Nutritional Status and Dietary Habits of Preschool Children

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Abstract

Background: *Malnutrition is the one of the leading cause for morbidity and mortality in children of under five in developing countries. It is one of the important public health problem. To know the dietary habit of preschool children is important to find out the nutritional level of children.*

Aims And Objectives: *The study aimed at assessing dietary habits of preschool children in order to know the nutritional status of children, finding the correlation between dietary pattern and nutritional status of preschool children and find out the association between dietary habit scores and nutritional status scores with selected demographic variables.*

Materials and methods: *Dietary habits of preschool children was assessed by rating scale and used interview method for data collection with preschool children parents. Nutritional status was identified by measuring the weight and height and compared nutritional status with Indian Academy of pediatric classification.*

Results : *The study results shows that 93.10% of preschool children average dietary habits, 5.17% had poor habit. Regarding nutritional status 27.58% had Grade I malnutrition, 13.79 had grade II, 17.24% had Grade III malnutrition. The correlation value shows that 0.9942 as a perfect positive correlation between dietary habits with nutritional status. There was a significant association between dietary habits scores with education of father ($X^2=11.10$, df=5), and nutritional status of preschool children with occupation of mother ($X^2=6.47$, df=2).*

Conclusion: *The study concludes that improve the dietary habits of preschool children to reduce the malnutrition status by educating the mothers regarding importance of diet.*

I.   Introduction

Malnutrition among children below five years continues to be one of India's major human development challenges. In spite of tremendous economic progress made in the last two to three decades, malnutrition among children in both urban and rural India still claims many lives. However, mounting cases of malnutrition has caught the public eye and so healthcare providers as well as the government are taking the necessary steps to improve the current status of nutrition for children in India. Malnutrition is a silent emergency[1]. Reduction of malnutrition in 0-5 age group can be ensured by availability of supplementary feed. Healthcare providers to focus on health education among parents, especially the mothers on the exact nutritional requirements in terms of quality and quantity of the child at specific age groups[2]. Progress towards reducing under nutrition has been limited, particularly in the last two decades. But nutrition security has remained a leading issue in political and policy debates. In 2001, the Supreme Court of India pronounced the Right to Food as an implication of the Fundamental Right to Life enshrined in the Indian Constitution[3,4,5]. India is far from being a homogenous country in terms of malnutrition. Child stunting and underweight have persistently been more prevalent in some of the landlocked northern and central states than in the rest of India. The rates at which the incidence of child stunting and underweight have changed also vary notably across the states[6].

Problem statement

        "A correlation study to assess nutritional status and dietary habits of preschool children in a selected areas of Aurangabad district"

Objectives of the study

1.   To assess the anthropometric measurement of preschool children
2.   To Assess the nutritional status of preschool children
3.   To assess the dietary habits of preschool children as measured by rating scale
4.   To find out correlation between nutritional status and dietary habits of preschool children
5.   To find the association between nutritional status with selected demographic variables
6.   To find out the association between dietary habits with selected demographic variables

Hypothesis
Tested at 0.05 level of significance
H_1: There is a significant correlation between nutritional status with dietary habits among preschool children
H_2: There is a significant association between nutritional status with selected demographic variables
H_3: There is a significant association between dietary habits with selected demographic variables
Operational definitions
Nutritional status: In this study it refers to finding the nutritional level of preschool children by measuring weight, height, mid arm circumference and comparing scores with IAP classification of nutritional level.
Dietary habits: In this study it refers to the way of food consumption pattern by preschool children as told by their parents.
Preschool children: In this it refers to children belonging the age group between 3-5 years.
Assumptions:
1. Preschool children having poor dietary habits
2. Many of the preschool children are below the normal nutritional status
3. Preschool children nutritional status related to dietary pattern.

II. Material And Methods

Source of data: In this study the data will be collected from mothers of preschool children and preschool children in a selected areas of Aurangabad District.
Research design: Descriptive correlation design was used for this study
Setting : The study is conducted at selected areas of Aurangabad District.
Population: Population Includes preschool children
Method of data collection: rating scale is used to assess the dietary habits and nutritional status was assessed by checking weight and height.
Sampling method: sample for the study selected by convenient sampling technique
Sample size: sample size comprise of 58 preschool children.
Inclusion criteria for sampling:
- Preschool children residing at urban areas
- Children with the age group of 3-5 years

Exclusion criteria for sampling
- Pre school children suffering long term diseases.
- Preschool children suffering with acute illness.

