Abstract.

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Assessment of Somatic Structure, Physical Fitness, and Cognitive Abilities of School-Aged Youth Before and After the Implementation of an Original Training Intervention in the Form of a Warm-Up

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The main objective of this study was to assess the somatic structure, physical fitness, and cognitive functions of school-aged youth before and after the implementation of a proprietary, multi-task training intervention conducted in the form of a warm-up.

The study involved 104 students from the Stanisław Barańczak Bilingual University High School in Rzeszów, including 53 females (51%) and 51 males (49%), aged between 13 and 18 years. The participants were randomly assigned to an experimental group and a control group. The experimental group underwent an original exercise program incorporated into their warm-up routines. Both the experimental and control groups underwent two rounds of assessment, which included physical fitness tests, psychological tests, and anthropometric body measurements.

The implemented training intervention resulted in statistically significant, beneficial changes in body composition, physical performance, and cognitive functions among the participants. The observed effects were primarily of a general developmental nature, with relative stability in classification indices such as Body Mass Index (BMI) and body fat levels. The intervention did not demonstrate a clear impact on the reduction of overweight or obesity.