Reviewer’s report

Title: The global prevalence of postpartum psychosis: a systematic review

Version: 0 Date: 21 Apr 2017

Reviewer: Sarah Goodday

Reviewer’s report:

A systematic review in the area of post partum mental health, particularly focused on methodology is timely as much research on this topic has been conducted in recent decades. While this study has merit, I have concerns about the decisions made during the screening process, as well as the synthesis of results, described in detail below. Also, the manuscript would benefit from an overall edit for English.

Introduction:

1) The introduction needs to be reworked and reduced in length. Much of the content here is not relevant to the objective of the review. It is fine to describe the WHO -RHR project, but no need to spend a page describing the overall scope of the project as this does not "directly" relate to this reviews objective. The authors spend the first 2/3rds of the introduction discussing perinatal psychiatric morbidity in general, but the focus of the review is psychosis.

2) The introduction would also benefit from adding a definition of maternal perinatal psychosis. While psychosis typically occurs early in the post partum period, it can occur during other times within the perinatal period. I'm not clear on the rationale for only focusing on studies measuring post partum psychosis? You might be missing important studies by excluding those measuring this outcome during other perinatal time periods.

Methods:

1) The search is almost 3 years old. Please update your search.

2) Please be clear about the methodology used. Did the authors follow the PRISMA guidelines?

3) Inclusion criteria: Irrespective of WHO guidelines, why did the authors use a 1990 cut off? Why not include all studies if this is a limitation? Furthermore, what is the rationale for a sample size of specifically 200? Non-population studies could still have a sample size >200. In the objective, the authors state that they are interested in global estimates based on population based samples, but this does not translate into the inclusion criteria. How did the authors confirm if studies were population based? Further, were the studies by Adefuye and Bang truly population based? It's not clear by what the authors describe.
4) Please describe what "appropriate study designs" entails

5) The 2nd paragraph on page 7 should be the first paragraph of the results section. This paragraph is confusing and does not match directly to the flow diagram. The authors state that almost 700 were included upon rescreening to be retrieved for full text review, but 700 full texts were not reviewed according to the flow diagram.

6) Why not search grey and fugitive literature if publication bias is a possibility?

Results:

1) Did the authors use a validated risk of bias form to assess the quality of studies? There is not reference cited.

2) The results section would benefit from a table describing the different methodological features of each study.

3) It would be interesting and useful to describe the incidence estimates, by different methodologies. (i.e., how do the estimate differ by hospital confirmed vs self-report measures etc.).

Discussion:

1) While postpartum psychosis "typically" occurs within the first 2 weeks postpartum, this is not the "definition" of this illness. Symptoms can last up to 12 weeks and can onset several weeks post delivery. How does measuring psychosis later in the postpartum period limit the validity of the case definition?

2) Sample size has nothing to do with whether or not a sample is population based. The authors are eluding to this in their methods and discussion. The authors need to clarify why they excluded studies with sample sizes < 200 as they include a study with a case sample size of 2. The authors should consider re-screening to include all studies irrespective of sample size.

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

No

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

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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