Falls **Free**

Keys to Better Balance: Instructor Resource

Criteria Checklist for Community Based Balance-Enhancing Classes

A review of evidence-based fall prevention exercise strategies shows the following criteria are necessary to be effective in preventing falls in community-dwelling older adults

Confidence: Psychological factors that may serve as predictors of future falls include the fear of falling and balance confidence. It is important for individuals to remain active both at home and within the community. When someone experiences a fear of falling (often because of a previous fall incident), they may limit or avoid activity which can lead to functional decline. A fear of falling also leads to a lower perceived control over falling. Engaging in activities and programs that keep people active and moving is important for both physical and psychological reasons (Landers, et al, 2016).

Multi component exercise: Interventions should integrate multiple components, such as strength, power, balance, coordination, and mobility. These interventions should follow a structured format, including a standardized warm-up, progressive balance and strength exercises, and a cool-down phase. (Fien et al., 2022).

Balance should be prioritized as a fundamental mode of exercise. A comprehensive balance training class must include a range of components, such as static and dynamic balance exercises, dynamic gait training, and dual-task training. It is essential that these exercises are repeated and progressively increased in difficulty throughout the classes to ensure continuous improvement and effectiveness.

- Static balance activities involve maintaining stability while the feet remain stationary. Challenges to the center of mass, such as reaching and weight shifting, and performed with a fixed base of support. Progressions can include narrowing the base from a wide stance to single-leg positions, or placing one foot in front of the

other. Incorporating sensory challenges, like standing on unstable surfaces or closing the eyes, can further enhance proprioceptive abilities and balance (Ni et al., 2024)

- Dynamic balance activities require movement of the feet while maintaining balance, involving actions like reaching, stepping, stair climbing, and lateral movements. Practices such as Tai Chi and dance are exemplary, as they integrate dynamic balance movements. Research indicates that engaging in such activities can significantly enhance balance and functional fitness in older adults (Halvarsson et al., 2015).
- Dynamic gait training involves practicing walking patterns that include dance steps, turns, figure-8s, directional changes, varying speeds, navigating obstacle courses, and moving in multiple directions (forward, backward, sideways, and diagonally). Such training is essential for improving gait adaptability and reducing fall risk.
- Dual-task training involves performing a primary task while simultaneously engaging in a secondary task, requiring divided attention and enhancing cognitive-motor integration. Examples include walking while counting or carrying a liquid-filled cup. Activities like Tai Chi and dance naturally incorporate dual-task elements, demanding balance maintenance while memorizing movement sequences. Dual-task training is as effective as functional training in improving functional fitness (Aragao-Santos et al., 2024).

Strength training is a critical component of fall prevention; however, its effectiveness is significantly enhanced when integrated with balance training. Key elements of an effective fall prevention program include:

- Lower extremity and postural muscle with progression: Focusing on strengthening the muscles of the lower body and those muscles responsible for posture are crucial. Progressive overload, which involves gradually increasing the intensity of exercises, ensures continuous improvement in muscle strength and balance.
- Moderate- to high-intensity: Engaging in exercises of moderate to high intensity is essential for maximizing the benefits of strength and balance training. Higher intensity workouts have been associated with greater improvements in functional performance and fall prevention.

- Minimal upper extremity support: Performing exercises with minimal reliance on upper body support challenges the body's balance systems more effectively, leading to improved stability.

Dosage: Research indicates that to effectively enhance balance and reduce fall risk, older adults should engage in a minimum of 50 hours of balance training. This duration can be well achieved over approximately six months by participating in one-hour balanced-focused sessions three times per week, totaling three hours of balance exercise weekly.

Such a regimen has been shown to make measurable difference in protecting against fall risk (Shuber, 2011). One study found that interventions which included balance and exercise training were particularly effective in reducing falls by 42% (Sherrington et al., 2020).

Progression and Repetition: The progression of exercise difficulty is essential to ensure continuous improvement and adaptation. Advancing from exercises with two-handed support to one-handed, and eventually to no support, is vital for continuous improvement. Gradual progression in exercise complexity and consistent repetition is key to developing and maintaining balance skills (Thomas et al., 2019).

*Walking is beneficial for cardiovascular impacts, but it should NOT be a major part of fall prevention class as it is not shown to reduce fall risk.

For video examples of the Balance Exercise components, visit our YouTube channel:

http://bit.ly/47rH9Ht

Resources

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