

Research Paper :

Calorie intake by 3 to 5 years old children in Varanasi district, India

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ABSTRACT

The present study was carried out in order to find out effect of age, caste and income on the calorie intake in 3 to 5 years old children of Varanasi district. Three hundred children aged 3 to 5 years were purposely selected from the surrounding villages of a MCH sub-centre. The energy intake was assessed by "24 hours food recall method". The means energy consumptions were assessed 975.50 and 1208.68 Kcals, respectively for the children aged 3 and 4 to 5 years. In comparison to recommended norms (ICMR, 2003), there was deficiency of 21.33 to 28.52 per cent energy in these children. The calorie intake was found significantly related with caste structure and income of the family. Due to non-availability of food products, the children belonging to scheduled castes received significantly lesser amount of energy than the general caste children. It was further established that the calorie intake in pre-school children was positively related with economic soundness.

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It has been reported by various authors that slow rate of physical and mental development in children is due to energy and other nutrients. Nutritional constraint is mostly responsible for prevalence of malnutrition in pre-school children of economically weaker section, resulting high fatality rate. Generally these pre-school children consume 30 per cent lesser energy than the recommended norms (Gopalan, 1989; Gopalan and Narasinga Rao, 1971 and Narasinga Rao *et al.*, 1983).

The energy is needed to a person for essential basal metabolism and accomplishment of physical activities. Physical activities include both types of non-professional activities, like sitting, standing, dressing, undressing and walking etc. and professional activities related to economic requirements. Some additional energy is also required for compensation of faecal loss (Park, 2005). Indian Council of Medical Research (2003) has recommended 1240 Kcal and 1690 Kcals energy for the children aged 3 and 4 to 5 years, respectively. Present political, socio-economic disparity and unfavourable balance between food production and population are absolutely responsible for unequitable food intake resulting calorie deficiency in various sectors of the community in general and pre-school children in particular (Khader, 1999; Bhardwaj *et al.*, 1987; Kakkar *et al.*, 1987).

The present study was formulated in order to find out effect of age, caste and per capita income with energy intake of the pre-school children.

METHODOLOGY

Three hundred pre-school children aged 3 to 5 years were purposely selected from surrounding villages of Niyardeeh-Rajala MCH Sub-centre in Varanasi district. Only one child from a family was included in the study. In case of more than one child in a family senior child was considered as he/she was deprived in rearing and feeding practices in comparison to younger child. The information was collected with the help of "Questionnaire cum Interview Technique". Nutrients consumed by these children were assessed on the basis of "24 hours food recall method" (Park, 2005). The results were inferred with the help of suitable statistical tools. (Gupta and Srivastava, 1998).

Background information:

Majority of the children (88.33 %) belonged to Hindu religion, followed by Muslim (11.67 %). Among the Hindus, the contribution of scheduled caste's children was 25.33 per cent. More than three-fifth children (63.00 %) belonged to nuclear families and the mean family size was assessed 6.25 ± 2.48 members. The female's literacy was found to the tune of 69.33 per cent, still only 18.3 per cent families have maximum education up to graduate standard. More than half of the mothers (56.67%) were exclusively housewives. On the other hand, remaining mothers were engaged in some sorts of economic activities and the per capita income was assessed Rs.