Reviewer’s report

Title: The effect of an educational intervention to improve tuberculosis infection control among nurses in Ibadan, south-west Nigeria: a quasi-experimental study

Version: 3 Date: 18 Jun 2020

Reviewer's report:

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General comment:
Based on the design and data analysis approach, it appears that there were two study objectives: (1) evaluate effectiveness of training at 6 months, and (2) assess if there was sustained effect (or retention) at 12 months. This should be made clear in purpose and methods of the manuscript. If the first one was the only objective, the 12 month data analysis is not necessary, although it is completely understandable that the comparison group (as a waitlist group) would also receive after 6 months follow up.

Methods:
Page 5 line 24: I believe it would be better to say "with waitlist comparison group" than "with switching replication"

Study population and sample:
Page 7 line 3: It is a little surprising to have exactly the same number of participants (n=100) in each group (site), especially given the available number of nurses was different by site (173 vs. 217).

Statistical analysis:
After making your purpose clear, you can edit your analysis section accordingly. 12 months data in comparison group, i.e. 6 months after intervention (after the switch) serves a different purpose here. This can be used as a comparison group for sustained effect at 12 months if that assessment was planned. For sustained effect, one could compare 6 months vs. 12 months within the intervention group. However, since there was a parallel comparison group, it makes more sense to use that 12 months data for sustained effect analysis.
Page 9 line 7: remove the word significant, we would only know significant or non-significant after a statistical test, so "… test for differences ..." 

Results:
Given the sample size change over time, I recommend that you do one of the following: (1)Present baseline data only for those that had 6 months data, this will be an analysis of completers (complete-case analysis with n of 82 and 80), or (2)Impute missing value at 6 months so that your original sample size of 100 per group is maintained, and you will have full sample size for analysis.
Also explain reasons for missing data.

Page 11 line 4: Just say mean knowledge was not significantly different between the groups. To me, scores were very similar (68.6 vs. 67.7), so no need to say they appeared to be different and the test was not significant.

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No

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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