

Peer-review Comments and Author Responses

Reviewer 1

1. *I find the review carried out on the topic of the impacts and benefits of animal-assisted therapy (AAT) in the comprehensive treatment of children with Autism spectrum disorder (ASD) very innovative. I find the method used for this type of publication very well done following the recommended steps. The results presented were very schematized. In the discussion, he recognizes the heterogeneity of the methods and the population with a very well-defined conclusion. The only problem I found is the small number of population because only 6 articles were analyzed. However since it is a topic that is not very widely studied, this review may be a reason to continue research on this topic in order to consolidate knowledge.*

Dear reviewer, thank you for your comments and recommendation. We could find 6 papers published that fulfill our search strategy in this qualitative review and we hope that it can add more information to the field.

Reviewer 2

2. *The main problem concerns the novelty of the review. By doing a quick search on PubMed using "(\"Animal Assisted Therapy\" [Mesh]) AND \"Autism Spectrum Disorder\" [Mesh]\", there are at least seven systematic reviews with a similar scope as this. Some focus on specific animals, such as horses or dolphins, but Rehn et al. (2023) have a similar search strategy and selection criteria. Given this, I suggest that the authors state clearly the justification for conducting their systematic review in the introduction in the context of these previous works. Moreover, another suggestion is that the authors contextualize their findings in the discussion section, comparing their results with other studies.*

Dear reviewer, thank you for your comments about the novelty of the manuscript. We would like to make some comments about the SR published by Renh et al. It is about the same population as ours but included RCT and other trials designs, the databases searched were different and even though they found 7 papers, their work and ours had only one paper in common. A sentence was added in the introduction, line 45, as per your suggestion.

3. *There are a few minor issues regarding the description of the studies and the reporting of some sections in the manuscript: the authors should consider introducing briefly the outcomes the included studies have measured. They mentioned in the fourth study criteria: \"outcome measures related to the quality of life, autism-related behaviors, communication, cognition, social skills, and anxiety reduction.\" However, a brief explanation of the scales*

and measurement tools mentioned in Table 2 could help understand the significance of the results.

Thank you for your suggestion. We adjusted the footnote of table 2 to better describe the outcomes but due to word count limit it was not possible to add further information.

- 4. The authors have written each reason for excluding ten records screening by title and abstract. I suggest including these records in the flow diagram (figure 1).*

We thank you for your suggestion and added the reasons for excluding the records by title in figure 1.

- 5. The authors describe clearly the limitations of most of the included studies. Nevertheless, I would also suggest they describe the strengths and limitations of the search and review process—for instance, the impact of excluding the grey literature.*

We thank you for your suggestion. We added a sentence about the limitation of excluding non RCT and grey literature in line 194.

- 6. I have attached the PRISMA checklist for systematic reviews. I have located most of the mandatory topics for systematic reviews within the manuscript. My suggestion for reporting additional information is shaded in red. Considering the word limit, the minor issues are only suggestions; the authors could decide to include them in the supplementary material. However, the central issue of contextualizing the study, given other systematic reviews with similar topics, should be addressed.*

We thank you for your suggestion and for sending the PRISMA checklist with your assessment. Regarding the outcomes we added this information in the footnote of table 2 and about the limitations we added it in line 194.

Rehn, A.K., Caruso, V.R. and Kumar, S. (2023) 'The effectiveness of animal-assisted therapy for children and adolescents with autism spectrum disorder: A systematic review', *Complementary Therapies in Clinical Practice*, 50, p. 101719. doi:10.1016/j.ctcp.2022.101719.

Reviewer 3

- 7. The authors discussed the limitations of this review, as there was variability in methodological quality (using different scales could be a factor for risk of measuring outcome) and that purposed further research with standardized methodologies to refine the findings presented in the articles. However, the authors could have briefly discussed about the outcomes measured in each study and their reliability, maybe as a 3rd table.*

Thank you for your suggestion. We adjusted the footnote of table 2 to better describe the outcomes but due to word count limit it was not possible to add further information.

8. *I believe the authors could have included a brief analysis why the use of horses, when comparing these 6 studies, appeared to be more effective than dogs. Some questions I suggest: Could it be because of participants age? Number of therapy sessions? Duration of each therapy session? Did their parents keep company during these sessions? What do other articles discuss about dog versus horse therapies in general?*

Thank you for your comment but due to the scope of our mini review, as we did not perform any quantitative analysis, we did not have enough information to answer these questions.

9. *Some minor issues were found as below: Information in “Study characteristics” item needs clarification. Since documents “Table 2” is an annex to the article, I suggest the following: explain the definition of THR as it is on Table 2. The definition of THR (Therapeutic Horse Riding) was added in table 2. Inform that Gabriels et. Al (2015) studied THR intervention.*

The THR (Therapeutic Horse Riding) was added in table 2 for Gabriels at al.

10. *On the paragraph that summarizes the paper from Gabriels et. Al (2015), clarify that there were no significant differences between intervention and control groups.*

In the paper from Gabriels at al. there was significant improvement between the interventions ($p < 0.05$). A typo was excluded from line 142.

11. *I take the opportunity to suggest the following brief considerations/analysis to help improving the novelty of this paper: Broad age range for population - different development stages may have different responses to the treatment. Team could assess if late diagnostic interferes in treatment response (or if this data was not found in literature).*

Thank you for your comment but for the scope of this qualitative review we decided to search data for this narrow population and it was not possible to analyze your suggestion.

12. *Discuss about the financial background of the families and how this affects diagnose, treatment access and social inclusion (or if this data was not found in literature).*

Thank you for your comment, we agree with the importance of this topic but for the scope of this qualitative review it was not possible to retrieve this data and also because of the word limit we opted not to describe this in the limitations.

Reviewer 4

13. *Abstract: the abbreviation “RCT” may be removed from the abstract because it is used only once.*

Thank you for your comment, it was removed from line 7.

14. *Abstract: In the results, “ATTs” should be “AATs”.*

It was changed in line 13.

15. *Abstract: The keywords should be ordered alphabetically.*

It was changed in line 24.

16. *Abstract: After the abstract, an abbreviation list would be helpful, given all the abbreviations used in the text.*

Due to word count restriction it was not possible to add this suggestion.

17. *Results: Peters references in the text are not clear enough. Only one was selected for the review, but in the text Results section you name more than one article from these authors.*

It was changed in line 111.

18. *Results: If you don't have the d value for all the studies why don't you just use the p value in order to make the results more homogeneous?*

Thank you for your suggestion but we prefer to report the effect size when it is available.

19. *Results: AAT, THR, SALT and PAC abbreviations are named, but the complete meaning is not described in the text.*

Thank you for your suggestion. We adjusted the footnote of table 2 to better describe the outcomes but due to word count limit it was not possible to add further information.

20. *Figures and Tables: Table 2 abbreviations must be revised. Some of them have different meanings. For example, THR: means therapeutic horse riding in one place and therapeutic*

riding instructor in another. Also, the numbers in the Table do not correlate with the numbers in the table description.

Table 2 was reviewed and adjusted accordingly.

21. *Figures and Tables: All figures and tables have a title but the quality assessment figure does not have it.*

The title was added in FIGURE 2 - "Quality assessment of studies"

22. *Regarding the English language, it may be important to ask a native speaker to revise the manuscript. For example, "criteria" is a plural and should be used with a plural verb.*

We thank you for your suggestion and a revision was performed.