Reviewer's report

Title: Developing a tool to measure satisfaction among health professionals in Africa

Version: 1 Date: 29 October 2012

Reviewer: Elina Dale

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• Major Compulsory Revisions

1. Authors state that “in order to have 4 or 5 items per dimension 15 new items were added” (p. 7). However, the basis for this approach is unclear. No study or theory is cited as justification. While a higher number of items per factor is generally welcomed, there are many scales with 3 items per sub-scale and there is no hard and fast rule about it. Thus, if authors have a specific reason for doing this, they must elaborate it and cite other appropriate studies.

2. In section 1.1., the authors state that “a principal component analysis was used to make adjustments to the final instrument, which then underwent confirmatory factor analysis” (p.7). Conducting CFA on the same sample as PCA must be avoided and is generally unacceptable.

3. PCA used for making “adjustments to the final instrument” is described under the section on construct validity. PCA is not used for construct validation in general. If it is used for screening an initial set of items or extracting factors, then it should be described under the appropriate section. Moreover, the reason for conducting PCA as opposed to other methods of extracting factors (for example, parallel analysis) is unclear and authors do not provide sufficient justification.

4. There seems to be a confusion between discriminant and convergent validity. The section titled “1.2 Discriminant validity” describes convergent as well as discriminant validity, although both of them are treated rather superficially and methods for establishing them are weak.

• Minor Essential Revisions

1. No citation for sources in several of the key sections on methods (1.1, 1.2, 2.2).

2. In results section 1.1 authors should mention what type of fitting function and estimator was used in CFA.

3. Residual variance should be provided together with loadings as there are cases when items have high/acceptable loading but also high/unacceptable residual variance. In such cases, further investigation is advised.

4. It is advised to replace “comprehensive” with “global” on p. 10.

5. The term target population is used inappropriately (p.9) as the authors probably wish to draw conclusions to other health workers in these countries, not
only the 962 professionals working in the health facilities that were part of the QUARITÉ project. A standard definition for the term target population “is the entire group a researcher is interested in; the group about which the researcher wishes to draw conclusions” (Easton & McColl online Statistics Glossary).

6. Numbering of sections must be change as there is section 1.1 under methods and 1.1 in results and discussion.

• Discretionary Revisions

1. There is no discussion of clustering and why it was ignored and data treated as SRS. Authors can mention reasons (such as small clustering effect which they found through EDA) for ignoring it. With increasing availability of different types of software programs that can deal with latent variable models in multi-level settings, it is expected that authors – if they choose to treat data as SRS – will at least note this as one of the limitations of the study or provide justification for not doing so.

Level of interest: An article of importance in its field

Quality of written English: Not suitable for publication unless extensively edited

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.