Reviewer’s report

Title: Demographic, Psychosocial and Clinical Factors Associated with Postpartum Depression in Kenyan Women

Version: 1 Date: 11 Mar 2018

Reviewer: Benedict Weobong

Reviewer's report:

Demographic, Psychosocial and Clinical Factors Associated with Postpartum Depression in Kenyan Women.

General comments: 1

The paper may be considered for publication as it:

" Addresses and contributes to a mental health condition of public health importance that requires more research evidence to unpack its aetiology.

" Contributes to narrowing the mental health research-specific publication deficit in under-resourced regions of the world.

General comments: 2: Minor Essential Revisions

" The authors are encouraged to follow the STROBE-cohort studies guidelines in their report as this will help improve the structure/content of the paper and help with future systematic reviews/meta-analysis in this area of perinatal mental health.

Specific comments:

This paper could be improved if the following are addressed:

Abstract: Minor Essential Revisions

" Under results, it is inappropriate to use terminology like 'increased risk' when reporting odds ratios! And OR of 3.37 does not mean 'risk' is increased by 3-fold! It's also clear that the
increased odds of postnatal depression due to antenatal depression exposure is not statistically significant, so wonder why the authors report it as if it were!

" The conclusion should be modified in light of the comment above.

Introduction: Minor Essential Revisions

" Lines 23-25: whilst I agree there's still some work to do re the evidence-base from appropriately designed cohort studies within SSA, I think there are quite some credible large cohort studies that have investigated risk factors for perinatal depression in the sub-region and these should be acknowledged. I can think of Weobong et al work which is perhaps the largest perinatal cohort study in Africa and the world!. Secondly, it appears your references are off as those references listed to support this argument relate to non-SSA studies! Indeed, I'm a bit concerned that your reference list is replete with references of studies largely conducted in other regions of the world when there are credible studies conducted in SSA that could be more appropriately cited!

Methods:

General comments: Minor Essential Revisions

" Lines 41-53: this whole section should go under the results section.

" It's not clear if the EPDS is validated for use in this (or similar) setting, and the reference provided is clearly inappropriate. Indeed, it does not appear it has been validated as the authors have used the original development/validation cut-offs. This could introduce measurement bias and I hope this is addressed in the discussion.

" Also it is not clear how participants were selected and if this was random. I understand this analysis cohort was taken from another study with a different goal, but given this is an epidemiological investigation, issues that may affect internal/external validity of the findings are important and adequate information provided. It's however refreshing to note that there were very few refusals and participants were largely comparable in terms of baseline socio-demographic factors.

" Sample size calculation: this is not discussed but think it should! What were the assumptions and how powered was this analysis (compared to previous studies)?
Data analysis:

General comment: Minor Essential Revisions

" Not sure if potential moderation effects were explored (as not mentioned/reported); could there be interaction effects? And were these explored? If not why?

Results:

General comments: Minor Essential Revisions

" Authors are strongly encouraged to not over-state some of the findings. I don't see an association with: mother in-law, helpful partner. Nor, vaginal delivery/nursery admission as the OR CIs include 1! I assume the authors may have claimed an association based on the p-value but this is not to be encouraged as we all know the p-value is very problematic and may not be used alone without the CIs.

Discussion:

General comments: Minor Essential Revisions

" As commented on already, the authors may have totally ignored the relatively large and credible body of evidence re determinants of perinatal depression in SSA and this is worrying. E.g. Weobong et al found very strong and large associations between biological factors/birth-related factors and postnatal depression! This was not replicated in this study and would be useful to learn why this might have been in the case in Kenyan women. The authors have made quite strong arguments for the mental health needs of women to be given proper recognition, based on this piece of work. I am not certain that this report provides the appropriate platform to make such recommendations, and I see this to be quite inappropriate. A cross-sectional design provides exploratory, hypothesis generating findings necessary for a more analytical/definitive design to be commissioned. We do not know if any of the findings here are causal and therefore could not use this as a basis to make strong arguments for interventions as proffered in this report. Indeed, the correlations reported here are largely very weak and this calls for a cautious interpretation of the findings. The authors should be discussing their findings in the context of these important considerations, advancing potential strategies for collecting prospective data in order to appropriately answer the questions set out in this report.
The rather odd finding of no statistically significant association between antenatal depression and postnatal depression in this study should be discussed. Antenatal depression is perhaps the most consistent independent predictor of postnatal depression and the inability to replicate this in this study warrants some discussion.

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

Yes

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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