

Abstract

Title: Comparison of body composition and physical level of students of the Military Branch at FTVS UK at the beginning and at the end of their studies.

Objective: To evaluate the results from the measurements of the members of the VO FTVS UK at CASRI, what changes occurred in terms of their physical performance and body composition in the beginning and in the end of their studies.

Method: Paired t-test was used to analyze the data of members of the VO FTVS UK who successfully completed full-time undergraduate and graduate studies. These were data from 8 males (age $24,3 \pm 1,5$; weight in kg $79,3 \pm 6,1$; height in cm $179,5 \pm 5,8$) and 1 female (age 24; weight in kg 66,9; height in cm 171) from measurements at CASRI, which tested physical level on a stepwise test (on a treadmill) and body composition on the TANITA MC-780.

Results: Paired t-test analysis of the data confirmed a statistically significant difference in muscle mass gain (mean difference=3,14 kg; $p=0,0007$) at the end of the study. On the other hand, during the stepwise test, there was no statistically significant difference in final heart rate (mean difference=0,58; $p=0,9394$) or lactate levels (mean difference=0,66; $p=0,1639$). Based on this measurement, it can be concluded that there was no statistically significant deterioration in physical level at the end of the study in the stepwise test, but there was an increase in muscle mass in the members of the VO FTVS UK .

Key words: lactate, stepwise test, body composition, endurance, performance