Author’s response to reviews

Title: Associations between social capital and maternal depression: results from a follow-up study in China

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List of Modifications and Revisions----in response to Reviewers’ Comments

Reviewer #1: The paper addresses an important relationship that provides potential directions for interventions to prevent and/or manage peripartum depression (PPD).

1. The paper requires editing to improve some English-language expression.

Answer: We would like to thank the reviewer for this comment. The revised manuscript has been proofread by a fluent English-speaker and we have incorporated his comments and suggestions.
2. Page 3, Line 50 states that mothers are the primary caretaker[s] of their babies. Is this always the case - might be more correct to say that mothers are most commonly the primary caretaker[s].

Answer: We apologize for the oversight. The sentence has been revised to avoid the confusions.

3. The sampling methods requires clarification. Page 4, Line 98 states random sample, however, line 103 states consecutive recruitment.

Answer: We apologize for the confusion. In the current study, all new mothers admitted in the hospital during survey period were approached by our study team. The survey was conducted for every eligible primiparas who agreed to join the study. The inclusion criteria could be found in the manuscript. This sampling method was not random sampling, and related phrases were revised. The latter description was also removed to avoid confusion.

4. Providing the direction of the scoring of the social capital items in the methods. If the item scores positively then the pattern of scores over time seem opposite to the hypothesis (unstated) that mothers would have less social capital in the 'sitting in' period post birth. Note that this hypothesis is not stated in the introduction or the method, but is referred to in the discussion. If the measure is negatively scored then the hypothesis is supported. However, the conclusions support positive scoring (higher social capital - lower PPD at the 2-3 day measure) but this seems counter to the social capital hypothesis. This needs considerable clarification.

Answer: We would like to thank the reviewer for this comment.

Firstly, we have added the following study hypothesis in the introduction - social capital level of primiparas will be negatively correlated with depression among Chinese primiparas.

Secondly, the direction of the scoring of the social capital items were added in the method. Social capital and its components were all scored positively, with higher score representing higher social capital levels.

Thirdly, the relationship between higher social capital and lower PPD at the 2-3 day was further clarified in the discussion. Since the highest social capital level was at 2-3 days after the delivery. Usually, primiparas will leave the hospital 3 to 5 days after delivery, thus they were still in the hospital at the 2nd to 3rd days after delivery. During this period, their husband or parents will carefully take care of them, and their relatives, friends and colleagues will visit them
and give red envelopes or newborn gifts. Those social interactions and gifts might give them with greater support and comfort. Moreover, the happiness levels for new mothers are normally very high at this time-point due to the joyfulness they would experience in the sense of having a baby.

During the period of “sitting the month” at home, our results show that social capital level is going down after they discharge from hospital, and reach at a relatively low level at 6-8 weeks postpartum. In China, primiparas should be confined at home for one full month of convalescence after discharge from the hospital. This practice might change their normal social environment. Moreover, their psychological status might be largely affected by the attitude of family caregivers.

5. The cut off of greater than or equal to nine as the indicator for depression is very low for categorizing participants as having PPD. Further justification for using this cut off is needed - see for example Matthey S. Are we overpathologising motherhood? Journal of Affective Disorders 2010; 120(1-3): 263-6.

Answer: We would like to thank the reviewer for this comment. I read the article you recommended. This article points out current estimates of the prevalence of perinatal distress are an overestimation of the true rates. Depression screening for our survey also uses self-report mood measures, so we admit this could be a potential limitation.

Regarding the cut off: Systematic review of validation studies of the EPDS included 1987-2008. Cut-off points of 9/10 for possible PPD, 12/13 for probable PPD and 14/15 for APD were used (Gibson et al., 2009). A Chinese version of the EPDS that has been tested in Hong Kong and demonstrated good reliability and validity was used (Lee et al., 1998, Lau et al., 2010). The EPDS scores are divided into three levels: 0–9, insignificant; >9, mild to severe depressive symptoms; and >14, severe depressive symptoms (Lee et al., 2004, Lau et al., 2010). If being used to screen the antenatal depression in women of the third trimester of pregnancy, the sensitivity and specificity was 0.786 and 0.834, respectively (Guo et al., 2009). Cronbach's alpha coefficient of the EPDS in this study was 0.78. However, at the conventional 12/13 cut-off, the sensitivity of the scale was only 0.41, with specificity of 0.95 (Lee et al., 1998, Zhao et al., 2015). Our study need to The antenatal and postpartum depression were both measured in our study by EPDS, so we consider to use the cut-off points of 9/10.
Related References:


