

124 THE STUDY OF ANTHROPOMETRIC SIZES AND PHYSICAL FITNESS FACTORS OF BOY STUDENTS AGED 12–14 IN SHAHROOD CITY

Ali Fahiminezhad *Islamic Azad University, Shahrood Branch, Iran*

10.1136/bjism.2010.078725.124

The aim of this study was to study of anthropometric sizes and physical fitness factors of boy students aged 12–14 in Shahrood City. This cross-sectional study was performed on 368 boy students aged 12–14 years in Shahrood (2010). Subjects were selected via random sampling. Anthropometric measurements included: height, weight, sitting height, arms span, body mass index (BMI), waist circumference (WC), waist to hip ratio (WHR), and percentage body fat (BF%) and physical fitness components included: cardiorespiratory fitness (20-m shuttle run test), general strength (dynamometer back and leg), leg power (vertical jump test), flexibility (sit and reach test) and agility (Illinois test). The mean of height (cm), weight (kg), sitting height (cm), arms span (cm), BMI (h/w^2), WC (cm), WHR and BF% subjects were 154.1, 43.4, 77.1, 155, 18, 67.6, 84 and 22, respectively. The mean of VO_2max ($\text{ml}/\text{kg}/\text{min}$), general strength (kg), leg power (kg/m), flexibility (cm) and agility (s) were 49.6, 92.1, 56.9, 30.5 and 18.97, respectively. There was significant negative correlation between VO_2max and anthropometric measurements, agility with height, flexibility and leg power, while a significant positive correlation was found between general strength and leg power with anthropometric measurements subjects. Survey results showed that 12–14-year-old boy students in shahrood were of thought height, weight, BMI, general strength and leg power lower from adolescents of other countries and height, weight, BMI almost equal and general strength and leg power higher from adolescents of our country. Also 12–14-year-old adolescent boys in shahrood on base BMI 30.5%, BF% 26.9%, WHR 16.8% and VO_2max 10% may provide insight into the prediction of future risk chronic disease.