

# CAHE JC Critically Appraised Article Summary

## Journal Club Details

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<b>Date of submission</b>	March 2009
<b>Journal Club location</b>	Masonic Homes
<b>JC Facilitator</b>	Stacey Watson
<b>JC Discipline/s</b>	Occupational Therapy

### Clinical Scenario

Masonic Homes Therapy Services, much like other metropolitan therapy services, offer groups for community-dwelling people (60+yo) who have varying levels of cognitive deficits.

### Review Question/PICO/PACO

- P** Community dwelling people (60+yo) with cognitive deficit
- I** Therapy Services, small groups, cognitive-enhancement based groups
- C** Nil groups
- O** Quality of Life, Self-esteem

### Article/Paper

Brown KA, Liu-Ambrose T, Tate R, Lord S. The effect of group-based exercise on cognitive performance and mood in seniors residing in intermediate care and self-care retirement facilities: A randomised controlled trial. *Br J Sports Med* 2008; 10.1136/bjsm.2008.049882

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<b>Article Methodology:</b>	Randomised Controlled Trial
<b>Returned JC on:</b>	6 March 2009
<b>By CAHE staff member:</b>	Lucylynn Lizarondo



Ques No.	Yes	Can't Tell	No	Comments
1	✓			<p>The trial asked a clearly focused question.</p> <p>Participants: The sample was a subset of men and women who participated in a previous clinical trial of the authors. Exclusion criteria were explicitly reported.</p> <p>Intervention: Participants were allocated into 3 groups, general group based exercise (GE), flexibility and relaxation exercise (FR), no exercise control group.</p> <p>Outcomes: fluid intelligence; visual, verbal and working memory; executive functioning; mood</p>
2	✓			<p>The study was a randomised controlled trial, which is an appropriate approach when looking at effectiveness of a particular intervention.</p> <p>Is it worth continuing? YES</p>
3			✓	<p>Randomisation is carried out to eliminate systematic differences between groups in order to be more confident of the results that can be drawn from the study. Whilst the study used cluster randomisation to allocate patients, there were still baseline differences among the 3 groups, with the FR group having a significantly worse cognitive performance and mood.</p>
4			✓	<p>There was no blinding in this trial, which might have caused bias in the results. At a minimum, there should have been blinding of the personnel who did the assessment in order to eliminate assessor bias.</p> <p>❖ Assessor bias: Assessors may collect and interpret data differently for different subjects. They may modify their interpretation of results if they know the effects of the different interventions.</p>
5	✓			<p>The authors used an intention to treat analysis so that all outcomes were analysed by the group to which they were originally allocated.</p>
6	✓			<p>Outcomes were measured and collected in the same way and time period for all participants.</p>
7			✓	<p>No power calculation was carried out so it would be difficult to determine whether or not the sample size was adequate.</p>
8				<p>Results were presented using means, standard deviations and p-values.</p> <p>Bottom line result: Group based exercise composed of resistance training and balance training significantly improved cognitive performance of fluid intelligence in seniors residing in retirement villages compared with group-based program of flexibility and relaxation exercises group and with a control group with no exercise.</p>
9				<p>Results were based on p-values and could be considered precise.</p>



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Ques No.	Yes	Can't Tell	No	Comments
10				<p>The most important outcomes related to cognitive function and mood were considered in the trial. The authors have used outcome measures with good psychometric properties.</p> <p>In this study, only patient outcomes were considered. It would have been worthwhile to consider outcomes from the point of view of family, carers and health professionals.</p> <p>This study has significant methodological flaws which limit the applicability of results. The non-blinding of assessor and non-equal baseline characteristics of groups may have caused considerable bias and confounding of results.</p>