

Original article:

A study on complementary feeding and hand-washing practices in mothers having children from 6 to 23 months of age in urban slums of Silchar, Cachar, Assam

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ABSTRACT

Background- Breast feeding along with complementary feeding is essential for growth and nutritional development of the child. Weaning if done properly and timely along with breast feeding can prevent malnutrition in children. The study was done to assess the weaning and complementary feeding practices and also to make the mother aware of handwashing practices.

Methodology- A descriptive cross-sectional study is done among 200 mothers having children between 16-23 months in urban slums of Silchar, Cachar, Assam. A structured schedule having open and closed ended Predesigned, Pretested questionnaire. The data was compiled in a excel sheet and statistical analysis done with instant graph pad trial version.

Results: 37.5% of study population take Rice/wheat powder or semolina with milk. 32.5% has exclusive breast feeding diet.

Conclusions: Exclusive breast along with complementary food practices has an impact to meet those needs. An infant of this age is also developmentally ready for other foods.

INTRODUCTION

The first two years of life is the critical period for a baby to grow and develop. (1) Infants and young children are at an increased risk of malnutrition from six months of age onwards, when breast milk alone is no longer sufficient to meet all their nutritional requirements and so along with breast milk (semi-solid food) complementary feeding should be started. The 6-24 months period is significant due to the fact that as the child is introduced to solid foods other than breast milk which has nutritional developmental and health benefits. (2) After six months of age, to meet all of the child's nutritional requirements, breast milk needs to be complemented by other semi-solid foods. (3) Proper implementation of recommendations for breastfeeding and complementary feeding will respectively prevent 13 per cent and 6 per cent (total 19%) deaths in under-five age group. The WHO has recommended that exclusive breast feeding for 6months along with complementary feeding is the optimum feeding practices. (4) Complementary food initiation may be early or delayed. Untimely initiation of complementary feeding is usually due to lack of knowledge among the mothers. (5)

The quality of the complementary food given is also not adequate in many situations. It generally covers the vulnerable period i.e. 6 to 16-24 months of age. All infants should receive food along with mother's breast milk from 6 months onwards. The complimentary food should provide with sufficient energy, protein and micronutrients to cover an infant energy and nutritional needs. It should be in adequate amounts, frequency, consistency and should have a spectrum of food items to meet the nutritional demand of the child. Moreover, it is a sad picture when we

find the NFHS -4 FACT SHEET that the timely complementary feeding rates have gone down from 52.6 per cent (2005-06) to 42.7 per cent (2015-16). (6) According to WHO, an infant at 6 months of age should be started with complimentary feed along with breast milk, initially 2-3 times a day between 6-8 months, increasing to 3-4 times daily between 9-11 months and 12-24 months of infant should be given additional nutritional snacks 1-2 times per day.

Despite availability of the foods, inappropriate feeding practices and low quality of the complimentary food are great determinants of complimentary feeding. (7) Energy density of the complimentary foods decide the actual amount of the food required and the energy density of complimentary foods should be higher than breast milk , atleast 0.8 kcal per gram.

AIM- To study the weaning , complementary feeding and handwashing practices among mother having children from 6 months to 23 months.

Objective- To assess the knowledge on weaning and hand washing practices.

MATERIALS AND METHODS-

Study Setting- Urban slums of Silchar, Cachar

Study Area- Under Sonai Block PHC

Study Design- Descriptive Cross sectional study

Study Population- Mothers having children from 6 months to 23 months

Sample size- 200

Study tool- Pretested Predesigned structured schedule

Duration of the study- April 2018 to august 2018

Sampling Design- Purposive

Study technique- Direct interview

METHODOLOGY-

A Descriptive Cross-sectional study was conducted in a rural setting in one of the urban slums of Cachar district. The present study was conducted from APRIL 2018 to June 2018 in a rural setting Informed consent was obtained from all mothers. A sample size of 200 rural mothers who fulfilled the criteria of having at least one child less than 2 years were included by purposive sampling technique. Ethical Clearance was obtained from the institutional ethics committee for this study. The consent was taken from the participants and they were assured of confidentiality. A community based study is conducted to determine the complementary feeding practices of children 6 to 23 months in rural areas of Cachar. Few studies have been conducted on breast feeding and weaning practices .The list of villages under each block has been obtained from the office of the Additional Chief medical and Health officer. A structured, Pretested and Predesigned questionnaire was used to collect information on the sociodemographic profile (age, religion, type of family, parent's education, occupation, and income, details on the initiation and duration of breastfeeding, artificial feeding and weaning practices, time and initiation of weaning. Data collection was done

