Author's response to reviews

Title: Employment, income, and education and prevalence of depressive symptoms during pregnancy: The Kyushu Okinawa Maternal and Child Health Study

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Author's response to reviews: see over
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Editor
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Ms. No.: 1741887969668988
Title: Employment, income, and education and prevalence of depressive symptoms during pregnancy: The Kyushu Okinawa Maternal and Child Health Study
First author: Miyake Y.

Dear Sir:

Thank you for your email of June 7, 2012. We are pleased that you are interested in our manuscript for possible publication as an original article in BMC Psychiatry. We appreciate the thoroughness with which the reviewers have considered our manuscript. We have addressed the comments made by the reviewers and have carefully revised the manuscript. We hope that it is now suitable for publication in your esteemed journal. We understand that final acceptance depends on satisfactory resolution of the points raised by the reviewers.

I am sending the revised manuscript with all changes highlighted in red.

Responses to the reviewers and detailed explanations of our revisions are provided below.

We thank you in advance for your consideration. We look forward to hearing from you again.

Yours sincerely,

Yoshihiro Miyake, MD, PhD
Associate Professor of Preventive Medicine and Public Health
Reviewer: Geertje Goedhart
Reviewer's report:
Major Essential revisions
1. Methods/Statistical analysis: Could you explain, by means of univariate analysis, reasoning and/or literature, why you selected a priori the factors mentioned in this paragraph as potential confounding factors?

Response:
We are very grateful for your careful review and insightful comments. We have carefully revised the manuscript according to your remarks.

We added the following passage to the Methods section: “These factors, other than family structure and family history of depression, were significantly related to the prevalence of depressive symptoms in univariate analysis in this population. Previous studies found that nuclear family structure and family history of depression were significantly associated with perinatal depressive symptoms [5, 13, 16].” (Page 5 Lines 21-25 in the revised manuscript).

The following reference, mentioned in the above passage, was also added:

2. Discussion/8th paragraph: I don’t agree with your point about insufficient statistical power, as this is not different compared to the analysis for employment.

Response:
We agree with this comment. We decided to delete this paragraph in the revised manuscript.

Minor Essential revisions

Response:
We added a comma (Page 4 Line 3 in the revised manuscript).


Response:
We changed ‘fully’ to ‘full’ (Page 4 Line 12 in the revised manuscript).

3. Table 1: the title of the 2nd column ‘n(%)’ does not fit all rows. It is more appropriate to add ‘n(%)’ to all variables except the first two.

Response:
We added the words “mean ± SD or” to the title of the second column of Table 1.
4. Table 2: the prevalence numbers for the variable Employment status count up to 1740 instead of 1741.

**Response:**
After reading your comment, I realized my mistake. Thank you very much for pointing this out. The prevalence of missing data “1/12” in Table 2 is incorrect, and we changed it to “1/13”.

**Discretionary revisions**
1. **Introduction:** Please add something about the importance of studying depression during pregnancy, i.e. risk for (unborn) child.

**Response:**
We added the following passage to the Introduction section: “Depression during pregnancy can lead to negative obstetrical and neonatal outcomes.” (Page 3 Lines 6-7 in the revised manuscript).

2. **Methods/Study Population:** instead of the words ‘provide....with.....’ I would suggest ‘invite....using...’ (3 times).

**Response:**
We changed the words ‘provide....with....’ to ‘invite....using....’ (Page 3 Line 28 and Page 4 Lines 1, 6, and 9 in the revised manuscript).

3. **Methods/Measurements/1st sentence:** ‘filled out’ and ‘self-administered’ means basically the same.

**Response:**
We deleted the word “self-administered” in the revised manuscript.

4. **Methods/Measurements/3rd sentence:** a better word instead of ‘elicited’ could be ‘collected’, ‘contained’ or ‘held’.

**Response:**
We changed the word “elicited” to “collected” (Page 4 Line 22 in the revised manuscript).

5. **Methods/Measurements/2nd paragraph:** do you know whether unemployed women were voluntarily unemployed (e.g. to take care of children)? I expect a difference in depressive symptoms between voluntarily versus non-voluntarily unemployed women.

**Response:**
We regret that we were not able to obtain data on whether unemployed women were voluntarily unemployed.
We added the phrase “regardless of the cause of such unemployment” to the Methods section (Page 5 Line 3 in the revised manuscript).

6. Results/2nd paragraph: it is better to put the sentence ‘depressive symptoms in relation to selected socioeconomic variables’ the other way around, i.e. the way you analyzed it.

