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A Comparative Study to Assess the Nutritional Status of Primary School Children (6-10 Years) In Rural and Urban School

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ABSTRACT: A study was conducted to assess the Nutritional status of Primary School Children (6-10 Years) in Rural and Urban schools.

KEYWORDS: Assess, urban, rural school, primary school children, Nutritional status.

I. INTRODUCTION

The secret of national health lies in the children of our country. *Ahmed* says good nutrient means maintaining a nutritional status that enable the child to grow well and enjoy good health. *Asaruddin* monitored growth and development to detect deviations from normal, provides one of the simplest but important methods of assessing the health of a child. *stanhope, M& Lancaster j*; that nutrition and antropometry is most important in nutritional assessment. *Park, J .E (2013)* reported that malnutrition is higher prevalent among the poor communities in our India. *Marlow, R.D& Redding, B.A(2009)* states that 2/3 of the death of children around the world are directly or indirectly associated with nutritional deficiencies.

II. MATERIALS AND METHOD

Cross sectional survey approach and descriptive comparative study design was used for this study. *Baswanthappa B.T (2012)* states that comparative studies utilize set criteria to contrast two or more groups of designated variables. The study was conducted among children in rural and urban primary school. Simple random sampling technique was used. The sample consisted of 200 primary school children. In that sample 100 were in rural and 100 were urban primary school children. The tools used were Interview schedule and Observational checklist. Weight and height was checked according to *IAP* classification and *WATERLOW'S* classification. Health belief model was used as a conceptual frame work. The first component involves individual perception of susceptibility to malnutrition, sign and symptoms due to deficiency of vitamin A, B1, B2, B6, C and Iron which leads to thread of disease. The second component involves modifying factors for rural and urban primary children include demographic variables. The third component involves likelihood of action are perceived benefits of preventive action.

III. RESULTS AND DISCUSSION

The present study was conducted to assess the Nutritional status of Primary School Children (6-10 Years) in Rural and Urban schools.

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FIGURE 1. Percentage distribution of weight for age by IAP classification

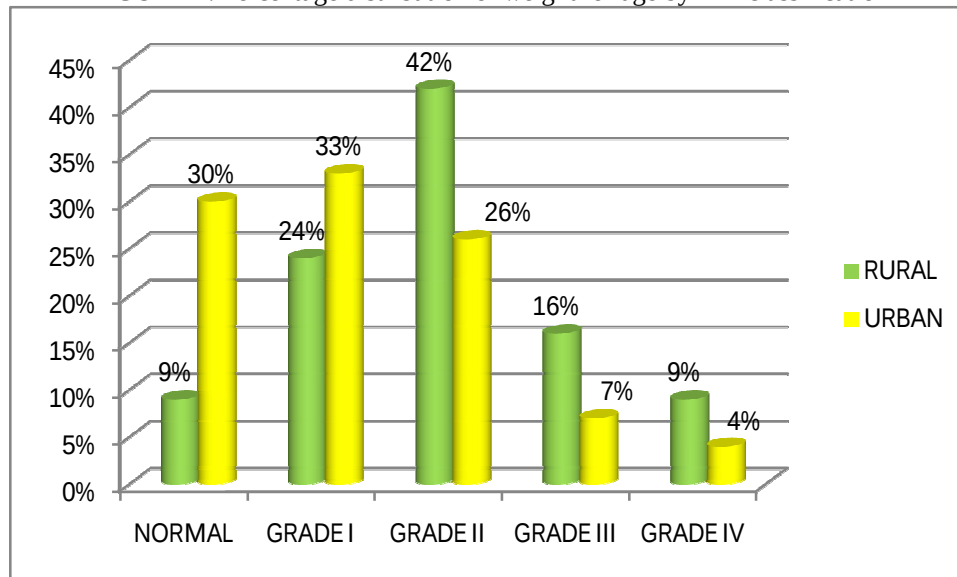


Figure 1 shows that 30% and 9% of urban and rural are coming under normal weight, 33% and 24% of urban and rural are coming under grade I malnutrition, 26% and 42% are coming under grade II malnutrition, 7% and 16% are coming under grade III malnutrition, 4% and 9% are coming under grade IV malnutrition.

Table.1 Frequency and percentage distribution of height for age by Waterlow's classification

s.no	Group of children	Normal(>90)		Mildly impaired height(87.5-95)		Moderately impaired height(80-87.5)		Severely impaired height <80	
		F	%	f	%	F	%	f	%
1	Rural n=100	31	31%	44	44%	22	22%	3	3%
2	Urban n=100	51	51%	31	31%	18	18%	0	-

Table 1. shows 31% and 51% are coming under normal height for age, 44% and 31% are coming under mildly impaired height for age, 22% and 18% are coming under moderately impaired height for age 3% and 0% are coming under severely impaired height for age Figure.2 Comparison of nutritional status of rural & urban primary school children: (vitamin A Deficiency)

