Author's response to reviews

Title: Psychosocial factors that mediate the association between mode of birth and maternal postnatal adjustment: findings from a population-based survey

Authors:

Fiona Alderdice (fiona.alderdice@npeu.ox.ac.uk)

Jane Henderson (jane.henderson@npeu.ox.ac.uk)

Charles Opondo (charles.opondo@npeu.ox.ac.uk)

Marci Lobel (marci.lobel@stonybrook.edu)

Maria Quigley (maria.quigley@npeu.ox.ac.uk)

Maggie Redshaw (maggie.redshaw@npeu.ox.ac.uk)

Version: 1 Date: 10 Dec 2018

Author's response to reviews:

Response to editor and reviewers

Thank you for your helpful feedback on our paper. Please find our response to comments below

Technical Comments:

1. Please provide a cover letter to explain why your manuscript should be considered in the journal. You should also confirm in your cover letter that all authors have agreed to the submission to the journal and that the manuscript is not currently under submission in any other journal. Couldn't find where to attached the cover letter so a copy can be found below.

2. Please revise your abstract structure to conform to the journal's submission guidelines.
Abstract has now been amended to conform to journal guidelines. Objectives subheading has been moved and text integrated into background.

3. Consent to publish and Abbreviations: provide the sections on the Declarations.

These have now been added to declarations on p19 of the manuscript.

4. Please state clearly the role the funder(s) had in your study in the "funding" section of the declarations.

Statement now included on p19.

5. Please remove the funding information from the Acknowledgements and include it in the Funding section instead. If you have no further acknowledgements please put “Not Applicable” in the Acknowledgements section.

Funding has been moved and acknowledge of the women participating in the study now included on p20.

6. Please provide figure titles/legends under a separate heading of 'Figure Legends' after the References. If Figure titles/legends are within the main text of the manuscript, please move them.

Figure Titles now included after the reference under Figure legends.

7. Please clarify whether the questionnaire used in your study was developed for this study or has previously been published elsewhere. If the questionnaire has been published elsewhere please provide a reference to it in your manuscript, if the questionnaire was developed for this study please upload an English language version as a supplementary file.

This is secondary analysis of the national maternity survey. The content of the questionnaire can be found at .
This study is a secondary analysis of a population-based survey in England, UK in 2014. Content of the survey can be found in the initial survey report (33).” P7 line 145-146

Reviewer reports:

Lauren Carson (Reviewer 1): This paper examining the association between the mode of birth and maternal postnatal adjustment. It is an important scientific area which is worthy of further investigation.

My main comments are:

- Were potential participants excluded if the infant had a serious medical problem or condition (e.g. genetic disorder or cerebral palsy)?

No, we did not have information on the severity of infant problems and this was not an exclusion criteria in the study.

- Was there any measure of paternal/social support? If so was this adjusted for?

We did not have a measure of paternal/social support so this was not included.

- The abstract would benefit from a slight amendment to emphases that this study showed an association with unplanned CS rather than CS in general. A planned and unplanned CS are under very different circumstances and this is not highlighted in the abstract or explained in detail in the main manuscript.

A sentence highlighting unplanned v planned CS or undifferentiated CS has been added to the conclusions of the abstract.

Conclusions: Birth by unplanned, but not planned, caesarean section was associated with poorer maternal adjustment and instrumental birth was associated with lower maternal satisfaction with labour and birth.
Sadat et al (2014) found no association between mode of delivery and postpartum depression, however CS was not differentiated into planned and unplanned CS (21). If there is time to plan the procedure for the health of the mother or baby the benefits and risks of a caesarean compared with a vaginal birth will be discussed with a health professional in advance of labour and birth. Unplanned CS occurs when a problem arises such as fetal or maternal distress. As the decision-making and the context of care are very different between planned and unplanned CS it is important to differentiate between them.

My recommendations for minor amendments are listed below:

Line 176, 191 & 194 - The tables here might need amending as they are not easy to take in - however this may be amended once formatted for the publication.

We have slightly amended format for this text for ease of reading

Line 264 - please can the authors confirm that the association between maternal age and mode of birth was not moderated by social economic status.

The moderation of the relationship between age and mode of delivery by SES is beyond the scope of the model being tested and is not included.

Line 290 - Please define what is meant by Infant Health

This was defined in the methods p11 line 213 and we have now re-iterated this at line 300 (original line 290) (ie ‘Does your baby have any health problems now?’ yes or no)

Line 355 - was the mental health of the mothers examined with regard to methodological limitations? Was there a different rate of questionnaire response if the mother experienced mental health problems?

We have now highlighted potential non response from women with mental health problems in the limitations section p 17 line 368.

Line 368 We do not have psychological wellbeing data for non-responders so cannot comment if women with mental health problems were less likely to respond.
Zohreh Sadat (Reviewer 2): Dear authors

In this article, one of the important issues in reproductive health is highlighted. However, some modifications are required as follows.

Please write the standardized coefficient of the model paths in the figure.

Mode of delivery is a categorical non-ordinal variable and we have multiple mediators and so it is not possible to translate the data into one model hence we have summarised the main findings in Tables 3&4. However for completeness we have included an example of how the data map on to the mediation model (Figure 2) and provided all the data in supplementary tables (four extra tables with confidence intervals etc as opposed to eight extra figures).

P14 line 286 ‘Perceived control had the highest mediation effect (76% of total effect mediated, p<0.001) and the mediation model can be found in Figure 2 (full data for all mediation models can be found in the supplementary tables).’

Please enter the name of the software used for statistical analysis and Path model.

This has now been added to the end of the methods section p12 line 244.

‘All analyses were conducted using STATA 13 SE.’

In the titles of Tables 2 and 3, please add the word univariate and multivariate analysis, respectively.

The titles have been changed to reflect that they reflect unadjusted and adjusted models.

Please write the fit indices for structural equation modelling.

There were no fit indices as we did not use SEM rather a series of regressions.
One of the articles that relates to your work is written below. In the introduction you can use the results of its.


This has now been added to p4 line 86 reference 21

If you require any further information we are happy to provide

Yours sincerely

Fiona Alderdice on behalf of the study team.

Cover letter
10 December 2018

Dear Editor

Re: Psychosocial factors that mediate the association between mode of birth and maternal postnatal adjustment: findings from a population-based survey

Thank you for considering the above paper for publication in BMC Women’s Health. We have submitted the paper to your journal as it fits well with the remit of the journal in focussing on the physical, mental, and emotional health of women exploring inter-relationships between physical health interventions and psychosocial variables at the time of birth. In addition, how a woman gives birth and the impact of mode of delivery on postnatal adjustment is an important public health and mental health issue. The paper provides a novel perspective with comprehensive data that add significantly to the existing literature. Individual studies to date have looked at limited aspects of mode of delivery and maternal adjustment, leading to fragmented findings, and have not explored potential psychosocial mediators.

I confirm that all authors have agreed to the submission of our paper to this journal and that the manuscript is not currently under submission in any other journal. If you require any further information we will gladly provide it.
Yours sincerely

Professor Fiona Alderdice

Corresponding Author