personally by interviewing the subjects with a proforma or questionnaire and filled accordingly in the interview schedule. Modified B.G. Prasad's classification (2019) based on per capita monthly income, was applied to measure the individual's socioeconomic status. The individuals were categorized into upper, upper-middle, middle, lower-middle, and lower classes. Detailed information on background and socio-economic information, age of initiating weaning food, type of weaning recipe, frequency of preparation and feeding of weaning food was collected. Information on food taboos was also obtained.

A questionnaire for structured interview to assess existing knowledge, attitude and practice of subjects on breastfeeding and weaning was formulated.

RESULTS:

The collected data were analyzed using descriptive and inferential statistics. Percentage, standard deviation, chi-square test and students 't' test were commonly used.

Table 1: Distribution according to the Socio-economic Status of the family

CLASS	PER- CAPITA INCOME	NUMBER	PERCENTAGE
I (Upper class)	≥ 6186	54	22.72
II (Upper middle class)	3093-6185	45	29.72
III (Middle class)	1856-3092	48	20.63
IV (Lower middle class)	928-1855	35	11.19
V (Lower class)	<927	56	15.73

NB-The above table is according modified B G Prasad s classification of socioeconomic status of consumer price index

Comment- Most of them belong to upper middle class with average per capita income i.e. 3093-6185.

Table 2: Distribution of infants according to the Weight

Age of the baby in months	NUMBER	PERCENTAGE	S.D
6 completed months	34	17	-16
7-9months	65	32.5	15
10-12months	71	35.5	21
12-23months	30	15	-20
TOTAL	200	100	
MEAN	50		

Comment- Maximum number of babies belong to age group of 10-12months i.e.(35.5%) and Minimum belongs to age group of 12-23 months with maximum deviations.

Table 3: Distribution of Infants according to age

Weight(in Kg)	Number of infants	Percentage(%)	S.D
2-4	73	36.5	6.333333
5-7	82	41	15.33333
8 – 10	45	22.5	-21.6667
Total	200	100	
Mean	66.67		

Comment- 41% . Of the children had weight between 5-7 g

Table 4: Distribution of Under-weight children among different age groups

AGE GROUP	NO. OF INFANT	NO. OF UNDERWEIGHT CHILDREN	PERCENTAGE OF UNDERWEIGHT CHILDREN(%)	S.D
6 completed months	57	15	26.3	-2.33
7-9 months	72	16	22.2	-1.33
10-12 months	78	21	26.9	3.67
TOTAL	180	52	28.88	
MEAN	60	17.33		

Comments- 28.88 % of all the infants are underweight and 26.9% of underweight children belongs to age group

Table 5: Distribution of mothers according to type of hand washing practices

Knowledge on hand washing	Mothers/caregiver	Percentage(%)
yes	176	88
No	24	12
Total	200	100
Frequency of hand washing	Mothers	

1-3times	147	73.5
4-6times	53	26.5
Total	200	100
Soap with water	58	38.1
Plain water	86	56.5
Mud /ash with water	35	23
Total	152	100

Comments- 88% of the mothers are aware of hand washing and maximum percentage i.e. 56.5% washes hand with plain water for 1-3 times in a day

Table 6- ASSOCIATED MORBIDITY

	NUMBER	PERCENTAGE	S.D
Regurgitation	36	29.7	-7.66
Infection	27	22.3	-16.66
Diarrhoea	68	56.1	24.34
Total	121	100	
MEAN	43.66	36.03	

Comments- 56.1% of the children suffered from diarrhoea

Table 7: Distribution of mothers according to the complementary food.

