

Title of Intervention: Community-Based Group Exercise Program for Older Women

Intervention Strategies: Group Education

Purpose of the Intervention: To improve balance, reaction time, neuromuscular control and muscle strength and reduce the rate of falling in older women

Population: Women ages 60-85

Setting: Sydney, Australia; community-based

Partners: Community-based exercise program

Intervention Description:

- Group Education: The exercise classes, part of an existing community based program, were held in two sites that were easily accessible by public transport. The exercisers participated in 1 hr exercise sessions twice weekly for four 10-12 week terms. The classes were divided into four sections: warm up, conditioning, stretching and relaxation periods.

Theory: Not mentioned

Resources Required:

- Staff/Volunteers: Instructors
- Training: Not mentioned
- Technology: Not mentioned
- Space: Open exercise room
- Budget: Not mentioned
- Intervention: Exercise program
- Evaluation: Not mentioned

Evaluation:

- Design: Randomized Controlled Trial
- Methods and Measures:
 - Assessments were made of sensory motor function, muscle strength, reaction time, neuromuscular control and body sway.
 - Questionnaires asking about falls were mailed to exercise and control subjects every 2 months.

Outcomes:

- Short Term Impact: Compared with baseline scores, the analysis showed performance of exercise subjects improved significantly in all tests with the exception of sway with eyes open.
- Long Term Impact: There were also trends indicating that fewer exercisers suffered falls within their homes or nonaccidental falls in the follow-up year. When compared to the falling frequency before the commencement of the study, the incidence of multiple falling in the high adherers group was halved, while the prevalence of multiple falling in the low adherers remained the same and was little changed in the controls.

Maintenance: Not mentioned

Lessons Learned: The findings of this large-scale, randomized controlled trial of exercise in older people revealed significant improvements in all five lower limb strength measures, reaction time, neuromuscular control and three of the four sway measures in the exercisers, with no significant changes evident in the control group.

Citation(s):

Lord SR, Clark RD, Webster IW. Postural stability and associated physiological factors in a population of aged persons. J Gerontol. May 1991;46(3):M69-76.

Lord SR, Ward JA, Williams P, Strudwick M. The effect of a 12-month exercise trial on balance, strength, and falls in older women: a randomized controlled trial. *J Am Geriatr Soc.* Nov 1995;43(11):1198-1206.