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ORIGINAL ARTICLE

FEEDING METHODS PRACTICED BY MOTHERS AND NUTRITIONAL STATUS OF THEIR CHILDREN: A DESCRIPTIVE SURVEY APPROACH

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ABSTRACT

Background: In many nations, including India, malnutrition is a serious health concern. The majority of children in India are obstructive and underweight, which is primarily caused by incorrect eating habits that can cause illness and disease in the early stages of life.

Methods: Survey approach and descriptive correlative design was conducted at selected areas of Gwalior. Health Belief Model were used as a conceptual framework in the study. A total of 160 mothers and their under-five old children were recruited. Structured questionnaire using structured interview plan tool was utilized. The data was analyzed using Statistical Package for Social Sciences-Version 20.0.

Results: The findings revealed that most of the respondents were in the age group between 26-35 years. Most of the respondents were graduate with house wife as occupation and having joint families. With regard to children more than half belongs to 1-5 years of age group with male and most of them belonged to first in birth order. Education, occupation and income were statistically significant associated with feeding practiced by mother. However, there was positive correlation noted between feeding methods practiced by mothers and selected nutritional parameters like present weight, height and chest circumference.

Conclusion: Mothers have moderate to satisfactory feeding practices whereas there must be needed training with regard to weaning and family diet. Health care workers can use the study's findings to conduct interventional research, which involves investigating and testing different strategies to maintain the nutritional level.

ARTICLE HISTORY

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KEYWORDS

Feeding methods, practices, mothers, nutritional status; children.

Introduction

"Health is like Money; we never have a true idea of its value until we lost it" - Josh Billings

Inadequate food habits in the early years of life have immediate and long-term effects. It is estimated that around one-third of malnutrition occurrences globally are caused by inappropriate child feeding practices.[1] Adequate nutrition is necessary for children›s health, growth, and development during infancy and early childhood, therefore providing optimal nutrition during the first few years of life offers the chance to prevent undernutrition and uncertain growth. Therefore, improving eating practices for children under five should be a top focus on a global scale.[2,3] The World Health Organization (WHO) and the United Nations Children›s Fund (UNICEF) established a global strategy for optimal infant and young child feeding (IYCF) in an effort to reduce child malnutrition. The approach suggests starting nursing as soon as possible after delivery, exclusively for the first six months, and introducing suitable, sufficient, and safe supplemental foods in addition to continuing to breastfeed for at least two years after that. To lessen undernutrition and its effects, advancements in feeding techniques for infants and early children are crucial. If appropriately encouraged and implemented, breastfeeding and supplemental feeding practices can avert up to 19% of all pediatric fatalities in low- and middle-income nations.[4]

According to data from the World Bank, India has one of the highest rates of childhood deficiencies in the world, and the country also wants to see a lot more done to prevent deficiencies. Adolescents who are malnourished are more susceptible to pollution, infection, and common childhood illnesses than well-nourished children. According to recent studies, malnutrition accounts for more than one-third of all deaths in children under the age of five. Lack of nutrition in children significantly impedes India's socioeconomic growth and ability to improve its financial situation. In order to improve breast milk, the World Health Organization (WHO) also suggests supplementary semi-solid foods after the first six months of a baby's life of exclusive nursing.

Methods & Materials

Study design, setting, and sample

Descriptive survey approach with descriptive correlative

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Figure 1. frequency distribution of demographic variables of children.

