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Evaluation of the Nutritional Status of Female Students aged 16 – 19 years in the Jaffna Zonal Schools

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The objective of the research was to evaluate the nutritional status of G.C.E (A/L) female students aged 16- 19 years in the Jaffna zonal schools. A cross sectional sampling was used to identify a sample that represents the female students aged 16 to 19 years. Female students (n=214) aged 16–19 years were selected from 20 schools in the Jaffna zone randomly between June to November, 2011. Nutritional status was evaluated using anthropometric indices [Body Mass Index (BMI) and Waist/Hip ratio (WHR)] and biochemical parameters (serum total protein level, serum albumin level and haemoglobin level). In this study, 92 (42.9%) were female from urban sector. Anthropometric result showed that, 43.48% and 39.34% of females were under weight from urban and rural sector respectively whereas, 9.78% of females from urban and 6.74% of female from rural were overweigh with 2.2% of urban female students were affected by obese. Of these students, 9.8 and 10.8% of females were affected by thinness from urban and rural sector respectively among 1.1 and 1.7% of females were affected by severe thinness from urban and rural sector respectively. Of the total females, 28.26% of urban female students and 15.57% rural female students were in moderate risk for WHR. Anaemia was significantly high in urban females (48.31%) than rural females (40.71%) (P <0.05). In the females from urban, mean value of total protein, albumin and haemoglobin levels were 6.94 (±0.68), 4.75 (±0.31) and 12.07 (±1.38) g/dL respectively, whereas in females from the rural, the total protein, albumin and haemoglobin levels were 7.08 (±0.76), 4.85 (±0.37) and 12.44 (±1.26) g/dL respectively. The study result revealed that, females from urban sector was affected by over nutrition and females from rural sector were affected by under nutrition. But prevalence of anemia was higher in the females students from urban sector than those from rural sector (P>0.05). The mean values of biochemical parameters were high in rural area.

Keywords: Haemoglobin, Thinness, Anaemia, undernutrition, Albumin, obesity