Peer Review File

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Reviewer A

The paper titled “A meta-analysis of the effects of nutritional interventions on the physical development of preschool children” is interesting, which sought to comprehensively evaluate the effects of nutritional interventions on children’s physical development based on randomized controlled trials using different nutritional interventions and explore the different effects of intervention duration on the promotion of children’s physical development to provide a theoretical basis for the specific implementation of nutritional intervention programs. The authors conclude that different nutritional interventions had a slight improvement effect on children’s physical growth and development. It is recommended that nutritional intervention programs be formulated that can be implemented for longer periods. However, there are several minor issues that if addressed would significantly improve the manuscript.

1) In this study, although the author provided a database for paper retrieval, they did not provide a specific retrieval process. It is recommended to supplement these contents to make the results more reliable and repeatable.
Reply: Thank you for your constructive suggestions. We have supplemented them.
Changes in the text: Paragraph 1/ Methods

2) There are only two papers in this study that used nutritional intervention for more than 6 months. Whether there is bias in the conclusions drawn from this approach, please explain in the discussion.
Reply: Thank you for your constructive suggestions. This may result in partial bias. This is the limitation of this article, which we have explained in the discussion section of the article.
Changes in the text: Paragraph 6/ Discussion

3) There have been many studies on nutritional interventions on the physical development of preschool children, such as “Nutrients. 2022, 15(1):159; Nutrients. 2022, 14(24):5217”. It is recommended that the author cite these references in the manuscript.
Reply: Thank you for your constructive suggestions. We have enriched the discussion section and cited the literature.
Changes in the text: Paragraph 5/ Discussion

4) The content of the discussion section is too simple, and it is suggested to increase the possible mechanisms for the advantages of long-term nutritional intervention strategies, which is more conducive to the elaboration of this article's viewpoints.

Reply: Thank you for your constructive suggestions. We have enriched the discussion section.
Changes in the text: Paragraph 5/ Discussion

5) In addition, regarding nutritional intervention for preschool children, it is recommended to describe specific strategies for nutritional intervention in the discussion, such as what kind of nutrition to use for intervention, which may make this article more valuable. The author can refer to previous research and summarize it.

Reply: Thank you for your constructive suggestions. Children who consume sufficient animal derived foods (such as dairy products, meat, and eggs) are least likely to experience developmental delays, weight loss, and underweight. We have enriched the relevant content.
Changes in the text: Paragraph 5/ Discussion

Reviewer B

1) First, the abstract is not standardized and needs further revisions. The background did not present the conflicting findings on the effects of nutritional interventions and why meta-analysis is suitable to address this controversy. The methods need to clearly define the studies to be included according to PICOS principles, data extraction, and risk of bias assessment of included studies. The results need to describe the interventions of nutritional interventions of included studies and the interventions in the control groups, and the level of risk of bias assessment of included studies. The conclusion is misleading because of the significant heterogeneity in the interventions of the nutritional intervention groups. In fact, the meta-analysis is not suitable to address the research question. This paper should be rejected.

   Reply: Thank you for your constructive suggestions. We have revised the abstract.
   Changes in the text: Paragraph 1,2,4/ Abstract.

2) Second, in the introduction of the main text, the authors must report the clinical controversy regarding the efficacy of nutritional interventions, analyze the reasons for the controversy, and explain why meta-analysis is suitable. In fact, the nutritional interventions are heterogeneous including nutrition education and counseling, micronutrient supplementation, food fortification, and macronutrient supplementation. These differences in the interventions might be the main reason for the controversy but meta-analysis cannot address such issue. Meta-analysis can only be performed within relatively homogenous data.

   Reply: Thank you for your constructive suggestions. Several studies have assessed the positive effects of nutritional interventions on the physical growth and development of children. However, these studies had a number of limitations, such as being incomplete (e.g., assessing only a single intervention or specific micronutrients), using overlapping age

groups, or being conducted for varying lengths of time. Additionally, some of the conclusions reached by different studies have been partly contradictory. Detary habits in different countries and regions may also affect the effectiveness of nutritional interventions. Therefore, overall, the results of this research are highly heterogeneous. We have added them in the introduction.

Changes in the text: Paragraph 2/ introduction.

