Author's response to reviews

Title: Tuberculosis patients' reasons for, and suggestions to address, non-uptake of HIV testing: a cross-sectional study in the Free State Province, South Africa

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Dr. Melissa Norton
Editor-in-chief: BMC Health Services Research

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Cc Prof. Diana Delnoij
Section Editor: BMC Health Services Research

Dear Dr Norton,

Subject: Re-submission to BMC Health Services Research

Thank you for the invitation to re-submit the manuscript: ‘Tuberculosis patients’ reasons for and suggestions to address non-uptake of HIV testing in the Free State, South Africa’ to BMC Health Services Research.

The revised manuscript addresses the reviewers’ comments as follows:

Reviewer 1

More explanation should be provided on calculating the sample size of 600 individuals. Also the comment on convenience sampling mentioned in the paragraph “participants” in the method section should go in the discussion section when discussing the limitations of the study.

Additional information on sampling of the 600 patients has now been provided on page 6 in the “participant” section: “Sample size estimation was based on rule of thumb as no previous studies had been reported on uptake of HIV counselling and testing amongst TB patients in the Free State Province to guide statistical sample size calculations [10].”

As recommended by the reviewer, the comment “…comparison revealed that the patient sample did not significantly differ from the larger population of TB patients in the four sub-districts under scrutiny in terms of key biographical variables, including sex and age” on convenience sampling, previously mentioned in the paragraph “participants” on page 6, has also been included in the “discussion” section on page 15.

The study population is unclear. The background section mentions that the "study sought to explore non-tested TB patients’ reasons for not undergoing HIV testing". However, the method section states that the population included was all registered TB patients >= 18 years attending PHC facilities. As well, the results section and table 1 describe the characteristics of the 600 TB patients, 67.5% of which had been previously tested for HIV. In line with the aim of the study, it will be more informative to describe the patients' characteristics of those who had not been tested for HIV (n=195) and compare them to those who were previously tested for HIV (n=405).

Our study population was all patients aged 18 and older attending PHC facilities. A sample of 600 TB patients was selected across 61 PHC facilities. Out of the 600 patients, 195 had not undertaken HIV testing. On page 5 in the “background” section, our research objectives have now been refined to
depict the primary sample and sub-sample as follows: “Our study sought to identify non-tested TB patients and to explore their reasons for not undergoing HIV testing. We also report both tested and non-tested patients’ suggestions regarding what can be done to encourage a greater number of TB patients to undergo HIV testing.”

On page 9 in the “results” section, we have now included a comparison between tested and non-tested respondents: “All of the 600 patients who were approached agreed to participate in the study. Patients’ characteristics stratified by HIV-test uptake are presented in Table 1. Almost one-third (32.5%) of the 600 respondents had not undergone HIV testing. Table 1 shows statistically significant (p < 0.05) differences between HIV-tested and non-tested respondents in respect of sex, patient treatment category, whether a condom was used at most recent sex, whether TB-HIV information was received from PHC facilities, whether the patients were worried about already being infected with HIV, and whether HIV testing had been recommended to them at the PHC facilities. Of the patients reporting non-uptake of HIV testing, the majority of respondents were male (59.0%), older than 30 years (52.8%), receiving TB treatment for the first time (70.3%), and had been undergoing treatment for more than two months (58.3%). More than half of non-tested patients had not received information on the link between TB and HIV from their PHC facility (56.9%), had not used a condom during their most recent sexual activity (59.1%), expressed worry about the possibility that they were already HIV-positive (56.8%), and had not been recommended for HIV testing at the PHC facility (51.8%).”

While only non-tested patients are considered when reporting reasons for non-uptake of HIV testing in Figure 1 (page 9), both tested and non-tested patients’ suggestions are reported in the results pertaining to 1) what health care workers can do to make HIV testing acceptable to TB patients (Figure 2, page 11), and 2) what other people can do to make HIV testing acceptable to TB patients (Figure 3, page 12).

More explanation should be given on the field workers who performed the interviews, how they were trained, how the authors ensured that questions were uniformly asked and reported, especially for the open-ended questions by all interviewers, possible gender issues between interviewers and interviewees if any.

On page 8 in the paragraph describing fieldworker training, ethical clearance and study approval, we have now explained that: “Ten fieldworkers, four male and six female, were trained in a three-day course entailing lectures on the interview process, i.e. introduction of the interview, mode of asking questions, accurate recording of responses, and the use of probes to seek clarity. To improve consistency in the asking of questions and reporting of answers by all interviewers, they were trained to use the exact wording as in the questionnaire and, in respect of open-ended questions, to record responses verbatim. The fieldworkers further participated in role plays to facilitate their understanding of the questionnaire. Gender issues between interviewers and interviewees were reduced by assigning, where possible, a male and a female interviewer per PHC facility. In most cases, the patients could thus choose whether they wanted to be interviewed by male or female interviewers [10].”

Possible reporting bias by interviewers should be discussed in the discussion section.

