Author's response to reviews

Title: Training health care workers to promote HIV Services for Patients with Tuberculosis in the Democratic Republic of Congo

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Author's response to reviews: see over
Reply to reviewers’ comments

Reviewer 1 (K. Bergstrom)

1. Revise the background section.
Ms Karin Bergstrom wrote: The background section describes how effective training should be based on a task analysis where subsequently the learning objectives are derived from these tasks. There is no evidence that the training that was developed, and that is reported on, was task based. The text talks about knowledge and the content of the training is traditionally topic/knowledge based. The section on content of the training modules lists power point presentations as the main training methodology used which is more consistent with traditional knowledge based learning than skills based. Some practice was included for counselling although the experience section indicates that this practice was not sufficient. Therefore the background needs to be revised to exclude the task based training discussion as this is not relevant for what is reported on. Pre-testing and post tests were knowledge based further highlighting the knowledge rather than skills/task based training. The last sentence before the conclusion also demonstrates that no formal assessment of skills was undertaken which further renders the discussion of effective training in the background contradictory to the text.

Reply: The part of the background section about performance based training (referring to the WHO document entitled ‘Task analysis, the basis for development of training in management of tuberculosis’) has been deleted because indeed our newly developed training was not fully performance based. However, we did aim to go beyond the traditional powerpoint based training and applied several principles of performance based trainings. For example, the training was based on analysis of the tasks performed by the TB nurse integrating HIV services, and we use methods that actively involve the participant, not only for role play for counseling.

In response to this comment, we have made the following changes:
- We have removed the background section on how effective training should be developed
- As suggested by the reviewer in point 4, we have instead included a section on this issue in the discussion section of the manuscript. “Several HCWs needed additional one-on-one training during the first “real life” HIV counseling session, which argues for further increasing the focus on transfer of skills, especially counseling skills.”

2. Modify the discussion on linking HIV acceptance rates directly to post training scores
Second paragraph in the section Evaluation of the newly developed training. A change in outcome such as more HIV tests are rarely linked to one single event or intervention, such as a training course. There are many other factors influencing behaviour - of both care provider and client and the discussion should acknowledge this. It is a common, but weak, conclusion to link behaviour change to a specific training course. It is advisable to focus the discussion on the immediate role of a training course, namely to increase knowledge or develop skills depending on the type of course, and to have a separate discussion on factors that influence the use of the competence, and other factors that influence behaviour change in a client population.

Reply: We agree with the reviewer and have changed the discussion to reflect the reviewer’ concern. The text now reads: ‘The correlation between mean post-training scores of clinic’s HCWs and the clinic’s HIV testing acceptance rate suggests that the training was effective. Provision of a training course is however only one of the many factors needed to achieve high HIV testing acceptance rates. Other factors that may play a role include logistic factors, HCW motivation, and the levels of TB and HIV stigma in the community.’

3. Review terminology.
Collaborative TB/HIV activities seems to be used somewhat interchangeably with HIV counseling and testing. From the available information the training seems to be heavily focussed on the counseling. This needs to be clear throughout the text.

Reply: We thank the reviewer for this comment. We have changed terminology throughout the text to reflect that HIV activities for TB patients are only a component of collaborative TB/HIV activities. The term ‘collaborative TB/HIV activities’ has been replaced throughout the text where it could be misinterpreted as if it included TB activities for HIV patients. It has been replaced for either ‘HIV services for TB patients’ or we state more explicitly that the training focuses on HIV counselling and testing, HIV prevention, and integrated HIV care and support for TB patients. Ideally the training should also focus on the other collaborative TB/HIV activities including antiretroviral treatment.

4. Strengthen the conclusion. The conclusion is weak. Modifying the text based on the three points above should facilitate a stronger conclusion.

Reply: We have revised the discussion/conclusion accordingly.
Reviewer 2 (J. Buchan)

1. Counseling vs Counselling
   
   Reply: Counseling is now written with one ‘l’ throughout the document

2. continuous” education?
   
   Reply: ‘continuous’ education has been changed for continuing education

3. p2/3 clarify who the "HCW" are in the study- as they are a mixed group
   
   Reply: The reviewer is correct to note that the HCW receiving the training were a mixed group. To make this clear, we explained on page 2/3 that “Primary health care nurses play the central role in TB case management and were identified as the ideal HCWs to offer and provide HIV counseling and testing for TB patients, and HIV care and support for those co-infected with HIV (3,4). Other HCWs playing a key role in TB control, including laboratory technicians, physicians, and district supervisors, were also identified as target HCWs”. On p9 we wrote: “Sixty-five (97%) participants completed the post-training assessment, including 38 nurses, 16 laboratory technicians, 7 physicians and 4 district supervisors.”

4. p4 the target HCW- are they in Kinshasa or across Zaire?
   
   Reply: The training was developed for HCWs in the DRC but we chose HCWs in Kinshasa to evaluate the training as was detailed on p4: “Participating HCW's were employed at 14 primary health care clinics, selected among all 89 TB clinics in the capital”. Currently the training is also being used to implement TB/HIV activities in other parts in the interior of the country. As discussed in the article pre-existing knowledge of HCW in Kinshasa might be better than the knowledge of HCWs in the interior of the country.

