



Assessment of Undernutrition using Head Circumference-for-Age among Karbi Preschool Children of Karbi Anglong, Assam, India

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ABSTRACT Undernutrition is a major public health problem in most of the developing countries of the world. India is a country with the large population size, socio-economic disparities and existence of high undernutrition among children. The aim of the present investigation is to assess the prevalence of undernutrition using head circumference (HC)-for-age among preschool children. This cross-sectional investigation was carried out among 490 (211 boys; 279 girls) Karbi preschool children (<5 years) of Diphu, Karbi Anglong, Assam, using stratified random sampling method. The HC was measured using standard anthropometric procedures and HC-for-age Z-score (HCAZ) values were calculated using Lambda-Mu-Sigma (LMS) method. The age-sex specific HCAZ values of <-2SD to -3SD and <-3SD are considered as moderately and severely undernourished, respectively. The overall age-specific mean differences were observed to be significant in HC and HCAZ among boys and girls ($p < 0.05$). The overall prevalence of undernutrition (low HC-for-age) was observed to be higher among girls (49.10%) than boys (42.18%) ($p > 0.05$). The moderate and severe undernutrition was found to be 34.49 percent (boys 35.54%; girls 33.69%; $p > 0.05$) and 11.36 percent (boys 6.63%; girls 15.41%; $p < 0.05$). There is a high prevalence of undernutrition among preschool children and girls were more vulnerable shows the gender-related trend in undernutrition. This call for the formulation of necessary healthcare intervention strategies and/or to evaluate the efficacy of ongoing intervention programme to improve the nutritional status in preschool children.