

Does perturbation-based slip-trip training prevent falls in elderly and chronic stroke patients? (A SYSTEMATIC REVIEW)

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Year : Spring 2021

Abstract

Introduction:

Older adults and persons with neurological problems are at a greater risk for falls. Although strength and balance training help reduce falls, certain types of exercise may be more helpful. Slip and trip-like perturbation training is a novel intervention that involves a repeated of postural perturbations with the goal of improving control of rapid balance reactions.

Purpose: To examine whether slip or/and trip perturbation can increase balance and reduce the overground fall among elderly and chronic stroke patients.

Design: a systematic review **Method:** All studies that were published in English and between the years 2016 and 2021 were searched in four databases for relevant published articles that assessed slip or/and trip perturbation interventions. All of the studies that were examined were carefully reviewed and discussed among the researchers in order to resolve any disagreements and create a consensus.

Result:13 studies published between 2016 and 2021 met the inclusion criteria. The interventions targeted older adult and chronic stroke patients. The interventions involved the following core outcomes 1) reactive balance improvement 2) a significant reduction in falls.

Conclusion: Slip or/and trip perturbation training appears to reduce fall risk among older adults and chronic stroke patients.