

CAHE JC Critically Appraised Article Summary

Journal Club criteria

Date of submission	Pilot 2007
Journal Club location	Elderly Care Housing Inc
JC Discipline/s	
JC Facilitator	Philippa Robert

Clinical Scenario

Are exercise diaries effective in improving compliance in carrying out therapist set home programs in elderly community dwellers?

Review Question/PICO/PACO

- P** Elderly community dwellers
- I** Exercise diaries
- C** Usual care
- O** Compliance

Article/Paper

Bassett SF, Petrie KJ. *The Effect of Treatment Goals on Patient Compliance with Physiotherapy Exercise Programs*. *Physiotherapy*. 1999; 85(3): 130

Article Methodology:	Randomised Controlled Trial
Returned JC on:	Pilot 2007
By CAHE staff member:	Matt Sutton

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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 Community setting, diagnosed limb injury, starting new course physiotherapy requiring exercises to be carried out at home.</p> <p>Intervention Goal setting with participant-therapist collaboration, therapist mandated goals or no formally set goals.</p> <p>Outcomes Compliance: measured with use of exercise diaries ROM: Goniometer Muscle Strength: Percentage muscle strength as per Kendall and Kendall Symptom relief: 3 point rating scale + No. of treatments</p>
2	✓			<p>The study was a RCT. The study compared one treatment with another, thus making it appropriate for an RCT. RCT's are not appropriate for other study types such as evaluating psychometric properties of outcome measures. Is it worth continuing? YES</p>
3		✓		<p>It has been stated that the groups were randomly allocated, however, the method of allocation has not been reported. Methods such as computer generated numbers are appropriate. Use of methods such as birth dates are not, and are quasi randomisation techniques. It has not been stated whether allocation was concealed. Allocation concealment shields those involved in a trial from knowing upcoming assignments.</p> <p>There should have been further information regarding the randomisation process.</p> <p>Confounding matters is the lack of reporting of baseline characteristics of groups. Randomisation is important as it aims to ensure the only difference between groups is the intervention taking place. If the groups have not been randomised correctly, there may be significant differences in characteristics that may confound the results. This is referred to as selection and confounding bias.</p>
4		✓		<p>It is unreasonable to blind the participants or therapists due to the nature of the intervention, however, it is not unreasonable to have blinded the assessor(s). This must be assumed to have not occurred as it has not been reported. Both reporting, and blinding would have been ideal. This reduces "observation bias".</p>
5			✓	<p>Eight participants did not complete their course of physiotherapy and were consequently withdrawn from the study. Thus, it is reasonable to assume an intention-to-treat analysis was not carried out. It would have been preferable to have had reported the treatment arms the drop-outs came from.</p>

Ques No.	Yes	Can't Tell	No	Comments
6	✓			The physio-mandated goals (PMG) group had on average 2 fewer treatments than the other groups. It would appear all data was collected using the same measurement instruments, and a single researcher measured ROM and strength.
7		✓		No power calculation was carried out. A sample size of 66 is likely to provide at least a somewhat meaningful result.
8				<p>Compliance was measured as a percentage of the sessions attended and also the recommended repetitions.</p> <p>The results were then expressed as statistical differences between groups.</p> <p>Further analysis was carried out on participants who showed improvements in strength and ROM. Results showed overall no statistically significant difference between the three groups; however, raw data suggests greater compliance in no goal and collaborative goal setting than PMG.</p> <p>A subgroup analysis showed that patients in the no goal and collaborative groups with improved ROM and strength were statistically significant more likely to be compliant than the PMG group. It is worth noting that the subgroup analysis incorporates small sample size, thus any conclusions drawn should be met with caution.</p> <p>Bottom line: Patients in a musculoskeletal outpatient setting may be more compliant to therapist directed home exercise if goals have either been set collaboratively or not at all than if they were set by the therapist alone.</p>
9				<p>Confidence intervals are not reported, but can be calculated using the standard deviation and sample size: $CI = 1.96 * \text{standard error}$ $\text{Standard Error} = \text{Standard Deviation} / \sqrt{\text{Sample size}}$</p> <p>P values have been reported, and values below 0.05 considered statistically significant. Only values that are below this threshold have been reported as a p value. It would have been useful to have the p values for the analysis for comparisons that were not statistically significant.</p>
10			✓	<p>It is doubtful whether this population is representative of a typical community setting. The majority of participants were having their treatment paid for by a compensable body and the mean age was nearly 41.</p> <p>If further information is sought by the group, it would appear that the reference Stenstrom CH. Home Exercise in Rheumatoid Arthritis Functional Class II: Goal Setting versus Pain Attention. Journal of Rheumatology. 1994.21(4):627 may be useful.</p>