

Title of Intervention: Tai Chi and Fall Reductions in Older Adults

Intervention Strategies: Group Education

Purpose of the Intervention: To reduce falls in older adults

Population: Individuals aged 70 to 92

Setting: Community in Portland, Oregon; community-based

Partners: None mentioned

Intervention Description:

- Group Education: Participants were randomized to participate in a one-hour, three-times-per-week Tai Chi group for six months. Tai chi classes were taught by experienced instructors.

Theory: Not mentioned

Resources Required:

- Staff/Volunteers: Tai chi instructor
- Training: Not mentioned
- Technology: Not mentioned
- Space: Room for group education
- Budget: Not mentioned
- Intervention: Not mentioned
- Evaluation: Berg Balance Scale, Dynamic Gait Index, Functional Reach test, measuring tape, stopwatch, Survey of Activities and Fear of Falling in the Elderly, access to hospital clinic records, daily 'fall calendar'

Evaluation:

- Design: Randomized controlled trial
- Methods and Measures:
 - Functional balance was assessed with the Berg Balance Scale, the Dynamic Gait Index and the Functional Reach test.
 - Physical performance was measured with a 50-foot speed walk test and an Up-and-Go test.
 - Fear of falling was assessed with the Survey of Activities and Fear of Falling in the Elderly.
 - Fall counts were recorded by each participant in a daily 'fall calendar'. Participants indicated whether the fall caused them to seek medical help and whether it was considered injurious (if there were resulting fractures, head injuries, sprains, bruises, scrapes or other serious joint injuries). Fall information was verified with hospital clinic records or by participant self-report.

Outcomes:

- Short Term Impact: Compared with the stretching control participants, the Tai Chi participants showed significant improvements in all measures of functional balance and physical performance and showed a reduced fear of falling. Intervention gains in these measures were maintained at a six-month, post-intervention follow-up in the Tai Chi group.
- Long Term Impact: Significantly fewer falls occurred in the Tai Chi group than in the stretching control group. Of those who reported injurious falls, Tai Chi participants reported significantly fewer medical care visits from an injurious fall. The risk for multiple falls in the Tai Chi group was significantly lower than that of the control group.

Maintenance: Not mentioned

Lessons Learned: Older persons can decrease the number of falls and injurious falls by participating in a regular program of Tai Chi.

Citation(s):

Li F, Harmer P, Fisher KJ, et al. Tai Chi and fall reductions in older adults: a randomized controlled trial. *J Gerontol A Biol Sci Med Sci*. Feb 2005;60(2):187-194.