

Title of Intervention and Website: An exercise and health education program for older adults with knee osteoarthritis

Intervention Strategies: Group Education

Purpose of the Intervention: To determine the effects of structured exercise programs on self-reported disability in older adults with knee osteoarthritis.

Population: Older adults with evident knee osteoarthritis and self-reported physical disability

Setting: Community-based; home-based

Partners: None mentioned

Intervention Description:

- Group Education: Participants were randomized into Aerobic, Resistance Exercise or Health Education Groups. *Aerobic Program:* An 18-month exercise program composed of 3-months of facility-based walking program and then 15-months of home-based walking program. Classes consisted of 10 to 15 participants and a supervision trained leader. Classes met three times a week and walked in an indoor track. Home-based phase consisted of home visits and telephone calls by leader to help participants develop a walking exercise program at home and follow through with it. *Resistance exercise program:* An 18-month exercise program composed of 3-months of facility-based classes and 15-months of home-based exercise program. Classes consisted of 10-15 participants and a trained leader who met for 1 hour of resistance training performed 3 days a week. *Health education program:* This program was designed to provide attention, social interaction, and education about osteoarthritis. It consisted of monthly 1.5 hour classes led by a trained registered nurse, videos, question and answer periods, social periods, printed educational materials and bi-weekly follow-up phone calls by the nurse.

Theory: Not mentioned

Resources Required:

- Staff/Volunteers: leaders for aerobic and resistance classes, registered nurses
- Training: aerobic and resistance exercise training
- Technology: computer, printer
- Space: gym space and classroom space
- Budget: not mentioned
- Intervention: telephones, educational materials and videos, exercise materials
- Evaluation: physical disability questionnaire, treadmill, computerized system for oxygen uptake measurement, isokinetic dynamometer, x-ray machine, demographic and clinical variables questionnaire and statistics software.

Evaluation:

- Design: Randomized clinical trial
- Methods and Measures: Self report of physical disability, physical performance test, graded exercise treadmill test and oxygen uptake, isokinetic strength test, knee x-ray, knee pain assessment, demographic and clinical variables questionnaire. Data was then analyzed using statistical software.

Outcomes:

- Short term Impact: not mentioned
- Long Term Impact: Older adults with symptomatic knee osteoarthritis who participated in an aerobic or resistance exercise program had modest but consistent improvements in self-reported pain and disability and better scores on performance measures of function compared with those participating in a health education program

Maintenance: Not mentioned

Lessons Learned: Exercise is a safe and effective non-pharmacological therapy that improves both pain and function in older people with knee osteoarthritis. Physicians and other health professionals should prescribe a program of moderate intensity exercise as part of a treatment program for older people with symptomatic knee osteoarthritis.

Citation(s):

Ettinger, W. H., Jr., R. Burns, et al. (1997). "A randomized trial comparing aerobic exercise & resistance exercise w a health education program in older adults w knee osteoarthritis. The Fitness Arthritis & Seniors Trial (FAST)." *Jama* 277(1): 25-31.