Title of Intervention: Dance-Based Training

Intervention Strategies: Group Education

Purpose of the Intervention: To improve balance in older adults

Population: Individuals between the ages of 58 and 68 years

Setting: Senior recreation centers in Grottammare, Marche, Italy; community-based

Partners: None mentioned

Intervention Description:

- Group Education: Enrolled participants were randomly allocated into two separate groups. Exercise classes occurred twice a week for three months, each lasting 60 minutes in length. The contents of the program included basic steps and simplest movements of Puerto Rican Salsa, Merengue and Bacata. Group dances included exercises to improve joint mobility, coordination, balance and strength. The dance sessions increased in intensity over time and subjective level of fatigue was assessed using the traditional Borg Scale.

Theory: Not mentioned

Resources Required:

- Staff/Volunteers: Dance instructor
- Training: Not mentioned
- Technology: Not mentioned
- Space: Room for dance classes
- Budget: Not mentioned
- Intervention: Rugs and cushions of various sizes and consistencies, balls, chairs, benches, elastic tape, tissue paper, tennis balls, plastic bottles, stereo, music
- Evaluation: Tinetti test, Romberg test, Improved Romberg test, Sit up and go test, psycho-social questionnaire, enjoyment questionnaire, Borg Scale

Evaluation:

- Design: Randomized controlled trial
- Methods and Measures:
    - Each participant's balance was assessed at baseline, 4 weeks later and 3 months later using the:
        - Tinetti test: the participant sat on a chair with no armrests. Several movements were tested and points were assigned for each of the participant's responses. A point total <19 indicated a high risk of falling.
        - Romberg test: the participant stood with eyes closed, heels together, and the tips of the feet pointing out at a 30 degree angle. Time of position maintenance was recorded.
        - Improved Romberg test: the participant stood with eyes closed and one foot in front of the other (heel-to-toe position). Time of position maintenance was recorded.
        - Sit up and go test: The participant sat on a chair with no armrests, and was asked to stand up without the aid of arms and to walk 5 m in a straight line. Time expended to cover the distance was recorded.
    - A psycho-social investigation was performed at the end of the trial to assess the potential subjective benefits in the areas of smoking, alcohol consumption, sexual habits and sleep quality by a 4-item questionnaire.
    - Subjects in the exercise group also completed a questionnaire to asses how much they had enjoyed the exercise program.

Outcomes:

- Short Term Impact: Results showed a significant improvement in balance in the exercise group at the end of the exercise program, whereas the control group did not show any significant changes. The comparison between exercise and control group variations in balance test scores showed a highly significant difference. The majority of subjects in the exercise group reported great or moderate satisfaction with the dance activity.
- Long Term Impact: Not measured

Maintenance: Not mentioned

Lessons Learned: Not mentioned

Citation:
Federici A, Bellagamba S, Rocchi MB. Does dance-based training improve balance in adult and young old subjects? A pilot randomized controlled trial. Aging Clin Exp Res. Oct 2005;17(5):385-389.