculosis control has been largely implemented in public health facilities in Zambia and involvement of private practitioners in TB care has been considered minimal, especially that TB drugs are been free in public health facilities. The most prominent of the private sector is the Faith-based Organisations or Mission Facilities who are well connected to the NTP in Zambia. Private sector involvement in TB control in our study site, Ndola Urban is indeed minimal as this district has neither a Mission nor Mine Hospital.
I also miss more information about the NTLP; is it a "vertical" program, or is it integrated in the other health care services?

1. The TB control program is integrated. Additional information has been added in the text in the background section to this effect (on pg 5, second paragraph).

On page 5 first passage: I miss something about the well known vicious circle of repeated visits at the same health care level without being referred to the specific NTP. The last part also contain a lot of statements and conclusions, which should not appear in an introduction; "To achieve well functioning primary healthcare systems, NTP needs to establish good monitoring systems ... NTP should provide for analysis ... Patient education is an important aspect of ... (page 8)"

1. Unfortunately, this information was not captured because we did not include a specific question to probe the number of visits to health centre respondents made before proper referral. However in the rephrasing of our discussion, we make mention in the introductory remarks (first paragraph), the importance of ‘competent healthcare staff who are able to provide quality of care through prompt diagnosis and referral’ as an important component of a successful TB program

2. The last part of this section has been removed as advised.

Under methods (page 6): Why did they only included sputum-positive cases?

1. Unfortunately, this study was linked to a drug-resistance survey which only included smear-positive cases, as recommended by the WHO guidelines for resource-constraint countries.

That the cases were collected in 2006 and 2007 is not exact enough, we should know the precise start and end month.

1. Start and end month have been added to the text (between January 2006 and July 2007).

To state that the Questionnaire ad. was performed in August 2008 (page 6) is a typical example of all the unnecessary information in this article.

1. This sentence has been removed, as well as some additional information not considered relevant to this specific study

Only six of the 26 included health care centres were able to perform sputum microscopy (page 7). How could the authors then make it an important issue if the staff instructed the patients to come back for repeated sputum tests if microscopy was not available in a large majority of centres?
1. The referral system for sputum under the NTLP in Zambia is organized to ensure collection of sputum from all TB suspects at all treatment centres and delivery to the diagnostic centres for microscopy. Therefore, sputum microscopy for all the 26 clinics in Ndola can only, and SHOULD, be done in one of the six microscopy centres. This referral system has been more clearly formulated now in the text.

“To ensure and improve compliance to sputum follow-up, it is the duty of treatment centres to (1) ensure patients make follow-up visits and submit sputum specimens as required (2) deliver sputum specimens to the nearest diagnostic centre for microscopy and (3) collect microscopy results from diagnostic centres and make available to patients for appropriate care. Patients do not visit diagnostic centres themselves”.

Page 7: "what is "programmed logical checks"?"

1. This has been removed from the text as it refers to the” in-built consistency and range checks” mentioned in the previous sentence.

Page 7, fourth line from the bottom: What does it mean that the patients are treated ambulatory; is not all patients treated as outpatients, without being admitted? Does it mean that the staff comes home to them? And if so, is not this an advantage and not a problem?

1. A sentence has been added to the text to clarify that patients come to the clinic to pick up medication.

“Patients are instructed to pick up medication at TB treatment centres once or twice a week during the intensive phase and once monthly during the continuation phase”.

Notification: As only 105 patients were included, it does not give a meaning to quote the percentages with one decimal (23.6%) it should be used only whole numbers (23) And the additional absolute numbers is not necessary; the numbers and percentages are close to each other in values, and the double writing is awkward to read. Besides; they are not listed in a consequent form.

1. Percentages have been adapted and absolute numbers removed as suggested.

Some of the conclusions are also rather self-understood, eg that patient adherence is associated with caregiver adherence to treatment (page 12). In general the discussions needs to be more "to the point", the authors need to dare pick out and pinpoint some few IMPORTANT conclusions instead of a long text with a lot of rather obvious statements.

1. The sentence on has been changed to reflect the use of the conceptual framework to make these associations.

2. The discussion section has been greatly revised to make it more succinct.
A major language wash and considerable re-writing must be done. Obvious errors are abundant (especially in the first parts, the result and discussion part is substantially better), the language is awkward and the total length of the article can be radically reduced. Examples of errors and sentences that need revision:

Page 4 line 6: cases threatens --> cases threatens
Page 4 line 9: strategy as its' --> its
Page 4 line 12: health care system is key in the --> is a/the key in the
Page 4 line 17: DOTS has contributed at country level --> omit "at country level"
Page 10: 1 month --> one month
Page 11: delete "according to respondent"
Page 12 line 6: treatment with --> treatment within
Page 13 line 1: slightly associated --> not significant association

1. Suggested corrections of errors have been made, as well as a general review of the English grammar and structure of the text.

