**Reviewer’s report**

**Title:** Decision-making about antidepressant medication use in pregnancy: a comparison between women making the decision in the preconception period versus in pregnancy

**Version:** 0  **Date:** 03 Dec 2019

**Reviewer:** Luke E. Grzeskowiak

**Reviewer's report:**

**Overall Summary**

Barker et al sought to examine the intent of preconception women regarding antidepressant medication use in pregnancy compared with the intent of women making these decision when already pregnant.

This is an interesting topic and reflects a very important area of research. This is essentially a descriptive study of the baseline characteristics of women participating in a randomised controlled trial. The authors attempt to provide greater novelty by stratifying women according to whether they were recruited preconception or during pregnancy. I have a few concerns regarding the analysis outlined below, but I believe with a few modifications this study could make an important contribution to the literature.

Given the large number of differences between these two groups of women, it is quite difficult to actually conclude whether there are any true differences in intent to use antidepressants during pregnancy. Firstly, while I appreciate that all women were selected into the study based on high decisional conflict, the chosen comparison groups are completely different and therefore there is the risk of overinterpretation of associated differences. For example, the preconception group were much more likely to be taking an antidepressant (85.5%) than the pregnant group (45%). It is unclear whether any pregnant women had already made the decision to discontinue the antidepressant during pregnancy and information in such should be included if possible. The two groups of women are at very different stages of decision making. One is considering use during a theoretical pregnancy, whereas the second is already pregnant and is therefore has already had to consider use during an actual pregnancy. Therefore I am uncertain that we can truly conclude any significant differences between these two groups of women, as any differences are likely explained by confounding (which appears to be the conclusion of the study).

As such, the true clinical validity and value of the study in its current form appears limited. The conclusion that further strategies are needed to support decision-making it an obvious one given these women were being recruited for a clinical trial evaluating an intervention to support decision making.
Individual comparisons

There are factors that are not examined with respect to their association with intent to take antidepressants during pregnancy. For example, prior benefit from antidepressants is likely associated with intent, but this is not examined and it is unclear why. This also differs between the two groups, but is not adjusted for when comparing the groups. Therefore, I would like to see greater description of how and why specific comparisons were chosen.

I would like to see greater focus on the associations between maternal characteristics and intent to take antidepressants during pregnancy, irrespective of whether women are in the preconception or pregnancy group. These factors, such as decisional conflict, current use of antidepressants, prior benefit from antidepressants are likely more important and informative to clinical practice than a reported difference in intent according to whether women are currently pregnant or not.

Subgroup Comparisons

Also, it is unclear how the subgroups for Figures 1 and 2 were chosen. These were not factors chosen to analyse in the multivariable model presented in Table 2. Given current antidepressant use appears the strongest factor associated with intent to use during pregnancy, this would be the obvious choice to examine a potential interaction, given the relationship could differ according to whether women were in the preconception or pregnant group.

Use of Odds Ratios

Finally, the use of Odds ratios are misleading and should be changed to Risk Ratios. This is a simple conversation calculation and would significant aid in presentation and interpretation of the data. For example, based on the crude rates, intent to use antidepressants is 60% and 32.5% respectively for the two groups. The reported OR is 3.11, despite the relative risk being much lower.
Are the methods appropriate and well described?
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No

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