Author’s response to reviews

Title: Interventions on children’s and adolescents’ physical activity and sedentary behaviour: protocol for a systematic review from a sex/gender perspective

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Title: Interventions on children’s and adolescents’ physical activity and sedentary behaviour: protocol for a systematic review from a sex/gender perspective

Dear Editor, dear Reviewer,

Thank you very much for the positive and constructive feedback on our paper and the invitation to resubmit it. We believe that the quality of the manuscript has now increased due to your valuable input!
We have revised the paper according to your comments, requests, and suggestions. On the following pages, you can find each comment and our corresponding answer to it.

Editor:

1. GENERAL COMMENT: THANK YOU FOR SUBMITTED THIS MANUSCRIPT. I BELIEVE THIS IS AN INTERESTING REVIEW THAT WILL BE OF OVERALL BENEFIT TO THE WIDER LITERATURE BASE. SIMILAR TO THE PEER REVIEWER I HAVE ONLY A FEW COMMENTS TO MAKE, MOST OF WHICH JUST CALL FOR A BIT MORE CLARIFICATION. I PARTICULARLY WOULD LIKE TO COMPLEMENT THE AUTHORS ON THEIR INTRODUCTION WHICH WAS VERY WELL LAID OUT AND FOLLOWED A REASONABLE AND STRUCTURED LINE OF ARGUMENT. PLEASE RESPOND TO THE FOLLOWING MINOR POINTS.

Thank you for your positive and constructive feedback.

2. ALTHOUGH IT IS CLARIFIED IN THE ABSTRACT, THE AUTHORS HAVE NOT MADE CLEAR IN THE PROTOCOL THAT BOTH DATA EXTRACTION AND QUALITY ASSESSMENT WILL BE CONDUCTED BY TWO INDEPENDENT REVIEWERS.

For data extraction we clarify this at page 8, line 190:

All data extraction will be carried out by two independent reviewers and any discrepancies resolved through discussion or adjudication by a third reviewer if consensus is not reached. To ensure consistency of data extraction across reviewers, we will pilot a data extraction spreadsheet.

To make clear that the quality assessment will also be carried out by two independent reviewers we added the following sentence on page 9, line 216:

Quality assessment will be done by two independent reviewers, and discrepancies resolved through discussion or adjudication by a third reviewer if consensus cannot be reached.

3. THE AUTHORS STATE THAT GREY LITERATURE AND ENGLISH LANGUAGE BASED ARTICLES WILL BE INCLUDED, PLEASE GIVE AND JUSTIFICATION OR RATIONALE FOR THESE EXCLUSIONS.
This is a limitation of the review due to resources and time constraints and we stated this in the methods section (see page 7, line 173).

4. AFTER SEARCHES AND STUDY SELECTION ARE CONDUCTED, IT IS USUALLY GOOD PRACTICE TO CONTACT STUDY AUTHORS OR OTHER EXPERTS TO ASK IF THEY NOW OF OTHER STUDIES THAT MAY MEET THE INCLUSION CRITERIA. PLEASE CONSIDER DOING THIS TO MAXIMIZE THE POTENTIAL OF CATCHING ALL ELIGIBLE STUDIES.

The following sentence has been included (page 8, lines 187).

Additionally, after searches and study selection are conducted, we will contact experts in the field to determine further studies that meet the inclusion criteria.

5. IT IS A CONSIDERABLE WEAKNESS TO EXCLUDE STUDIES BECAUSE THEY ARE NOT AVAILABLE ON OPEN ACCESS. PLEASE CONSIDER OTHER MEANS OF OBTAINING THE DATA.

There is a misunderstanding because of our use of the term "open access". By “open access” we meant that for all articles we do not have access to from our institutional opportunities we will be contacting the authors for full texts. We did not consider the usual use of the term in the context of open access journals and have now corrected this.

To clarify this, we have deleted “on open access” on page 8, lines 184:

If full texts are not available or additional data are needed to determine eligibility, authors will be contacted via e-mail. A maximum of two contact attempts will be made.

6. AS SUGGESTED BY REVIEWER 1, THE RISK OF BIAS FOR NON RCTS ALSO NEEDS TO BE ASSESSED. PLEASE INDICATE HOW THIS WILL BE DONE.

