Reviewer’s report

Title: An Umbrella Review of the Literature on the Effectiveness of Psychological Interventions for Pain Reduction

Version: 0 Date: 16 Jun 2017

Reviewer: Sam Norton

Reviewer's report:

This paper provides a comprehensive overview of the evidence for psychological interventions for chronic pain. It is well written and provides a detailed but also clear description throughout that makes a large contribution to understanding the literature. I have only relatively minor comments:

1. At the end of the introduction an umbrella review is introduced. The articles 21-25 cited are all themselves umbrella reviews where it would be more useful for unfamiliar readers to provide reference to a paper describing the methodology for umbrella reviews. I don’t know the literature on methodology for umbrella reviews well but perhaps Grant & Booth (2009). Health Info Libr J, 26(2):91-108 would be appropriate

2. Given the scope of an umbrella review it is clearly a challenge to fully describe all the results in clear and succinct way. The results section does a good job at this but it is hard to understand which types of intervention have been applied across different conditions. A table or figure here summarising the primary studies would be helpful as it is not possible to get this info from the table due to repeated studies in some reviews.

3. In the results section concerning excess statistical significance, some comment is need to aid interpretation of the meaning of the excess positive studies. What are the implications particularly where there was or not evidence for small study effects

4. In the results grading the evidence section please restate the criteria used and the elements not met to increase clarity around how decisions were made. I realise this is given in detail in the methods but currently it is unclear and the reader has to manually go through the table to determine which criteria were missed.
5. I'm not clear on the purpose of the sensitivity analysis for grading. An analysis that lowers the bar required for certain criteria finding that more associations cross the bar is hardly informative.

6. Related to the above, it would be useful to comment in the discussion about what may push the grading up to highly suggestive - e.g. are any areas where a single large study that if it were statistically significant would raise the grading (presuming no change to heterogeneity)?

7. The discussion needs to emphasise what is still unknown. Are there areas of chronic pain research where the efficacy of specific types of intervention under researched? Also, for a pain researchers it would be useful of there was a clear summary indicating where the authors think the priority for further research lies.

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.

Yes

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.

I am able to assess the statistics

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Please indicate the quality of language in the manuscript:

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