THE RELATIONSHIP BETWEEN ANTHROPOMETRIC AND PHYSIOLOGICAL VARIABLES ELITE DISTANCE AND MIDDLE DISTANCE RUNNERS OF IRANIAN NATIONAL TEAM

Matinhomaee Hassan Physical Education Department, Islamic Azad University, Central Tehran, Iran

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The purpose of this research is to define the relationship between anthropometric and physiological variables in elite distance and middle distance runners of Iranian national athletics team for the 3000 m performance. To do this, a sample of 30 elite runners with the mean age of 21.10±0.63 and mean height of 177.8±5.82 and mean weight of 64.26±7.07 were used. Characteristics of anthropometric and physiological and their relationship for the athletes were measured. The Pearson regression with (p≤0.05) was used for this analysis. From 41 variables 8 of them had a meaningful relationship with the performance of athletes which from these body fat mass (kg) and percentage of fat (%) had a positive and meaningful relationship with the performance and a negative and meaningful relationship between distribution of fat and performance. Between VO_{2}\text{max} (ml/min/kg), anaerobic power, VO_{2}\text{max} LT (ml/min) and the performance there was a negative and meaningful relationship. Between rest heart rate, breath rate and the performance there was a positive and meaningful relationship.