Author's response to reviews

Title: Mobile phone text messaging for promoting adherence to anti-tuberculosis treatment: a systematic review protocol

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Version: 2 Date: 28 November 2012

Author's response to reviews: see over
28th November 2012

The Editor,
Systematic Reviews Journal

Re MS: 1662882477806077 Mobile phone text messaging for promoting adherence to anti-tuberculosis treatment in patients with tuberculosis: a systematic review protocol

Dear Editor,

Thank you for your email of 29th October 2012 and for forwarding the reviewers’ comments. We are pleased that our review was considered important and that it would provide much needed evidence on the use of mobile phone technology to improve adherence to TB treatment. We thank the reviewers for the useful comments that we have used to revise and strengthen the manuscript. We copy the comments below in italics and respond in bold.

Referee 1
Reviewer’s report
Title: Mobile phone text messaging for promoting adherence to anti-tuberculosis treatment in patients with tuberculosis: a systematic review protocol
Version: 1 Date: 23 October 2012
Reviewer: Babalwa B Zani
Reviewer’s report:
Major compulsory revisions: none
Minor essential revisions:
Abstract (Background)
1. instead of "cases arose", explain if those were "incident cases detected" or "prevalence".
   We refer to incident cases detected and we have changed as suggested.

2. use a simpler term than "arduous"
   We have changed the term as suggested.

3. add the issue of forgetting as one of the reasons for non-adherence as the
We thank the reviewers for this important point and have included the issue of forgetting as a reason for non-adherence as suggested.

Abstract (Methods):
4. Explain patient satisfaction that it is with the mobile text messaging intervention

We have clarified that “patient satisfaction” refers to patient satisfaction with the mobile text messaging intervention as suggested. We have also further adjusted the abstract to comply with the word limit.

Methods
5. add “include” before NRCT

We have added “include” before NRCT as suggested. We have also further adjusted the abstract to comply with the word limit.

Discretionary Revisions
Background
6. In paragraph 3, after line 1. explain how the intervention might work. eg patients on TB treatment register to receive an sms daily/weekly to remind them of their treatment. You could also make reference to other systematic reviews or trials in this area, irrespective of the condition of the patients included (Horvath et al 2012- Cochrane DSR).

We thank the reviewer for these important points and have explained how the intervention works and have made reference to sms interventions to promote adherence such as those utilized in the treatment of HIV, diabetes, asthma, cardiovascular disease.

7. State what other interventions are in place for the problem (e.g. peers, family members or community workers).

We thank the reviewer for this important point and we gave made reference to other interventions to promote adherence such promoting better health care provider-patient communication about adherence; developing or improving existing adherence support services that are offered by a multidisciplinary team- nurse, physician, pharmacy, patient etc; directly observed therapy; staff motivation and supervision; education and counseling; reminder systems and late patient tracers to help patients keep appointments; incentives and enablers; contracts written or verbal agreements to return for appointment or course of treatment social support provided by community health care workers; social support offered to family members to assist the patient in being adherent and social support provided by other patients and support groups.

Methods
8. on secondary outcomes, explain "patient satisfaction as in point 4 above
Please refer to the response to point 4 above.

9. In selection of studies, do not use selection forms for abstracts and titles, only for full-text articles, remove “using eligibility forms” and replace with “…according to the eligibility criteria”

   We have removed “using eligibility forms” and replaced with “…according to the eligibility criteria” as suggested.

10. delete sentence 3 as it is an unnecessary step and is accounted for in sentence 4.

   We have deleted sentence 3 as suggested.

11. Add a line stating that you will report all the excluded studies from those previously deemed eligible in a specific table, giving reasons for exclusion

   We have added the sentence as suggested.

12. replace personal with "study personnel"

   We have replaced personal with “study personnel”

13. Explain how will you assess the risk of bias for study designs other than RCTs. Consult the Campbell Collaboration or the Cochrane EPOC group for advice. Consult also Chapter 13 of the Cochrane Handbook.

   We thank the reviewer for this important point and have consulted Chapter 13 of the Cochrane Handbook as suggested.

14. add p-values after 95% confidence interval

   We have added p-values after 95% confidence intervals as suggested.

15. On subgroup analysis, explain what different interventions do you expect based on the literature (long vs short sms? daily vs weekly? reference HIV interventions if there is no literature on TB

   We thank the reviewer for this important point and have explained what interventions that we would expect to see from the literature as suggested.

