Reviewer’s report

**Title:** Screening for depression in women during pregnancy or the first-year postpartum and in the general adult population: a protocol for two systematic reviews to update a guideline of the Canadian Task Force on Preventive Health Care

**Version:** 0  **Date:** 06 Jul 2018

**Reviewer:** Keith Dobson

**Reviewer's report:**

This document presents a proposal for a systematic review of two literatures related to screening in major depression. One of these reviews is for screening for depression in peripartum women during pregnancy through to the first year postpartum, and the second is for a more broad review of screening for depression in the general adult population. Both reviews are intended to provide updates to the Canadian Task Force on Preventive Healthcare guidelines for screening in Major Depression. Both reviews also will incorporate a very broad review process, including searches of relevant articles in Medline, Embase, PsycINFO, CINAHL, and the Cochrane Library, with no language restrictions and no time limits. Although the general adult review will be an update of a review that had previously been published in 2013, the peripartum review will be novel.

These are important reviews to conduct, as recommendations for screening in depression have significant implications for the identification of cases of Major Depression, the appropriate treatment (or non-treatment, if indicated) of this disorder, and the delivery of healthcare services for individuals with this mental health disorder. The extant literature reviews related to screening in depression provide somewhat discordant recommendations, so a more definitive review and set of recommendations in this field would be welcome. The results are highly likely to be cited in international settings, and should be of wide interest to mental health policymakers and funders.

The review protocol was prepared in accordance with the PRISMA-P guidelines and the review protocol was registered with the International Prospective Registry of Systematic Reviews (PROSPERO), although that registration number is pending. The data extraction methods are clear and appropriate. The researchers will assess study quality and the risk of bias in the publications. The proposed analyses are sophisticated and thorough. The proposal is written clearly, and its comprehensive and refined nature makes it clear that this is a team of investigators that understands the issues well, and can conduct the review with high confidence that the results will be publishable and important. This all being said, the current reviewer had several comments and questions that are worthy of consideration.

Perhaps the major issue for this reviewer was the decision to conduct the two parallel systemic reviews. It is acknowledged that both are related to the same clinical disorder of Major
Depression, and the authors in many respects try to make the reviews parallel. For example, they propose parallel computation of using risk ratios and risk differences to calculate the benefits and risks of white screening, and generally comparable criteria for inclusion of studies (with the obvious difference that the peripartum analysis will be related only to women in the pregnancy and immediate postpartum.). This attempt at parallel analyses, however, has some severe limitations. For example, one of the common screening tools for depression in peripartum women is the Edinburgh Perinatal/Postpartum Depression Scale, which is not appropriate or used in the general population. Thus, the results of the screening analyses cannot be identical because of this methodological difference. As a second example, the outcomes associated with the screening process will differ between the two data sets. In the general population, the listed outcomes include:

Symptoms of depression (continuous or dichotomous) or diagnosis of MDD (using a validated diagnostic interview)

Health-related Quality of life

Day-to-day functionality

Lost time at work/school

Impact on lifestyle behaviour (alcohol abuse, smoking, drugs, gambling, etc.)

Suicidality (suicide ideation, attempt or completion)

False positive result (positive screen in absence of depressive disorder), overdiagnosis, or overtreatment

Harms of treatment

In contrast, the outcomes that will be evaluated for the peripartum female sample include:

Mental Health Outcomes

Symptoms of depression (continuous or dichotomous) or diagnosis of MDD (using a validated diagnostic interview)

Health-related quality of life (validated tools)

Suicidality (suicide ideation, attempt, or completion)

False positive screens (positive screens in absence of depressive disorder), overdiagnosis, or overtreatment
Harms of treatment

Parenting Outcomes

Relationship with partner and other supports

Reported/observed capacity to parent (attachment, responsiveness to infant, positive regard of infant/fetus

Mother-child interactions including mutual touching, smiling, vocalizations, and impact on other children

Infant Outcomes

Infant health and development (i.e., developmental delay; failure to thrive) cognitive, emotional, motor and neural functioning and development

Infant responsiveness

Although it makes sense that the two sets of outcomes cannot be isomorphic, as of course the child and parenting related outcomes in the context of the peripartum female sample make perfect sense. However, it was not clear why some other outcomes from the general population are not being evaluated in the female peripartum sample (i.e., day-to-day functionality; lost time at work/school; impact on lifestyle behaviour). To ensure maximal comparability of results between the two sets of literature reviews, these three outcomes should be added to the list that will be evaluated for the female peripartum sample.

Finally, a few minor issues:

1. As the reviews and are intended to be done without restriction of language, it would be helpful to know how the researchers intend to review the literatures. Article translation may be needed, and so some indication of how this process would be handled would be welcome.

2. The authors state that one of the eligibility criteria for articles will be that patients "are randomized prior to administering the screening test". This criterion is unclear, as randomization prior to screening may affect the results of screening. Whether or not this is a concern depends on the nature of the randomization. If the authors are referring to randomization to a screening versus no screening condition, or to different types of screening, then this criterion is not a consideration since by definition the no screening group will not provide any data relevant to the systematic review. However, if the authors
are referring to randomization to treatment or no treatment, or to treatment conditions, that criterion might affect the results of screening, and so is potentially problematic. The authors should clarify exactly what this eligibility criterion is.

3. Given that this will be a very broad set of articles, I commend the authors for their intended subgroup analyses, that will examine a variety of potential moderators of screening outcomes (see pages 23 and 24 in the document). The proposed variables all make sense, and should be pursued. However, one of the variables that the authors do not propose to examine is culture. There have been suggestions that depression screening practices vary among different parts of the world, and in particular between high income and low and middle income countries. A meaningful sub-analysis therefore may be to examine the effects of countries or regions as on screening outcomes. Indeed, although the author group is comprised predominantly of people from central Canada, subgroup analyses by country or region may make the results of the systematic review even more relevant to the various national organizations that have made depression screening recommendations, as they will be able to meaningfully interpret the impact of screening in their own particular geographical regions.

4. One of the authors is a co-editor-in-chief of the journal Systematic Reviews. It is to the authors’ credit that they list this competing interest.

Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field that should be highlighted to relevant networks

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

Not suitable for publication unless extensively edited
Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

No competing interest.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal

Were you mentored through this peer review?

No