Author’s response to reviews

Title: Traditional knowledge-based lifestyle interventions in the prevention of obesity and type 2 diabetes in Indigenous children in Canada: A systematic review protocol

Authors:

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Author’s response to reviews:

Dear Editor,

It is with great pleasure that we re-submit this paper having responded to the reviewers' comments. We would like to thank the reviewers for taking the time to review this manuscript and to provide comments. These reviews has made the manuscript stronger.

Below, we provide a point-by-point response to the reviewers’ comments.
Reviewer 1:

The authors are to be commended on a well-written and comprehensive systemic review protocol of interventions aimed at preventing diabetes and obesity within the Canadian indigenous populations.

Response: We thank the reviewer for their positive comment. We do believe that this systematic review has an important question to address.

I have just a few comments:

1) It would be helpful to discuss the backgrounds of the reviewers and teams. Will there be balance across teams in terms of experience?

Response: We thank the reviewer for their comment. We have added the following paragraph to the text (Page 12, Paragraph 2, Lines 369-374):

One of the strengths of this systematic review is that the team has specific and blended expertise, with a clinician with research methods capability (MCS), statistical and methodological expertise (LT) and a Senior Health Sciences Librarian (LB) involved in the design of the search strategy. In addition, the work of students on Indigenous health projects (RC, DS, KWW, MY, AN, AR) will help the students develop valuable experience in systematic review methodology and Indigenous health studies.

2) The authors research question refers to "traditional knowledge and lifestyle-based interventions"? There does not appear to be a definition of what constitutes a traditional versus non-traditional intervention. Since the authors only want to include traditional interventions, they should clearly define both what does and what does not constitute a traditional intervention.

Response: we have added a paragraph to define traditional knowledge and the nature of interventions that may emerge from the database searches (Page 5, Paragraph 2, lines 122-7):

Traditional knowledge is a system of information, skills, experiences, and believes that is assembled over time and is passed on from one generation to the next, thus becoming part of that community’s identity. Traditional interventions that may have an impact on obesity and diabetes may encompass several forms that may include different delivery methods such as dancing, hunting, ceremonies, storytelling, food harvesting, food storage, and teachings in an attempt to address the physical, mental, emotional, and spiritual domains of health.
3) With regards to secondary outcomes, if there are any studies looking at changes in insulin sensitivity or insulin resistance, the authors may wish to include these parameters as well since there interest is in diabetes prevention. (I'm assuming insulin and glucose levels refer to fasting insulin and including cross-sectional studies in addition to others. I would not think cross-sectional studies would be useful in determining the effectiveness of an intervention, please comment.

Response: We have incorporated this suggestion to the secondary outcomes (Page 6, Paragraph 4, Line 173).

4) The authors state that they are including cross-sectional studies in addition to others. I would not think cross-sectional studies would be useful in determining the effectiveness of an intervention, please comment.

Response: we agree with the reviewer that a cross-sectional design will not be helpful in addressing the question of intervention effectiveness. We have removed this design from our inclusion criteria.

5) The use of the term diabesity in the background (and nowhere else in the paper) is distracting. I would suggest the authors follow what they did in the rest of the paper and refer to diabetes and obesity unless they wish to carefully define the term.

Response: We thank the reviewer for the comment. We have removed diabesity from the paper.

Reviewer 2:

Background:

Line 107: A brief definition of the term "diabesity" should be provided.

Response: we have removed the word ‘diabesity’ from the manuscript and will report on obesity and type 2 diabetes instead.

Line 108: Since no systematic review of the literature has yet to be conducted, how do the authors reach the conclusion that these interventions need to be culturally relevant and
incorporate traditional knowledge to be successful? This is more likely to be an hypothesis or question to be answered by the review.

Response: We agree with the reviewer that this is a hypothesis rather than a conclusion. We have modified the language to address this concern.

Study Selection and Eligibility Criteria: Line 174: Please provide an example of the typical intervention components common to traditional knowledge vs. lifestyle programs as well as the intervention components that would differentiate one type of program from another. Also, please explain how the reviewers will classify studies that test interventions that combine components of both types of interventions.

Response: We thank the reviewer for the comment. We have reported on the type of interventions that qualify as traditional knowledge-based ones (Page 5, Paragraph 2, Line 124-7).

Discussion: Line 243: The abbreviation T2DM could be used here since it has been introduced earlier in the manuscript.

Response: This has been corrected.

Line 248: Please revise. The text currently reads, "If no interventions are identified to address the two diseases, then the situation requires urgent investment...". Why would one embark on a systematic review if a priori the authors suspect there will not be a sufficient number of eligible studies to review? Let us assume there are sufficient studies to justify conducting a systematic review. If that is the case, this sentence could be revised to address the review's hypothesis or central question, "If it is found that traditional knowledge interventions are more successful at preventing obesity and/or diabetes, urgent investment in the development, dissemination, and implementation of these interventions is warranted" or something to this effect. However, if the authors already suspect there will be insufficient studies to review given the parameters of their inclusion criteria, could they consider expanding their criteria to include studies of Indigenous people outside of Canada and then extrapolate findings to this more specific population?

Response: We thank the reviewer for this comment. Part of the motivation to conduct this systematic review is to establish whether there is a sufficient evidence base for current interventions to prevent obesity and T2DM in Indigenous communities.

We did clarify the future steps based on the findings of this review (Page 11, Paragraph 4, Line 353; Page 12, Paragraph 1, Line 367-8; Page 12, Paragraph 3, Lines 380-1).
Reviewer reports:

Can the authors please make it clear to me whether they planned to compare traditional based interventions with no interventions; traditional versus conventional lifestyle interventions, traditional + conventional versus conventional alone - necessary for determining inclusion and thinking through in advance should be helpful to the authors. The protocol isn't the clearest that I have come across, so I may have missed this. It would be helped if the authors presented their methods using PICOS headers.

Response: We thank the reviewer for their comments. We have amended the text in several parts to increase clarity.

We have re-written the study question in PICO format (Page 6, Paragraph 2, lines 3-4). We also clarified that this protocol about traditional knowledge-focused interventions and we do not intend to compare the conventional interventions to traditional ones.

We do agree that the way the paper reported this initially was not very clear. We have decided to change the title as well as sections in the paper to reflect the focus of the paper.

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