Abstract

Title: Active Ageing – Evaluation of Selected Functional Parameters in the Elderly

Objectives: The aim of this thesis was to evaluate the level of selected functional parameters and also to assess the relationship between physical activity level, 6-minute walk test and lower limb functional fitness in healthy older adults. The results obtained were compared with those of a study at a partner university in the Netherlands.

Methods: Random selection from a population of healthy older adults in the Czech Republic aged 60-80 years divided into: group 1 (< 67 years) and group 2 (> 67 years). A series of assessment tests were performed: a six-minute walk test, a five time sit to stand test, and an assessment of physical activity level using the Saltin Grimby Physical Activity Level Scale.

Results: The mean distance walked 6m WT in this population was 574m (SD 46.7). group 1 (< 67 years) achieved a mean distance of 602m, whereas probands in group 2 (> 67 years) walked a mean distance of 546m. In the relationship between PAL and 6mWT, the correlation coefficient for the whole population is $r(18) = 0.631$, $p < 0.01$, indicating a moderately strong correlation. The correlation coefficient for the entire population in assessing the relationship between FTSST and 6mWT is $r(18) = -0.648$, $p < 0.01$, indicating an indirect moderate correlation at the 0.01 significance level. Seniors in the Czech Republic performed better in the measured parameters compared to seniors in the study of the partner university in the Netherlands, namely their walking speed was 1.59 m/s (SD 0.13) compared to 1.17 m/s (SD0.27), and a higher level of correlation was found between PAL and walking speed in the whole population - $r(18) = 0.631$ compared to $r(38) = 0.589$.

Keywords: Aging, Physical activity, Health