Level of interest: An article of importance in its field

Quality of written English: Not suitable for publication unless extensively edited

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
Reviewer's report:

Major compulsory revisions:

1. Methods

(1) Sample size of 105 respondents seems to be relatively small to draw any statistically meaningful results through this kind of cross-sectional study. Authors are requested to explain how did they come up to this sample size under Study design and population part.

1. A new section, Sampling and sample size’ has been added to this section where size calculations has been explained.

(2) Sampling frame and methods were not clearly described in the text. Authors are requested to describe the sampling frame and how actually did they take samples from the sampling frame under Study design and population part as well. What were the inclusion criteria and the exclusion criteria?

1. Sampling frame and methods has been addressed in the section ‘Sampling and Sample size’.
2. The inclusion and exclusion criteria are included in the section ‘Sampling and Sample size’. i.e. All smear-positive patients......... Those that had received treatment from private clinics or hospitals and children less than 18 years of age were not included.

(3) Regarding “Patient treatment adherence” under Conceptual framework on page 8, this key outcome measurement of this cross-sectional study is fully dependent upon the self-report by the patient him/her-self. Is there any verification mechanism for this key outcome measurement data? For instance, the investigator may have verified the self-reported adherence by checking the medical charts or by asking health centre staff. Authors are requested to describe any verification mechanism for the data self-reported.

1. As the interview was anonymous to ensure complete confidentiality, we were not able to go back to the patient’s data files to verify the self-reported data. Nevertheless, the implied cure rate for this sample population is comparable to the average cure rate data for the same period from Ndola DHMT.
(4) Regarding “Care giver treatment guidelines adherence” on page 8, it is not clear who assesses its adherence. Previous TB patient interviewed or care giver her/him-self?

1. We added “were reported by respondents” to clarify this issue (pg 9).

(5) Definition of “Treatment delay” is not described under Methods part. Authors are requested to describe explicitly its definition in the text.

Response

‘Treatment delay’ is misleading and has been replaced by ‘health seeking behaviour’ to remove the confusion (in the abstract and pg 7).

2. Results

(1) The description of the Results throughout need to be further simplified. The contents that the Tables delivers need not describe in the text again. The important findings with direct link to the study objective should be described in the text.

1. We have greatly restructured this section and shortened the verbiage to be more linked to the objectives as advised.

3. Discussion

(1) We can not dilate the results obtained from the present study, which made interview to previous TB patients, as a representative of the people in the community. It is natural that the previous TB patients would have appropriate knowledge about TB, but we can not simply apply this fact to the people in the communities. Authors are requested to rephrase the 2nd and the 3rd sentences of the 2nd paragraph under Discussion part on page 13 to interpret the findings about the knowledge on TB among previous TB patients, not among the people in general.

1. The section in Discussion discussing respondent’s knowledge has been rephrased greatly and now addresses the reviewer’s concern. In particular the sentence now reads:

“Maybe not surprising, as previous TB patients our respondents showed a good level of knowledge on the symptoms and modes of transmission of TB, attributable to caregiver education during treatment”.

(2) The 2nd para. discussion has been made comparing the knowledge about TB among general population. It does not make sense to compare the results of the present study on this which looked at the knowledge among previous TB patients with those of other studies which
looked at the knowledge among general people. Authors are requested to revise fully the 2nd para under Discussion part to make it consistent.

1. As mentioned in previous response, the discussion section has been greatly rephrased and this comparison has been removed.

(3) One sentence from line 10 through 13, and the full 2nd para on page 16 mention about focus group discussions with TB focal persons which does not appear anywhere else in the manuscript. Authors are requested to explain what, when, for what was it held by whom. If it was conducted in the context of the present study, is should appear in Methods and Results parts as well.

1. We have decided to omit the focus group discussions as this component was not completed due to logistical reasons.

Minor essential revisions:
1. Spelling and wording
   (1) “its’” should read as “its” on the 2nd line of the 2nd paragraph on page 4, “diahnosis” should read as diagnosis in reference 11.
   (2) “qualitative factors” may read as “quantitative factors” on the 3rd line of the 3rd paragraph on page 7.
   (3) Full wording is necessary for all of the abbreviated terms when they appear for the first time, for instance, MDR on the 3rd line of the 4th para. on page 7, TFPs on the 7th line on page 18, NDHMT on the 1st line of the 2nd para. on page 19.

1. Language corrections have been done as suggested.

Level of interest: An article of importance in its field
Quality of written English: Needs some language corrections before being published
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.