

A descriptive study to assess the nutritional status of preschool children in urban and rural community at Karnal

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Abstract

There are so many factors which are known to affect the nutritional status of preschool children. The relationship among nutritional status of urban and rural preschool children with respect to anthropometric measures and 24 hours dietary recall has been of interest of so many researchers. Many children did not complete primary school and those who completed did not do so well as children in the developed countries. However health and nutrition in early childhood may affect cognitive abilities necessary for the learning process. A study was conducted in Karnal, Haryana, to assess the nutritional status of preschool children in urban and rural community. It was found that the rural girls are certainly better than urban ones regarding their nutritional status.

Keywords: Nutritional Status, anthropometric measures, preschool children.

Introduction

“Of all nature’s gift to human race, what is sweeter to man than his children?” Marcus Tullius Cicero

The healthy population is the wealth of the Nation. Children are the most vital human resource a country possesses. Children hold the potential and set the limit of future development of any country. “Better the Nutritional Status of the children, higher will be the Nation rise”. Today’s children are tomorrow’s citizen who should be healthy. Therefore their nutritional status is of great significance. Good nutrition is the basic component of healthy growth development and for maintaining health throughout life. Malnutrition is a major public health problem that affects millions of children worldwide often leading to death or long lasting impairment (Martorell 1993). In less developed countries low socio-economic status is the Major cause of Malnutrition. In India Malnutrition is one of the major public health problems affecting the under five children about 40%. Who are suffering from Moderate or severe form of under nourishment (Achar text book of pediatrics 1989). National Nutrition Monitoring Bureau (NNMN 1993) explained that target oriented program in nutrition, health and food supply over the years have controlled severe malnutrition among the vulnerable groups in India. In terms of nutrition and health education (NHE); day care centers like Balwadies, Anganwadies and Creches can play a crucial role because children are their foremost part of the day.

Children constitute a major proportion of the global population today. They are the most important and vulnerable segment of our population. They are truly the foundation of India. The future of our nation depends on the way we nurture our children today. In any community children and mothers constitute a priority group. They comprise approximately 70% of the developing countries. Nutritional status is a Major determinant of the health and wellbeing of children. Nutrition of the preschool children is of paramount importance because the foundation for life time, health, strength and intellectual

vitality is laid during that period. Though many target programs have been oriented in our country, central level and state level, to control the Malnutrition among the vulnerable groups in India, Malnutrition among children continues to be a Cause for serious concern. Malnutrition is increasingly recognized as a prevalent and important health problem in many developing countries. This problem has serious long term consequences for the child and adversely influences their development. Poor nutrition or malnutrition is caused by not getting the proper nutrients needed for normal growth and development. Undernourished children do not grow to their full potential of physical and mental abilities. Malnutrition makes the child more susceptible to infection and recovery is slower and mortality is higher.

Over the past two decades, there has been a substantial and progressive decline in infant and child mortality rates in India. There has also been a significant reduction in the Prevalence nutritional deficiency disorders. It is therefore important that increasing attention is now paid to the nutritional status of the survivors. Iron deficiency anemia in all age groups. “Big Four” among the PEM and vitamin A deficiency occur mostly among preschool children. Anemia is prevalent in all groups but highest prevalence being among preschool children and pregnant women. These diseases if untreated or not prevented may lead to many disabilities. PEM results in poor growth and development among children. Vitamin A deficiency when it becomes severe leads to nutritional blindness, anemia leads to impaired work, capacity and impaired resistance to infection.

Using the WHO Global Database on Child Growth and Malnutrition, which covers 87% of the total population of under-5-year-olds in developing countries, we describe the worldwide distribution of protein-energy malnutrition, based on nationally representative cross-sectional data gathered between 1980 and 1992 in 79 developing countries in Africa, Asia, Latin America, and Oceania. The findings confirm that more than a third of the world’s children are affected. For all

the indicators (wasting, stunting, and underweight) the most favourable situation – low or moderate prevalence’s – occurs in Latin America; in Asia most countries have high or very high prevalence’s; and in Africa a combination of both these circumstances is found. A total 80% of the children affected live in Asia – mainly in southern Asia – 15% in Africa, and 5% in Latin America. Approximately, 43% of children (230 million) in developing countries are stunted. Efforts to accelerate significantly economic development will be unsuccessful until optimal child growth and development are ensured for the majority.

Statement of Problem

A descriptive study to assess the nutritional status of preschool children in rural and urban community at Karnal.

Objectives of Study

- To compare the Nutritional status of the preschool children in terms of anthropometric measurements with respect to rural and urban localities.
- To compare the Nutritional status of the preschool children in terms of 24 hours dietary recall with respect to rural and urban localities.

Operational Definitions

Assess

It refers to the estimation of knowledge regarding nutritional status of urban and rural pre-school children.

Nutritional Status

Nutritional status means the status of the body in relation to Nutrition which is measured by the anthropometric measurements, such as height, weight, and mid arm circumference and 24 hours dietary recall (24 hours food consumption data).

