Reviewer’s report

Title: Validation of the Pelvic Organ Prolapse Simple Screening Inventory (POPSSI) in a population of Ethiopian women.

Version: 0 Date: 27 Apr 2018

Reviewer: Douglas Tincello

Reviewer’s report:

This is an important piece of research, attempting to evaluate the diagnostic test performance of the POPSSI tool to identify Ethiopian women with prolapse, without the recourse to pelvic examination by a trained health care professional. This is a very important aim and I do hope to see this published. However, in its current form, I think there are some methodological issues which need to be addressed and the results section is not clear enough to allow readers to assess the value of the work.

Firstly, the authors should provide a description of the original POPSSI tool for the readers, including what questions are included, how it is scored and some more detail of how it was originally developed and validated. At present, nowhere is it described what questions are asked and thus it is difficult to interpret the results (see below). Are the questions you describe elements of the POPSSI? Is there a scoring system? If there is a scoring system, then you must use the score to test, not the individual questions.

Secondly, we need much more detail on how the questionnaire was translated and back translated. Stating you have done so is not sufficient. Who translated the questionnaire into Amharic? Were they fluent in the source language from a clinical viewpoint? How did you test the translation to ensure it made sense? Were any questions rephrased or altered in Amharic? Who back translated the questionnaire? How did you confirm the back translation had retained the original sense? Perhaps most importantly, did you do any test validity analysis of the translated questionnaire before using it on this patient population as a diagnostic tool?

In terms of the actual research I have the following questions about your methods: why did you exclude women with known prolapse? And why also did you exclude women who were found not to have a prolapse on examination? If you had included both groups, you would a) have a larger cohort of women with prolapse, and b) a cohort of women without prolapse to include in your test accuracy studies. Given that all your women you analysed had prolapse, you do not have any women who are "disease negative" and so I cannot see how you are able to calculate the sensitivity etc for prolapse overall, since you have no women without prolapse. Thus, you are constrained to only use the tool to identify compartment of prolapse, which is probably not scientifically valid or clinically useful, since I imagine your intention is to be able to screen a large number of women in rural areas to identify only those who may need to be examined or treated. I think it is essential to include a group of women without prolapse; ideally all women should complete the screening tool before being examined, and only examined to identify if they are cases or controls afterwards.
You need to explain why you think reported incontinence, and pain with defection could be discriminatory for prolapse. (results line 16-23). Are these questions from the POSSI? Also, the same for the report of vaginal bulge; is this a question from the POPSSI? Any questions from the POPSSI cannot be used alone, if your intention is to use the whole instrument as a screening tool.

Your results are poorly presented. I do not understand why table one only has patients labelled by compartment of prolapse, when you have full POPQ stage data on all women. It would be much more information to include the numbers of women with each stage of prolapse in each compartment in this table, especially since you refer to stage later, but nowhere have included the numbers of women with any given stage. In Table 2, you must include numbers as well as the percentage figures. Here i have a fundamental problem with separating out each compartment of prolapse. Surely, the first thing you have to demonstrate is that the POPSSI has utility to identify ANY prolapse? Only then, can you begin to explore if it might be compartment-specific. There is published literature which suggests symptoms are not discriminatory of compartment (Digesu et al, I forget the exact citation). Really, you need to present one table of sensitivity/specificity etc of the questions and the POPSSI scale for prolapse as a whole with a single ROC curve first; and then perhaps site-specific data, although I am not convinced this is necessary or valid.

The discussion is rather short, somewhat simplistic and does not compare/contrast or embed your findings in the existing literature. it needs a thoughtful re-write.

Please do not be discouraged by my comments; they are intended to be helpful. I think this is extremely important work, and my primary aim is to ensure that you publish high quality work which will genuinely be useful to make a difference. I think you have some way to go to achieve this, but I hope this comments will help you achieve that.

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.

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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I am currently collaborating with gynaecological colleagues in Gondar University Hospital to develop a programme of work for interventions for urinary incontinence and prolapse in northern Ethiopia. One of the PhD students at this institution is currently conducting similar work for the PhD, but I have had no input into his research, nor made any comment on his work to date.

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