

A STUDY ON INFANT AND YOUNG CHILD FEEDING PRACTICES AMONG MOTHERS OF RURAL AREAS OF ALLAHABAD DISTRICT

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ABSTRACT

In India, breastfeeding in rural areas appears to be shaped by the beliefs of a community, which are further influenced by social, cultural, and economic factors. Malnutrition is often associated with inappropriate feeding practices. The present community based cross-sectional study was conducted to study the attitudes and behavior regarding feeding and weaning practices. Phatua village, of Allahabad District, Uttar Pradesh was selected for the study and four wards randomly selected for the purpose of the study. Information about current status of breast feeding (exclusive breastfeeding and partial breast-feeding/bottle feeding) and weaning practices were obtained from mothers of 100 infants (male-64, female-36) using pre-tested questionnaire. The study revealed that 41 percent of the mothers depend only on exclusive breastfeeding, 38 percent on bottle milk and 21 percent giving emphasis on both. The average duration of breastfeeding was about 12 months or longer. However, weaning was found to be done at very early ages of 4-5 months (three times in a day) and 38.0 percent of mothers admitted to giving water to their babies soon after birth. The most common weaning food used was vegetable juice, banana and cereals mix and mother's had fed the colostrums to their child and had done immunization on given date by health care workers.

Key words: Breast feeding, Weaning, Malnutrition, Rural area, Immunization.

INTRODUCTION

Optimal infant feeding practices include initiation of breastfeeding within one hour of birth, exclusive breastfeeding for the first six months of life and continued breastfeeding after six months for two years or beyond along with appropriate complementary feeding. Weaning includes the time of initiation of solid, semi solid or soft foods, minimum dietary diversity of at least 4 of the 7 food groups, minimum meal frequency according to age group, and minimum acceptable diet received by children other than breast milk According to the national data, in Uttar Pradesh, only 46 percent children 6-9 months receive solid/semi solid foods along with breast milk (Gupta *et al.* 2014).

The World Health Organization (WHO) and UNICEF have developed the Global Strategy for Infant and Young Child Feeding (IYCF), which recognizes appropriate infant feeding practices to be crucial for improving nutrition status and decreasing infant mortality in all countries. WHO offers three recommendations for IYCF practices for children aged 6-23 months: Continued breastfeeding or feeding with appropriate calcium-rich foods if not breastfed; feeding solid or semi-solid food for a minimum number of times per day according to age and breastfeeding status; and including foods from a minimum number of food groups per day according to breastfeeding status (Mukuria *et al.* 2006).

Most of the studies conducted in India have focused on mainly the breastfeeding aspects and not the dietary diversity and diet frequency aspects, which are important in IYCF. The objective of the study was to assess the IYCF practices among the children of Phatua village of Allahabad District.

MATERIALS AND METHODS

Selection of Blocks

Phatua village was selected for the study and in this village four wards (Phatua Katra, Sallahpur, Dhobiyan, Haully) randomly selected for the purpose of study.

Selection of sample

Random sampling procedure was adopted in the study. From the selected wards, 100 infants was randomly selected and were categorized on the bases of age groups (the caloric requirements of an infants is mostly increased for the purpose of growth and development (Srilakshmi, 2007). First group comprises 0-6 months, Second group consist of 6-12 months and Third group includes up to 24 month.

Method of enquiry and Collection of data

Survey method was adopted to collect the data from the selected respondent with the help of developed questionnaire. The lactating women were personally interviewed during the period of study for the collection of required information. The questionnaire included the aspects which led to the fulfillment of the objectives.

The questionnaire was eliciting information on the following.

1. General profile survey
2. Feeding type and practices
3. Frequency of weaning foods

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RESULTS AND DISCUSSION

General information

This section covered aspects including respondent's family type, income, educational status, food habits and position of the child in the family. All these were important for knowing the respondents status.

This *table - 1* shows that out of 100 infants and toddlers, 24 percent belonged to first Group I (0-6 months), 43 percent Group II (6-12 months), and 33 percent were belonged to Group III (up to twenty four months). Nuclear families in selected rural population were lower than the joint families and have a monthly income less than Rs.10,000. 42 percent infants and young children were second child of the family. In selected sample of rural families 24 percent of mothers were illiterate, 18 percent were educated up to J.H.S and 26 percent were literate up to high school. Literate mothers were starting the complementary feeds at the recommended time compared to illiterate mothers (Rao *et al.* 2011).

