

Abstract

Title: The relationship between physical fitness and level of physical activity in older school age children.

Objectives: The aim of this work is to evaluate the effect of physical activity on physical fitness and somatotype. To determine the level of physical fitness of older school-age children at Davle school using the diagnostic system Unifittest (6-60). Further determine physical activity using a pedometer and a questionnaire during a one week evaluation. To find out the relationship between movement mode and somatotype which was determined by the method Heath – Carter.

Methods: The main scientific theoretical - empirical method is the method of testing and observation. The research involved 57 children aged 12 to 14 years in the second grade of Davle school. Testing was performed during physical education classes. To determine physical fitness, the subjects underwent four parts of the Unifittest (6-60) and anthropometric tests to determine the somatotype according to the Heath-Carter method. Using a pedometer and then filling out a questionnaire, the testers wrote down their physical activity during one week and the physical activity performed at medium - high intensity. The object of the research employed basic descriptive statistics, correlation analyzes and the Shapiro-Wilk test to analyze the obtained data

Results: The results show that the level of physical activity has a direct effect on physical fitness and somatotype. We found the relationship between physical fitness and the volume of physical activity ($r = 0.3$) and we also found that one of the determinants of the somatotype is physical activity ($r = - 0.3$). Another finding was that the amount of subcutaneous fat has an effect on physical fitness ($r = - 0,47$). In our case, the majority of children reach average physical fitness. An endomorphic mesomorph proved to be the most frequently recurrent somatotype. In more than half of the cases, the children reached the recommended limit of 10,000 steps, but no longer met the volume of PA with medium to high intensity.

Keywords: somatotype, health-related-fitness, , Unifittest (6 – 60), motor skills, endomorphy,