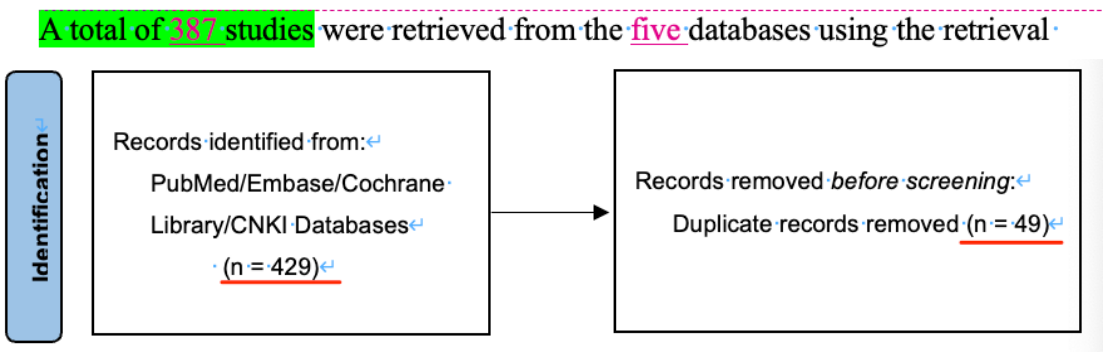
3) Third, in the methodology of the main text, it is wrong to limit the publication dates of studies to be included "January 2007 to December 2022". Searching Chinese-language literature within CNKI only is also inadequate. In the inclusion criteria, the authors need to clearly define "nutritional interventions" and the interventions received in the control group. Details of the Cochrane RoB 2.0 should be described including criteria for low and high risk of bias. In statistics, please consider statistical test to test publication bias. The authors need to consider the heterogeneity in the intervention and control groups before the statistical pooling analysis. If quantitative pooling is not feasible, please consider qualitative systematic reviews.

Reply: Thank you for your constructive suggestions. We have added the Wanfang database. Details of the Cochrane RoB 2.0 had be added. Regarding statistical testing to test publication bias, as the number of included studies is small and not suitable for statistical testing, only a funnel plot was made to display publication bias.

Changes in the text: Paragraph 1/ Methods.

Reviewer C

1. Please check if the main text matches the legend.



Reply: Thanks for your comments. We have revised it.

2. Figure 1

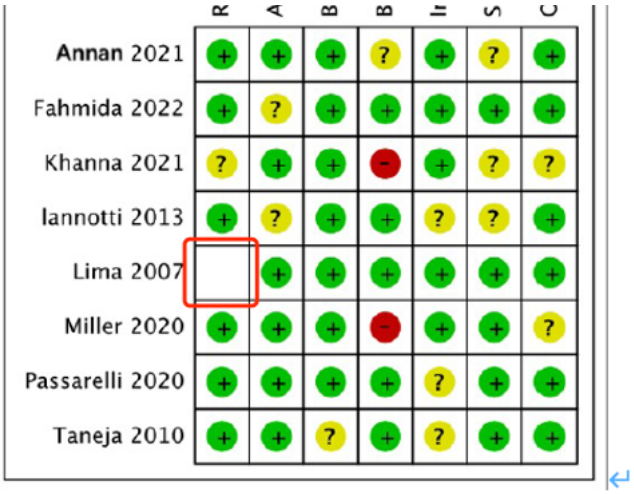
Please explain RCT in the legend.

Reply: Thanks for your comments. We have added it.

3. Figure 3

a) Please provide the meaning of "+, ?, -" in the legend.

b) Please explain why here shows nothing.



