



A COMPARATIVE STUDY OF COMPLIMENTARY FOOD PRACTICES IN CENTRAL INDIA

Community Medicine

J. S. Meena

Designated Associate Professor, Community Medicine Department, Gandhi Medical College, Bhopal.

Rajendra Mahore*

Demonstrator, Community Medicine Department, Gandhi Medical College, Bhopal.
*Corresponding Author

ABSTRACT

The WHO recommends the offering of complementary foods from the age of six months onwards. (31) Complementary feeding is extremely essential from six months of age, while continuing breast feeding, to meet the growing needs of the growing baby. Infants grow at a very rapid rate. The rate of growth at this stage is incomparable to that in later period of life. An infant weighing around 3kg at birth doubles its weight by six months and by one year the weight triples and the body length increases to one and a half times than at birth. Most of the organs of the body grow rapidly, both structurally and functionally during the early years of life and then later on, the growth slows down. Most of the growth in the nervous system and brain is complete in the first two years of life. In order to achieve optimum growth and development, there is an increased demand for a regular supply of raw material in the form of better nutrition.

KEYWORDS

complementary foods, infant, growth, breastfeeding

INTRODUCTION

The WHO recommends the offering of complementary foods from the age of six months onwards.¹ Complementary feeding is extremely essential from six months of age, while continuing breastfeeding, to meet the growing needs of the growing baby. Infants grow at a very rapid rate. The rate of growth at this stage is incomparable to that in later period of life. An infant weighing around 3kg at birth doubles its weight by six months and by one year the weight triples and the body length increases to one and a half times than at birth. Most of the organs of the body grow rapidly, both structurally and functionally during the early years of life and then later on, the growth slows down. Most of the growth in the nervous system and brain is complete in the first two years of life. In order to achieve optimum growth and development, there is an increased demand for a regular supply of raw material in the form of better nutrition. Breast milk is an excellent food and meets all nutritional requirements of the baby for the first six months. However, after six months of age, breast milk alone is not enough to make an infant grow well, other foods are also needed. This is because the infant is growing in size and its activities are also increasing. As a result the nutritional needs of the infant increase significantly at this age. Complementary feeding should be started at six months of age. The purpose of complementary feeding is to complement the breast milk and make certain that the young child continues to have enough energy, protein and other nutrients to grow normally. It is important that breastfeeding is continued upto the age of two years or beyond as it provides useful amounts of energy, good quality protein and other Nutrients. Adequate complementary feeding from six months of age while continuing breastfeeding is extremely important for sustaining growth and development of the infant. Active feeding styles for complementary feeding are also important. Appropriate feeding styles can provide significant learning opportunities through responsive caregiver interaction, enhancing brain development in the most crucial first three years. Adequate complementary feeding between six months to 24 months could prevent an additional 6% of all such death.² This means that extending coverage of exclusive breastfeeding and complementary feeding could save over 450,000 child death each year in India (Planning Commission 2007).²

METHODS.

Study Design - The design of the study is "Community based descriptive cross sectional study". The study was planned to conduct in Urban health Centre and Rural health Centre of Gandhi Medical College, Bhopal between 1st Nov. 2007 to 31st Oct. 2008. A semi-structured questionnaire was prepared by taken into account about following variables: - Socio-demographic variables

- Knowledge & attitude about supplementary feeding
- Practices of supplementary feeding

After consideration of 'ethical issue' a pilot study was carried out & necessary corrections had been done. List of 'subject'(mothers) were prepared with the help of health care provider. Now those subjects

were interviewed by their home visits. Data analysis was done with the help of Microsoft excel.

Study area –

1. Six wards of Urban health Centre of Gandhi Medical College ,Bhopal
2. Twenty three villages of block obedullaganj of Rural health Centre of Gandhi Medical College, Bhopal

Period of Study - Study was undertaken from the month of November 2007 to October 2008 for the period of 1 year.

Sample Size: Assumption the percentage of infant (0-12 months) 2.92% in a given population. As the catchment area population is- (33000 of RHTC and 44000 of UHC) = 77000

So the total proposed no of infant = 2248

Taking the 20% of the total proposed no of infant sample comes in 449.6 ≈ 450

Sampling Method

Stratified random sampling used to sample the population both in urban and rural area.

RESULTS:

TABLE – 1: Age wise distribution of mother

S.N	Mothers Age in year	Rural		Urban	
		N.o	%	N.o	%
1	15-17	4	1.7	-	-
2	18-20	43	19.1	24	10.6
3	21-23	90	40	79	35.1
4	24-26	52	23.1	70	31.1
5	>26	36	16	52	23.1
Total		225	100	225	100

A total of 47 (20.8%) mothers below 21 year age in rural as compared to only 24 (10.6%) in urban area , In contrast 39.1 mothers were above 24 year age group in rural area in compared to 45.2 in urban area. Age difference of mothers in rural and urban area were significant (Chi-square = 15.7; degrees of freedom = 4; probability = 0.003)

Table-2: Religion wise distribution of subjects under study

S.NO	RELIGION	Rural		Urban	
		NO.	%	No	%
1	Hindu	173	76.8	117	52
2	Muslim	41	18.2	98	43.5
3	Christian	11	4.8	8	3.5
4	Other	-	-	2	.8
Total		225	100	225	100

Table-3: Knowledge among lactating mothers about initiation of the top feeding.

