

DIFFERENCES IN RUNNING SPEED BETWEEN YOUNG SPRINTERS AND NON-ATHLETES AGED FROM 17 TO 18 YEARS

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Aims of this research were to quantify the variables of morphologic characteristics in sprinters and non-athletes and to determine differences in running speed between these subjects aged from 17 to 18 years. The sample comprised of 60 male subjects, with average body height 175.26 ± 13.58 cm, body mass 67.41 ± 8.69 and body mass index 21.00 ± 2.30 (Mean \pm Std.Dev.). The sample of subjects was divided into experimental subsample (ES) which comprises 45 subjects-athletes, divided into three groups of 15 subjects each (EG1, EG2, EG3), and one group of non-athletes (N=15), i.e., control subsample (CS). Research variables were related to sprinters running speed on 15, 30 and 60 m: 1) SPEED15; 2) SPEED30; 3) SPEED 60, respectively. For the purpose of statistical analysis of the data obtained, SPSS version 11 had been used, and the results are presented by descriptive statistics. For the comparison EG1, EG2, EG3 and KS subjects in different subsamples, Analysis of Variance (ANOVA method) was used. Results point out that the future working program with sprinters should be focused for a section 30 to 60m (maintenance phase of maximum speed), since subjects of control subsample had achieved almost the same results as the subjects of experimental subsample in this segment. Hence, there is a need for the improvement of dynamic muscle strength by using special exercises with the load or by increment of the maximum muscle force (Fmm) if the deficit in muscle strength of athletes is less than 50%, or by working on the rise of muscle force. Acta Medica Medianae 2016;55(1):76-80.

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