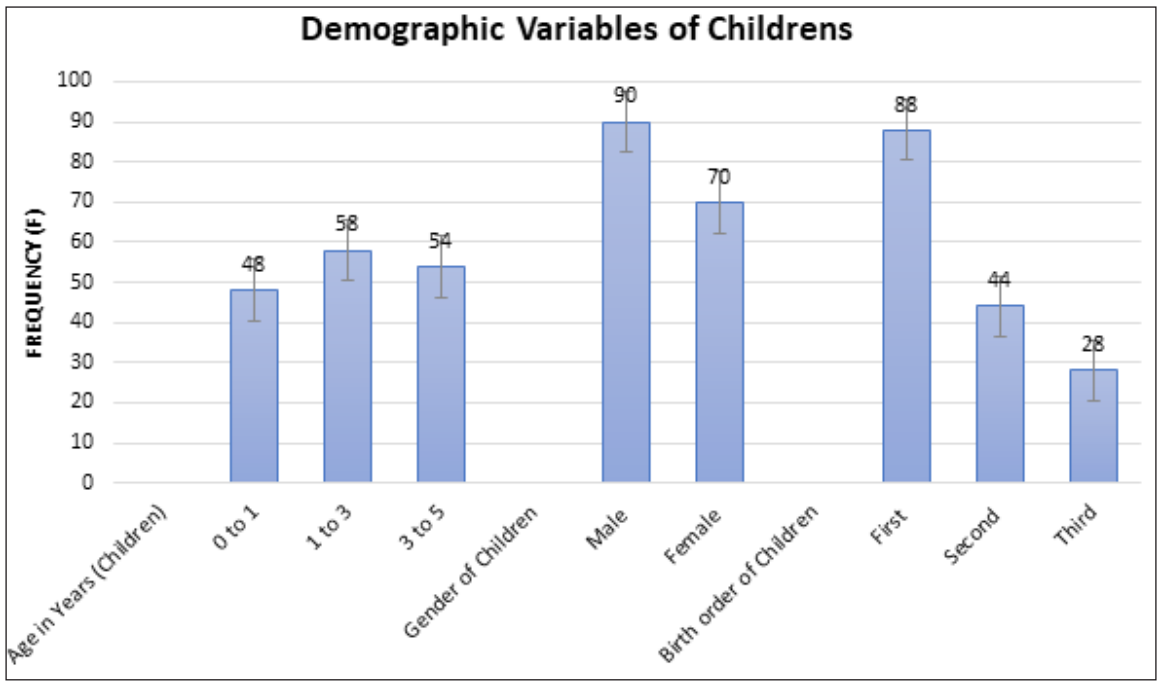
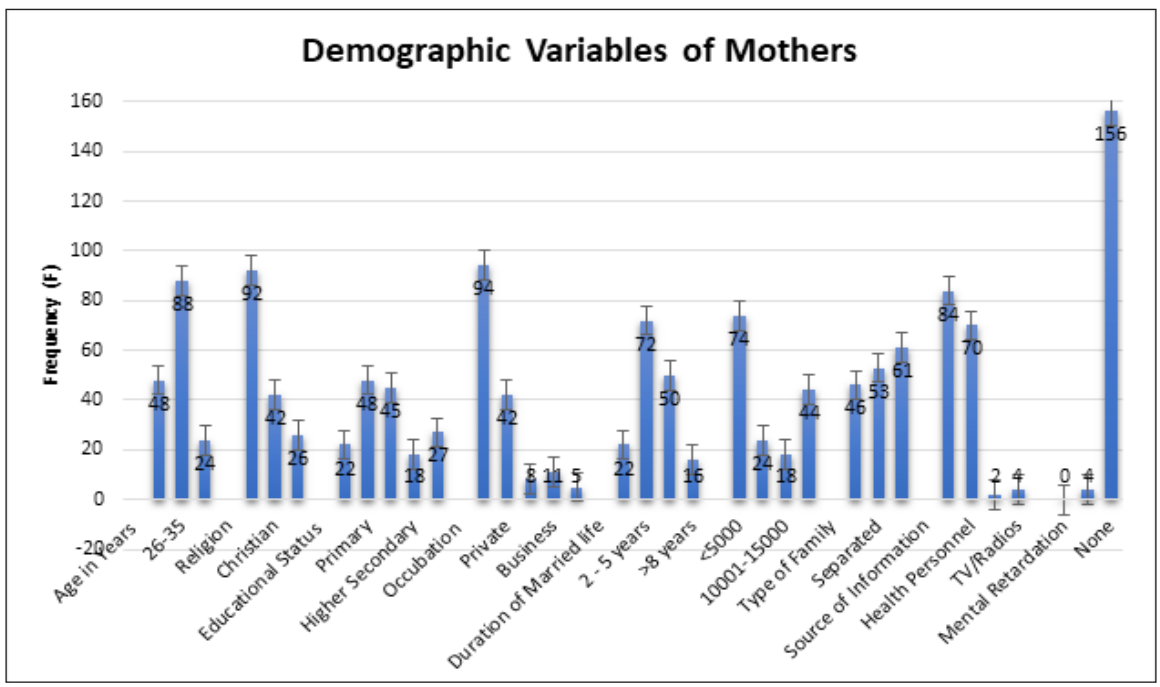


