Reviewer’s report

Title: It does matter where you come from: mothers' experiences of childbirth in midwife obstetric units, Tshwane, South Africa

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Reviewer: Sheetal Silal

Reviewer's report:

The article which assess the acceptability of childbirth in midwife obstetric units in Tshwane is an interesting read and contributes to the knowledge basis of maternal delivery services in rural and urban South Africa. Thanks to the authors for conducting this study. The paper on the whole is an analysis of a survey of mothers from all the MOUs in the study area and while the paper gets its message across that certain, often marginalised groups of mothers receive unacceptable care, I feel that the statistical analysis can be improved and I am struggling to see the added value that the study provides, unless it is that this particular area has not been studied before.

Comments:

1. Page 5 line 41 "If the care they receive during...." I feel that this sentence should be revised to reflect that reasonable expectations of care should be met.

2. While the introduction section talks about acceptability studies in LMICs and China etc, not much is said about South Africa and Tshwane. It does not suffice to say that there is insufficient knowledge of barriers (as referenced by [22]) but not mention what has been done. [22] is one such study whose acceptability findings can be elaborated on and there may be others too.

3a. Methods: While reading the paper, I was unsure if a multivariate ANOVA (MANOVA) was performed or a series of ANOVAs on different dependent variables. It was only upon reading the additional file 2 that I realised that it was the latter. This needs to be made clearer in text.

3b. My issue with the use of several ANOVAs or even just one ANOVA is that the data are not continuous. ANOVA is a comparison of means and means make sense for continuous data or binary data where it reflects the proportion of 1s. By converting from (Yes, Unsure, No) to (0,1, 2) are you assuming that No is twice as bad as Unsure, as in how 2 cars is twice as many as 1 car? Given that the scale is ordinal at best, why not switch to non-parametric alternatives to test the differences between medians etc. These are less powered but you are
giving fair treatment to the data. Why not consider methods that make use of polychoric correlation; correlation methods for ordinal data.

3c. Missing values are said to be imputed but no details are given. How is this done?

3d. The 6 dependent variables are all speaking to acceptability of care in different ways. The benefit of multivariate techniques such as multiple correspondence analysis and MANOVA is that they can provide a measure of joint variation and perhaps methods like MCA could be used to create an index and subsequent ranking of women's experiences and non-parametric tests between ranks could identify marginalised groups.

3e. Table 3, which shows the main results for the analysis consists entirely of p-values. Many journals are steering away from such analyses due to the overuse, incorrect use and misinterpretation of p-values in recent times. The American Statistical Association has released several statements to this effect in the last few years. I would advise steering away from displaying results like this, in favour of confidence intervals, effect sizes and more meaningful measures. Likewise, the choice of cut-off value for significance should be motivated in the context of the study, sample size and reliability of the data.

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