Reviewer’s report

Title: Factors associated with health care provider knowledge on abortion care in Ethiopia, a further analysis on emergency obstetric and newborn care assessment 2016 data

Version: 2 Date: 04 Nov 2019

Reviewer: Sarah Rominski

Reviewer's report:

The authors have made many adjustments to the paper, and it is much improved. However, there are still some clarifications which are necessary.

Starting with the abstract, it is stated, in the results section, "Associated with lower knowledge levels were...being male...". But then, in the conclusions section, it states, "pre- and in-service training efforts should be particularly sensitive to female providers who scored lower...".

Also, the two sentences (one that begins with, "Based on a multivariate model", and, "Associated with lower knowledge levels..." in the results section of the abstract are very repetitive.

Introduction: "The pregnancy termination reform" is mentioned. What is this? This needs to be described.

Results: It is stated on line 182 that knowledge score at 5% significance level will be considered significant. However, on line 184, an 80% CI is referenced. Which was used?

Were regions entered into the regression as dummy variables? This needs to be described in the methods section.

Is there collinearity between sex and cadre? I am curious what the gender breakdown is between midwives and health officers, for example. I would not be surprised if the difference in sex is actually a difference in cadre.
Discussion: It is not clear to me why the authors bring up attitudes and beliefs, as they have no data to speak to this. Also, attitudes and beliefs towards abortion can be assessed quantitatively (the authors write, "we did not have qualitative information to explore these aspects."). There are many validated scales to assess attitudes towards abortion for providers that could have been used. This information belongs in the limitations section.

Conclusion: This section is currently very long, and repetitive. It needs to be much shorter, and not just reiterate what has already been said multiple times in the results and discussion sections.

Overall, there are many grammatical errors, especially in the newly added (highlighted) sentences. A full copy edit will be required.

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.

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

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