Table 1: Distribution according to the general information

Particular	Group I (0-6 months) n = 24		Group II (6-12 months) n = 43		Group III (up to 24months) n = 43		Total N = 100
Family Type	Frequency	%	Frequency	%	Frequency	%	%
Joint	20	80.33	29	67.44	22	66.66	71.00
Nuclear	4	16.66	14	32.55	11	33.33	29.00
Income							
>10,000	13	54.16	24	55.81	18	54.54	55.00
10,000-20,000	9	37.50	11	25.58	9	27.27	29.00
<20,000	2	0.083	8	0.18	6	0.18	17.00
Educational status							
Illiterate	10	41.66	5	11.63	9	27.27	24.00
J.H.S	3	12.50	8	18.6	7	30.43	18.00
High School	6	25.00	11	25.59	9	27.27	26.00
Intermediate	4	16.66	15	34.88	6	18.18	25.00
Graduate	1	4.16	2	4.65	1	3.03	4.00
Post Graduate	0	-	1	2.32	1	3.03	2.00
Position of the Child							
First	2	8.33	10	23.25	15	45.45	27.00
Second	13	54.16	22	51.16	7	21.21	42.00
Third	6	25.00	7	26.27	8	24.24	21.00
Fourth	3	12.50	4	9.30	3	9.09	10.00
Food Habit							
Vegetarian	11	45.83	20	46.50	18	54.50	49.00

Table 2 shows that 41 percent of rural samples depends only on breast milk, 38 percent depend only on bottle milk and 21 percent on breast and bottle feeding both. The percentage of mothers who had exclusively breastfed for six months was 50 percent, which was much higher than the 46 percent at national level (Ministry of Health and Family Welfare: NFHS 3, 2007). Mahmood *et al.* (2012) also reported similar findings (77.2 percent) in their study conducted in Bhojipura Block Bareilly district, Uttar Pradesh. In another study Khan *et al.* (2012) studied the diet pattern of children less than 2 years in Ghazipur urban health and training center (UHTC), Delhi with regard to certain infant and young child feeding (IYCF) indicators and reported that exclusive breastfeeding was followed by 57.1 percent of children under 6 months of age.

Table -2: Type of Feeding adapted by mothers

Age groups (months)	Breast Feeding		Bottle Feeding		Breast + Bottle Feeding	
	Frequency	%	Frequency	%	Frequency	%
Group I (0-6 months) n =24	12	50.00	4	16.67	8	37.37
Group II (6-12 months) n = 43	20	46.51	16	37.20	7	16.27
Group III (up to 24 months) n = 43	9	27.27	18	54.54	6	18.18
Mean	41	41.00	38	38.00	21	21.00

Table 3 shows that weaning was found to be done at very early ages. Similar trends were reported by Chudasama *et al.* (2009) in their study conducted in Gujarat. Mahmood *et al.* (2012) also reported similar findings in their study conducted in Uttar Pradesh. Too early or late introduction of complementary feeds is common and is responsible for under nutrition between six and twenty-four months (Ramachandran, 2004).

The *table - 4* clearly shows that on average infants and young children consumed weaning foods three times in a day. Minimum meal frequency (MMF) indicator is the proportion of breastfed and non-breastfed children aged 6-23 months who receive solid, semi-solid, or soft foods (but also including milk feeds for non breastfed children) the minimum number of times or more (WHO 2008). For breastfed children the minimum number of times varies

Table 3 : Feeding practices adapted by mothers

Age groups (months)	Started time in Months							
	After 3rd		After 4th		After 5th		After 6th	
	n	%	n	%	n	%	n	%
Group I (0-6 months) n = 24	2	8.33	10	41.67	9	37.50	3	12.50
Group II (6-12 months) n = 43	3	6.97	12	27.90	17	39.53	11	25.58
Group III (up to 24 months) n = 43	5	15.15	8	24.24	17	51.51	3	9.09
Mean	3.33	10.15	10	30.00	14.33	43.00	5.67	17.00

Table 4: Frequency of weaning foods/day by Infants and Young Children

Age groups (months)	Consumption of weaning foods/day							
	Once		Twice		Thrice		Quarce	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Group I (0-6 months) n=24	2	8.33	9	37.50	9	37.50	4	16.67
Group II (6-12 months) n = 43	3	6.97	11	25.58	18	41.86	11	25.58
Group III (up to 24 months) n = 43	3	9.09	9	27.27	18	84.54	3	9.09
Mean	2.67	8.00	9.67	29.00	15.00	45.00	6.00	18.00

with age (two times if 6-8 months and three times if 9-23 months). For non breastfed children, the minimum number of times does not vary by age (four times for all children aged 6-23 months). MMF was observed in about one-half (48.8%) of children aged 6-24 months. Similar finding was observed by **Khan et al. (2012)** about 48.6%. The majority (82%) mothers had initiated weaning with home-made food. Rice, banana and vegetable juice were the most common home-made complementary food used.

CONCLUSION

One potential limitation of this study could be the small localized population. The weaning practices adopted for rural infants and young children are satisfactory. Rural mothers are more aware about the feeding practices of infants and young children at present time and valuable colostrums had been fed by the mothers to their children. Despite the higher rates of early initiation of breastfeeding and exclusive breastfeeding, there was low awareness of the benefits of exclusive breastfeeding and use of over diluted and overcooked weaning foods among these families.

RECOMMENDATION

Hence, it is necessary to permeate that weaning foods quality is utmost important as amount and frequency. Emphasis should be given on the need for improving the dietary quality of weaning foods and the inclusion of all food groups' namely, dairy products, legumes and nuts, flesh foods, eggs, vitamin A rich fruits and vegetables, cereals and tubers, and other fruits and vegetables.

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