Type of food	Number	Frequency
Rice/ wheat powder or semolina with milk	75	37.5
Cow milk/goat	43	21.5
Mashed food/Khichdi	64	32
Commercial milk formula(bottle fed)	18	9
Total	200	100

Frequency of food		
1-3times	84	42
4-6 times	61	30.5
>6 times	55	27.5
TOTAL	200	100
Nature of the food		
Supplementary food	52	26
Only breast feeding	65	32.5

Comments-37.5% of study population take Rice/wheat powder or semolina with milk. 32.5% has exclusive breast feeding diet.

DISCUSSION

The foods should be prepared and fed in a safe manner which means that it should reduce the contamination with pathogens. Eating solids and learning to drink from a cup are important social achievements. The optimal approach of weaning matches the needs and requirements of a given child with the function and capacities of his body. (8) One of the major causes of infant mortality is malnutrition. It is high at the time of weaning due to rapid onset of infection and diarrhea. (9) Weaning is not sudden withdrawal of child from the breast. It is a gradual process starting around the age of 6 months because the mother's milk alone is not sufficient to sustain growth beyond 6 months. It should be supplemented by suitable foods rich in protein and other nutrients. These are called "supplementary foods". The weaning period is the most crucial period in child development, for during the weaning process children are particularly exposed to the deleterious synergistic interaction of malnutrition and infection. Weaning, if not done properly, is often followed by diarrhoea and months of growth failure leading to kwashiorkor, marasmus and immunodeficiency marked by recurrent and persistent infections which may be fatal. (10) A very good first food to give a baby, along with breast milk, is a soft, thick, creamy porridge, made from the staple food of the community. Every community has a main staple food. It is often the first food that people think of when asked about their diet. The staple food contains starch, and it is eaten by most of the people in the community at most meal. It is usually less expensive than other types of food. (11)

Hand washing (clean hand saves lives) is defined as physical removal of microorganisms from the hands using soap (plain or antimicrobial) and running water. According to WHO estimates, 3.8 million children aged less than five die each year from diarrhoea and ARI. An estimated 88% of diarrheal deaths worldwide are attributable to unsafe water, inadequate sanitation and poor hygiene (8). Clean water and hand washing are viewed as the most cost effective intervention for preventing diarrheal diseases and ARIs. According to WHO, proper handwashing was defined as washing hands with soap and water (HWWS) thoroughly following the five critical moments i.e. after defecation, after cleaning the child's bottom who had defecated, before cooking, before eating and before feeding the child. Half of all the child deaths occur each year are due to diarrhoea and acute respiratory infections, both of which are

transmitted from person to person during everyday interaction, through droplet and airborne spread, through skin contact and through contamination of the environment.(12)

The present study reflect the poor knowledge and faulty practice of mothers in exclusive breast feeding as well as initiation of complementary feed .The result of this study show that only a few percentage of mothers started complementary feeding at completion of 6months.There was lack of knowledge in exclusive breast feeding ,initiation of complementary food frequency and type of food to be given to a child for proper nutrition and development None of the mothers were aware about the proper handwashing steps. Soap was not used during handwashing in about 64% mothers. 53% of the infants suffered from diarrhoea during the weaning period.Education of mother, per capita income of family have a great role in proper weaning practices. The infection related to children were malpractices are not proper due to lack of information about the method and their utility for the health of the infant.Handwashing practice with soap and water was totally neglected and mothers did not have any knowledge about the viral diseases associated with dirty hands. Awareness about Infant and Young Child Feeding practices has to be increased among the health personnel, in mothers and in public and private sectors.The mother should take extra care during the weaning period so that the child demand for breast milk as well as supplementary food is met.The importance of timely feeding as well as providing energy dense nutrient rich food should be explained to the mother or caregiver.

CONCLUSIONS:

Exclusive breast along with complementary food practices has an impact to meet those needs. An infant of this age is also developmentally ready for other foods..

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Ethical consideration-The permission has been sought from Institutional Ethics committee of Silchar Medical College.

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