

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Technology-Based Group Exercise Interventions for People Living With Dementia or Mild Cognitive Impairment: A Scoping Review Protocol
AUTHORS	Hung, Lillian; Levine, Hannah; Randhawa, Paavan; Park, Juyoung

VERSION 1 – REVIEW

REVIEWER	Sugihara, Taro Tokyo Institute of Technology
REVIEW RETURNED	15-Oct-2021

GENERAL COMMENTS	As stated in the previous review, this reviewer acknowledged the author's dedicated work on this protocol.
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REVIEWER	Climent-Sanz, Carolina University of Lleida, Nursing and Physiotherapy
REVIEW RETURNED	19-Oct-2021

GENERAL COMMENTS	<p>The authors addressed a very important issue that was already present in the rehabilitation area but that it was exacerbated during COVID-19 pandemics. However, I would have some minor revisions for the authors to consider.</p> <ol style="list-style-type: none">1. Page 4, line 54. The authors stated: 'Meta-analyses have shown overall benefits [...]' however only one reference was provided. I suggest the authors change the word 'meta-analyses' for 'a meta-analysis' or to provide other references.2. Page 6, lines 32-33- The authors stated 'across dementias and mild cognitive impairment and their effects.' however in the title it is only mentioned dementia. Please, make sure this statement is correct. Another aspect that may be addressed is including the effects of the interventions as part of the objective. Does this suit well under a scoping review or it is more the objective of a systematic review? I was wondering that because usually a scoping review is more descriptive than analytic and it does not intend to provide clinical practice recommendations. I would like to know the authors' reflections on that issue.3. Review questions section. I would suggest de the authors consider including a third question regarding the gaps in the scientific evidence that may require being addressed in future research. For example, the outcomes measured, samples studied (gender, socioeconomic status...), among others.4. Page 9, line 8. The citation should be placed before the dot.5. Inclusion criteria - participants section. I would suggest the authors clarify and be consistent throughout the paper regarding the participants to be included and their diagnosis. It is a little confusing because in the title they only mentioned dementia, in the
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	<p>introduction mention dementia and mild cognitive impairment and now they include 'all types' of dementia and cognitive impairment.</p> <p>6. page 9, line 22-24 I consider that the exclusion criterion can be omitted as it can be directly inferred from the inclusion criteria.</p> <p>7. page 7 lines 49-54 and page 8 lines 3-8 I believe that this is a reasonable and coherent justification for including MCI participants. Therefore, and in order to facilitate to the reader the understanding of why the authors use the term dementia in the title and then the term MCI in other sections, it would be interesting to add a reflection like this one in the introduction.</p> <p>8. Search strategy section. As the authors would use information about people diagnosed with mild cognitive impairment I would suggest including the Mesh term 'Cognitive Dysfunction' in the search strategy and other free text terms as 'cognitive impairment' or 'cognitive decline'.</p> <p>Another aspect that I would suggest reflecting on is including the term 'Alzheimer'. I am aware that this condition is the first cause for suffering dementia but clearly it is not the only one. In fact, the authors mentioned Parkinson's disease in previous sections. I would like to know why they made the decision of including Alzheimer's instead of a broader term like the one I proposed.</p> <p>9. Page 11 line 40. The authors stated that three researchers will screen the citations against title and abstract while in the abstract section they mentioned that this process will be implemented by two researchers. Please, correct it.</p> <p>10.</p>
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VERSION 1 – AUTHOR RESPONSE

REVIEWER 1:

As stated in the previous review, this reviewer acknowledged the author's dedicated work on this protocol.

Authors' response: We appreciate the reviewer's positive comments on this protocol.

REVIEWER 2

Comments to the Author:

The authors addressed a very important issue that was already present in the rehabilitation area but that it was exacerbated during COVID-19 pandemics. However, I would have some minor revisions for the authors to consider.

1. Page 4, line 54. The authors stated: 'Meta-analyses have shown overall benefits [...]' however only one reference was provided. I suggest the authors change the word 'meta-analyses' for 'a meta-analysis' or to provide other references.

