

CAHE JC Critically Appraised Article Summary

Journal Club criteria

Date of submission	Pilot 2007
Journal Club location	Noarlunga General Hospital
JC Facilitator	Kelly Vlassopoulos

Clinical Scenario

Is exercise effective in improving QOL compared with medication in people over 60 with diagnosed dementia?

Review Question/PICO/PACO

- P** People over 60 years old, clinically diagnosed with dementia
- I** Educational Lifestyle Group incorporating an exercise component
- C** Medication management for Dementia
- O** HADS / QOL

Article/Paper

Stevens J. A randomised controlled trial testing the impact of exercise on cognitive symptoms and disability of residents with dementia. Contemporary nurse : a journal for the Australian nursing profession. 2006;21(1):32

Article Methodology: Randomised Controlled Trial

Returned JC on: Pilot 2007

By CAHE staff member: Matt Sutton

research
Centre for Allied Health Evidence
news



University of
South Australia

CAHE

Centre for Allied
Health Evidence

a collaborating centre of



THE JOANNA BRIGGS INSTITUTE

The Centre for Allied Health Evidence (CAHE)

Tel 08 8302 2769 Fax 08 8302 2766 Email karen.grimmer@unisa.edu.au
University of South Australia GPO Box 2471 Adelaide SA 5001 Australia

To receive CAHE updates register online at www.unisa.edu.au/cahe

Ques No.	Yes	Can't Tell	No	Comments
1	✓			<p>Population:</p> <ul style="list-style-type: none"> Mild to moderate dementia as assessed by ACAT (MMSE<23), MMSE<9 not included No type of dementia diagnosed specifically Resident of aged care facility Able to respond appropriately to a majority of verbal requests Physically fit enough to carry out mild exercise <p>Intervention:</p> <ul style="list-style-type: none"> 30 minute group exercise program 3 times/week for 12 weeks Based on joint and large muscle group movement intended to create a mild aerobic exertion <p>Outcomes:</p> <ul style="list-style-type: none"> Progression of cognitive symptoms related to dementia (clock drawing test) Level of disability (Revised Elderly Persons Disabilities Scale)
2	✓			The question or hypothesis can be appropriately addressed with a RCT. Is it worth continuing? YES
3		✓		The only information given was that the groups were randomly allocated using a lottery method. This is insufficient information to answer this question. It is also worth noting the significant gender bias towards women in the population sample.
4		✓		There is no mention of blinding in this study, meaning this question cannot be answered.
5			✓	Only groups that had a 75% attendance rate or better were included. This meant that only 75 patients out of an original 120 were followed up. There is no follow up on those who didn't complete, or an intention to treat analysis carried out.
6		✓		Attempts were made to address performance bias by introducing a group that had similar social input as the exercise group. The method of data collection was not specified exactly, however, given the setting it is reasonable to assume the data was collected similarly for all groups.
7			✓	A power calculation was carried out and it was established that 30 people per group were needed to minimise a type II error, however, the final numbers were less than this (75). It is also worth noting that an effect size of 0.25 is generally considered quite low, meaning the number of patients needed would have been greater for a moderate effect size (0.4)

Ques No.	Yes	Can't Tell	No	Comments
8				<p>The results are presented statistically, only as p values. No confidence intervals or standard errors are given. The exercise group showed a non significant improvement in cognition whereas the control groups all showed cognitive decline (one stat sig, the other approaching stat sig).</p> <p>Between group analysis showed a statistically significant difference for the exercise group and the group receiving equivalent social input, but not the no intervention group. There was also a statistically significant difference between the no intervention and social input groups for the no intervention group.</p> <p>Level of function also improved statistically significantly for the exercise groups in self help, confusion and behaviour areas. Most other areas showed non significant improvements. Between group analysis also showed both stat sig and non stat sig difference in favour of the exercise groups for several areas</p> <p>The bottom line result is that exercise may help improve cognition skills and reduce disability in patients with mild to moderate dementia in aged care facilities.</p>
9				<p>The results show p values less than 0.05 which improves the confidence we can place in them, however, more information could be gleaned with confidence intervals.</p>
10		✓		<p>This study focused on participants who resided in aged-care facilities, and thus the extent to which these results are generalisable to the wider community – particularly community-dwelling dementia sufferers – is unclear. Consideration of the costs and resources of each intervention are not discussed, and may be an issue in some settings.</p>