6. How was introvert/extrovert measured. This measure is not included in the methods section.

Answer: We apologize for the oversight. Personality of the primiparas were measured by a single question ‘Would you describe yourself as extroverted or introverted?’, which could be less accurate than using a personality scale. In this case, we have added it as a limitation for the current study.
7. The authors talk about a 6 month longitudinal study - but the measures are late pregnancy to 6-8 weeks postnatal - approximately 3 months. What is the 6 month follow up?

Answer: We apologize for the mistake. The manuscript has been revised accordingly to make it clearer and more accurate.

8. In the Discussion the authors imply a causal direction from the study, concluding that trust relieves depression. It is not possible to infer causation, only association, from the study design: directionality is not possible. For example, it would also be possible to conclude that lack of depression allows greater trust (the opposite causal direction. The authors could more accurately say that the evidence from the other studies cited suggests that having trust may relieve depression, but the data and method do not allow this conclusion.

Answer: We would like to thank the reviewer for this comment. These sentences have been revised accordingly.

9. The authors further conclude that 'enough sense of trust is always beneficial to primiparas to relieve their depression. Living in a high social trust level community, primiparas may find it easier to let off steam and get necessary emotional support from their family members, neighborhoods, friends and colleagues'(page 10 lines 285-88). Although supported by a citation, the data do not support the conclusion that 'trust is always beneficial'. Further the study measured individual social capital and not community level, so again not possible to support a conclusion related to 'high social trust level communities'.

Answer: We would like to thank the reviewer for this comment. These sentences have been removed accordingly to avoid over-interpretation.

10. The study did not measure PPD in multiparous women: what is the evidence for the statement on page 11, lines 310-11 that primiparas are more prone to anxiety.

Answer: We apologize for the oversight. The sentence has been removed accordingly.

Reviewer #2: This is an interesting article in an important area. The findings add to the body of literature on the subject. The location of the study in a sample adhering to China's one-child policy makes it more interesting.
1. Throughout the article, the term postpartum depression (PPD) should be replaced with perinatal depression (PND) as the research includes pregnancy as well as the post-partum periods.

Answer: We would like to thank the reviewer for this comment. The perinatal period is considered from 22 completed weeks of gestation to 7 completed days after birth. But our study carries out survey from the third trimester of pregnancy to 6-8 weeks postpartum. So the term ‘postpartum depression’ was modified as ‘maternal depression’.

2. English language is acceptable but could be improved. Suggestions too numerous to list but some examples are given below. Use of present of tense needs to be consistent in sections.

Answer: We would like to thank the reviewer for this comment. The revised manuscript has been proofread by a fluent English-speaker and we have incorporated his comments and suggestions.

3. Introduction: Line 45: Change 'interest drops' to 'loss of interest'. Line 47: Change 'attempt to suicide' to 'suicidal ideation or attempt'

Answer: We would like to thank the reviewer for this comment. These sentences have been revised accordingly.

4. Methods: Line 102: 'Cognitive Disorder' is not a recognised term. Please replace with 'Cognitive deficit'. Line 103: Replace 'and all of them had signed the consent form' with following informed voluntary written consent'. Line 109: Better to use the term Barcode than QR code.

Answer: We would like to thank the reviewer for this comment. These sentences have been revised accordingly.

About Line 109: We think QR code is more suitable. A barcode is a machine-readable optical label that contains information about the item to which it is attached. A QR code uses four standardized encoding modes to efficiently store data. The QR code was used in our survey, and scanned by primiparas’ mobile phones.
5. Results: Line 177: Instead of saying 'were of introvert character', better to say, 'described themselves as introverted'. Line 177: Instead of 'planned a pregnancy', say 'had a planned pregnancy'. Lines 179-181: Better to say 'reported good relationships with husband (92%) and parents-in-law (74.7%).' Lines 192-195: May be better to present these results in Table form, with SC domains in column and time points in row.

Answer: We would like to thank the reviewer for this comment. These sentences have been revised accordingly.


Answer: We would like to thank the reviewer for this comment. These sentences have been revised accordingly.