Preschool Children

The children of age 3-5 years. Only girls are included in the present study.

Anthropometric Measurements

Anthropometric measurements refer to height, weight, and mid arm circumference.

24 Hours Dietary Recall

24 hours dietary recall refers to the food consumed by the preschool children throughout the 24 hours which is measured by interview schedule (Annexure 1).

Hypothesis

1. There is no significant difference in the nutritional status of urban and rural preschool children with respect to anthropometric measures.
2. There is no significant difference in the nutritional status of urban and rural preschool children with respect to 24 hours dietary recall.

Sample

A total of 50 girls were taken for the sample. 25 Preschool children from urban area (Pratap Public School, Karnal) and 25

(Pratap Public School, Jundla) from rural area were taken for present study. The sampling technique adopted by the investigator was Convenient sampling.

Sampling Criteria

Inclusion Criteria

- i) Preschool Children in Rural and Urban area (3-5 yrs.)
- ii) Children who were willing to participate.
- iii) Only girl child
- iv) Children who were in range of norms set by the researcher, i.e. All in average, all below average or all above average in anthropometric measures.

Exclusion Criteria

- i) Children who were not Co-operative.
- ii) Children with any kind of illness (e.g.) Fever.
- iii) Children who were mentally and physically challenged.

Data Collection Tool

The investigator herself collected the data from preschool children through interview schedule and clinical devices for anthropometric measurements.

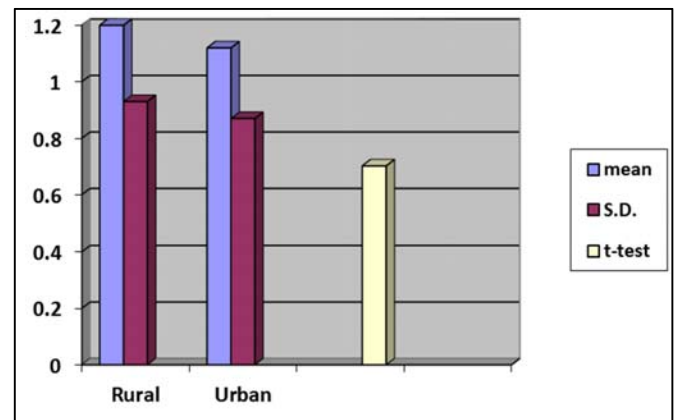
Result and Interpretation

Table 1: Comparison of rural and urban preschool children on nutritional status

Group	Mean	S.D.	t-Ratio	Level of Significance
Rural preschool children N=25	1.20	0.93	0.69	Not Significant
Urban preschool children N=25	1.12	0.87		

t=1.98>0.05

t=2.62>0.01



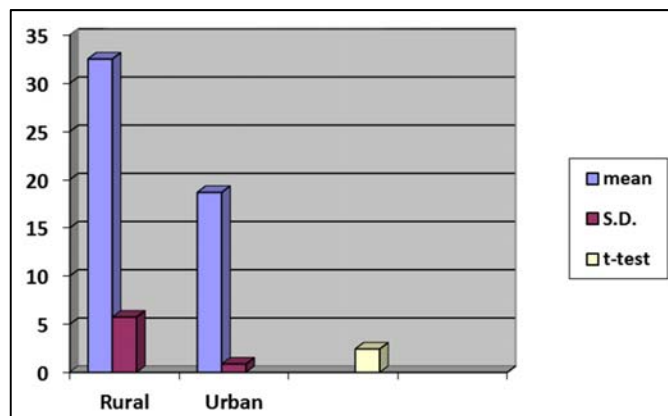
Perusal of above Table & Fig. reveals that mean scores of rural and urban are 1.20 and 1.12 respectively with respective standard deviation of 0.93 and 0.87. The obtained t-ratio is 0.69 which is not significant. This shows there is no significance difference between rural and urban preschool children with respect to anthropometric measures. However, the rural girls are certainly better than urban ones. So hypothesis -1 is accepted.

Table 2: Comparison of rural and urban preschool children on nutritional status with respect to 24 hours dietary recall

Group	Mean	S.D.	t-Ratio	Level of Significance
Rural preschool children N=25	32.52	5.73	2.43	Significant
Urban preschool children N=25	18.60	4.87		

$t=1.98 > 0.05$

$t=2.62 > 0.01$



Perusal of above Table & Fig. reveals that mean scores of rural and urban are 32.52 and 18.68 respectively with respective standard deviation of 5.73 and 4.87. The obtained t-ratio is 2.43 which is significant. This shows there is significance difference between rural and urban preschool children with respect to 24 hours dietary recall. However, the rural girls are certainly better than urban ones. So hypothesis -2 is rejected.

Conclusion

The reason for this difference is mainly that the urban community is more prone towards the junk food, irregular eating habits, more television watching hours and totally unhealthy meals, whereas the rural community is limited to homely diets and regular eating habits with less availability of junk food.

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