RESEARCH ARTICLE

Nutritional status of adolescent girls irrespective of socio-economic and ethnic background of Jorhat district, Assam

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ABSTRACT

A study was undertaken with an aim of assessing the nutritional status of Assamese adolescent girls from Jorhat district, Assam. A sample of 450 adolescent girls within 10-18 years was drawn proportionately at the ratio of 1:1.5:1.5:1 from tribal, non-tribal rural and urban and tea garden labourer groups. Background information was recorded with a standardized schedule. Assessment of nutritional status was done through standard anthropometric (height and weight), biochemical (haemoglobin estimation) and diet survey (24 h recall) procedures. Results showed that mean heights and weights of the girls ranged between 135.62 cm to 153.17 cm and 27.36 kg to 46.44 kg respectively and were lower than ICMR standards (138.90 cm to 157.5 cm and 33.58 kg to 49.92 kg, respectively). The average haemoglobin level was below the WHO standard (12 g/dl) and ranged between 9.60 g/dl to 10.65 g/dl indicating high prevalence of iron deficiency anaemia among this population. Average cereal consumption found to be "adequate" to excess level of BDR (322.5 g to 398.75 g against 320. g to 350 g of BDR), while intake of pulses and green leafy vegetables were "very low" (<80% BDR). Energy intake ranged from "fair" (>90% of RDA) to excess level of RDA and protein intake ranged between "low" (80-93% of RDA) to "fair" level while iron intake was "very low" (<80% of RDA) for all girls across all ages. Thus, it could be concluded that the nutritional status of adolescent girls was not at par with national standards.

Key words : Adolescent girl, Nutritional status, Anthropometry, 24h recall, BDR, RDA

INTRODUCTION

Adolescence is a period of profound and significant growth. Growth during adolescence contributes significantly to attainment of final body size of an individual comprising nearly half of the growing period in man. WHO (1986) defined adolescence a period in life rangeing from 10-19 years where a series of varied, rapid and extensive change occurs. Nearly 35% of adult weight and 11-18% of adult height is acquired during this period with a spurt of growth at about 10-12 years in adolescent girls. The girls attain menarche as a result of hormonal changes. Rapid growth, chronic under nutrition and onset of menstruation may likely develop iron deficiency anaemia. Iron deficiency anaemia among adolescent girls is now a major public health problem resulting reduced level of energy and productivity, impaired immune function, reproduction failure in adulthood and maternal death during child birth are well-established (Rao, 1985). Adolescent girls with height <145 cm and weight <38 kg are at risk for delivering low birth weight babies (Gopalan, 1989). They need nutritious diets to support these extensive changes. Achievement of optimal growth and development during adolescence is considered as the prime importance in improving the maternal nutrition and health, reducing the incidence of low birth weight babies and betterment of child survival and development.

Considering the above facts in view the present study was undertaken with an aim to assess the nutritional status of the adolescent girls within 10-18 years of age from Jorhat district of Assam.

MATERIALS AND METHODS

The present study was carried out in Jorhat district, Assam. The population trend was-Tribal: 12.08%, non-