Socio-Demographic Correlates of Anemia among G.C.E (A/L) Students in Jaffna Zonal Schools

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Abstract: Anemia is a global public health problem affecting both developing and developed countries with major consequences for adolescents' health as well as social and economic development. This study assessed the prevalence of anemia and the socio-demographic correlates among G.C.E (A/L) adolescent students in Jaffna zonal schools. A cross sectional study was used and a total of 396 students [191 male (48.2%) and 205 female (51.8%)] aged 15 to 18 years from twenty schools (includes four National schools) out of twenty seven schools in Jaffna educational zone were interviewed and examined. Blood was obtained for biochemical analysis of hemoglobin level. The mean (±SD) hemoglobin (Hb) level for males and females were 13.97(±1.26) and 12.23(±1.34) g/dl respectively and males had a higher mean Hb level than females ($p<0.001$). The mean (±SD) Hb level [13.12(±1.57) g/dl] was significantly higher in students from the families with less than or equal to 5 household members when compared with students from families with more than 5 members [12.85(SD=1.53) g/dl, ($p<0.05$)]. The prevalence of anemia was 32.6% in this study population and was higher among female students (n=90, 43.9%) than male students (n=39, 20.4%, $p<0.001$). The prevalence of mild, moderate and severe anemia was 26.8, 5.6 and 0.3% respectively in this study population. The prevalence of anemia among students from urban and rural areas was 35.7% (n=65) and 29.9% (n=64) respectively. Nearly half the females from urban areas (49.5%) were anemic, while the prevalence of anemia among females from rural areas was 39.5%. The prevalence of anemia was significantly higher among students studying in schools in Jaffna District Secretariat (DS) division (43.8%) than in Kopay DS (30.3%) and Nallur DS (24.4%) divisions ($p<0.01$). The prevalence of anemia among students from National schools was 30.5% while the prevalence of anemia among students from Provincial schools was 33.9%. Household size ($r = -0.115$) and gender ($r=-0.556$) were significantly associated with Hb level ($p<0.05$). Factors significantly associated with anemia were gender, DS division of the school, and distance from home to school ($p<0.05$). In our study population, female students and students from urban areas were more anemic. The findings of this study demonstrate that the anemia is a severe public health problem among G.C.E (A/L) students in Jaffna zone.

Keywords: Adolescent nutrition, Anemia, Haemoglobin, Urban and Rural sector