Author’s response to reviews

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

Authors:

Georgios Markozannes (gmarkoz@cc.uoi.gr)
Eleni Aretouli (eleni.aretouli@gmail.com)
Evangelia Rintou (evarintou@yahoo.gr)
Elena Dragioti (elendrag@yahoo.com)
Dimitrios Damigos (ddamigos@gmail.com)
Evangelia Ntzani (entzani@cc.uoi.gr)
Evangelos Evangelou (vangelis@cc.uoi.gr)
Konstantinos Tsilidis (ktsilidi@cc.uoi.gr)

Version: 2 Date: 23 Aug 2017

Author’s response to reviews:

Response to the reviewers

Editor Comments:

1. Email addresses:

Please include the contact email addresses of all authors on the title page of your revised manuscript.

This information has been added at the end of the title page.

2. Authors’ Contribution:

The individual contributions of ALL authors to the manuscript should be specified in this section. Please use initials to refer to each author's contribution in this section, for example: "FC analyzed and interpreted the patient data regarding the hematological disease and the transplant.
RH performed the histological examination of the kidney, and was a major contributor in writing the manuscript. All authors read and approved the final manuscript." Author Evangelia Ntzani is not currently referred to in the section.

Thank you for noticing and bringing this to our attention. We have now amended the Authors’ contributions: “ER, DD, EE and KKT conceived and designed the study. GM, EA, ED and ER acquired the data. GM, EA and ER performed the analyses. GM, EA, ER, EN and KKT drafted the manuscript. All authors reviewed critically the manuscript and approved the final submitted version”

Reviewer reports:

Sam Norton, Phd (Reviewer 1):

Reading through the revised manuscript it has been considerably improved since the first submission in terms of the clarity of the reporting. It reads remarkably well given the task is to summarise such a large number of studies and individual meta-analyses.

We thank the reviewer for the continuous interest in our study.

The authors have more or less addressed all of my comments sufficiently. I will leave it up to the associate editor to decide whether the following need to be further addressed:

1. As the authors note, what they present is not a typical umbrella review and goes beyond what is typical. It would be useful to note this with justification in the introduction

   As per reviewer’s instructions, we amended the rationale of our study at the end of the introduction section. It now reads “…we used an umbrella review approach [21, 22] that systematically appraises the evidence on an entire field across many meta-analyses. In the present study we aimed to broaden the scope of a typical umbrella review by further evaluating the strength of the evidence and the extent of potential biases [23-27] on this body of literature.”.

2. The new table 1 goes some way to addressing my second point, however, this is still a large table that is not easy to digest quickly so it is still not possible to get a handle on the types of
interventions assessed across different conditions. I do not accept that doing this is impossible as a simple bar chart or even table of the frequencies by condition would achieve this.

The current umbrella review presents results on 29 different types of pain associated with over 50 different combinations of psychological interventions compared to over 40 different combinations of control groups. These comparisons have been already presented in detail in Tables 1, 2 and in all supplemental Tables. It would be neither feasible nor very informative to present/summarize this information in a simple chart or table.

3. The justification given for the sensitivity analysis in the response letter would be useful in the main text. Personally I still think it is rather obvious that lowering the bar in the sensitivity increases the number meeting the criteria but I take the point that the idea is to demonstrate the issue is one of sample sizes.

This information has now been added in the methods section: “The vast majority of the primary trials in the meta-analyses included very small numbers of participants. However, as the majority of these trials are randomized experiments one would expect to see valid estimates even with lower sample sizes. We conducted a sensitivity analysis by lowering the threshold for the number of participants in a meta-analysis, as a method of checking the robustness of our evidence grading approach”.

4. The authors addressed my last point about where research should be focused with a rather broad call for ‘larger and better-conducted RCTs’. I was hoping for some more specific insights particularly around where evidence for certain interventions is either lacking (and small pilot / feasibility studies might be worthwhile) and areas where the next obvious step is a larger pragmatic RCT and anything else should be avoided. Also, the authors conclusion states: ‘Future research should further focus on building networks involving all stakeholder groups to achieve consensus and develop guidance on best practices for assessing and reporting pain outcomes’. This is not really a research aim per se and also is well underway just not necessarily adhered to by trials (e.g. COMET initiative and specifically for chronic pain populations the OMERACT initiative and the IMMPACT initiative for core outcome sets).

We would prefer to refrain from making any further more specific recommendation or prioritization for future research at this time, as the highest evidence category achieved by the comparisons included is suggestive evidence. Most of the included associations were either not statistically significant or were supported by only weak evidence. We believe that our insights
and suggestions for future research, which are currently included in the Discussion, are the only safe recommendations we can provide at this time.

We have also included the following references to further support our conclusions on future research:


Josef Jenewein (Reviewer 2):

All the reviewers concerns have been addressed.

We thank the reviewer.