Reviewer's report

Title: Perceptions of postnatal care: factors influencing primiparous mothers perceptions of postnatal communication and care

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Reviewer: Birgit Reime

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Reviewer's report: The manuscript “Perceptions of postnatal care: factors influencing primiparous mothers perceptions of postnatal communication and care” addresses an important question and that is the relative impact of personality and/or psychological functioning on mothers’ perceptions of postnatal communication and their level of satisfaction with their postnatal care.

The paper is well written but the study design has some minor and two major shortcomings.

My suggestions in detail:

Introduction:
Page 1, 2nd paragraph: Studies from cancer research may not be suitable for a comparison to a postnatal care setting.

Page 2, 1st para: The average reader of BMCPC may not be familiar with the “Big 5” concept in research on psychological traits.

Page 2, 3rd para: The authors state that the first research question is to determine the relation between demographic factors and satisfaction but this question lacks an adequate operationalisation in terms of demographic variables applied.

Page 2, 3rd para: There is a sentence missing saying that eventually the aim is to determine the relative impact of each factor on satisfaction with care (tested in the multiple linear regression models).

Methods:
I like the first paragraph that describes the (statistical) model of the study briefly.

The power calculation reveals that the sample size (n=71) enables the inclusion of only eight predictors at one time.

3rd para: Please explain the concept of “Big 5”.

The tool used to measure satisfaction with healthcare providers was a broad scale developed in another setting and it is unclear why the authors did not use one of the many tools developed satisfaction with postnatal care. The authors report reliability data from another study (Lubeck). Please report the Cronbach’s alpha from this sample, too.
Page 4, last sentence: “Demographic questions included …” Breastfeeding is not a demographic question. Demographic characteristics that would have been highly relevant for this study such as level of education (one of the strongest predictors for breastfeeding or bottle feeding) are lacking. Also, occupational status and marital status are lacking.

Results:

Descriptive results and data on reliability of the tools are lacking (normal distribution of variables, range, Cronbach alpha etc.). Therefore, it cannot be assessed whether the parametric tests used were correctly used or whether a non-parametric tests (e.g., Man-Whitney-U-Test instead of t-test) should have been used. Many of these variables such as depression and satisfaction mostly are not normally distributed.

Again, it would have been interesting how level of education was related to the dependent variable and to the other covariates. Education may have had an association with both breastfeeding and satisfaction with communication as it impacts the ability to communicate and may have acted as a confounder in the breastfeeding – satisfaction relationship.

Bivariate analysis on depression and communication perception: How were the three groups of depression divided? HADS-depressive symptoms may not have been normally distributed in a sample of first time mothers, usually it is skewed. How was this problem solved?

It is interesting that agreeableness, emotional stability and conscientiousness are related to satisfaction with communication but extraversion and openness are not. Are there any studies that tested extraversion and satisfaction with healthcare communication to compare these results?

Pearson correlations should be Spearman correlations as the scales are ordinal rather than interval.

Multiple linear regression analysis: My question concerns the distribution of the variables. Were they transformed into log before entering them, due to e.g. non-normal distribution? The result of $R^2>0.7$ is impressive.

Discussion:

I disagree with the authors regarding the representativeness of the sample. An unemployment rate of 10% in the sample means that it is 19% higher than in the average UK population. The higher level of breastfeeding may be associated with the fact that women with higher levels of education are interested in and have access to and time for an online survey. I do not understand the sentence on the prevalence of postpartal depression but 17% in the sample also is a higher prevalence than the 10-15% resulting from the meta-analysis cited. Considering the three items unemployment rate, breastfeeding and prevalence of mild/moderate depression I would conclude that the sample is not representative of the UK population and contrary to this paragraph in the result section the authors report a lack of representativeness due to recruitment strategy in the discussion.
It is always difficult to discuss the results of bivariate analyses as they may have been confounded by underlying factors. Nevertheless, the result that communication is strongly associated with satisfaction in postnatal care supports previous studies in this field. It would have been interesting to learn more about the question how and whether the other variables were related to satisfaction in previous studies, that is how they support previous studies or not.

The paragraphs on limitations of the study highlight the shortcomings such as sample size and recruitment adequately. The only thing I missed relates to the study design because a cross-sectional study cannot identify causal pathways as the term “impact” may suggest but rather statistical associations.

In summary, the two main problems with this study are i) the small non representative sample allowing only 8 predictors to be tested simultaneously and ii) the lack of highly relevant socio-demographic factors that may have influenced and confounded the examined relationships such as level of education, ethnicity and marital status.

All other issues, calculating parametric or non-parametric tests, citing more studies and reporting descriptive results etc. can be done easily in a revision.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.