16. add subgroups by study design
   mention GRADE in data analysis and explain it a bit, instead of mentioning it for the first time on presenting and reporting of results

   We added subgroups by study design to determine whether the different study designs give different results and explained GRADE- an approach to grade the quality of the evidence as suggested.

Level of interest: An article of outstanding merit and interest 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.

Referee 2

Reviewer’s report
Title: Mobile phone text messaging for promoting adherence to anti-tuberculosis treatment in patients with tuberculosis: a systematic review protocol
Version: 1 Date: 11 October 2012
Reviewer: Lawrence Mbuagbaw

Reviewer’s report:
This is an important review which will provide much needed evidence on the use of mobile phone technology to improve adherence to TB treatment.

Major compulsory revisions:
1. No mention is made of other SMS interventions used to improve adherence. That should be the main justification for trying to use it in TB (because it works in other diseases) not because it has great (undocumented) potential.

   Please refer to the response to reviewer 1 point 6.

2. The authors wish to include non randomized studies in their review, yet make no mention of how they will assess their quality or if they intend to pool their data with that from RCTs. I would suggest that they focus on RCTs and include other designs only if they don’t find enough RCTs.

   We agree and we will mainly focus on RCTs and include other study designs only if we don’t find enough RCTs. We have consulted Chapter 13 of the Cochrane Handbook in order to assess the quality of non randomized studies (please refer to the response to reviewer 1 point 13. We intend to do sub-group analysis by study design, if we include non randomized studies.

3. The search period is not specified for electronic databases or conferences.

Minor essential revisions:

We have included the search period for electronic databases or conferences, as suggested.

1. Is the study design appropriate?
The methods are appropriate with some limitations:
   a. The intervention of interest is not described in detail including the possible variations.

   We have described the intervention in more detail as suggested and have referenced the articles cited in “Additional resources” below to see the different ways in which text messaging can be used and sent in other diseases.

2. Are sufficient details provided to allow replication of the work or comparison with related analyses: if not, what is missing?
   Partially
   a. As mentioned above the time limits to the search or who will conduct it are not
MN will conduct the search, with the help of the University librarian and the search will be for eligible available by 30 November 2012 regardless of language or publication status. We amended as suggested.

b. Agreement between authors is not going to be measured at multiple levels.

The kappa statistic will be used to assess agreements between the full-text screening, data extraction and quality assessment by the two authors (MN and CW).

3. Is the planned statistical analysis appropriate?
Yes, but will benefit from more detail for clarity.

a. No mention is made of variables that will be reported on a different scale.

?continuous variables?

The outcomes of interest may be either dichotomous or continuous. We will calculate risk ratios and their corresponding 95% confidence intervals and p-values for dichotomous variables, and weighted mean differences for continuous outcomes. We have amended as suggested.

b. It is assumed that all variables are dichotomous. This cannot be true. If the authors wish to dichotomize all their data they should specify.

Not all variables are dichotomous. Please refer to the response to point 3a.

c. The specific variables that will be used for subgroup analysis should be specified and justified.

We have specified the variables that will be used for subgroup analysis with justification of their use as suggested.

d. For sensitivity analysis the key interest for readers will be whether the different study designs give different results. They can also use the fixed vs random-effects as a sensitivity analysis.

Please refer to response to reviewer 1 point 16 with regards to conducting a subgroup analysis by study design.

4. Is the writing acceptable?
Mostly, it is easy to understand and flows well.

a. Many parts of the document require better referencing: GRADE, Kappa, Endnote 9.0, Revman

We have referenced GRADE, Kappa, Endnote 9.0 and Revman better as suggested.

b. Some comments are included in the attached pdf file.

Additional resources:
The authors can use these references to see the different ways in which text
We thank the reviewer for these important references and have made use of them to see the different ways in which text messaging can be used and sent in other diseases, as suggested.

Level of interest: An article of importance 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'

Handling Editor's comments:
"Can you explain whether their main search strategies will be peer reviewed prior to execution?"

We have included our main search strategy in table 1 for peer review.

We thank the Reviewers for helping us to revise and strengthen this manuscript. We hope that this revised version is now acceptable for publication in Systematic Reviews Journal. We look forward to your feedback in due course.

Yours sincerely,

Mweete D. Nglazi, on behalf of the all authors