

## **ABSTRACT**

The present thesis deals with the influence of body composition on physical fitness. The thesis deals with the issue of increasing prevalence of obesity in children and adolescents. The aim of the thesis is to assess physical fitness in older school-aged children using a validated test battery and to determine the association of physical fitness in these children with their body composition. A total of 52 pupils aged 12-14 years were tested, of whom 34 were girls and 18 were boys. We used a modified Assessing levels of physical activity (ALPHA) test battery to determine the physical fitness of the children and adolescents. We also used a questionnaire survey to determine anthropometric parameters relevant to body composition. For the actual measurement, we used three skinfold measurements, dynamometry, Unifittest (6-60). F-test was used to calculate statistical significance of differences and Cohen's *d* was calculated to calculate substantive significance.

The results showed that girls had higher amount of subcutaneous fat than boys. There was no difference in body weight and body height between girls and boys. Compared to boys, girls had a lower mean time spent in physical activity outside physical education. In conclusion, body composition has a great influence on physical fitness in older school-aged children. In children and adolescents, we can influence body composition and increase physical fitness through regular physical activity.

## **KEYWORDS**

obesity; overweight; older school age; testing