Figure 2. Frequency distribution of demographic variables of mothers.



research design was used at selected area, Gwalior. Mother of reproductive age group between 18-45 years and having children between 0 months to 5 years and who give consent to participate in the study were included. 160 mothers with their children were selected by using simple random sampling technique.

Tools for Data Collection:

Structured interview schedule was comprised of three sections.

Section A: Demographic Variables

The tool's first section consists of thirteen items: nine are about the mothers' background, including age, number of children, religion, education, occupation, length of marriage, family income, type of family, and source of information about feeding practices; the remaining three are about the age, gender, and birth order of the children.

Section B: Checklist

It consists of thirty questions designed to evaluate the feeding practices used by mothers, including family meals, weaning, and breastfeeding. With a maximum score of 30 and a minimum score of 0, the overall score is 30. Every right response received a score of 1, while every incorrect response received a score of 0.

Section C: Measurements of Anthropometry

It comprises of 3 items where the children height, weight and chest circumference.

Validity: To determine whether the tools meet the goal, testing validity was applied to both the designed booklet and the modified tools. the stage created by a panel of twelve nursing and medical specialists.

Reliability: Testing reliability of the proposed tools was done by Spearman Brown's prophecy formula, showed high reliability for the final version of tool was found to be 0.9210.

Field work: Over the course of six weeks, data was gathered and evaluated.

Administrative design: Before beginning the study, formal approval was received from the College of Nursing Ethics Committee, Gwalior, via the Institutional Ethics Committee/Review Board Services (IRB) No. INC/2822217. The subjects provided further written agreement and were guaranteed that the data would only be used for research purposes (confidential).

Statistical design: The Statistical Package for Social Sciences (SPSS) Version 20.0 was used to arrange, classify, tabulate, enter, and analyze all of the data that had been gathered. The distinctions made between the observed differences and associations were classified as either significant (S) $p < 0.05$ or non-significant (NS) $p > 0.05$.

Results

Figure (1): Distribution of the children according to their demographic variables (n=160) which portrays that more than half of the studied children were in age group (in years) of 1-3 and 3-5. Regarding gender of the children, 90 of them were male and 70 were female. Concerning birth year of the children, it was found that more than half of the children had first born. Figure (2): Distribution of the mothers according to their demographic variables (n=160) which portrays that more than half of the studied mothers were in age group (in years) of 26-35. Regarding religion of the mothers, 92 of them belongs to Hindu religion. Approximate half of the mothers were having primary and secondary as educational qualification. More than half of the mothers belongs to house wife occupation. Concerning health problem of the mothers, it was found 4 of them were noted physically challenged. Table (1): shows the mean and standard deviation of the feeding techniques used by mothers, it shows that the average feeding practices used was 19.09, with a standard deviation of 3.66. Figure (3): shows that, in breast feeding practices, none of the mothers fell below the not satisfactory category; 90 mothers had moderately satisfactory feeding practices, and 70 mothers had satisfactory feeding practices. In terms of weaning, 60 mothers had not satisfactory feeding practices, 80 mothers had moderately satisfactory feeding practices, and 20 mothers had satisfactory feeding practices. According to family diet, 82 mothers had feeding habits that were somewhat satisfactory, 4 mothers had satisfactory feeding practices, and 74 mothers had not satisfied feeding practices. Table (2): depicts the Spearman›s correlation between feeding practice scores and a subset of the children›s nourishment data. It indicates that better nutrition parameters are produced by those with a higher level of feeding practice expertise. Feeding practices are positively correlated with children›s height (r=0.1525), weight (r=0.1679), and chest circumference (r=0.1263). Table (3): indicate that feeding practices and demographic factors including wealth, occupation, and education are significantly correlated. Table (4): reveals that there is no significant correlation between the variables of children's and the feeding practices score.

