Reviewer’s report

Title: Computer-based cognitive interventions for mild cognitive impairment and dementia in older adults: protocol for a systematic review of published studies and meta-analysis

Version: 0 Date: 03 May 2019

Reviewer: Farhad Shokraneh

Reviewer’s report:

The authors are reporting a protocol of a systematic review of an important clinical question and I hope the final report contribute to the existing knowledge. I have made some comments and a few suggestions. Please feel free to ignore the suggestions.

1. BACKGROUND: Please mention the rationale for your interest in 'computerised' intervention.

2. THESIS STATEMENT/OBJECTIVE: Please move the thesis statement from the first part of methods and either add it at the end of Background or add it as a proper Objective heading between Background and Methods.

3. PUBLISHED/UNPUBLISHED: It is confusing when you say 'published' in title and then you search ClinicalTrials.Gov, which is the source of unpublished trials. Please remove the limitation to published literature from the title and the manuscript. If you intend to keep it this limitation please mention the publication bias in LIMITATIONS heading at the end of DISCUSSION.

4. SEARCH METHODS

4.1. You do not need to search KoreaMed; it introduces unnecessary geographical bias. You do not need also Abstracts in Social Gerontology, Health Source: Nursing/Academic Edition, Psychology and Behavioural Sciences Collection, PsycARTIVLES, PsycBooks, and Scopus. It does not mean that you should not search them but they are not necessary because they are not recommended by evidence and not searching them will save your time/money. Instead, you can search Embase (via Ovid SP), MEDLINE (via Ovid SP), PsycINFO (via PsyNET), CINAHL via EBSCOhost, ClinicalTrials.Gov, CENTRAL (via Cochrane Library), ALOIS (https://alois.medsci.ox.ac.uk/), and Web of Science.

4.2. You also do not have access to all Cochrane Specialised Registers so you cannot search them.

4.3. Unlike what you said about following Cochrane Handbook, you have not used the validated search filters of Embase, MEDLINE and CINAHL for searching RCTs.

4.4. You do not need to search for random* terms in CENTRAL because it is the source of RCTs. Your search blocks in the text are not necessary if you report the strategies in the
Appendix. Paediatrics has two correct spellings (British and American). Truncation has not been used properly.

4.5. You have not searched for cognitive therapy, cognitive treatment, and cognitive interventions. Please check some of the existing relevant systematic reviews and definitely find a search expert librarian/information specialist in your institute or post a task on TaskExchange.Cochrane.Org.


5. SCREENING: You should have two people for screening title/abstract/full-text and data extraction. Human error and disagreement is possible so may need a third researcher in some cases.

6. [Suggestion] COVIDENCE: Covidence has limited use for data extraction and you might end up creating your own data extraction form in another program. As advice, first create the data extraction form on paper and then see if all your data points fits into Covidence, if not then think about another program.

7. [Suggestion] EXTRA DATA

7.1. One data point to extract could be Public and Patients Involvement in the included studies. I think it will be valuable finding for your review. But feel free to ignore this suggestion.

7.2. You can use items from Tidier Checklist for extracting the details of the intervention. It is a reporting checklist but also helpful in data extraction.

8. HETEROGENEITY: Sensitivity analysis has not been mentioned.

9. [Suggestion] AVAILABILITY OF DATA AND MATERIALS: You can easily share all the extracted data and accepted manuscript in RevMan file format openly.

10. LIMITATIONS: Either remove the limitation to published literature that introduce Publication Bias or if it is too late for considering unpublished literature than please add a Limitations heading/paragraph at the end of the of Discussion and mention such bias. Same for Language bias please.

11. [Suggestion] REFERENCES: It seems that the references are out of date. Please try to cite at least the latest Cochrane reviews or other systematic reviews in the field in Background/Discussion.

12. [Suggestion] REVIEWERS' COMMENTS: One of the reviewers have suggested that you can update the existing systematic review. Even if you do not update that systematic review, you can contact the authors and ask for the data from their systematic review. If they provide the data
(search results for de-duplication, extracted data for meta-analysis) then it will save lots of time for your team. It will also be easily possible to run random effect model on their data as you criticised that they have run only fixed effect.

13. SEARCH STRATEGIES: This section requires a serious attention by a search expert librarian/information specialist. Cochrane Handbook has not been followed. EBSCOhost and APA PsycNET are not databases. Usually reporting only MEDLINE search strategy for protocol publication will be enough so you can ask a librarian to design it for you. You can include all search strategies only in the final report of your systematic review. Please revise all the search strategies with help from a search expert librarian.

Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field that should be highlighted to relevant networks

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

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Were you mentored through this peer review?

No