

ABSTRACT

Title: The effect of compensatory exercises on typical muscle imbalances in baseball players aged 12 and 13 years

Objectives: The aim of this thesis is to verify the effectiveness of the developed compensatory set in baseball players aged 12 and 13 years, in the U13 age category. To prove the effect of compensatory exercises on typical muscle imbalances in boys aged 12 and 13 years.

METHODS: In a quasi-experiment, the effect of compensatory exercises in baseball players aged 12 and 13 years was investigated using physiotherapy examinations. The research sample consisted of 33 boys. The research sample was divided into two groups from different baseball clubs. The experimental group of 16 boys completed the compensatory exercises. The control group of 17 boys did not complete the compensatory exercises. The intervention lasted a total of 3 months, 3 times. The compensatory exercise of 15 minutes was applied in the final phase of the training unit. The method of data collection was kinesiological analysis before the project started. A matching examination was performed after 3 months for both groups mentioned above.

Results: Kinesiological analysis showed changes in the examination of shortened muscles and examination of breathing stereotype in the experimental group. The changes in this testing that occurred resulted in improvement. In the control group, changes in kinesiological analysis occurred only in the shortened muscle examination. The changes were mostly also related to improvement, but were less pronounced. All the rest of the testing was unchanged. The benefit of the intervention in 12 and 13 year old baseball players was particularly evident in the area of the shortened lower extremities. The lower limb area showed the worst results in the initial measurements and the intervention had the most positive effect on this area.

Keywords: compensation, overload, muscle imbalance, flexibility, baseball, younger and older school age