

**ASSESSMENT OF THE NUTRITIONAL STATUS OF ADOLESCENTS IN THE
NALLUR DIVISIONAL SECRETARIAT, JAFFNA DISTRICT: AN ANTHROPOMETRIC
AND BIOCHEMICAL ANALYSIS**

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Nutritional needs increase significantly during adolescence to support their growth. Poor nutritional status during this pivotal period can lead to nutritional problems. A study was conducted among 75 adolescents (41 males and 34 females) from 17 to 19 years old from Nallur Divisional Secretariat, Jaffna District. The ethical approval was approved from the Ethics Review committee, Faculty of Medicine, University of Jaffna. An interviewer administrated questionnaire was used to collect the socio demographic information of the participants through household visits. Weight, height, waist Circumference (WC), hip Circumference (HC) and mid upper arm circumference (MUAC) were measured as anthropometric measurements and blood was collected to analyze hemoglobin (hb) concentration. The nutritional assessment of adolescents revealed notable differences between males and females. The mean age of males and females was 18.02 ± 0.08 years and 18.03 ± 0.09 years, respectively. Based on Body Mass Index (BMI), 24.3% of males and 44.1% of females were underweight (BMI < 18.5), while 9.8% of males and 2.9% of females were overweight or obese. The mean Waist to Hip Ratio (WHR) was 0.83 ± 0.04 for males (range: 0.73–0.93) and 0.82 ± 0.05 for females (range: 0.64–0.94). Mean MUAC was $27.6 \text{ cm} \pm 3.9$ for males and $25.5 \text{ cm} \pm 2.9$ for females. MUAC-based malnutrition (MUAC < 21.4 cm) was observed in 9.8% of males and 11.8% of females. The mean hemoglobin concentration was higher in males ($14.73 \pm 1.9 \text{ g/dl}$) than females ($13.39 \pm 1.5 \text{ g/dl}$). Although the average haemoglobin concentration was within the standard range for both males and females, the prevalence of anaemia was 12.1% among males and 5.8% among females. A significant proportion of females were underweight and at nutritional risk while more males were anemic than the females. Nutritional interventions and awareness programs are essential to improve adolescent health and prevent future complications.

Keywords: Nutritional status, Adolescents, Jaffna, Underweight, Anemia