

## **Abstract**

### **Title:**

The evaluation of gross motor function and coordination in primary school children

### **Defining the issue:**

The physical activity and sport are highly discussed topics in current time. The physical activity itself has a positive effect on our body in many ways, on the contrary the lack of it has a negative effect. In the younger school age there should be a diversity of physical activity and it should often vary. If, in this period of age, the physical activity would be in the form of specialized sport training with dominant asymmetric load without any compensating activity, the effect of that training would be probably negative and even harming for the growing body of young children, who are not prepared for that type of burden. To ensure an adequate development of specific skills and gaits the appropriate level of gross motor function and coordination is required. The evaluation of such movement features after reaching bipedal locomotion is mediocre at best and the current test batteries are limited in application. For these reasons the goal was to create new battery of tests and use it to evaluate the gross motor function and coordination in primary school children and assessment of the impact of gender and extracurricular activity on the results.

### **The purpose of the study:**

The purpose of this study is to summarize current knowledge of the area of gross motor function and coordination in primary school children, to create an appropriate battery of tests and use it to assess the condition of gross motor function and coordination with school age children, depending on gender and sports activities.

### **Methods:**

The research group consisted of 48 children, who were divided into two groups according to the questionnaire – sporting and not sporting, where the main criteria was a participation in any sports club (organised activity), where should, in theory, be provided professionally managed sports activity. The test battery was formed, which consisted of seven tests – one-legged stand, one-legged jumps in circle, jump with

a twist, line walk, seated forward bend, throwing and catching a tennis ball, two weighing machines test. For used tests a rating scale was made consisting of 0, 1, 2, where the numbers meant "penalty points". Additionally, 2 of the tests were evaluated for preferred and non-preferred lower limb separately. The result therefore had 9 components. 0 points referred to perfect execution, maximal amount of points (18 points) meant a significant insufficiency.

### **Results:**

In our research group the children who were sporting according to the questionnaire (organized sports activity, non-organized sports activity) achieved better results in gross motor function and coordination tests than children from the non-sporting group (not sporting, non-organized sports activity). Also there was not a significant difference when comparing the results of boys and girls. It was not confirmed that the result of seated forward bend test would have a significant impact on the total number of penalty points in gross motor function and coordination tests. The test with the worst performance was throwing and catching a tennis ball test, while the best performed test was the two weighing machines test.

### **Key words:**

human motor skills, postural and locomotor motor skills, posture, motor development, school age, physical activity, motor skills assessment