

Impact of low cost supplementary food on nutritional status of pre-school children

■ INDU, ANANT KUMAR, NARENDRA KUMAR, BRIJ VIKASH AND MAMTA KUMARI

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See end of the paper for authors' affiliations

Correspondence to :

INDU
Krishi Vigyan Kendra,
Geku, UPPER SIANG
(ARUNACHAL PRADESH)
INDIA

■ **ABSTRACT** : A random sample of 100 pre-school children was selected from village Pansalwa of Beldour Block of Khagaria district of Bihar and was equally divided into two categories viz., Control and Experimental. An interview schedule was used for data collection. 'Zea-fort Laddoo' was developed and used for nutrition intervention programme for continuous 180 days. Experimental children exhibited highly significant weight increments at 5 per cent level of significance, the t-value for 1 to 3 and 4 to 6 years old children were obtained as 23.19 and 25.96, respectively. A highly significant improvement was obtained in height (t-value=31.18 and 27.74 at 5% level) and mid upper arm circumference (t-value=31.18 and 27.74 at 5% level) of experimental children for both the age groups. According to Gomez classification, prevalence of malnutrition was reduced by 4 per cent in case of experimental children whereas the same was remained constant in case of control children. On the basis of MUAC value, prevalence of severe malnutrition (4%) completely disappeared in case of experimental children as a result of supplementation, whereas it (10%) remained as such in case of control children. A highly significant change was observed in shifting of moderate malnutrition to normal category (36%) in case of experimental children in comparison with control children (8%).

■ **KEY WORDS** : Supplementary food, Nutritional status, Pre-school children

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Diet is a vital determinant of health and nutritional status of people. Nutritional status during the most vulnerable and growing period of childhood lays foundation for good health in later years. 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).

Malnutrition is one of the major public health problems in most of the developing countries, including India. Nearly two out of three pre-school children in India are malnourished (Shrilakshmi, 2000). Assessment of nutritional status of community is one of the first steps in the formulation of any public health strategy to combat malnutrition.

Surveys carried out in different parts of India have shown that the primary bottleneck in the diets of pre-school children

is calories and not protein. Though the protein intake is relatively adequate, some of it is used for energy, leading to conditioned protein deficiency. The subsequent systematic study of the habitual diets of these children indicated an average energy deficit of 300 Kcal/day.

The following figure illustrates the basic concept of food supplementation:

