

Analysis of body composition among adolescent school boys

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■ ABSTRACT

In modern society, the adolescents do not participate in physical activities more and concentrate on studies. Physical activity is a significant ingredient in the quality of life, because it increases energy and promotes, physical, mental, sociological and psychological well being in addition to conferring health benefits. To achieve this purpose 800 boys from various schools of Tamil Nadu (TN) were selected as subjects at random. Their age ranged from 13 to 16 years (studying 8th to 11th standard). Body composition (Body density (BD), Lean body mass (LBM), fat free mass (FFM) and per cent body fat (% BF) were selected as criterion variables. Skin fold techniques measured with slim glide caliper were used and the measuring sites were pectoralis major, rectus abdominis and quadriceps femoris. Criterion variables were calculated. (Jackson and Pollock, 1978). The collected data were analyzed by using independent 't' test. Among the groups analysis of variance was used and if any significant difference between groups scheffe's post hoc test was be used. The confidence level of significance was fixed at 0.05. The results showed that 13 years Tamil Nadu boys were better in BD, LBM, FFM and per cent body fat. But at the age of 14, Puduchery adolescent boys were showing better BD level and no difference was found on LBM and FFM. However, per cent BF was in favour of TN boys. At the age 15, TN adolescent boys were better in LBM and FFM and per cent BF. At the age of 16, the result was surprisingly reverse, i.e no. difference between TN and PU boys on BD and per cent BF, but PU adolescent boys were between in LBM and FFM than TN boys.

■ **Key Words** : Body composition, Body density (B.D), Lean body mass (LBM), Fat free mass (FFM), Per cent body fat (%BF)

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Life styles affect people's health with eating habits and regular physical activity being the two most influential factors (Panagiotakos *et al.*, 2004).irrespective of sex, age or country of residence (Yusuf *et al.*, 2004). Body composition that relates to the relative amounts of muscle, fat, bone and other vital parts of the body. Sports and games provide an ideal time to introduce the concept of wellness to young children. A healthy body produces effective performance and allows the child to get maximum enjoyment. Physical fit children generally have better memory concentration and energy levels. They tend to be healthier and more inclined to carry their healthy life style in adulthood. If fails to physical activity that leads major problems in

individuals. Such as obesity, diabetes, hypertension (Going , 1988).Current study focuses that school going adolescents are facing health hazard problems that leads to physical, physiological and psychological problems. Basic data on education employment are reproductive health among adolescents which show that they are not receiving adequate physical activities and capacity building to equip them for the future.Studies need to conduct in India to high light various areas of concern with respect to adolescent life style (Sidra, 2009). The primary aim of the study was to compare Tamil Nadu and Puduchery state adolescent boys on body composition (body density, lean body mass, fat free mass and per cent body fat).The secondary purpose was to analyse the