Abstract

Title: Effects of the power yoga exercise program on selected parameters of postural stability in students of the Faculty of Science of the Charles University in Prague.

Objectives: The aim of the study was to analyze the effects of the power yoga intervention program on selected parameters of postural stability and to identify potential differences between the experimental and the control groups.

Methods: The three-month intervention program was implemented within Physical Education subject curriculum MS730C at the Department of Physical Education of the Faculty of Science of the Charles University in Prague. The research sample consisted of 80 students of the second year of the Faculty of Science, who were assigned by drawing lots into the experimental and the control groups. Changes of the selected parameters of postural stability were assessed before and after the three-month intervention program. Measurements of the postural stability level were performed using selected tests in the Laboratory of Sport Motor Skills of the Faculty of Physical Education and Sport of the Charles University in Prague. The tests were carried out on the stabilometric board Footscan. Nonparametric tests were used for statistical evaluation. Substantive significance coefficient ω^2 was used to evaluate the substantive significance.

Results: We succeed to demonstrate a statistically significant (p = 0,003 and p = 0,023 respectively) difference before and after the intervention program in the experimental group. The differences were shown in the average lateral deflection x while standing on the left leg called "flamingo" and in the lateral deflections ratio x_r while standing with legs apart with eyes open. The changes were not proved in other parameters and test types or in the control group.

Keywords: Postural stability, exercise program, yoga, power yoga