**Author’s response to reviews**

**Title:** Developing quality indicators for assessing quality of birth centre care: a mixed-methods study

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**Author’s response to reviews:**

Ms Danielle Talbot

BMC Pregnancy and Childbirth

Re: PRCH-D-16-00150  Almere, May 8, 2017

Dear Danielle,

Enclosed please find our revised version of manuscript PRCH-D-16-00150 "Developing quality indicators for assessing quality of birth centre care: a mixed-methods study". Thank you for giving us the opportunity to revise and resubmit this manuscript. We appreciate the time and detail provided by the reviewers.
The suggestions and comments are answered below, organized by reviewer. We have highlighted the changes in the text of the manuscript and added line numbers for the ease of your review.

Reviewer 1:

Two determinants appear very similar (continuous presence of a healthcare provider during labour AND maternity care assistant present during labour). For an international audience, can a statement be included in text to justify including these two items as separate determinants. Perhaps a definition of what a maternity care assistant is in the Netherlands might clarify why a separate item should be included for this role?

Reply: in the Background we added a sentence about the maternity care assistant and we added a sentence after the table to explain the difference between these determinants (page 17).

Are all birth centres in the Netherlands physically adjacent to a hospital or on the same site? If not, and some birth centres are physically independent of a hospital then one determinant "indoor connection between birth centre and hospital" may not apply. Please comment.

Reply: in this paper, we only describe the process of developing of the indicators. In a future paper, we will describe the usability of the indicators when applied to all birth centres in the Netherlands. Therefore, in this paper we chose not to discuss these aspects.

Line 177 - ... a statement is made that client experiences were not included in the second round. However, one determinant is 'structural research on client experience' which seems to contradict that statement on line 177. Please comment.

Reply: we appreciate the reviewer’s attention to detail: indeed, this is not correct. This statement had to do with other determinants such as professional experiences. We removed ‘client experiences’ in this sentence (line 177).

Under the heading 'determinant selection by Delphi consultation' one long paragraph (over 1 1/2 pages) is included. Could this please be divided into several shorter concise paragraphs?

Reply: we divided this paragraph into three concise paragraphs.
Reviewer 2

The author's refer to "determinants" and "quality indicators". Are these the same thing? Some definition is required. It seems that a "determinant" (such as facilities at a birth centre in relation to emergency care) does not describe what would be expected of a birth centre in relation to the necessary facilities. Would this information be provided in a quality indicator? Also some determinants may not translate to a dichotomous indicator (there may be degrees of alignment or compliance). What is the process for developing quality indicators from determinants?

Reply: we added an explanation of the term ‘determinant’ in the Methods section (line125). In this paper we only describe the set of determinants for structure and process quality indicators for birth centres. In a future paper, we will describe the process for developing quality indicators from determinants. The reviewer has correctly noted that the terms are used interchangeably. We corrected this by changing the sentences to ‘determinants for indicators’ (in line 47, 113,115, 235, 240,251, 255). We added a sentence in the Discussion section explaining that the process for developing quality indicators from determinants remains to be described. We will describe this process, as well as the usability of the indicators, in a future paper.

It would be useful to briefly describe the context of care in a birth centre. It is not clear to an international audience for example whether women experience continuity of care provider from the same midwife who would normally provide care for homebirth or whether it involves some other model of care.

Reply: we added some sentences describing the context of care in a birth centre in the background section (line 59-67). We now explain the choice of birth place by women with uncomplicated pregnancies and point out that their own community midwife will accompany them wherever the birth takes place.

The rationale for the study is partly in response to the lack of evidence supporting an assumption that Birth Centres provide better quality (see abstract. though compared to what?). It should be noted that establishing the degree to which Birth Centres rate on a list of quality indicators developed only for Birth Centres will only allow the comparison of Birth Centres with other Birth Centres and not with other types of maternity services (e.g. hospital based).

Reply: we agree with the reviewer. As mentioned before, in this paper we describe only the process of developing the determinants for quality indicators of birth centres. In a future paper we will describe the usability of the indicators. We explain that these indicators are only to be used to compare birth centres with each other, and not with other types of maternity care services.
In addition to the comments of the reviewers, we included a new reference to update the number of births at home (line 89).

Thank you again for consideration of our revised manuscript.

With regard,

On behalf of all authors,

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