S.NO	Time of initiation of the top feeding	Rural		Urban	
		NO	%	No	%
1	< 6 month	89	39.5	72	32
2	6-7 month	63	28	74	32.8
3	>7 month	73	32.4	79	35.1
Total		225	100	225	100

This table shows that 28% mothers in rural and 32.8% in urban area started top feeding at recommended period i.e. 6-7 month. Overall we did not detect any significant rural urban difference regarding knowledge about the initiation of top feeding.

Table-4: Practice regarding supplementary feeding

s. no		Rural		Urban		
		NO.	%	No	%	
1	Age of starting supplementary feeding at recommended time according to IMNCI	Yes	52	23.1	56	24.8
		No	173	76.8	169	75.1

23.1% study subject in rural area and 24.8 % in urban area started supplementary feed to their infant at appropriate time (i.e. 6 to 7 month) this study find insignificantly in view of urban and rural supplementary feeding practices

Table-5: Chief articles used for supplementary feeding.

s. no	supplementary foods	Rural		Urban	
		NO.	%	No	%
1	Top milk Cow/goat/powder milk	99	44	77	34.2
2	Homemade top food Tea/dal/rice/roti	101	44.8	96	42.6
3	Marketed top food Biscuit/fruit juice etc.	25	11.1	52	23.11

44 % mother in rural area in contrast to 34.2 % mothers in urban area used any form of milk (supplementary food) ($Z = 2.029$) while homemade top food and other advocated food were used equally (44.8 % in rural areas and 42.6 % in urban areas) ($Z = 0.381$) still there was a huge difference in consumption of marketed top food (11.1 % Vs 23.1 % $Z = 3.254$) in urban and rural area these difference was significant.

DISCUSSION:

Chatterjee S¹(2008) et al in their study found that in Calcutta that mothers had correct knowledge about "age of weaning" and 87.27% about "weaning foods ". Age of initiation of weaning was more than 6 months in 70.59% children. Anju Aggarwal² (2008) et al 200 children studied, 32(16%) were not started on CF at all, and only 35 (17.5%) received CF from 6 months. Of the 168 who were started CF, mean age of starting feeds was 13.37 months. Quantity was adequate in 42(25%) and consistency of food was thick in 64(38%) cases. Only 7(3.5%) mothers started CF at proper time, in adequate quantity and with proper consistency. Knowledge of proper timing was present in 46% of children, adequate quantity in 46.5% and thick consistency in 25.5%. Only 16(8%) mothers had proper knowledge of all three aspects of CF. Knowledge regarding appropriate timing and consistency varied significantly with maternal education and paternal education. Most common reason for inappropriate practice in 154 mothers who delayed feeds was "tried but did not eat, vomits everything" (52%). Chaturvedi M⁶ (2007) et al found that 20% children had received complementary feeds at the right age, that is, at 6 months of age. In the urban area, 23% children had received complementary feeds at the correct age, this percentage being low, 18.5%, for the rural children..

CONCLUSIONS

Maximum mother 40% in rural 35.1% mothers in urban area age group 21-23 year. Maximum subjects were Hindus both in rural (76.8%) and urban (52%) areas although Muslim subjects were comparatively higher in urban area (43.5%) contrast to rural area (18.2%). 22.2% rural subjects and 23.5% urban subject breast fed their infants equal to 6 month. In rural area mostly mothers (39.5%) initiating top feeding less 6 month age of infant and urban area most of mothers (35.1%) initiating top feeding more than 8 month of infant age. 23.1% study subject in rural area and 24.8 % in urban area started supplementary feed to their infant at appropriate time. Top milk Most common supplementary food 44.8 % mother in rural area contrast to 42.6% mothers in urban area used.

Suggestions

A programme to educate the mothers must be carried out by health care personnel with emphasis on the importance of feeding colostrum, exclusive breast-feeding during first 6 months of life followed by breast-feeding with supplementation and mothers of lower socioeconomic groups need to be targeted in the information, education and communication strategy for promotion of breast-feeding

REFERENCES:

- [1] World Health Organization. Global strategy on infant and young child feeding. Geneva: World Health Organization; 2001
- [2] Kishore J. (2007) : National Health Programme of India; 7th Edition; Century Publication; New Delhi, pg 121.
- [3] National Guidelines on infant and young child feeding Ministry of Women and Child development (Food and Nutrition board) Government of India 2006
- [4] Chatterjee S. A Study on knowledge and practice of mothers regarding infant feeding and nutritional status of under-five children attending immunisation clinic of a medical college the internet J Nutrit Wellness. 2008;5(1):1937-8297.
- [5] Aggarwal A, Verma S, Faridi MMA, Dayachand. Complementary feeding-reasons for inappropriateness in timing, quantity and consistency. Indian J Pediatr. 2008;75:49-53.
- [6] Chaturvedi M, Nandan D, Gupta S C. Rapid assessment of infant-feeding practices in Agra district. Indian J Community Med 2007;32:227