Response:
We change the phrase “selected socioeconomic variables” in the Results section to “employment status, household income, and educational level” (Page 6 Line 10 in the revised manuscript).

7. Results/2nd paragraph: please keep in mind that odds ratios imply a higher/lower risk for one category compared to a reference category. That means for example that the job types sales, services, production and other, do not have a lower risk for depressive symptoms compared to the unemployed group. This also holds for the results section in the Abstract.

Response:
We added the following passage to the Abstract: “Sales, service, production, and other occupations were not significantly related to the prevalence of depressive symptoms during pregnancy.” (Page 2 Lines 19-21 in the revised manuscript).

8. Results/Discussion: for consistency, please use ‘depressive symptoms’ instead of ‘depression’.

Response:
We changed the word “depression” in relation to the outcome in the current study in the Results and Discussion sections to “depressive symptoms” (Page 7 Line 8, Page 8 Lines 6, 15, and 25, and Page 9 Lines 6, 7, and 12 in the revised manuscript).

9. Table 1: Please shortly explain the term ‘Nuclear family structure’.

Response:
We added the footnote “Family consisting of parents and their children.” to Table 1.

10. Discussion: the 2nd and 3rd paragraph describe the same issue, i.e. comparison with previous studies. Can you merge the content of these paragraphs? Furthermore, you do not mention here the systematic review of Lancaster (2010), mentioned in the Introduction section, which has conflicting results.

Response:
We merged the second and third paragraph in the revised manuscript.

We added the following passage to the Discussion section: “In particular, the current findings are
not consistent with those of the above-mentioned systematic review that showed small associations between lower income and lower education and depressive symptoms during pregnancy, although unemployment was not related to depressive symptoms during pregnancy [3].” (Page 8 Lines 26-28 and Page 9 Line 1 in the revised manuscript).

11. Discussion/4th paragraph: Could you provide a literature reference for “the positive associations between holding a professional or technical job…..with job satisfaction”?

Response:
We regret that we were not able to provide a literature reference, and we do not mention it in the text.

12. Discussion/5th paragraph: the comparison in CES-D score between study subjects and female adolescents is not very appropriate, as the study subjects are considerably older, and usually the prevalence of depression is higher among women of reproductive age. Can you provide more appropriate numbers of depressive symptoms in general population/women of same age group?

Response:
The passage describing the prevalence of depressive symptoms among Japanese female adolescents was changed to “The prevalence of depressive symptoms in this population was, however, lower than that in a representative sample of the Japanese general population: the prevalence of depressive symptoms (CES-D score of ≥ 16) was 30.7% in 2315 women aged 30-39 years [18].” (Page 9 Lines 19-22 in the revised manuscript).

The following reference, mentioned in the above passage, was also added:

13. Conclusions: I’m not confident about the 1st sentence. This study is first in what exactly?

Response:
The first sentence in the Conclusions section was changed to “The current cross-sectional study in Japan showed that both full-time and part-time employment, holding a professional or technical job, and holding a clerical or related occupation were independently associated with a lower prevalence of depressive symptoms during pregnancy.” (Page 10 Lines 25-28 in the revised manuscript).

Reviewer: John Eastwood
Reviewer's report:
This study makes a useful contribution to the study of maternal depression during pregnancy and to the determinants of this important public health problem. The major weakness of this study, representativeness, is acknowledged by the authors in the
last paragraph on page 9. The authors cannot address this limitation of the study by revision of the paper.

Major Compulsory Revisions
Nil

Minor Essential Revisions
Nil

Discretionary Revisions
The English language is clumsy in places and would benefit from some editing.
In this study the variable of interest is held as the reference variable and consequently the Odds Ratios of the covariants are less than 1. It would be more meaningful if full employment was the reference variable and then the OR of unemployment would be a positive number. It would be a significant piece of work for the authors to reanalyse their data in this way.

Response:
We appreciate the reviewer’s comments and the careful review of our manuscript.

I have checked the entire manuscript thoroughly, and it has been carefully reviewed by an experienced medical editor whose first language is English and who specializes in the editing of papers written by physicians and scientists whose native language is not English.

When the effects of part-time employment, full-time employment, and each job type on the prevalence of depressive symptoms are investigated, it is reasonable to select ‘unemployment’ as the reference variable. For consistency’s sake, ‘unemployment’ is also used as the reference in the first analysis in which employment is classified into two categories (employment and unemployment). Regarding this situation, we chose not to add any comments to the text.