Reviewer's report

Title: The GP Tests of Competence assessment: which part best predicts fitness to practise decisions?

Version: 0 Date: 14 Sep 2017

Reviewer: Jocelyn Lockyer

Reviewer's report:

BMC Medical Education: The GP tests of competence assessment.

This is an important and potentially helpful manuscript that I believe should be published. It addresses an important issue in assessment—that of efficiency in assessment and making sure that each instrument that is used does not unintentionally overlap with others being used for the same purpose.

I would recommend some edits for readability and coherence.

1. Abstract. The word methodology should be replaced by methods. Methods is the 'cookbook' or approach taken to handle recruitment, data collection, and analysis. Methodology is a term that is used to describe the philosophical or disciplinary perspective (i.e., phenomenology). It appears that BMC uses the term, Methods. I would also check the word count for abstracts as this seems very long. Once other adjustments have been made to the manuscript, I would recommend a review of the abstract to ensure it captures the key information that the reader would want to know about the background, research questions, methods, results, and conclusion.

2. Introduction. In general, the introduction describes the context of the study and the problem to be addressed. It appeared that some of the content on page 4 para 2, 3, and 4 should be in the methods section and not in the introduction. Normally methods begins with a sentence such as 'We took a mixed methods approach for this study'. I would also recommend that the introduction section end with the research questions. The paragraph beginning 'For these reasons…' appears to partly address the need for an articulation of the study's purpose. However, it isn't comprehensive in addressing the full scope of what was done in the study. For example 'assessors opinions' do not appear to be part of the purpose as stated. It is generally stronger to provide an overall goal/objective and then list 3 or 4 research questions which the reviewer/reader can follow through methods, results and discussion. Reading through the sections of results, I wondered if these sections should each pertain to separate research questions.

3. Method. The number of physicians shown in the performance assessment section is a result and should be put into results. I would recommend that the authors begin by providing an
overview of mixed methods along with a rationale for doing a mixed methods design. This
would be followed by information about the intended participants (how were they identified). There would then be a section on data collection to describe the instruments. It should be clear what data pertains to each research question. The data analysis section would follow, which again would provide explicit information about the analysis used to address each research question and why. I believe the terminology used is Pearson r correlation or Pearson r coefficient (page 4, line 58). In the section on assessors' opinions, the response rate to the survey should be part of results (page 5, line 24). A reference to support the approach taken to thematic analysis would be helpful and establish credibility of this part of the study. I recognize the approach is a thematic analysis, however, the examination of table 6 might suggest a template analysis was used for at least that component. As noted earlier, there should be a clear path from the research question to the data collection to the data analysis.

4. Results. Demographics. Some of the data noted earlier related to response rate for the survey and numbers of participants should be delineated in the first paragraph. There is mention of Fisher's transformations on page 6, para 1 but this is not described in methods. Similarly, it would seem that the para 'Due to the significant correlations between the three assessment measures...' may belong in methods. It is difficult to assess the qualitative results (which are results and not analysis as indicated) as there is limited information about the questionnaire and how the data were handled. I wondered how important the qualitative results were and whether the paper should focus only on the statistical work. If the qualitative component is retained, clearer information on the themes would be useful. Table 6 presents an analysis based on benefits and limitations but isn't referenced in the text page 7, lines 21-36. A stronger approach to reporting would be to summarize the key themes in the textual material and then provide exemplar quotes.

5. Discussion. As editing is done to make the research questions more explicit, some consideration should be given to whether the discussion followed from the questions and the results. Generally, the discussion is placed in the context of a larger research base noting unique aspects of this study and similarities/differences with other studies. I would look for ways to make the limitations more succinct. It seemed that new information from results was being introduced in this section; I would avoid that.

6. References. Some of the references are incomplete.

a. #1. Should be L Southgate, not E Southgate.

b. #6 and 8 should probably have a URL. They seem incomplete.

c. #10. I would recommend that the authors update this reference. Braun and Clark. They have a textbook, several book chapters, as well as Braun V, Clarke V. What can "thematic analysis" offer health and wellbeing researchers? International Journal of Qualitative Studies on Health and Well-being [Internet]. 2014

d. #15, BMJ and Br. Med. J are the same and one should be deleted.
7. Table 1. I don't know what PMQ means. Should it be Country of Qualification?

8. Table 6 is not referenced in the text on page 7 where other results from the qualitative analysis are provided.

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

No

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.

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 recommend additional statistical review

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Please indicate the quality of language in the manuscript:

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