Author’s response to reviews

Title: Validation of Three Mental Health Scales among Pregnant Women in Qatar

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Author’s response to reviews:

We have submitted a supplementary file where we have responded to every comment in the reviewer's notes and every comment in the manuscript draft. Thank you.

REPH-D-18-00327  Editor Comments  Authors’ Response

E1  In the ABSTRACT, please state which scales were validated right from the outset instead of saying "these scales" in the first line under objectives. Additionally, the part which reads, "to support prenatal health assessment and to facilitate appropriate treatment" is rather misplaced as it implies that this was part of the objective of this study. I would suggest deleting it or putting it under "Background".

We have moved the scale names to appear earlier in the abstract. We have removed the sentence from the abstract as advised.

E2  In the METHODS section, there is need to explain what the authors stated as "a fixed interval sampling procedure with replacement." We have elaborated on what was meant by a fixed interval sampling procedure with replacement in the sample section.

E3  Under MEASURES, the authors did well to describe the scales used, however they did not explain why they had to regroup the scales and the (Measures, Results, Discussion) We have added text to the Measures, Results, and Discussion sections that
subsequent effect of such re-categorization should be discussed, for instance when they reclassified the EPDS to have maximum possible score of 20 against the original 30, what effect could this have on their conclusions?

illuminating decisions to regroup response options for the three scales. Generally, all decisions were made in the service of theoretical parsimony and empirical simplicity.

E4

Another major concern is the use of split samples for EFA and CFA. The authors need to provide a rationale for doing this and state whether it is routine practice to do so. Splitting samples when conducting EFA and CFA is generally discouraged (see Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. Journal of Management, 21(5), 967-988).

(Procedure) We appreciate this careful attention to methodology. We treated the data as two separate, independent samples. The EFA was performed on an exploratory data set and the CFA was performed on a holdout data set. Conducting EFA/CFA in random split samples is a routine way to explore factor patterns, test the dimensionality and fit of a factor model in two independent samples. (See R9 for more)

E5

The DISCUSSION section of the manuscript is quite shallow and no attempt has been made to discuss the implications of these findings in public health practice or in research. Refer to the attached file for more comments on this section.

We have taken this opportunity to add depth to the discussion by responding to point by point suggestions. In particular we have given specific studies as examples; we have highlighted Arab and non-Arab samples in the literature; we have shared thoughts about why differences exist in factor structure between our study and prior work; and, we have added text to the limitations section and to the conclusion section where importance to the public health community is given.

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

language corrections given here; however, all authors read through the manuscript for readability (any changes are noted with track-changes) and we have responded to specific instances in the reviewer comments below. (For example R21, R27)

<table>
<thead>
<tr>
<th>Reviewer 1 Comments</th>
<th>Authors’ Response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R1</strong> Comment: would be useful to name the scales!</td>
<td>Highlighted text: these scales We have moved the scale names to appear earlier in the abstract. (E1)</td>
</tr>
<tr>
<td><strong>R2</strong> Comment: Suggest rewording to &quot;the study aimed at..&quot; so as to reduce the words and then state the scales in the abstract</td>
<td>Highlighted text: The objective of the study Deleting text recommended by the Editor allowed us to keep this text as written. We have moved the scale names to appear right away in the abstract, as recommended. (E1)</td>
</tr>
<tr>
<td><strong>R3</strong> Comment: state them!</td>
<td>Highlighted text: these scales We have moved the scale names to appear earlier, as advised. (E1)</td>
</tr>
<tr>
<td><strong>R4</strong> Comment: Postnatal</td>
<td>Highlighted text: Post-Partum Thank you for bringing this to our attention. We have corrected the scale name here and elsewhere.</td>
</tr>
<tr>
<td><strong>R5</strong> Comment: present appropriately</td>
<td>Highlighted text: (KUAS; Abdel-Khalek 2000) We have extracted this abbreviation from the reference.</td>
</tr>
<tr>
<td><strong>R6</strong> Comment: (PSS)</td>
<td>Highlighted text: Perceived Stress Scale We have made this edit.</td>
</tr>
<tr>
<td><strong>R7</strong> Comment: deleted: PSS;</td>
<td>Highlighted text We have extracted this abbreviation from the citation and placed behind its first use in full as</td>
</tr>
</tbody>
</table>
advised.

R8
Comment: In full first time.
Highlighted text: UAE
We have expanded this abbreviation to read in full.

R9
Comment: need to explain this, how was this conducted?
Highlighted text: A fixed interval sampling procedure with replacement was used.
We have added text to explain interval sampling with replacement. (E2)

R10
Comment: the scores on the EPDS range from 0 to 3, not 1 to 4 as stated by the authors, please revise!
Thank you. We have changed the anchor values for the EPDS.

R11
Comment: would be useful to include the major reasons for refusal to participate
We have provided more text to explain rationales for refusal and added text to explain incomplete interviews as well.

R12
Comment: meaning what exactly?
We have added text to the sample section to explain lost cases were instances of eligibility.

R13
Comment: In full first time.
We now use response rate in full versus RR. This is the only instance of use.

R14
Comment: each?
Additional text has been added to the sample section to clarify (1) that this study is based on one module of a broader interview, and (2) that the prenatal health module took each participant 10 minutes of the whole interview (55 minutes).
Comment: need to explain the rationale for doing this
We provide rationale for collapsing the KUAS. (E3)

Comment: Postnatal
Thank you. We have corrected the scale name.

Comment: NA/Only highlighted.
The authors assume this highlighted text is another place where rationale is needed for collapsing the PSS. We now provide rationale for collapsing in the text. (E3)

Comment: what was the rationale for collapsing the options?
We now provide rationale for collapsing the EPDS in text. (E3)

Comment: I am not convinced as to why the authors decided to split the sample into two. According to Hinkin (1995), it is not advisable to conduct EFA and CFA in the same sample by splitting it into two halves as it may result in biased results.

Conducting EFA/CFA in random split samples is a routine way to explore factor patterns, test the dimensionality and fit of a factor model in two independent samples. We randomly split all data in two halves (thus, two samples), performing the EFA on the first (an exploratory data set) and performing the CFA on the second (a holdout sample). We did not use a randomly split “sub-sample” of the first exploratory data set to perform the CFA. (E4)

Comment: SD=5.08
We have made this addition.

Comment: new, married younger to younger husba
Thank you for this reader feedback. We modified the text to read “married earlier to younger husbands”

Highlighted text:

Yes. The text states that significant differences were observed between Qatari and non-Qatari women.

We have added text to the discussion section that gives possible explanations for differences in factor structures between our study and prior work.

We have included examples of other solutions in other world regions, where applicable, in the discussion section. We have added text to the conclusion section that highlights importance to the public health community. In particular we note that these scales offer opportunity for early intervention. (E5)

We now give examples in our discussion section.

Thank you! We have deleted the duplicate word.