III. Result of the study

Section 1: Demographic data

s.no	Father education	F	%
1	Illiterate	4	6.89
2	Primary	9	15.5
3	High school	13	22.41
4	P U C	17	29.31
5	Graduate	12	20.68
6	Post graduate	3	5.17

Table 1: Represents sample distribution according to education status of father
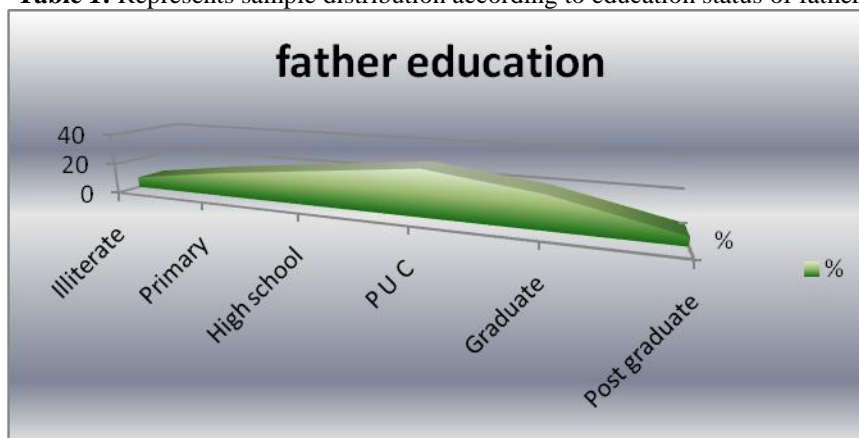
Fig No 1: Shows sample distribution according to Area diagram

s.no	Occupation of mother	F	%
1	Un employed	31	53.44
2	Govt employee	5	8.62
3	Non govt employee	4	6.89
4	Business	0	00
5	Any other	18	31.03

Table 2: Represents sample distribution according to occupation of mother (N=58)
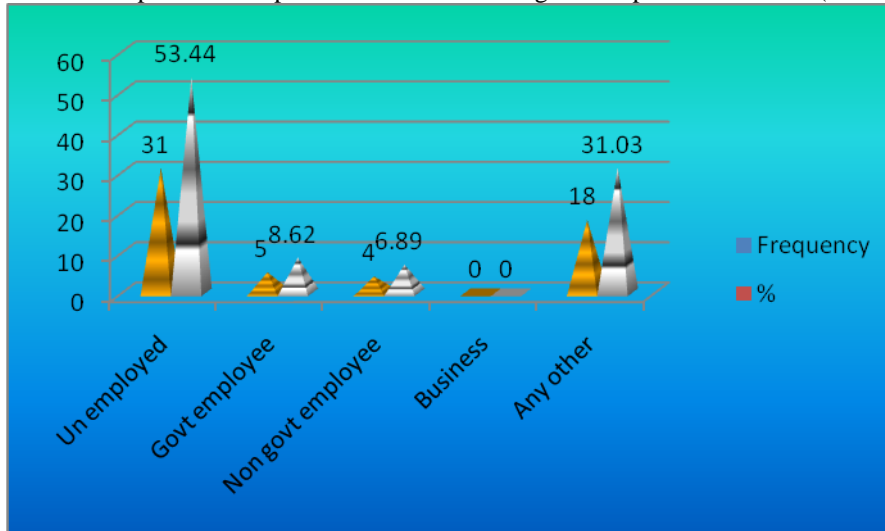

Fig NO 2: Cone diagram shows sample distribution according to frequency and percentage.

Section 2: Dietary habits classification   N=58

S.No	Dietary habits	Scores	Frequency	%
1	Poor	0-30	3	5.17
2	Average	31-60	54	93.10
3	Good	61-92	1	1.73
Total			**58**	**100**

Table 3: represents 93.10% of preschool children having average dietary habits, 5.17% having poor and 1.73% having good.

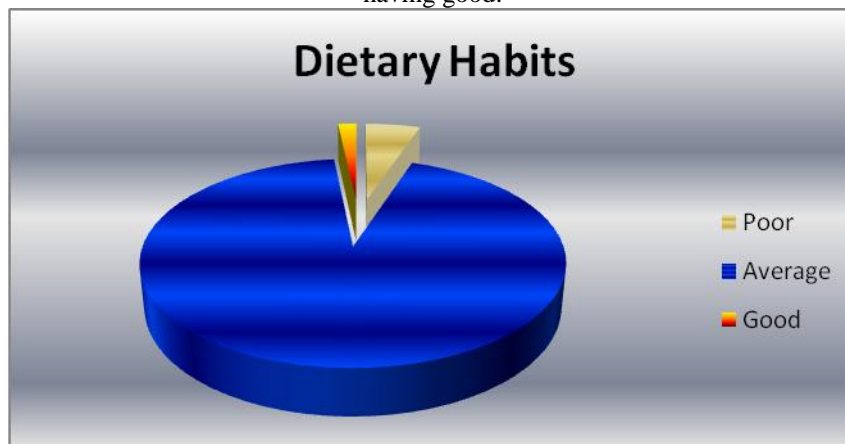**Fig No 3:** Pie Diagram shows sample distribution according to dietary habits.