Discussion

In the present study, more than half of the studied children were in age group (in years) of 1–3 and 3-5. Regarding gender of the children, 90 of them were male and 70 were female. Concerning birth year of the children, it was found that more than half of the children had first born. Additionally, more than half of the studied mothers were in age group (in years) of 26-35. Regarding religion of the mothers, 92 of them belongs to Hindu religion. Approximate half of the mothers were having primary and secondary as educational qualification. More than half of the mothers belongs to house wife occupation.

These findings are consistent with previous studies, where 229 (57.3%) of the subjects were male [16], 140 (34.9%) of the mothers were housewives [15], 11 (57%) belonged to nuclear families, and 383 (76.6%) had a poor socioeconomic condition.[5,6]

According to the area-wise classification of respondents, 90 mothers reported that their breast-feeding practices were satisfactory, whereas 20 mothers reported that their weaning practices were satisfactory. Four moms had feeding practices that were satisfactory based on the family diet. On the other hand, conflicting results were found in a related study where mothers were found to be feeding their children poorly.[7]

According to Olatona et al.'s findings[8], there was a statistically significant correlation between mothers' occupation, income, and education and their feeding practices.

Conclusion

Mothers have moderate to satisfactory feeding practices whereas there must be needed training of mothers' practices with regard to weaning and family diet. There was a positive correlation between Occupation, income and education of mothers and feeding practice. The current study will provide vital information for further research on mother knowledge and behaviors as well as feeding practices among children. Health care workers can use the study's findings to conduct interventional research, which involves investigating and testing different strategies to maintain the nutritional level.

Table 1. Area wise analysis of mean and standard deviation of feeding methods practiced by mothers.

n=160					
S. No.	**Area wise analysis**	**Max. score**	**Range**	**Mean**	**SD**
1	Breast feed	9	4-9	5.98	0.74
2	Weaning	10	5-10	7.23	1.06
3	Family diet	11	3-11	5.98	1.86
	Total	30	12-14	19.09	3.66

Figure (3). Area wise classification of respondents on feeding methods practiced by mothers.

