Reviewer’s report

Title: Effects of simultaneous cognitive and aerobic exercise training on dual-task walking performance in healthy older adults: Results from a pilot randomized controlled trial

Version: 1 Date: 11 Feb 2020

Reviewer: Amanda K Buttery

Reviewer's report:

The authors have addressed the comments from the previous review adequately.

However, the limitations section could be rewritten to improve clarity.

e.g. In the limitations section please remove the sentence on page 14 lines 4-7 "It is possible that larger sample sizes might identify differences among the intervention groups in gait performance across time points." This is not a limitation of the study, but rather a hypothesis for future work.

In the limitations section please be more explicit about the drop out issues. E.g. There was a high drop out rate in the COG and EXCOG groups in this pilot study and future studies need to better understand the acceptability of these cognitive interventions for participants, particularly given the lower drop out rates of the EX and CON group. (Please remove the suggestion re: transport burden as this is very unlikely to be a reason for drop out in this study from the information presented). Was the acceptability of these interventions investigated in this study (e.g. through qualitative work?). If not then this is a limitation of this pilot RCT and should be stated as such. Both the second and third limitation points relate to drop out and should be combined in the manuscript.

Please remove the last 2 sentences before the new final sentence in the manuscript as these are now redundant (i.e. page 15 lines 345-349 " In any case, larger clinical trials are certainly needed to determine optimal prescriptions for reducing the impacts of brain aging. However, given the importance of dual-task abilities in everyday life, such interventions combining aerobic exercise and cognitive challenges may be an effective paradigm for improving cognition during aging.")

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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