Section 3: Nutritional level of children according to IAP   N=58

S.No	Nutritional Status	Weight by age (% of expected)	F	%
1	Normal	> 80	24	41.37
2	Grade I	71-80	16	27.58
3	Grade II	61-70	8	13.79
4	Grade III	50-60	10	17.24
5	Grade IV	< 50	00	00
Total			**58**	**100**

Table 4: represents 41.37% of children belongs to normal, 27.58% children belongs to grade I malnutrition, 13.79% belongs to grade II, 17.24% belongs to grade III malnutrition.
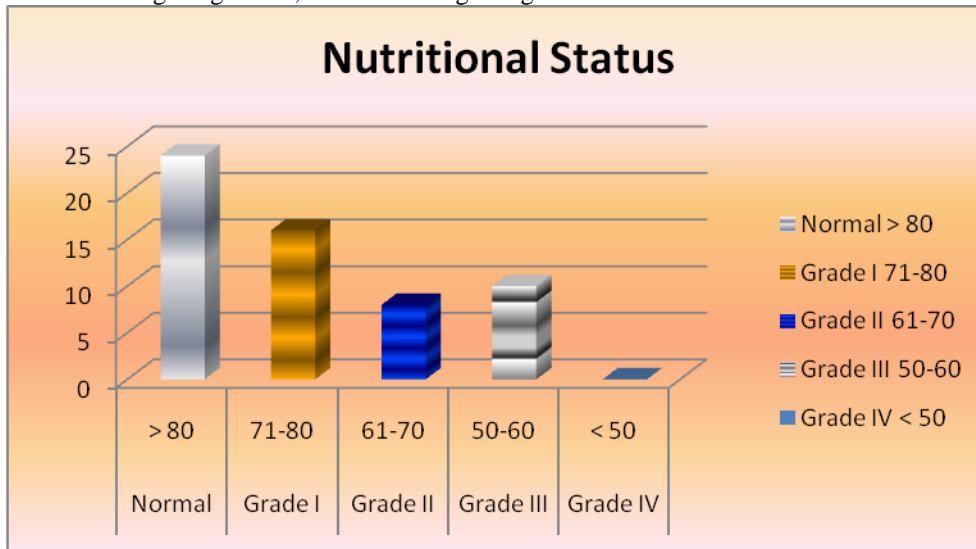

Fig No 4: Simple bar Diagram shows sample distribution according Nutritional status.

Section 4: Correlation between dietary habits with nutritional status

Variables	Mean	S D	R value	significance
Dietary habits	42.31	6.94	0.9942	significant
Nutritional status	75.93	15.54		

Table 5: Shows significant relationship between dietary habits and nutritional status of preschool children.

Section 5: a) Association between dietary habits with selected demographic variables

S.No	Demographic variable	X^2 value	Df	Significance
1	Age	0.84	2	NS
2	Sex	3.69	1	NS
3	Number of siblings	2.21	2	NS
4	Education of father	11.10	5	S
5	Education of mother	5.33	5	NS
6	Type of family	0.61	1	NS
7	Occupation of father	1.98	4	NS
8	Occupation of mother	6.34	3	NS
9	Monthly income	0.47	3	NS
10	Type of house	0.38	1	NS
11	Area of house	0.015	1	NS

S- Significance   NS – Not Significant

Table 6: Shows significant association between education status of father with dietary habits of preschool children.

b) Association between nutritional status with selected demographic variables

S.No	Demographic variable	X^2 value	Df	Significance
1	Age	1.01	2	NS
2	Sex	0.66	1	NS
3	Number of siblings	1.24	2	NS
4	Education of father	1.78	2	NS
5	Education of mother	1.55	3	NS
6	Type of family	1.8	1	NS
7	Occupation of father	0.94	3	NS
8	Occupation of mother	6.47	2	S
9	Monthly income	2.04	3	NS
10	Type of house	3.08	2	NS
11	Area of house	0.33	1	NS

S- Significance   NS – Not Significant

Table 7: Shows significant association between occupation of mother with nutritional status of preschool children.

Recommendations
- A similar study can be conducted for a large samples to generalize the findings for a larger population
- A similar study can be done in different settings
- A similar study can be done in different age group of children.

IV.   Conclusion

The present study shows with small samples that more than 50% of samples belongs to malnutrition, average dietary habits. The study recommends that children need proper assessment for nutritional status regularly and maintain the normal nutrition status.

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[4]   Public Distribution System (PDS); Antyodaya Anna Yojana (AAY) aimed at the poorest one crore [10 million] 'hungry' families; National Programme of Nutritional Support to Primary Education ('mid-day meal scheme'); Integrated Child Development Services (ICDS); Annapurna Scheme for senior citizens; National Old Age Pension Scheme (NOAPS); National Maternity Benefit Scheme (NMBS); and National Family Benefit Scheme (NFBS)
[5]   Supreme Court of India Order of November 28, 2001; Item No. 6, Court No. 2 Section PIL A/N Matter Supreme Court of India Record of Proceedings, Writ Petition (Civil) No 196 OF 2001, People's Union for Civil Liberties Petitioner(s)-Versus-Union of India & Ors. Respondent(s).
[6]   Peter Svedberg** NFHS123rev3 text doc. /2008-11-25/ (revision for ISI conference).