Reviewer's report

Title: Development and evaluation of a blended educational programme for general practitioners' trainers to stimulate proactive HIV testing

Version: 0 Date: 09 Apr 2017

Reviewer: Marcia Weaver

Reviewer's report:

The authors successfully designed and executed an educational program to promote HIV testing, and submitted a well-written article. It appears that their best efforts to evaluate the effect of the program on HIV testing were thwarted by a lack of cooperation from 14 of the 21 labs where the 90 GP trainers sent HIV tests and incomplete information from 3 others. The main result of the evaluation is that this method of measuring outcomes was not successful, and I would encourage the authors to report it forthrightly.

In addition to the limited and potentially unrepresentative sample, the appropriate outcome variable is the number of HIV tests divided by the number of patients. As reported, it's not possible to distinguish a decline in the number of HIV tests per patient from a decline in the number of patients treated by the GPs.

Further the authors do not address the stability of the population of GPs who use the 4 labs. i.e. A decrease in the number of GPs would reduce the number of patients and subsequently the number of tests. It's also possible that GPs were gradually switching their patients' tests to the 17 other labs.

Although I agree with the authors that the decline in HIV tests bears further investigation, they need to reflect on the problems with their measure, and what they would do differently to evaluate the training program or accurately address the decline that they observed.

Other required revisions.

Abstract: In the methods section, report that 150 GP trainers attended the first session, and 74 completed the questionnaires for both sessions.

p. 7, Line 31. Describe who the teachers were. Were they the same people who designed the guidelines?
p. 9. Report how the data on the QI plans and satisfaction were analyzed.

p. 10, line 12. Report both response rates: 74/150 is 50%, and 74/90 is 82%.

p. 11, line 36. Where are the results on satisfaction?

In Table 3, report the demographic statistics on the 150 GP trainers who attended the first session and the 74 GP trainers who completed both questionnaires. How to the latter differ from those who attended the first session?

Table 4. Note the response categories for each result, so the results can be readily interpreted without referring to the text. E.g. For self-reported HIV testing, a score of 6 = at least twice a week, and 1=never.

Figure 1. The results from 2014s - 2015s appear as a straight line, rather than with 2.3% and 1.8% decrease. Use the same scale for the horizontal axis pre and post training.

Additional edits.

p. 5. Line 20. The word "used" could be replaced by "referenced."

p. 7, Line 18. Add the word "trainers" to the phrase "GP".

p. 10, line 20. Add the phrase "after the second meeting" after "trainee" if this is accurate.

p. 11, line 18. Remind the reader that for this measure, 5 means success.

p. 11, line 40. Add the words, "where 5 means strongly agree" to the phrase "scale 1 to 5" in parentheses.

p. 12, line 11. Delete the word "moderately."

p. 13, line 7. Delete the word "other."
p. 13, line 24. It's unclear how the "performance of test ordering" that was unsuccessful differs from the test results reported. Do the authors mean collecting data from the GPs practice rather than the lab?

p. 13, line 42. Add the word "trainers" to the phrase "GP".

Table 2. Please note which questionnaires were administered. E.g. on Day 1, was the pretest questionnaire on knowledge and attitude, and the summary and quality questionnaire on satisfaction?

Was there any content or guidance on the "Learning conversation with their resident."

Tables 5. Note "pre-training" and "post-training" in the column headings.

**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.

No

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

No

**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

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Please indicate the quality of language in the manuscript:

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