

List of Responses

Dear Editors and Reviewers:

Thank you for your letter and for the reviewers' comments concerning our manuscript entitled **"Effectiveness of Maitland and Mulligan's mobilization with movement for adults with knee osteoarthritis: a systematic review and meta-analysis"** (ID: 69683, Meta-Analysis).

Those comments are all valuable and very helpful for revising and improving our paper, as well as the important guiding significance to our researches. We have studied comments carefully and have made correction which we hope meet with approval. Revised portion are marked in red in the paper. The main corrections in the paper and the responds to the reviewer's comments are as flowing: (Revised portion are highlighted by using a blue text in manuscript and **are marked in red in this response letter**).

Responds to the reviewer's comments:

Reviewer #1:

1. Response to comment:

In the abstract, the sub chapter aim could be reformulated for increased clarity and understanding while the Methods subchapter needs to be shortened, it is extensively revealed within the manuscript.

Response:

Thanks for your suggestion. We have reformulated the sub chapter aim and shorted the Methods subchapter (Line 35-45 in Abstract).

2. Response to comment:

Introduction chapter seems the aims of the work were to compare the two methods, this is not

obvious nor from the title or from the abstract? Was the review meant to perform a meta-analysis on overall efficiency of the methods or to compare the two? Please specify and try to be consistent (title, abstract and introduction-wise).

Response:

Thank you for this very insightful comment. In this study, we wanted to compare the overall efficiency of two mobilization methods, Maitland and Mulligan mobilization methods. And we included three outcomes, Pain, ROM and WOMAC function score. To specify our meaning, we revised the related content in title, abstract and introduction and make them consistent (Line 5-6 in Title, Line 35-37 in Abstract, Line 115-117 in Introduction).

3. Response to comment:

There is a large difference between the number of papers screened and the ones included within the study, how do the authors explain this difference?

Response:

Thanks for your reminder. We removed duplication, screened titles, abstracts, full texts and agreed on final study eligibility. We have added the specific explanation in the section of Results (Line 206-212 in Results).

4. Response to comment:

In the discussion chapter the phrase starting with By bombarding the nervous system, reads speculative. This should be, at least mentioned since no evidence exist to support the statement. The reference cited by authors makes this (speculative) supposition regarding another procedure (electric periosteal dry needling compared to physical exercise and manual therapy). Why do the authors think there is a need to compare the two methods of

manual therapy since their effect and indications are somehow distinct? Would it not have been better to identify a specific feature for which one of the two works better (say, ROM, pain, improvement in ADL)? **Response:**

We gratefully appreciate for your constructive suggestion. Some previous studies compared Maitland and Mulligan mobilization methods and the conclusions were mixed, especially for some specific features. Thus, we revised related content and focused more on the specific features. Besides, we also considered that the content “By bombarding nervous system” is speculative and we also revised this section (Line 263-276 in the section of Discussion).

5. Response to comment:

Do the authors think this study help physiotherapists and/or orthopedist to recommend one or the other of therapies? Can we, based on this report modify the way we employ one of the other form of manual therapy or is this just another report?

Response:

Thanks for your reminder. We considered the confounding factors, such as KOA causes, patient fitness, age, sex, compliance to therapy as well as physiotherapist experience and skills were the sources of high heterogeneity. However, we did comprehensive and reliable research strategy and data analysis to ensure the quality of study. From our study, Mulligan mobilization is more effective in alleviating pain and improving Western Ontario and McMaster Universities (WOMAC) function score. Based on the current research status, Mulligan mobilization is more effective for knee OA patients compared to Maitland. For physiotherapists and/or orthopedist, our conclusion is a reliable reference.

6. Response to comment:

It is difficult from this report to understand why the authors conclude that Mulligan mobilization has “potential” in improving QOL for knee OA patients compared to Maitland.

Response:

We are very sorry for our negligence of this key information. We have revised “QOL” as “**the pain and joint function**” (Line 324 in the section of Conclusion).

We gratefully thanks for the precious time the reviewer spent making constructive remarks.

Reviewer #2:

1. Response to comment:

Although less than 10 publications included, I would still recommended to do publication bias assessment. The author can add in the limitation that due to <10 included studies, interpretation of publication bias assessment should be with caution.

Response:

Thank you for your professional advice. We have added publication bias in the section of Materials and Methods (Line 202-204) and Results (Figure 5, Line 250-252 in the section of Results). And we have added “**Thirdly, due to less than 10 included studies, interpretation of publication bias assessment should be with caution.**” in the limitation (Line 316-318).

Science editor:

Response to science editor:

It should be added in the limitation that due to <10 included studies, interpretation of publication bias assessment should be with caution.

Response:

Thanks for your reminder. We have added “**Thirdly, due to less than 10 included studies, interpretation of publication bias assessment should be with caution.**” in the limitation (Line 316-318).

Company editor-in-chief:**Response to company editor-in-chief:**

Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor. Authors are required to provide standard three-line tables, that is, only the top line, bottom line, and column line are displayed, while other table lines are hidden. Please upload the approved grant application form(s) or funding agency copy of any approval document(s)

Response:

Thanks for your careful checks. Based on your advice, we have revised the tables and figures according to the requirements, and also upload the document about funding. At the same time, we checked the full text and corrected the expression of abbreviations according to the journal format requirements.

We tried our best to improve the manuscript and made some changes in the manuscript. These changes will not influence the content and framework of the paper. And here we did not list the changes but marked in red in revised paper.

We appreciate for Editors/Reviewers' warm work earnestly, and hope that the correction will

meet with approval.

Once again, thank you very much for your comments and suggestions.