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Exercise on a soft surface could significantly improve functional ability of community-dwelling elderly within three weeks

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Current methods for functional improvement and fall reduction for elderly commonly involve various types of exercises on hard surfaces. Several studies reported challenging effects of unstable soft surfaces, without clear evidence on the incorporation of soft surfaces to improve functional ability in elderly. This study compared effects of three week exercises on a soft surface on function ability relating to levels of independence in 14 elderly causing a quasi-experimental design. The participants were trained using a Thai dancing program on a soft surface for 50 minutes/session, three times/week over three weeks. Before and after the program, participants were assessed using the 10 meter walk test, five times sit-to-stand test, timed up and go test and six minute walk test (6 MinWT). The dependent samples t-test was used to compare the findings before and after training with the level of statistical significance at p value<0.05. The results indicated significant improvement in all functional tests, except the 6 MinWT. The findings may confirm a high demand of unstable and soft surface that could significantly improve walking, balance and lower limb muscle strength of the participants within three weeks. However, the training period may be insufficient to clearly improve endurance of the participants. Therefore, apart from various types of exercise, a soft surface may be applied to promote levels of independence for elderly. However, the effects found in this study were a combination between Thai-dancing and soft surface. Therefore, a further randomized controlled trial is needed to clearly confirm effects of surface and exercise used in the study.

Biography

Chonticha Kaewjoho is currently pursuing her PhD in the Human Movement Sciences program, Faculty of Associated Medical Sciences, Khon Kaen University, Khon Kaen, Thailand. She is a Physiotherapist and interested physical therapy in elderly.

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