

## **Abstract**

**Title:** Comparison of the volume and intensity of physical activity of preschool children participating in organised and non-organized physical activity

**Objectives:** The aim of the study is to compare the volume and intensity of physical activity in five to six-year-old children who attend a gymnastics preparation and children who attend just leisure time activities.

**Methods:** This is a theoretical-empirical thesis in which two one-time measurements were made on the sample of 34 girls aged five to six years, divided into two groups (MŠ and GYM) based on their participation in organised or leisure-time physical activity. Accelerometers (Actigraph GT9X) and a weekly physical activity form were used to monitoring of physical activity. Statistical methods used for data analysis and evaluation included the Shapiro-Wilk test, Mann-Whitney U-test, two-sample T-test, Chi-square test, and descriptive statistical methods.

**Results:** Results of the Mann-Whitney U-test and two-sample t-test performed to determine the difference in the volume of physical activity at all intensity levels in the observed groups of MŠ and GYM show that there are statistically significant differences ( $\alpha = 0.05$ ) in the cases of the total volume of physical activity per week at all intensity levels and at the light intensity level. There is a statistically significant difference in all levels of intensity only on Monday and in the light level of intensity PA on Mondays, Tuesdays, Thursdays and Fridays. In terms of comparing the groups in regards to meeting the recommended volume and intensity of physical activity for preschool age, it was found that only 17.6% of the girls in the MŠ group, and 35.3% of the girls in the GYM group, met both recommended criteria (180 minutes in all PA intensity levels per day, including 60 minutes in the moderate and vigorous PA intensity levels).

**Keywords:** physical activity, gymnastics, health, preschool age