

## **Abstract**

**Title:** Monitoring the effect of selected physical activities considering the risk of falling down in the elderly.

**Objectives:** The aim of this work is to compare the effect of two physical activities used in the prevention of falling down in the elderly, on the traveled distance using the 6MWT (Six Minute Walk Test). The two chosen physical activities are “Nordic walking” and “Sensomotoric stimulation”.

**Methods:** Initially, a literature research was conducted in the key area of prevention of falling down in the elderly, the possibilities of physical treatment in this risky group of people, and then were the “Nordic walking” and "Sensomotoric stimulation" activities chosen, as methods used in the prevention of falling down. Two groups were created: “The Nordic Walking Activity Group” and the "Sensomotoric Stimulation Physical Activity Group”. The length and intensity of workouts: weekly for 3-month period, min. 60 minutes and max. 3 hours. Each group counts from 9 to 10 clients, with their age range being between 60 and 69 years. A standardized 6MWT (Six Minute Walk Test) is used to obtain the data to be processed. The results were statistically evaluated using Microsoft Office Excel XP Professional. Three times took place the measurement of each client, at the beginning of physical activity, in the 2nd month of exercise, and at the end of the 3rd month of exercise.

**Results:** Both chosen physical activities indicate improved functional performance; from a long-term point of view, the "Sensomotoric Stimulation Physical Activity” has a greater effect on improving functional performance and hence the risk of falling down in the elderly. However, the earlier changes in the 6MWT test are observed in the “Nordic Walking Activity Group”.

**Keywords:** Nordic Walking, Sensomotoric stimulation, Six Minute Walk Test (6MWT), the risk of falling down in the elderly, physical activities in old age.