The only non-RCT study design that we are including is a controlled clinical trial design. We had decided to use the Cochrane Risk of Bias tool for RCTs for both RCTs and controlled clinical trials. We did consider various other tools for non-randomized studies, including the Cochrane ROBINS tool, the EPHPP tool, and the Cochrane Effective Practice and Organization of CARE (EPOC) guidance but find these tools are better suited for other types of non-randomized studies. We view the only potential advantage of using a tool other than the Cochrane risk of bias tool for controlled clinical trials to be further discussion about confounding. However, controlled clinical trials would be rated as high risk of bias in relation to randomization in the Cochrane Risk of
Bias tool for RCTs so this would capture the likelihood of confounding. We could add to 'other bias' more information on confounding if necessary. We have clarified in the text that we will be using the Cochrane Risk of Bias tool for both RCTs and controlled clinical trials. In addition, for consideration of the quality of evidence across studies using the GRADE framework, we have noted that controlled clinical trials would start with a rating of 'moderate' quality rather than the highest quality because of study limitations.

Reviewer #1:

1. GENERAL COMMENT: THIS IS A WELL-WRITTEN SYSTEMATIC REVIEW PROTOCOL THAT COMPLIES WITH THE PRISMA-P CHECKLIST. METHODS ARE APPROPRIATE AND CLEARLY EXPLAINED AND JUSTIFIED.

Thank you for your positive and constructive feedback.

Minor comments:

1. LINE 168: IT WOULD BE HELPFUL TO EXPLAIN OR DEFINE IN MORE DETAIL WHAT IS MEANT BY "AN ACTIVE CONTROL GROUP, OTHER THAN PA AND SB" AS A COMPARATOR.

Page 7, line 168 we added:

The comparators should either be either an active control group for example receiving an intervention to promote children’s creativity or cognitive performance without components promoting PA or reducing SB or a control group with no intervention.

2. LINES 182-184: THIS SENTENCE SUGGESTS THAT ONLY PAPERS THAT ARE OPEN ACCESS WILL BE INCLUDED, UNLESS FULL TEXTS CAN BE OBTAINED FROM AUTHORS. I ASSUME THAT AUTHORS WOULD HAVE ACCESS TO SOME OTHER PAPERS THROUGH THEIR INSTITUTION BUT THIS SENTENCE NEEDS CLARIFYING IF SO. IF NOT, AND AUTHORS PLAN TO ONLY INCLUDE OPEN ACCESS PAPERS, I WOULD STRONGLY RECOMMEND THAT THEY INSTEAD CONSIDER OBTAINING NON-OPEN ACCESS PAPERS AS WELL.

Please see comment 5 above.
3. DATA EXTRACTION: THE INFORMATION TO BE EXTRACTED COULD BE LISTED IN MORE DETAIL.

We listed the information to be extracted in more detail on page 8-9, line 193:

For each study, specific details will be extracted. First, information about general study characteristics, description of study sample and dropout rate, intervention content details and intervention approaches will be extracted. Second, we will extract intervention outcomes, measurement points and instruments as well as sample size calculation and confounders taken into account to analyse the effectiveness of the intervention on PA and/or SB outcomes.

4. DATA EXTRACTION: IT IS NOT SPECIFIED WHETHER AUTHORS WILL BE CONTACTED FOR MISSING INFORMATION DURING DATA EXTRACTION.

Authors will be contacted for missing information during data extraction. We added the following sentence to make it more clear at page 8, line 200:

If information is missing or clarification of data is required, authors will be contacted via e-mail. A maximum of two contact attempts will be made.

5. QUALITY ASSESSMENT: THE TOOL THAT WILL BE USED TO ASSESS THE NON-RANDOMISED CONTROLLED TRIALS NEEDS SPECIFYING.

Please see comment 6 above.

6. LINE 223: WHAT IS MEANT BY "DIFFERENT INTERVENTION APPROACHES" IN THIS CONTEXT?

In this case, different intervention approaches means interventions promoting PA or reducing SB. We clarified using the following at page 10, line 237:

Meta-analyses for interventions promoting PA and/or reducing SB will be undertaken if the studies are sufficiently similar clinically and methodologically, otherwise a semi-quantitative or narrative synthesis will be conducted.