Reviewer’s report

Title: Experiences of interactive ultrasound examination among women at risk of preterm birth: a qualitative study

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Reviewer: S. C. Kane

Reviewer's report:

Thank you for the opportunity to review this paper, which reports on a qualitative study of the experiences of interactive ultrasound examinations among women at risk of pre-term birth.

The paper is well written and interesting overall, and the rationale for this study is appropriately detailed in the introduction.

My comments regarding potential improvements to the paper follow:

- Line 37: depressive symptoms would actually have a positive association with poor prenatal attachment. Suggest rewording as 'depressive symptoms have an association with poor prenatal attachment . . .'

- Some attention could be paid to the English expression (although it is very good overall). For example, the commas in lines 128 and 130 are redundant, ans the third comment under point 2 in table 1 doesn't make sense.

- The sample size is really quite small. This is one of the study's primary limitations, as noted. Given that all women approached agreed to participate, this would suggest that there were only 12 eligible patients over a 9 month period - is that correct? In line 288, it is indicated that 'data saturation was reached' - what does this mean?

- Some further detail on the intervention would be helpful. Who performed the study scans - sonographers or obstetricians? If obstetricians, what extra training had they undertaken to perform ultrasound (e.g. MFM)? Who would normally perform routine ultrasound scans in pregnancy? How soon after the ultrasound examination did the psychologist undertake the interview? Could the interview questions be included in a table, or does table 1 describe all the questions that were asked?

- It would seem that the intervention differed from standard care in providing both a 3D/4D image of the baby, and in enhanced interaction with the mother. It is therefore difficult to determine which aspect of the intervention was of particular value to the participants, and as
noted in lines 286-287, the same result may be achievable with 2D ultrasound. Is this an intervention that could be deployed in clinical practice? Would it be easier simply to train sonographers/obstetricians to interact with patients while scanning them? Should this approach be limited to patients at risk of preterm birth, or would it be of benefit more broadly?

- It would be interesting to extend the study to the postnatal/neonatal period, to determine whether the enhanced bonding was maintained and manifested itself in an appreciably different fashion once the baby was born.

- Overall, I wonder whether this study highlights the need for improved communication (e.g. with patients regarding the reasons for hospital admission and their management therein, and by sonographers/obstetricians during fetal ultrasound scans), rather than justifying the specific intervention. I acknowledge that this is a pilot study; ideally, future studies would focus on interventions that can be applied broadly, and with a 'control' arm to determine the degree of improvement in patient satisfaction when compared to 'standard' care. More detailed and specific discussions regarding further research directions would enhance the 'discussion' section of the paper.

- Were any potential harms arising from the intervention considered?

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript
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Needs some language corrections before being published

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