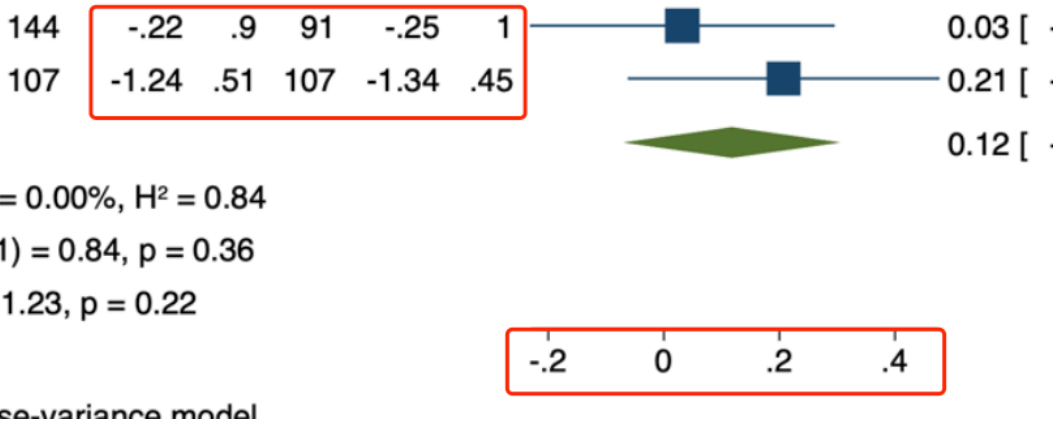
Reply: Thanks for your comments. We have revised it.

c) Please check if the year is correct.

Reply: Thanks for your comments. We have revised it.

4. Figures

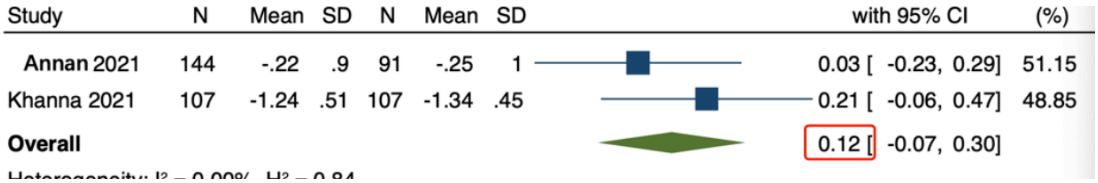
All the numbers in the figures should be in the format "x.xx", 0.2 for example, please revise all figures.



Reply: Thanks for your comments. We have revised them.

5. Figure 4

Please check if the main text matches the legend.



intervention group and the control group (mean difference = –0.12, 95% CI: –0.07, 0.30, Figure 4). Thus, the nutritional interventions did not significantly improve the

Reply: Thanks for your comments. We have revised it.

6. Figure 12

Please revise the figure to height-for-age.

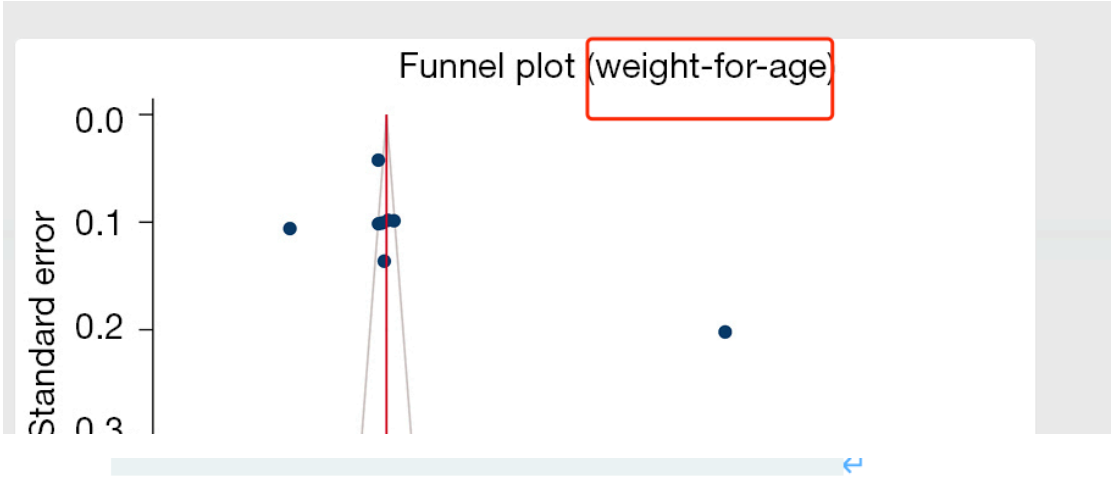


Figure 12 Funnel plot (height-for-age). CI, confidence interval.

Reply: Thanks for your comments. We have revised it.