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Examining Body Shape Characteristics on Chinese Urban College Male Students

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Abstract

According to the Chinese National Adolescent Health report, the status of adolescent physical health has been decreasing for 26 years. The associated factors which caused such decline was studied and pointed out by Gao (2018). As many scholars claimed, “Sunshine sports” should be implemented to promote the adolescent physical health development (Yang, 2011). Previous study indicated that the age of 18 has been a transition point to study on adolescent physical health. However, there has been few studies conducted on the differences of Body Shape Characteristics (BSC) among different regions. Therefore, the purpose of this study is to examine the differences of BSC focusing on 19-22 years old Han Urban Male College Students (HUMCS). Quantitative comparison research design was employed in this study. Human Subject Institute Review Board approval was obtained. Data were collected from five Chinese National Physical Health reports (1995, 2000, 2005, 2010, and 2015). Non-parametric Kernel Density estimation and Kruskal-Wallis test were utilized to examine the characteristics of dynamic trends on HUMCS. Analysis of Variance (ANOVA) was employed to reveal the differences on BSC from different regions. The statistical results revealed that there were significant height and weight increase from 2000-2015. HUMCS from East region were significantly higher and heavier than the West region, while no difference revealed between East and Mid region. Specifically, the height growth curve shifted from 171.5cm to 173.1cm and the weight of HUMCS increased first, followed by slightly decreased. In addition, the chest circumference of HUMCS had been maintained consistently at about 86cm from 1995 to 2015, only slight decreased in 2005. Moreover, there was significant chest circumference difference between East and West region in 1999 and 2005, East and Mid region in 1995, and Mid and West region in 2005. The body shape characteristics of 19-22 years old Han Urban Male College Students from West, Mid and East region have been significantly increased, which indicated that the overall life and diet standard and living environment have been improved. However, strategies for overweight and obesity of adolescent in developed region such as East and Mid region should be taken. Low nutrition status in undeveloped region such as West region may need more attention.

Keywords: body shape characteristics, Han urban students, physical health