

Title of Intervention: Community-Based Exercise Program

Intervention Strategies: Group Education, Environments and Policies, Individual Education

Purpose of the Intervention: To reduce falls among older adults

Population: Individuals aged 70 years and over and living at home

Setting: City of Whitehorse, Melbourne, Australia; community-based, home-based

Partners: None mentioned

Intervention Description:

- Group Education: Participants attended a 16-week exercise class of one hour each week, supplemented by daily home exercises. The exercises were designed by a physiotherapist to improve flexibility, leg strength and balance. Exercises could be replaced by a less demanding routine, depending on the participant's capability. Transportation was provided when necessary.
- Environments and Policies: Home hazards were removed or modified either by the participants themselves or via the City of Whitehorse's home maintenance program. Home maintenance staff visited the home; providing a quotation for the work, including free labor and materials up to a pre-determined value.
- Individual Education: If a participant's vision tested below pre-determined criteria and if he or she was not already receiving treatment for the problem identified, the participant was referred to his or her usual eye care provider, general practitioner or local optometrist, to whom the vision assessment results were given. Participants not receiving the vision intervention were provided with the Australian Optometrist Association's brochure on eye care for those aged over 40.

Theory: Not mentioned

Resources Required:

- Staff/Volunteers: Trained exercise instructor
- Training: Not mentioned
- Technology: Computers for assessment and analysis
- Space: Room for group exercise class
- Budget: Not mentioned
- Intervention: Transportation, postage, printing materials
- Evaluation: Equipment to measure quadriceps strength, balance and vision, home hazard list and checklist, 18 month falls calendar

Evaluation:

- Design: Randomized controlled trial
- Methods and Measures:
 - Time to first fall was determined by an 18-month falls calendar and analyzed with survival analysis techniques
 - Changes to targeted risk factors were assessed using measures of quadriceps strength, balance, vision and number of hazards in the home.

Outcomes:

- Short Term Impact: A significant effect was observed for the combinations of interventions that involved exercise. Balance measures improved significantly among the exercise group. Neither home hazard management nor treatment of poor vision showed a significant effect. The strongest effect was observed for all three interventions combined.
- Long Term Impact: Not measured

Maintenance: Not mentioned

Lessons Learned: Not mentioned

Citation(s):

Day L, Fildes B, Gordon I, Fitzharris M, Flamer H, Lord S. Randomised factorial trial of falls prevention among older people living in their own homes. *Bmj*. Jul 20 2002;325(7356):128.

Carter, Nick, Khan K, McKay H, Petit M, Waterman C, Heinonen A, Janssen P, Donaldson M, Mallinson A, Riddell L, Kruse K, Prior J Flicker L. Community-based exercise program reduces risk factors for falls in 65- to 75-year old women with osteoporosis:randomized controlled trial. *CMAJ*. October 29, 2002; 167 (9).