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Assessment Of Cardiorespiratory Fitness Level (VO_2max In Albanian Children

Assoc. Prof. Genti Pano, Dr. Anduela Lile, Assoc. Prof. Oltiana Petri, Denis Nuriu.
Sports University of Tirana, Albania

Abstract

Having greater muscular and cardio-respiratory fitness at a young age is linked to decreased mortality and lower risk factors for cardiovascular illnesses, making physical fitness a significant health indicator in young people. The primary goal of this study was to evaluate the degree of cardio-respiratory fitness in children aged 11 to 16 from four random main cities in Albanian. A total of 116 children were randomly selected from the pupils' database. The 20-meter shuttle run test was used to assess cardiorespiratory fitness. A total of 116 participants completed the shuttle run test. Male participants (n=51) had a mean performance of 939.71 meters (SD=72.13), while female participants n=65) had a mean performance of 831.95 meters (SD=123.62). We conducted one-way ANOVA to examine the effect of gender on shuttle run performance. There was a significant difference between males and females, $F(1,114) = 30.55$, $p < .001$, reflecting well-known physiological distinctions. Such differences include lower oxygen uptake and lower muscle mass for females, on average, and these account for the difference in performance. This study thus contributes in complying on solving a gap within public health research and provides an understanding of the fitness level in this group category, thus laying the foundation upon which effective health policies can be improved with policy makers and community involvement, also preparing for future research with larger subject numbers.

Keywords*:* Children, Cardiorespiratory Fitness, Assessment, Public Health policies.