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Nutritional adequacy of habitual diets of preschool children of Khagaria district of Bihar

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ABSTRACT

The present study aimed to assess the nutrients adequacy of home diets of preschoolers (1-6 years). The study was undertaken on a random sample of 100 preschool children of Pansalwa village of Beldour block of Khagaria district. The sample was categorized under two age groups viz., 1-3 and 4-6 years for convenience. An interview schedule was designed for collection of data. 24-hours dietary recall method of diet survey was used to obtain complete dietary information about the children. "Nutritive value of Indian Foods" (ICMR) was used for computation of nutrients available in habitual diets of preschoolers. A contradictory finding observed that in spite of adequate cereal consumption, children had been in deficient state of calorie intake. An excess of protein intake was indicated by younger (1-3 years) children and their elder counterparts, despite of negligible consumption of pulses. Calorie intake was observed to be as 58 and approx. 62 per cent of recommended dietary allowances for 1 to 3 and 4 to 6 years children, respectively. Except protein intake (110% of the RDA), fat, calcium and iron too, were found to be lower than RDA for both age groups.

Key words : Nutritional adequacy, Preschool children and Recommended dietary allowances (RDA)

INTRODUCTION

Nutritional adequacy of diets reflects the prospects of nutritional status of preschool children. A child without adequate nourishment is highly vulnerable to viral, bacterial and parasitic infections such as measles and whooping cough.

Nutritional status during the most vulnerable and growing period of childhood lays foundation for good health in later years. Nutrition is increasingly being recognized as a basic factor determining the human resource potential of the nation. Today's child is the nation's future economic asset. The quality of our future human resource is going to be determined largely by the investment made now for the sound development of our child population (Gopalan *et al.*, 1993).

For a healthy working population, it is essential that children receive adequate nutrition to ensure proper physical and mental growth. Incidence of PEM and vitamin A deficiency is high among preschoolers. Nutrition plays a vital role as inadequate nutrition during childhood may

lead to malnutrition, growth retardation, reduced work capacity and poor mental and social development (Awasthi and Kumar, 1999).

In a study, Devi *et al.* (1980) assessed dietary pattern of children of Marathwada and revealed that the calories are main bottleneck in the diet of Indian pre-school children. In the study, the severe P.E.M. children (Grade-IV) in both the age groups consumed calories and protein approximately 38 and 53 per cent of recommended dietary allowances, respectively. Similarly, the grade III P.E.M. children consumed 60 to 64 per cent protein and 45 per cent calories of recommended dietary allowances. Since the percentage consumption of protein is comparatively higher than that of calories by malnourished children in almost all grades, it can be predicted that the P.E.M. among rural Marathawada children is arising from marked calories deficiency.

The study conducted by Rana and Hussain (2001) revealed that mean energy intake through home diet of pre-school children was 1114.55 K cal while RDA was