Authors' Response: We added more references to meta-analyses in this section.

"Meta-analyses have shown overall benefits of various types of physical exercise on physical function and BPSD in people with dementia [13–15]." (Page 6).

2. Page 6, lines 32-33- The authors stated 'across dementias and mild cognitive impairment and their effects.' however in the title it is only mentioned dementia. Please, make sure this statement is correct. Another aspect that may be addressed is including the effects of the interventions as part of the objective. Does this suit well under a scoping review or it is more the objective of a systematic review? I was wondering that because usually a scoping review is more descriptive than analytic and

it does not intend to provide clinical practice recommendations. I would like to know the authors' reflections on that issue.

Authors' Response: We included mild cognitive impairment in the title. A scoping review is appropriate because we will be looking at the measured outcomes and the impact of the study on the field of knowledge to map out what is known and to identify gaps. We will not be analyzing the effects of the studies and will not be assessing the quality of methodology in each study.

3. Review questions section. I would suggest de the authors consider including a third question regarding the gaps in the scientific evidence that may require being addressed in future research. For example, the outcomes measured, samples studied (gender, socioeconomic status...), among others.

Authors' Response: We appreciate the reviewer's suggestion. Since our research questions already include existing interventions, as part of our discussion in the scoping review we will discuss what does not exist (i.e., gaps in the scientific literature). We included outcome measures, sample size, population, and setting as part of our data extraction tool, Appendix II.

4. Page 9, line 8. The citation should be placed before the dot.

Authors' Response: We corrected this (p. 9).

5. Inclusion criteria - participants section. I would suggest the authors clarify and be consistent throughout the paper regarding the participants to be included and their diagnosis. It is a little confusing because in the title they only mentioned dementia, in the introduction mention dementia and mild cognitive impairment and now they include 'all types' of dementia and cognitive impairment.

Authors' Response: Thank you for pointing out this issue. We have now clarified and written "dementia and mild cognitive impairments" throughout the paper to be consistent.

6. page 9, line 22-24 I consider that the exclusion criterion can be omitted as it can be directly inferred from the inclusion criteria

Authors' Response: Thank you for the suggestion. We have now omitted the exclusion criterion about individual focused studies. We kept the exclusion criterion about studies not focused on physical exercise. We think it is necessary to clarify that studies with cognitive exercise only were excluded (since some studies included both) and to make the distinction between cognitive exercise and physical exercise.

7. page 7 lines 49-54 and page 8 lines 3-8 I believe that this is a reasonable and coherent justification for including MCI participants. Therefore, and in order to facilitate to the reader the understanding of why the authors use the term dementia in the title and then the term MCI in other sections, it would be interesting to add a reflection like this one in the introduction.

Authors' Response: We added a description of MCI and justification for adding MCI to this scoping review in the Introduction (p.4).

8. Search strategy section. As the authors would use information about people diagnosed with mild cognitive impairment I would suggest including the Mesh term 'Cognitive Dysfunction' in the search strategy and other free text terms as 'cognitive impairment' or 'cognitive decline'. Another aspect that I would suggest reflecting on is including the term 'Alzheimer'. I am aware that this condition is the first cause for suffering dementia but clearly it is not the only one. In fact, the authors mentioned

Parkinson's disease in previous sections. I would like to know why they made the decision of including Alzheimer's instead of a broader term like the one I proposed.

Authors' Response: The three-step search process begins with a preliminary search and then adds keywords as the search develops. We included "cognitive impairment" as a search term in Appendix 1. It was identified as a key word in the preliminary search and then added as a search term during the secondary search. Since we used specific terms of "dementia" and "cognitive impairment," it is not necessary to add "cognitive dysfunction" or "cognitive decline." Cognitive decline is different from cognitive impairment.

9. Page 11 line 40. The authors stated that three researchers will screen the citations against title and abstract while in the abstract section they mentioned that this process will be implemented by two researchers. Please, correct it.

Authors' Response: Thank you, we have corrected it (p. 7)