Reviewer’s report

Title: Risk factors for impaired maternal bonding when infants are 3 months old: a longitudinal population based study from Japan

Version: 1 Date: 21 Dec 2018

Reviewer: Reviewer 2

Reviewer’s report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

Yes - the approach is appropriate

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

Yes - experiments and analyses were performed appropriately

Statistics - Is the use of statistics in the manuscript appropriate?

Yes - appropriate statistical analyses have been used in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

Yes - the author's interpretation is reasonable

OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?
Yes - current version is technically sound

PEER REVIEWER COMMENTS:

GENERAL COMMENTS: The objective of the paper was to assess the factors associated with impaired maternal bonding three months after delivery for mothers in Hekinan city, Japan. The study included 1060 mothers. Postpartum Bonding Questionnaire (PBQ) was collected three months after delivery.

The authors did a thorough literature review. The methods and the results are clearly stated. The analysis performed was appropriate. The authors clearly discussed the findings of the study and clearly highlighted the strengths and weaknesses. The study supports findings that mothers with depression and those with maternal negative feelings towards pregnancy are at increased risk of impaired maternal bonding. The study may help design future interventions for this population.

ADDITIONAL REQUESTS/SUGGESTIONS:

The paper would benefit from the following minor points:

Methods section under PBQ: best to refer to items raging from 0 (never) to 5 (always) (not the scale).

Throughout the paper, the authors refer to "univariable" analysis when in fact it should be "bivariate" analysis as the authors are referring to the relationship between 2 variables.

Under the statistical analysis section of the paper, it would be informative to state that for the logistic regression models, 2 models were performed one comparing moderate level of impaired maternal bonding to low level and another comparing high level of impaired maternal bonding to low level.

For the statistical analysis, it would be good to clearly state that alpha level < 0.10 was used for inclusion in the multivariable logistic regression analysis and an alpha of 0.05 for significant associations for the final models.

For the discussion section (for example page 10 - line 12-18), it would be informative to discuss the results of the multivariable analysis and not the bivariate analysis (reported as "univariable" in the paper) since the bivariate analysis are confounded by the other factors.

Justification as to why infant sex was included in the multivariable logistic regression model even though it was not significant at the alpha 0.01 is needed.

Due to small sample size for mothers < 19, I suggest merging lowest 2 categories.
I also suggest merging the categories "vacuum extraction" and "Forceps delivery" to perhaps "assisted delivery".

I suggest adding the headings for the variables presented in Table 1 to Tables 2 and 3 (this would make flow and reading of the results easier to follow).

It would be helpful to include the limitation of using 15 items from the Japanese PBQ instead of the 16 items. Also, for the limitations section, it might be a good idea to talk about potential confounding variables that the authors may not have adjusted for.

Note: This reviewer report can be downloaded - see attached pdf file.

**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

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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