

## Abstract

Adolescence is a stage of rapid changes in many aspects such as physical, mental, emotional and social developments. The age of 10-18 years is the period of onset of adolescence begins with the appearance of secondary sex characteristics and the start of puberty. (Wikramanayake, 1998)

This cross sectional study was conducted to compare the prevalence of nutritional problems (over nutrition, under nutrition) of Sinhalese, Tamil and Muslim adolescent girls aged 14-18 years in Kuliypitiya zonal education division. Six schools were selected by stratified sampling and random sampling methods, so that 120 subjects as 40 from each ethnic groups.

Anthropometric measurements of weight, height, waist and hip circumferences were performed using standardized procedure on the school girls. Information on socio-economic characteristic of household, dietary habits, self persuade health and nutrition and health informations were gathered by an interview schedule which included a food frequency questionnaire.

According to height for age percentiles the higher stunting (42.5%) prevalence was shown by Tamil adolescent girls. The higher (22.5%) thinness prevalence was shown by Sinhalese adolescent girls and 12.5% prevalence of at risk for overweight and 2.5% prevalence of overweight was shown by Muslim adolescent girls according to BMI for age percentiles.

The measurements of weight, waist circumference, and hip circumferences and ratios of waist to hip and waist to height of adolescent girls were significantly difference between Sinhalese, Tamil and Muslim ethnic groups according to one way ANOVA test.

Mean Body Mass Index (BMI) of Sinhalese girls were different from Muslim at marginally significant level ( $p=0.071$ ) when compared by two sample t-test. Mean BMI was significantly and positively correlated with mean birth weight of Sinhalese adolescent girls ( $r=0.435$ ,  $p<0.05$ ) and Tamil adolescent girls. ( $r=0.415$ ,  $p<0.05$ )

The nutrition intervention programs are very important to develop in school level to reduce the over nutrition and under nutrition problems in Sri Lanka.

Wikramanayake TW (1998) Food & Nutrition, 3<sup>rd</sup> ed., Colombo: Hector Kobbekaduwa Agrarian Research & Training Institute.