

Prevalence of Falls and Comparative Analysis of Health-Related Physical Fitness Factors among Older Adults in Elderly Homes in Kandy District: Non-Fallers, Fallers, and Frequent Fallers

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Falls can be identified as one of the major issues which may lead to serious health consequences among older adults. Health-related physical fitness factors are important in the perspective of healthy ageing. The objective of the study was to determine the prevalence of falls and to compare health-related physical fitness factors between non-fallers (no fall), fallers (one fall) and frequent fallers (two or more). The study sample comprised 172 older adults above 60 years of age, living in registered elder's homes in Kandy District. They were recruited by cluster random sampling. The number of falls reported by the subjects during the past 12 months was used to determine the prevalence of falls and the category of faller. Body Mass Index (BMI), 2-minute walk test, 30 second sit to stand test, hand grip strength, chair sit and reach test and back scratch test were used to assess health-related physical fitness factors. These factors were compared between the three categories of fallers using one-way ANOVA and pairwise comparison was performed using Scheffe test. Of the total sample, 47.1% had a fall at least once during past 12 months. Out of them 18.6% reported frequent falls, while 28.5% sustained only one fall. Higher BMI, lower cardiovascular endurance and lower flexibility in lower body were associated with increased prevalence of falls ($p < 0.05$). There was no significant difference in body fat percentage, hand grip strength, lower body muscle strength and endurance and upper body flexibility between the three categories of fallers ($p > 0.05$). The results of the present study emphasize that exercise programs aimed to prevent falls may need to address cardiovascular endurance and lower body flexibility. Further, longitudinal studies to assess the health-related physical fitness and interventional studies are suggested among institutionalized older adults.

Keywords: Falls, Health-related physical fitness, Older adults, Institutionalized older adults

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