

CAHE JC Critically Appraised Article Summary

Journal Club Details

Date of submission	February 2009
Journal Club location	Southern Therapy Service
JC Facilitator	Jessica Atkinson and Bronwyn Keller
JC Discipline/s	Multi-disciplinary

Clinical Scenario

Is group-based exercise effective in improving fitness and symptoms of breathlessness in patients with COPD?

Review Question/PICO/PACO

P	Patients with chronic obstructive pulmonary disease
I	Group based exercise and education sessions
C	-
O	improved self-management of COPD, improved fitness/breathlessness

Article/Paper

Woo J, Chan WM, Chan WC, et al. A community model of group therapy for the older patients with chronic obstructive pulmonary disease: a pilot study. *Journal of Evaluation in Clinical Practice*; 12(5): 523-531.

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Article Methodology: Pre-post experimental design (Pilot study)

Returned JC on: 11 February 2009

By CAHE staff member: Lucyllynn Lizarondo

Ques No.	Yes	Can't Tell	No	Comments
1	✓			<p>The study asked a clearly focused question.</p> <p><i>Participants:</i> Discharged COPD patients from a rehabilitation hospital; aged >60, living at home and had been admitted to hospitals with a medical diagnosis of COPD; excluded were those with malignancy, severe cardiopulmonary and neurological dysfunction without proper intervention</p> <p><i>Intervention:</i> 12-week pulmonary rehabilitation held in groups in a community centre, with 3 components: (1)educational talk (2)peer group support (3)exercise training</p> <p><i>Outcomes:</i> lung function tests, 6-minute walk test, General Health Questionnaire (GHQ), St. George Respiratory Questionnaire (SGRQ), COPD knowledge test</p>
2			✓	<p>The study was a pre-post experimental design. It would have been ideal if it was an RCT (randomised controlled trial), as the potential threats to internal validity would have been minimised. However, this was just a pilot study and using a pre-post approach would still address the question.</p> <p>Is it worth continuing? YES</p>
3				As this is only a pilot study, only one group was formed to test the effectiveness of the intervention.
4				As this a pre-post study, no blinding was done on patients, assessor and therapists who administered the interventions.
5			✓	There were 11 patients who withdrew before the study was completed, which further reduced the sample size.
6				There was no control group in this study.
7			✓	No power calculation was done and hence would be difficult to determine the adequate sample size.
8				<p>Results were presented using means and SD. P values were computed to determine changes in the status from baseline to follow-up at 12 weeks for the GHQ, SGRQ and 6-minute walk test. However, no data were presented regarding lung function tests after the intervention was completed.</p> <p><i>Bottom line result:</i></p> <p>A group community pulmonary rehabilitation programme for COPD patients is feasible and acceptable, with significant improvement in symptoms and psychological outcomes.</p>
9				Difference in the baseline and follow-up measures were presented using p-values. Results may therefore be considered precise.

research news

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Ques No.	Yes	Can't Tell	No	Comments
10				This is a pilot study using a pre and post design, without a control. As such, it would be difficult to know whether the results are really due to the intervention, or to some other confounding factors. In addition, the number of participants seems small, limiting the extent to which the results may be applied. Whilst the study design has inherent flaws in its methodology, it is a valuable initiative in the management of COPD patients which needs to be further explored through well designed controlled trials. Cost-effectiveness of this strategy is also worth investigating. Overall, the results of the study are promising and should be considered as part of a chronic disease management.

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