

Title of Intervention and Website: Physical Conditioning Exercise in Patients with Rheumatoid Arthritis and Osteoarthritis

Intervention Strategies: Group Education

Purpose of the Intervention: To increase conditioning exercise for populations who traditionally have been excluded from vigorous activity because of specific health problems.

Population: Older adults with rheumatoid arthritis or osteoarthritis

Setting: Out-patient rheumatology clinics; Healthcare facility-based

Partners: None mentioned

Intervention Description:

- Group Education: Participants were assigned to three groups. Group 1: aerobic walking. Group 2: aerobic aquatics. Group 3: nonaerobic range of motion exercises (ROM). All groups met for 1 hour, 3 times a week for 12 weeks. Both aerobic classes included a warm-up period, with general flexibility and isometric strengthening of postural muscles, an aerobic stimulus period progressing to 30 minutes of continuous activity and a cool-down period of 10 minutes of active range of motion and stretching. The ROM nonaerobic group performed only gentle, active range of motion and isometric strengthening and relaxation exercises with no aerobic stimulus period. All participants were taught how to calculate their pulse.

Theory: Not mentioned

Resources Required:

- Staff/Volunteers: exercise class instructors, emergency care staff
- Training: not mentioned
- Technology: not mentioned
- Space: gym space, swimming pool
- Budget: not mentioned
- Intervention: watches to calculate pulse, informational material on exercises
- Evaluation: treadmill. Arthritis Impact Measurement Scales (AIMS), Tennessee Self Concept Scale, physical therapist, doctor and statistics software.

Evaluation:

- Design: Prospective Randomized Control Study
- Methods and Measures: Exercise tolerance (treadmill), flexibility (sit and reach test and physical therapist evaluation), disease status, health status (AIMS), daily activity level, self-concept (Tennessee self concept scales), and current use of medications were assessed at baseline, 12 weeks, 3 and 9 months follow-up. Self-reported exercise behavior was collected at 3 and 9 months follow-up. Statistical analysis was performed on data collected.

Outcomes:

- Short term Impact: Participants of aerobic conditioning showed significant improvements over ROM participants in terms of mean aerobic capacity, 50-foot walking time, self-reported physical activity, anxiety, and depression after 12 weeks of supervised exercise. ROM participants also showed significant improvements in exercise endurance, grip strength and flexibility.
- Long Term Impact: Participants who learned aerobic walking continued to walk after the classes had ended and they made further significant gains in cardio-respiratory fitness.

Maintenance: Not mentioned

Lessons Learned: The results of this study confirm previous findings that people with arthritis can exercise to improve fitness without experiencing exacerbation of their arthritis signs and symptoms.

Citation(s):

Minor, M. A., J. E. Hewett, et al. (1989). "Efficacy of physical conditioning exercise in patients with rheumatoid arthritis and osteoarthritis." *Arthritis Rheum* 32(11): 1396-405.