Reviewer's report

Title: Analysis of decisions made in meta-analyses of depression screening and the risk of "hunch" bias: a case study

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Reviewer: Fujian Song

Reviewer's report:

This is an interesting paper that compared two systematic reviews on the same topic (depression screening) with conflicting conclusions. The paper could be improved if the following questions are considered.

Major Compulsory Revisions

Goodyear-Smith and colleagues suspected that prior beliefs may be a reason for the observed discrepancies between the two reviews, which seems possible. However, this remains a hypothesis that was not based on data provided in the paper. So I feel that the possible impact of “hunch” bias in conclusions may have been over-stated. Similarly, the recommendation that authors declare “strongly held prior beliefs as a priori hypotheses before embarking on systematic reviews” is based on this hypothesis. Therefore, although it is interesting to discuss the suspected “hunch” bias, conclusions need to be properly revised.

It is necessary for the authors to discuss any important consequences of discrepant conclusions from the two systematic reviews. For example, what were the impacts of the two reviews on the relevant clinical guidelines?

Is it possible to provide any general advice to clinicians, researchers, and health policy makers if the results of different systematic reviews on the same topic are different? Specifically, are you able to make a judgement about which of the two systematic reviews is more believable? If you are not able to decide based on available data, you may recommend further studies.

A couple of further sensitivity analyses could be conducted, by including/excluding both the Lewis study and the Wells study. Then the results of the two additional sensitivity analyses can be compared with the Cochrane review and the USPTF review. Ideally, you can add four corresponding forest plots.

Minor Essential

It is interesting to know whether the two systematic reviews have cited each other’s earlier publication and discussed the differences in conclusions.

Level of interest: An article of importance in its field
Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
'I declare that I have no competing interests'