

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Mode of birth and long-term sexual health: a follow-up study of mothers in the Danish National Birth Cohort
<b>AUTHORS</b>	Hjorth, Sarah; Kirkegaard, Helene; Olsen, Jørn; Thornton, Jim; Nøhr, Ellen

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Marco Blanker, MD PhD dept. of General Practice and Elderly Care Medicine, University Medical Center Groningen, the Netherlands
<b>REVIEW RETURNED</b>	10-Feb-2019

<b>GENERAL COMMENTS</b>	<p>Thank you for the invitation to re-review this manuscript. It has improved, but I have some additional (in part repeated) comments, which I hope that the authors will read as meant to improve this paper even more.</p> <p>Although authors now indicate why women without a partner were excluded, I feel that they could have checked their assumption, as the data from the excluded women are available as well. Comparing outcomes for these groups (e.g. baseline scores) would add value to this paper.</p> <p>Although authors are correct that the use of Bonferroni method is discouraged in the book Modern Epidemiology, they overlook the background of this comment. I still feel that author should consider that some of the outcomes may simply be the result of multiple testing.</p> <p>I feel that the response to the second comment of reviewer two should be discussed in much more detail in the discussion, as it helps the reader to understand why incontinence was left out of the analyses. The arguments for this are sound, but may be unknown/unclear to the readership, without such explanation.</p>
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## VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name: Marco Blanker, MD PhD

Institution and Country: dept. of General Practice and Elderly Care Medicine, University Medical Center Groningen, the Netherlands

Please state any competing interests or state 'None declared': None

Please leave your comments for the authors below

Thank you for the invitation to re-review this manuscript. It has improved, but I have some additional (in part repeated) comments, which I hope that the authors will read as meant to improve this paper even more.

Although authors now indicate why women without a partner were excluded, I feel that they could have checked their assumption, as the data from the excluded women are available as well.

Comparing outcomes for these groups (e.g. baseline scores) would add value to this paper.

- We thank the Reviewer for the opportunity to display the data for women without a partner. We have added this data to supplementary table 1, and inserted the following line in the section on study population, p. 6: "Women without a partner were less sexually active, less likely to feel that their sexual needs were met, and less likely to consider any reduced desire problematic. The sexual health of women with and without a partner can be compared in supplemental table 1."

Although authors are correct that the use of Bonferroni method is discouraged in the book Modern Epidemiology, they overlook the background of this comment. I still feel that author should consider that some of the outcomes may simply be the result of multiple testing.

- We agree with the Reviewer that with the number of comparisons made in this study, by the definition of 95% confidence intervals, it is inevitable that some few confidence intervals will not contain the true value. We have strived to make this clearer to the reader by inserting a reference to the role of chance at two places in the manuscript. The amended text reads:
  - o In the bullets on strengths and limitations of the study, p.3: "Chance and residual confounding, including confounding by birth route indication, cannot be ruled out, but the results were stable in sensitivity analyses."
  - o In the paragraph on strengths and limitation in the discussion, p.16: "Finally, chance findings cannot be ruled out."

In addition, we have made a few changes in the manuscript to make the overall tone more cautious. We thank the Reviewer for helping us to provide a more balanced message.

I feel that the response to the second comment of reviewer two should be discussed in much more detail in the discussion, as it helps the reader to understand why incontinence was left out of the analyses. The arguments for this are sound, but may be unknown/unclear to the readership, without such explanation.

- Again, we would like to thank the Reviewer for finding our blind spots. We have inserted a couple of lines in the discussion, p. 17, about pelvic floor dysfunctions as potential mediators, and also refer to the directed acyclic graph in the supplement. The amended text reads: "Caesarean section has been proposed as preventive of pelvic floor dysfunctions, such as pelvic organ prolapse, and urinary and anal incontinence.<sup>8</sup> The experience of pelvic floor dysfunctions may in turn influence sexual health.<sup>3</sup> Therefore pelvic floor dysfunctions can be considered as intermediate factors between mode of birth and sexual health (see supplemental figure 1). For this reason, we did not adjust for pelvic floor dysfunctions in the analyses. Yet, when discussing long-term effects of mode of birth, knowledge about pelvic floor dysfunctions is important."

## VERSION 2 – REVIEW

<b>REVIEWER</b>	Marco Blanker University of Groningen, University Medical Center Groningen, department of general practice and elderly care medicine
<b>REVIEW RETURNED</b>	11-Jul-2019
<b>GENERAL COMMENTS</b>	Thank you for the opportunity to review this second revision. I feel that all comments are well addressed and am happy with the additional information provided and changes made. I have no further comments.