Abstract

Title: The impact of high-intensity interval training on aerobic and anaerobic performance of soccer prayers

Objectives: To find out the impact of a high-intensity interval training and a speed-strength-skill fitness programme on aerobic and anaerobic performance in a group of 14 year old football prayers.

Methods: 15 youths who were 13,8±0,6 years of age took part in the 6-weeks research. They were devided into 2 groups. A method of high-intensity interval training was used in a group EX1 (n = 8). A group EX2 (n = 7) participated in speed-strength-skill fitness programme which consisted of speed training. The methods that were being used were a method of repeated starts with acceleration as well as a method of circuit and skill training. To be able to assess the actual aerobic and anaerobic performance a Yo-Yo intermittent recovery test level 2 was used as well as a test of a long jump from a spot with standing start.

Results: We found out that after a 6-weeks research there was an improvement of aerobic performance of the participants taking part in HIIT programme whose VO$_2$ max improved by 2,55 ml.kg$^{-1}$.min$^{-1}$ as well as of the participants taking part in a speed-strength-skill fitness programme who managed to increase their VO$_2$ max by 1,41 ml.kg$^{-1}$.min$^{-1}$. There was an improvement in the anaerobic performance. A group performing HIIT programme managed to improve their long jump from a spot by 1,25 cm and a group performing speed-strength-skill fitness programme improved by 1,71 cm.

Keywords: high-intensity interval training, soccer, youth, Yo-Yo test