On page 15 in the “discussion” section, we now acknowledge the possibility of interviewer bias as follows: “The possibility of interviewer bias such as unintentional errors resulting from interviewers omitting questions or misunderstanding respondents is acknowledged. To reduce such bias we exercised in-field quality control including the immediate editing of questionnaires for completeness and accuracy. Where necessary, patients were traced to provide or clarify missing information”.

The discussion on unanswered questions and future research needs is missing in the discussion section.

We thank the reviewer for highlighting this important omission. A discussion on unanswered questions has now been included on page 15 in the “discussion” section: “An important question left unanswered by the current research is that one of the reasons for non-uptake of HIV testing during a current episode of TB might be that patients had indeed been tested for HIV at an earlier stage but due to fear of stigmatisation or other reasons, wished to conceal that and indeed keep their HIV status secret. Our research also did not fully investigate the roles of gender and age. While it was observed that male
and older TB patients were less likely to report having been tested for HIV, the reasons for such tendencies and how they can be addressed need to be understood in order to develop appropriate interventions for groups at high risk not to test for HIV.

The numbering of figures should be corrected: most figures are labelled as figure 1.

The three figures attached to the manuscript have now been labelled as Figure 1, 2 and 3 respectively.

Reviewer 2

Overall, this is useful work on an important topic

The work could be improved with a more sophisticated analysis of the results, for example, a stratified analysis that compares characteristics/thoughts of patients who do/do not accept testing. Even if this slightly more complicated analysis is not done, there needs to be more clarity about the results that are presented, and whether the denominator for reported percentages is the entire set of patients or only those that did not have HIV testing done.

On page 9, results have now been amended to incorporate a comparison of tested and non-tested patients. Two denominators have been considered in presentation of percentages namely, the total number of tested patients (n = 405) and the total number of non-tested patients (n = 195). These numbers appear at the top of the respective columns in Table 1. The table also indicates the statistical significance of the observed differences.

Figure 1 considers responses from non-tested patients (n = 195) while Figure 2 and 3 relate to the entire sample (n = 600). Since allowance was made for multiple responses, denominators for the percentages reported in each of figures 1, 2, and 3 are presented in parentheses after the titles of the respective figures.

The figures that were provided don’t match the text (titles/content). (content for fig 1 is not as reported in the text, the third fig is labeled fig 3, but title figure one, but presents the same results presented in fig 2 etc....

The figures have now been correctly labelled and matched with the respective parts of the text.

In abstract methods, the phrase “subject to content analyses” could be interpreted as subjected to a specific process (as referenced in the main text of the paper) or simply a general approach (the content was somehow analyzed). It would be useful to provide some additional information about how these analyses were done.

Content analysis is used to refer to the technique we used in analysing responses to open-ended questions. Simply mentioning the name of the technique in the abstract was with the appreciation that this method of data analysis is widely established. In the revised manuscript and staying within the word limit of the abstract, we have now attempted to define this process by mentioning that it was used in the analysis of responses to open-ended questions. However, we provide a detailed elaboration of the process in the body of the manuscript in the “data analysis” section on page 7.

In abstract results “this might imply that they had been ill-informed is a conclusion rather than a result

The statement “this might imply that they had been ill-informed” has now been removed.

In background, “With six in every ten patients” suggest emphasizing “six in every ten TB patients” for clarity.

As suggested by the reviewer, emphasis has now been added to the phrase “six in every ten patients” by inclusion of the term “TB” on page 5 in the “background” section.
Methods—p 6 under instrument and data collection: clarify what is meant by patient category

On page 6, in the “instrument and data collection” section “patient category” has now been clarified as follows: “(patient treatment category i.e. whether a patient was undergoing initial [new] or subsequent [re-treatment] TB treatment).”

In discussion, second paragraph of p 13. Use of the work “claims” carries a connotation that could be interpreted to imply that the patients may be lying. Please consider something less judgmental like “reports”?

On page 13 in the “discussion” section, the term “claims” has now been replaced with “reports”.

In the abstract results, the use of “advanced” to mean offered or answered could be confusing to some readers

On page 2, in the abstract, the term “advanced” has been replaced with “offered”.

In the results I would recommend presenting numbers without too much additional language to describe results. For example, “The sample constitutes mostly of females (51.7%)”... Simply saying something like: The mean age of the respondents was XX; 51.7% were female,” would be as clear and more concise. There are a examples where the number could stand alone, but some readers might have arguments with the subjective value that was associated with the number—another example is at the top of p. 10 when something that occurs 12% of the time is considered “prominent” –I would prefer inarguable statements like “the most common service-related barrier identified.

Presentation of results has been thoroughly revised. We now use simpler inarguable descriptions where numbers are quoted.

Quality of written English: Needs some language corrections before being published.

The manuscript has been subjected to language editing.

All authors have read and approved the final manuscript for re-submission.

We look forward to receiving your decision.

Yours sincerely,

Gladys Kigozi