A Preliminary Study on Effect of Exercise on Sand and Hard Surfaces on Walking Ability of Community-Dwelling Elderly

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ABSTRACT

Current methods to promote level of independence and health status of elderly likely involve various types of exercises on a hard surface. Several studies also reported challenging effects of sand surfaces, without clear evidence to support its benefit over a hard surface. This study compared effects of 6-week exercise training on hard and sand surfaces on walking speed in 23 community-dwelling elderly. The subjects were trained using a Thai dancing program on hard (n=8) and sand (n=15) surfaces for 50 minutes/session, 3 times/week over 6 weeks. Subjects were assessed for their walking speed using the 10-meter walk test at week 0, 3 and 6 after training. The results indicated that exercises on a sand surface significantly improved walking speed of the subjects since 3 weeks after training, and the effects were continued to 6 weeks. As a walking speed is important for overall walking ability, health status and levels of independence for elderly, the incorporation of a sand surface may promote rehabilitation outcomes, particularly in a current era that the number of these individuals is dramatically increased.

Keywords: Exercise, Rehabilitation, Health status

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