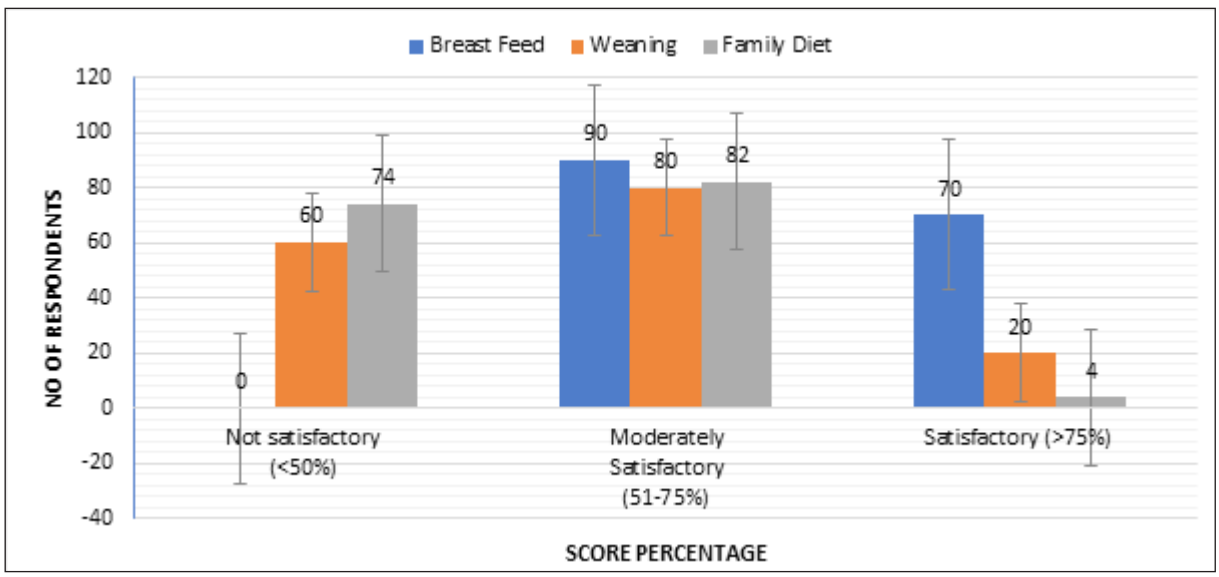


Table 2. Correlation between feeding methods practiced by mothers and selected nutritional parameters of their children.

S. No.	**Spearman's correlation between the scores of feeding methods practiced by mothers and selected nutritional parameters of children**	**Spearman's correlation value**
1	Present weight (kgs)	0.1679
2	Height	0.1525
3	Chest Circumference	0.1263

Table 3: Association between feeding practices and selected variables of children.

n=160

Variable	**Category**	**Feeding practices score**		**Chi-square**	**df**	**Table value**
		≤Median	**>Median**			
Age in Years	18-25	13	11	2.0485	2	5.99
	26-35	23	21			
	Above 35	9	3			
Religion	Hindu	3	1	1.0334	2	5.99
	Christian	17	13			
	Muslim	15	12			

n=160						
Variable	**Category**	**Feeding practices score**		**Chi-square**	**df**	**Table value**
		≤Median	**>Median**			
Educational Status	Illiterate	1	0	**46.268***	4	9.48
	Primary	19	1			
	Secondary	18	4			
	Higher Secondary	5	5			
	Graduation	2	25			
Occupation	House Wife	36	20	**11.853***	4	9.48
	Private	1	0			
	Government	5	14			
	Business	1	1			
	Agriculture	2	0			
Duration of Married life	<2 years	4	7	6.778	3	7.81
	2 - 5 years	22	14			
	5 - 8 years	12	13			
	>8 years	7	1			
Family Income	<5000	29	8	**24.963***	3	7.81
	5001-10000	9	3			
	10001-15000	3	6			
	>15000	4	18			
Type of Family	Nuclear	13	10	0.0292	2	5.99
	Separated	17	13			
	Joint	15	12			
Source of Information	Family Members	25	17	5.061	3	7.81
	Health Personnel	0	2			
	Magazines/ Newspaper	20	15			
	TV/Radios	0	1			

* Significance at p<0.05 level.

Table 4. Association between feeding practices and selected variables of children.

n=160						
Variable	**Category**	**Feeding practices score**		**Chi-square**	**df**	**Table value**
		≤Median	**>Median**			
Age in Years	0 to 1	13	11	0.114	2	5.99
	1 to 3	17	12			
	3 to 5	15	12			
Gender	Male	22	11	2.477	1	3.841
	Female	23	24			
Birth order	First	22	26	5.45	2	5.99
	Second	19	8			
	Third	0	1			

RECOMMENDATIONS

- There needs to be a comparison study done in both urban and rural areas.
- Mothers' practices and educations ought to be emphasized.
- In order to address the issue of undernutrition among newborns and children, healthcare professionals should be able to instruct mothers on the importance of effective hygiene and nutrition.
- A program of video instruction can be set up for mothers as a research study to help them feed better.
- Research can be conducted in many community contexts.

Compliance with Ethical Standards

Funding None
Conflict of Interest None

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