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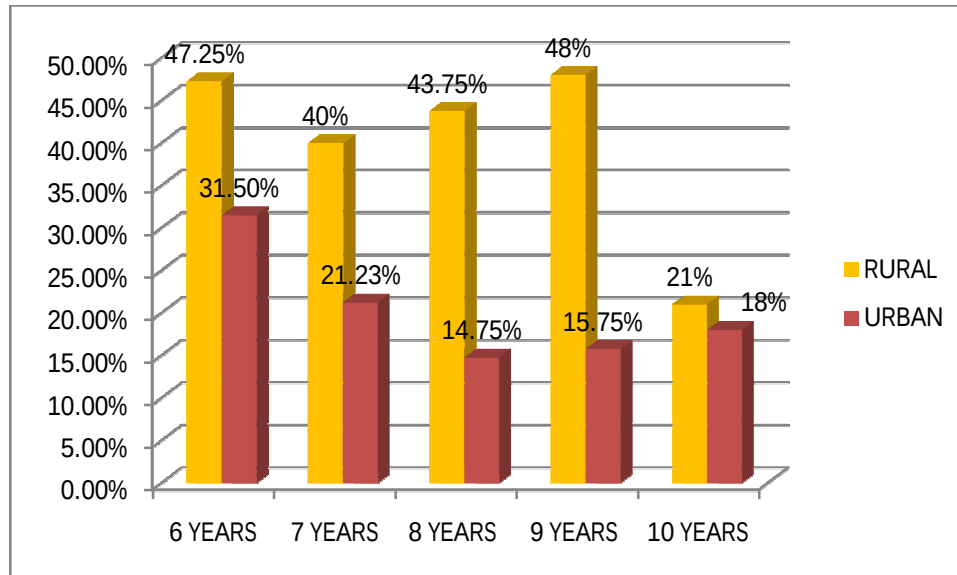


Figure 2 shows that Vitamin A deficiency were 47.25%,40%,43.75%,48%,21% are under 6 years ,7 years,8years,9years and 10 years OF Rural respectively.Similarly 31.50%,21.23% 14.75% 15.75% and 18% are under6 years ,7 years,8years,9years and 10 years of urban.

Table .2 Comparison of nutritional status of rural &urban primary school children: (vitamin B Deficiency)

AGE	Rural	Urban
	%	%
6 YEARS	46.1%	22.5%
7 YEARS	44.75%	19.5%
8 YEARS	36.75%	17.5%
9 YEARS	33.25%	15%
10 YEARS	57.75%	12.75%

Table 2 shows that Vitamin B deficiency were 46.1%,40%,44.75%,36.75%,33.25% 57.75%are under 6 years ,7 years,8years,9years and 10 years of rural respectively. Similarly 22.5%,19.5% 17.5% 15.% and 12.75% are under6 years ,7 years,8years,9years and 10 years of urban.

Table .3 Comparison of nutritional status of rural &urban primary school children: (vitamin C deficiency)

AGE	Rural	Urban
	%	%
6 YEARS	10%	5.5%
7 YEARS	13.5%	2.75%
8 YEARS	17.25%	3.25%
9 YEARS	12.75%	1.75%
10 YEARS	16.25%	3.25%

Table 3 shows that Vitamin C deficiency were 10%, 13.5%, 17.25%, 12.75%, 16.25% are under 6 years ,7 years,8years,9years and 10 years of rural respectively. Similarly 5.5% 2.75%, 3.25% ,17.5% ,3.25% and 12.75% are under6 years ,7 years,8years,9years and 10 years of urban respectively.

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Table.4 Comparison of nutritional status of rural & urban primary school children: (Iron Deficiency)

AGE	Rural	Urban
	%	%
6 YEARS	18.75%	10.25%
7 YEARS	15%	6%
8 YEARS	24.75%	4.75%
9 YEARS	20.5%	5.75%
10 YEARS	16.25%	7%

Table 4 shows that Iron deficiency were 18.75%, 15%, 24.75%, 20.5%, 16.25% are under 6 years, 7 years, 8 years, 9 years and 10 years of rural respectively. Similarly 10.25%, 6%, 4.75%, 5.75% and 7% are under 6 years, 7 years, 8 years, 9 years and 10 years of urban respectively.

Table . 5 Comparison of mean rural score & mean urban score primary school children

Primary school children	N	M	SD	Mean Difference	Unpaired "t" value
Rural children	100	18.41	3.32	8.68	35.8*
Urban children	100	9.73	1.89		

*significant at 0.05% level ($P < 0.05$)

The above table shows that there was a highly significant difference in the mean score between rural and urban children. The mean of the urban children (9.73) was significantly lesser than the mean of rural (18.41) primary school children.

IV. CONCLUSION

It was found that the rural school children aged 6-10 years height, weight for height are less than urban school children. In rural children majority of them were malnourished. Similarly Vitamin A deficiency, Vitamin B deficiency, Vitamin C deficiency and Iron deficiency are more among rural school children compared to urban school children. **Upadhyay, S.K.; Agarwal, K.N** states that it is necessary to concentrate about awareness of nutritional status among the rural population. **vijayaraghavan, k** evaluated that every nutrient has its role in growth and development. **Ghai, O.P** denotes if diet is not sufficient and balanced, it can lead to malnutrition and child may be the victim of many deficiencies.

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