

Review of: "Feasibility and Efficacy of a Newly Adapted Multimodal Cognitive Intervention for the Elderly with Mild Cognitive Impairment"

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Potential competing interests: No potential competing interests to declare.

General comments:

This mixed-methods study examined the utility and usability of an existing multimodal cognitive intervention tool, designed for use with individuals affected by Mild Cognitive Impairment, by such individuals in an Indian population. Specifically, they performed a two-phase evaluation. In phase 1, clinicians and a small pool of older individuals with MCI rated the content and usability, respectively, and these data were analyzed qualitatively. In phase 2, they examined a larger pool of older adults with MCI pre-post-intervention to test intervention efficacy quantitatively. The authors found that in phase 1, clinicians and users both rated the intervention as effective, while in phase 2 they observed quantitative support for the efficacy of the intervention in a larger sample. In the discussion section, the authors contextualize their findings briefly as they relate to cognitive intervention programs and neuroplasticity, and focus on summarizing their results. They emphasize that their novel findings are highly supportive of the Indian adapted version of the tool is feasible for use with the target population, and describe the logical next steps for this line of research. Overall, the study is interesting, well designed and executed, and the manuscript is fairly well written. I have a few concerns, which are elaborated upon below.

Specific comments:

1. Was there a hypothesis going into phase2 given the results of phase 1? If so, this should be stated in the introduction with appropriate 1-tailed stats used. Otherwise it should be stated that Phase 2 was an exploratory study. It does seem like it would be hypothesis driven however, given the previous work with this intervention tool and the results of phase 1.
2. The term gender is used to refer to male and female. The authors mean sex, not gender. If a gender scale was administered this should be mentioned and reported. I assume they used a self-report binary sex question on their demographic form, however.
3. Phase 2 participants: Assuming there were not any overlapping participants in phase 1 and 2 but perhaps confirm this with an explicit statement in the methods/participant section.
4. Writing flow suggestion: Begin the paragraph with the finding then refer to the table rather than the current order. Makes it easier for the reader to focus on the salient findings. For example, start the second paragraph on page 10 with

something like “We found that the intervention program significantly improved the T-MoCA ($p<0.01$) and PGI-MS ($p<0.05$) scores (Table 5).” Such phrasing will make it much easier for the reader to focus on the salient findings, which are exciting and important but currently getting buried amongst broken-up sentences in the middle of a paragraph! To this end, consider moving the statistics into a table (an expanded table 5, perhaps) as well so that the paragraph is a narrative of the findings, leaving just the p values in parentheses after the finding statement. This is a writing style preference, however, not a content critique.

5. Discussion: Typically, a discussion is where you contextualize your findings within the broader literature. There is presently only two citations in the discussion section in one paragraph. It would be useful to expand the discussion beyond a summary of the results, to then relate the findings to the work of others in the area.

Minor edits:

1. Introduction, paragraph 4, a) sentence fragment: “Also, not adapted to the Indian context.” (what is not adapted?) b) ambiguous grammar “Thus the present study answered that what adaptation is needed to enhance the intervention’s acceptability to the elderly population with mild cognitive impairment.” Please clarify.
2. Discussion, end of first paragraph, clarity issue: “The complexity of the intervention increased its attention to determining the intervention’s content appropriateness to the target population, acceptability, and feasibility could be achieved from the perspectives of the rehabilitation experts and the elderly with MCI.” This sentence is challenging to follow. Perhaps break it into two sentences.