Reviewer's report

Title: Association of household food insecurity and mental distress among pregnant women attending antenatal care in Jimma Zone, Southwest Ethiopia

Version: 2 Date: 26 November 2014

Reviewer: Simone Honikman

Reviewer's report:

The article addresses a critical gap in the literature and importantly, covers a topic at the nexus of health and development, in low income settings.

1. Is the question posed by the authors well defined?
   (Major Compulsory Revision) The question is reasonably well posed by the authors though I would suggest the introduction include some mention of maternal mental distress (as opposed to mental distress in general) in developing countries and Ethiopia, as well as some discussion of the determinants of common mental distress other than food security, that may impact indirectly on food security, such as education and employment status and especially gender inequality and abuse. These issues require further explication in the discussion section, with special reference to the Ethiopian or LMIC context.
   (Minor Essential Revision) The discussion on the bidirectional relationship between maternal mental health and food insecurity is unclear. The explanation after ‘i.e.’ in the second paragraph (introduction) does not accurately refer to the sentence prior to this.

2. Are the methods appropriate and well described?
   (Minor Essential Revision) The study setting may be more fully described with respect to the following factors;
   • Rural vs urban context
   • Poverty levels
   • Income generating activities
   • Types of dwelling
   • Any data on gender issues
   (Minor Essential Revision) To what degree are the 11 health centres and one hospital representative of the zone or Ethiopia as a whole with respect to poverty, location and accessibility? This is relevant in terms of the generalizability of the findings.
   (Major Compulsory Revision) There is no apparent rationale for inclusion of such a wide range of questionnaires to measure mental distress, when one has been well validated previously in the Ethiopian setting (SRQ20). Unless, there is a good rationale, which would need to be explained, I do not see the relevance of including data from several depression screens in this paper.
A separate critique regards the description of the EPDS as a tool designed “to assess pregnancy-related depressive symptoms”. In fact, the EPDS is designed for screening for depression in the perinatal period, using a universal set of symptom items for depression, and not those specifically related to pregnancy.

Categorisation of households as food secure vs food insecure: it is not clear what “the mean frequency of exposure within the household” refers to.

3. Are the data sound?
I am not fully equipped to comment on the statistical analysis.

4. Do the figures appear to be genuine, i.e. without evidence of manipulation?
YES

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
YES

5. Are the discussion and conclusions well balanced and adequately supported by the data?
Yes, but below are some minor essential revisions;

- There is lack of clarity regarding the study cited by references 28 and 38 in the first paragraph of the discussion. Are the two respective rates referring to anxiety and depression or maternal and paternal symptoms?

- It would be useful to locate the ‘similar previous study’ cited by reference 44, by specifically stating the study also took place in Jimma Zone.

- At the end of the paragraph above, a reference is required for the seasonal effect on food security status.

- The discussion pertaining to rates of depression in other parts of Ethiopia and in developed countries, should specify whether the rates cited refer to screening or diagnostic studies.

(Major Compulsory Revision) I suggest, as above under item 1, that the authors discuss some of the contextual factors (education, violence, gender inequality) that may impact both on food insecurity and mental distress for women, and particularly mothers in resource-poor settings, and particularly, Ethiopia. Potential causal mechanism could be discussed with possible reference to qualitative literature.

(Major Compulsory Revision) This work requires some sort of policy, development or service design recommendations.

6. Are limitations of the work clearly stated?
YES, I suggest the lack of qualitative data also be presented as a limitation

7. Do the authors clearly acknowledge any work upon which they are building,
both published and unpublished?
YES

9. Do the title and abstract accurately convey what has been found?
YES

10. Is the writing acceptable?
Yes, although there are a few small grammatical errors. (Minor Essential Revisions)
Please see
• 4th last line of introduction “questions” should be singular
• There are several examples of errors when using the terms “insecure” vs “insecurity” or “secure” vs “security”, the past participle usage of these and the grammar used leading up to these terms.
• “Confidentiality was also ensured for each study participant.” (singular for ‘participant’)
• In the discussion, it is not necessary to use the word “approximately” in the 3rd paragraph, 1st line.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests