PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Art therapies and cognitive function in elderly with subjective cognitive decline: a protocol for a network meta-analysis
AUTHORS	Liu, Qian; Wang, Fang; Tan, Lixia; Liu, Li; Hu, Xiuying

VERSION 1 – REVIEW

REVIEWER	Sharp, Andréanne Université Laval
REVIEW RETURNED	21-Sep-2023

GENERAL COMMENTS	First of all, I would like to point out that the authors selected a very interesting theme for their meta-analysis, that is to say, the use of art as a tool for preventing cognitive decline. However, the research question requires further clarification. Furthermore, my experience with this topic is that interoperability problems between studies is an important issue in the field, so I doubt that the authors will have an easy time accomplishing the meta-analysis presented. The authors do not seem to have already explored the existing literature which would allow them to have arguments concerning the feasibility of the study. In addition, the timeline for carrying out the methodology presented is not clearly stated. A revision of the organization and quality of language should also be considered in order to improve the manuscript. I recommend that authors draw inspiration from the PICO framework in order to clarify their research question: Schardt, C., Adams, M. B., Owens, T., Keitz, S., & Fontelo, P. (2007). Utilization of the PICO framework to improve searching PubMed for clinical questions. BMC medical informatics and decision making, 7, 1-6. Interoperability problem references : Grenier, A. S., Lafontaine, L., & Sharp, A. (2021). Use of music therapy as an audiological rehabilitation tool in the elderly population: a mini-review. Frontiers in neuroscience, 15, 662087. Maillard, E., Joyal, M., Murray, M. M., & Tremblay, P. (2023). Are musical activities associated with enhanced speech perception in noise nin adults? A systematic review and meta-analysis. Current Research in Neurobiology, 100083. Abstract : • Why Alzheimer's disease only ? Can subjective cognitive decline be an early indication or precursor of other types of dementia ? (p. 3, line 6) • (p. 3 line 7-8), Replace «with the increase in research …» by «with the increase in research on art therapies …» • The main objective of the meta-analysis requires clarification : Is it to find the best intervention or to rank interventions ? • English requires a thorough revision. • What is the population of interest? Unclear.

	Introduction : • Same question here, why only Alzheimer's disease ? • Clarification of the main objective is required (see PICO framework). Method : • The project timeline is missing. • The inclusion and exclusion criteria for participants are described as if it were an original research and not a meta-analysis. How will the authors specifically find populations meeting these inclusion criteria in existing databases? I doubt the feasibility. • «Error reference source not found» ?? • It would be better to explain that the initial part of the methodology is meant to address the research question. I believe this should instead be included in the introduction, along with an explanation of the choice of population, interventions, the point of comparison, and interventions (PICO). • Missing section ? (line 22, p.13) : «Patient and public involvement» Discussion : • A very brief discussion and a lack of arguments to convince the reader of the importance and appropriateness of the choice to conduct this meta-analysis.

REVIEWER	Falk, Anna Karolinska Institute, MMK
REVIEW RETURNED	18-Jan-2024

GENERAL COMMENTS	Thank you for submitting this important and impressive study protocol. I look forward to reading the results. I only have a few comments: 1) Abstract: I suggest you define subjective cognitive decline (for clarification). 2) Introduction: Good, ending with the aim of the study: "To evaluate the effects of different art therapies in elderly with subjective cognitive decline". I am wondering why you only include the elderly (>60 years). Dementia can occur early, and subjective cognitive decline would be present even in younger patients. 3) Type of intervention p 8: You will include any art therapy that is combined with usual care and implemented in elderly with subjective cognitive decline. However, you will exclude multi-component interventions. What is the reason for that? And what do you mean by multi-component interventions? Several different art therapies or other types of treatment? 4) Outcomes: How will the outcome of "subjective cognitive decline" be reported? For instance, on a dichotomous scale (Improved yes/no) or other? 5) Statistical analysis: You will only include RCTs, I performed a fast search and did not find many articles on this subject. How will you handle it if there are only a few studies or small studies with few participants?

VERSION 1 – AUTHOR RESPONSE

Responses to reviewer 1:

1.Why Alzheimer's disease only ? Can subjective cognitive decline be an early indication or precursor of other types of dementia ? (p. 3, line 6)

Reply: Thanks for the advice. We searched and reviewed some literature, and found that subjective cognitive decline was a risk factor for dementia and mild cognitive impairment. Therefore, we revised this sentence in the abstract. (page 2, lines 6-7)

2.(p. 3 line 7-8), Replace «with the increase in research …» by «with the increase in research on art therapies …».

Reply: Thanks for the kind advice. We revised the description and replaced the sentence. (page 2, line 9)

3.The main objective of the meta-analysis requires clarification : Is it to find the best intervention or to rank interventions ?

Reply: Thanks for the advice. The main objective of this network meta-analysis is to find the best intervention. We modified relevant section and clarified the objective. (page 2, lines 14-15)

4.English requires a thorough revision.

Reply: Thanks for the kind advice. We invited a scholar, who is a native English speaker, to help us improve the quality of the writing.

5.What is the population of interest? Unclear.

Reply: Thanks for the advice. The population we interested was older people aged 60 and above with subjective cognitive decline. (page 2, lines 14-15)

6.Same question here, why only Alzheimer's disease ?

Reply: Thanks for the advice. We searched and reviewed some literature, and found that subjective cognitive decline was a risk factor for dementia and mild cognitive impairment. Therefore, we revised the description in the introduction. (page 4, lines 5-6)

7.Clarification of the main objective is required (see PICO framework)

Reply: Thanks for the kind advice. We revised the main objective in the introduction section based on PICO framework. (page 6, lines 9-10)

8.The project timeline is missing.

Reply: Thanks for the kind advice. We added the timeline in the method section. (page 6, lines 14-15)

9.The inclusion and exclusion criteria for participants are described as if it were an original research and not a meta-analysis. How will the authors specifically find populations meeting these inclusion criteria in existing databases? I doubt the feasibility.

Reply: Thanks for the kind advice. We modified the inclusion and exclusion criteria for participants in Type of participants section. (page 6, lines 19-22; page 7, lines 1-5)

10.«Error reference source not found» ?

Reply: Thanks for your reviewing. We are so sorry for this mistake. They are field codes and were hided. So, we can not see it. In this revised manuscript, we deleted them. (page 7, lines 17-19)

11.It would be better to explain that the initial part of the methodology is meant to address the research question. I believe this should instead be included in the introduction, along with an explanation of the choice of population, interventions, the point of comparison, and interventions (PICO).

Reply: Thanks for the kind advice. Based on our understanding, we modified the main objective at the end of introduction section according to PICO framework and we think it can help to explain the population, interventions, the point of comparison, and interventions. If we did not get what you mean, please give us another chance to make modifications.

12.Missing section ? (line 22, p.13)

Reply: Thanks for your reviewing. We are so sorry for this mistake. Patient and public involvement section was placed at the end, before the references section. (page 15, lines 10-12)

13.A very brief discussion and a lack of arguments to convince the reader of the importance and appropriateness of the choice to conduct this meta-analysis.

Reply: Thanks for your reviewing and kind advice. As this is a protocol for a network meta-analysis, there are no results available for discussion. So it is quite difficult to have a detailed discussion in this

manuscript. We have tried our best to add some arguments to illustrate the importance of conducting this research. (page 13, lines 10-22)

Responses to reviewer 2:
1.Abstract: I suggest you define subjective cognitive decline (for clarification).
Reply: Thanks for the kind advice.Due to word limit, we simply defined subjective cognitive decline in abstract section in this revised manuscript. (page 2, lines 5-6)
2.Introduction: Good, ending with the aim of the study: "To evaluate the effects of different art therapies in elderly with subjective cognitive decline". I am wondering why you only include the elderly (>60 years). Dementia can occur early, and subjective cognitive decline would be present even in younger patients.
Reply: Thanks for your reviewing and kind advice. The reason why we choose elderly people is that the current global aging trend is severe, and China is about to enter a deep aging population. Therefore, our study pays more attention to the elderly (In China, elderly people are defined > 60 years). However, we fully agree with your suggestion that subjective cognitive decline would be present even in younger patients. So, we will focus on subjective cognitive decline in younger patients in future studies.
3.Type of intervention p 8: You will include any art therapy that is combined with usual care and implemented in elderly with subjective cognitive decline. However, you will exclude multi-component interventions. What is the reason for that? And what do you mean by multi-component interventions? Several different art therapies or other types of treatment?
Reply: Thanks for your reviewing. Multi-component interventions means that two or more art interventions or art therapies combined with other types of treatment (in addition to usual care) are applied in a experimental group. We think that this type of research is difficult to analyze the effect of each type of intervention. So we will exclude multi-component interventions. In the revised manuscript, we explained multi-component intervention (page 7, lines 14-15).
4.Outcomes: How will the outcome of "subjective cognitive decline" be reported? For instance, on a dichotomous scale (Improved yes/no) or other?
Reply: Thanks for your reviewing and kind advice. The outcome of "subjective cognitive decline" will be reported by using the original scores (such as mean and standard deviation) after intervention in the original study. In the revised manuscript, we added this description in type of outcomes section. (page 8, lines 10-11)
5.Statistical analysis: You will only include RCTs, I performed a fast search and did not find many articles on this subject. How will you handle it if there are only a few studies or small studies with few participants?
Reply: Thanks for your reviewing and kind advice. After discussion with the research team, we think that if there are only a few relevant studies or small studies with few participants and data synthesis is not possible, we will shift this meta-analysis to qualitative descriptions, such as a scoping review, which can also provide some important reference for improving the cognitive function of elderly with subjective cognitive decline.