

ABSTRACT

Longitudinal studies on nutritional status of the urban poor adolescent boys and girls (10 – 18 years) was carried out to ascertain gender differences with regard to nutritional health indicators and to identify the proximal and distal determinants which might have influenced their nutritional health status. An urban slum and two schools catering to the lower socio-economic strata of the society were purposively selected. A total of 330 boys and 362 girls in the age group of 10 – 18 years formed the sample on whom longitudinal data over one year was available. Data on anthropometric measurements, morbidity profile, food and nutrient intake, intra-household food distribution (by season) and perceptions about their own health were collected using accepted methods.

Results : The mean height of the adolescent boys and girls was above 90 % of the NCHS standards and about one fifth were stunted. During adolescence, the total gain in height among the boys was less than that seen in the NCHS standards, whereas it exceeded among the girls indicating partial catch up growth in height among the girls and not the boys. Also in the boys, height deficits vs. standards were higher at 18 years of age than 10 years of age while it was not so for the girls. The age of peak height velocity was 13.5 – 14.5 years in the boys and 10 – 11 years in the girls; height gain during this period was similar : 6.9 cms.

The mean weight of the adolescent boys and girls was unsatisfactory about above 66 % of the NCHS standards and about three fourths of the boys and girls were underweight. During adolescence, the total gain in weight among the girls was higher than that in the boys compared to the NCHS standards (90 % vs. 50 % of the standards). Consequently, the weight profile of the girl improved as adolescence progressed while it deteriorated in the boys. Also unlike the girls, in the boys, weight deficits were higher at 18 years of age than at the age of 10

years. The age of peak weight velocity was 14.5 years in the boys and 12 years in the girls, and weight gain during this period was 5.4 kg and 5.7 kg respectively. According to Waterlow's qualitative classification, only 43 % - 63 % boys and 40 % - 70 % girls had normal nutritional status by both H-A and W-H during the study period. According to BMI as many as 51% – 53 % boys and 32 % - 37 % girls had below normal BMI (< 80 % of the standards). Also mean BMI as % standards was better in the girls compared with the boys. The mean MUAC and SFT values (as % standards) during the course of adolescent growth declined in the boys. In contrast, these values (as % standards) improved in the girls.

Thus, under-nutrition was more prevalent in the adolescent boys than the adolescent girls.

The mean Hb values remained below the normal both in the adolescent boys and girls during the study period : 10.22 to 10.73 g/dl and 10.22 and 10.09 g/dl respectively. At least three fourths of the boys and girls were anaemic.

As for the morbidity profile, about half of the boys and girls suffered from various ailments and the prevalence was comparatively higher in the younger adolescents than in the older adolescents.

With regard to the proximal factors influencing nutritional status of the adolescents, the intake of calorie, protein and micronutrients was below the RDA across the seasons and the boys had relatively higher intake than the girls across the three seasons. As for the intra-household food distribution, the adult male was showed relatively higher intake (% RDA), followed by the adult female. Between the adolescents and the children, overall the adolescents had higher intake. However, the adolescent female and the female child received less than their male counterparts. Further, the proportionate share of nutrient intake for the adolescents from family pool was significantly less compared with the other family members. The undernourished boys had slightly higher mean Hb levels compared with the undernourished girls.

The distal factors viz., family size, level of education and high PCI per month correlated positively with better nutritional status of the boys. In the girls, caste and occupation of the father played a significant role.

Data collected on perceptions showed that 82 % of the adolescents believed themselves to be healthy and at least two thirds considered their H-A and W-A appropriate. Less than one fifth could define " a balanced diet". Nearly three fourths of the adolescents felt that nutritious food for the boys and girls should be similar with no discrimination. More girls than boys felt that activities of the boys and girls should be similar, and girls have more responsibilities than boys. Among the girls, knowledge about pregnancy, lactation and breast feeding was unsatisfactory.

To conclude, a high prevalence of under-nutrition, anaemia, poor nutrient intake and inadequate awareness about health-nutrition exists in both boys and girls in this poor segment of population. Thus, this group needs priority attention in our programmes.