5. p4- a line at right hand side of text to be removed
   
   Reply: We have removed this.

6. p5- proportion of correct answers was at least 80%.- is this good or bad? Any comparators? Is this regarded as an acceptable level- if so- any evidence to back it up?
   
   Reply: Validated questionnaires and comparators do not exist for this purpose. We have therefore displayed the exact percentage in Figure one so the reader can judge independently what he/she perceives as good or bad.

7. p6 did the 67 HCW all have same level of training, background etc?- e.g how homogenous were the groups- they were different types of professional etc?
   
   Reply: Not all HCW had the same background. On p9 we wrote: Sixty-five (97%) participants completed the post-training assessment, including 38 nurses, 16 laboratory technicians, 7 physicians and 4 district supervisors. The numbers were too small for an analysis stratified by type of HCW.

8. bottom p 4 acronyms in full- CD4, PEP etc
   
   Reply: PEP etc has been written in full and “CD4” has been replaced by the standard term “CD4 count”.

9. p8 explain what "ex cathedra format" is
   
   Reply: We changed "ex cathedra format" for “lecture”

10. p9 top and mid- should phrase be "Continuous education"?
    
   Reply: we have corrected this spelling error.

11. p9, bottom should it be "including" rather than "of whom"
    
   Reply: We changed “of whom” for “including”.

Reviewer 3 (R. Chimzizi)

1. The study did not clearly state the objectives and methodology of the study and the results were not systematically presented
We have revised the last paragraph of the background section to more clearly state the objective of our study: “We aimed to develop and evaluate training materials for provider initiated HIV counseling and testing, HIV prevention, and integrated primary HIV care and support for HCWs involved in the care of patients with TB at the primary health care clinic level in the DRC.” We believe that the methodology section sufficiently describes how the training was developed and evaluated. In the results section we present the training’s content and its evaluation.

2. The inclusion of epidemiological data for TB and HIV for DRC as well as Kinshasa could be very useful for your paper

Reply: We agree with the reviewer and therefore added the following data for the DRC in the introduction: “The Democratic Republic of Congo (DRC) is ranked as the 11th highest globally burdened by TB, with approximately 205,000 new cases annually, of which 20% are estimated to be HIV co-infected (1,2).”

3. In your background you could also state the policy on HIV testing in DRC

Reply: We have revised the manuscript to include the policy on DRC HIV activities for TB patients: We agree with the reviewer and therefore included the following information: “Second, we documented the DRC policy regarding HIV activities for patients with TB, which included provider initiated HIV counseling and testing, HIV prevention, cotrimoxazole prophylaxis and referral for antiretroviral treatment (ART).”

4. On the second paragraph on the background you already started making conclusion of the study which is not proper

Reply: We deleted the following sentence: “In order to scale-up these activities, health care workers (HCWs) need to be trained to develop the necessary knowledge and skills.”

5. In the second paragraph of the background you also stated that you did not identify any TB/HIV training manuals in 2005. However, if you did a careful literature search you would have found that the World Health Organization had training document on TB/HIV called “Management of Collaborative TB/HIV activities: Training for Managers at National and Sub-national levels-Manual for participants” in 2005

Reply: The manual the reviewer referred to was designed to assist countries in developing and organizing country-specific TB/HIV courses for national and subnational TB and HIV/AIDS managers, not a training for health care workers at the primary health care level. We have therefore changed terminology in our statement: “…, no manuals for training in collaborative TB/HIV activities for health care workers (HCWs) at primary health care clinics could be identified in spring 2005 when scale-up of HIV services for TB patients was being planned for Kinshasa, capital of the DRC”

6. Evaluation of newly developed training: The last but one paragraph in this underlined section you indicated that a treatment card for collaborative activities was introduced to record TB/HIV activities. Could be ideal to show this card in the annex.

Reply: We have revised the manuscript: “the training materials in French, consisting of a participant’s manual, a trainer’s manual, power-point slides, a training evaluation questionnaire, and the revised treatment card can be obtained from the corresponding author.”

7. The first sentence on the conclusions is biased. Integration of HIV activities into routine TB patient care is urgently needed to reduce the burden of HIV among these patients. You should also have stated that the integration of TB activities into routine HIV care is urgently needed to reduce the burden of TB among these PLWH.

Reply: We agree with the reviewer and have changed the manuscript accordingly in both the background and discussion section.

8. The topic of the paper should have promoted both HIV services in TB care settings and vice versa because it is the principle of TB/HIV collaborative activities. But your intended objective addresses both TB and HIV services

Reply: We focused on activities to decrease the burden of HIV in TB patients. We agree with the reviewer that both are equally important in the fight against TB/HIV and have revised the manuscript accordingly.
9. On you reference, you would have included more papers from DRC to show that the setting is in DRC. There is only one paper from DRC
Reply: We have integrated 3 more references from the DRC in the revised paper.

10. Are the primary health care clinics where participants were drawn from, public or private or a mixture of public and private sectors?
Reply: HCWs participating in the training were employed at 14 primary health care clinics under the direction of non-profit Protestant or Catholic organizations. We added this information in the revised manuscript.