

Factors Affecting Exclusive Breastfeeding and Complementary Feeding Practices among the Mothers of Children between Age Group of 12 to 23 Months in Udaipur, RajasthanMohnish N. Tundia¹, Dhara V. Thakrar¹, Bhawarlal L. Vyas²¹Assistant Professor, Community Medicine Department, American International Institute of Medical sciences, Udaipur, Rajasthan, India²Professor, Community Medicine Department, American International Institute of Medical sciences, Udaipur, Rajasthan, India**Correspondence** : Dr. Dhara V. Thakrar, E mail: drdharathakrar@gmail.com**Abstract:**

Introduction: Poor feeding practices are a major threat to social and economic development. Not breastfeeding significantly increases risk for a large number of acute and chronic diseases including lower respiratory infection, ear infections, bacteraemia, bacterial meningitis, urinary tract infection, and necrotizing enterocolitis. This study will provide evidence about factors affecting exclusive breastfeeding and complementary feeding practices and will highlight level of problem in community. **Aim and Objective:** To find out various factors affecting Exclusive Breast Feeding (EBF) & complementary feeding practices among the mothers of Udaipur city. **Method:** A total of 210 mothers were interviewed who were randomly selected from the outpatient department over a period of 6 months in this cross sectional study. An oral consent was taken from the participating mothers. **Results:** Out of total, 69.05% mothers gave prelacteal feeds to their babies. 54.76% of mothers had initiated breast feeding within 1-4 hour of birth. Only 33.81% babies were given exclusive breast feeding for six months. 17.14%, 13.81% and 22.38% mothers were counselled about breastfeeding by local health worker, doctor and relatives respectively, while 46.67% were not counselled at all. **Conclusion:** Prelacteal feeds was given in nearly two third of babies. Only one third mothers gave colostrum to their babies. Exclusive breastfeeding was received by only one third babies. Less than 10% of babies were breastfed for 2 years. The association was statistically significant between exclusive breastfeeding and factors like place of delivery, numbers of Antenatal visits, education and occupation of mother

Keywords: Exclusive Breastfeeding, Mother, Prelacteal Feed**Introduction:**

Good nutrition is vital to ensure that the infant develops both physically and mentally to the fullest potential. Poor feeding practices are a major threat to social and economic development. Scientific research, such as the studies summarized in a 2007 review for the U.S Agency for Healthcare Research and Quality (AHRQ) and a 2007 review for the WHO (World Health Organization), have found numerous benefits of breastfeeding for the infant. According to the American Academy of Paediatrics, research shows that breast feeding provides advantages with regard to general health, growth, and development. Not breastfeeding significantly increases risk for a large number of acute and chronic diseases including lower respiratory infection, ear infections,

bacteraemia, bacterial meningitis, urinary tract infection, and necrotizing enterocolitis.^[1] Previous studies have demonstrated that, there is a possible protective effect of breast milk feeding against sudden infant death syndrome, insulin-dependent diabetes mellitus, Cohn's disease, ulcerative colitis, lymphoma, allergic diseases, digestive diseases, and a possible enhancement of cognitive development.^[2] Poor infant feeding practices and their consequences are one of the world's major problems and a serious obstacle to social and economic development. It is not only a problem of the developing world, it occurs in many parts of the developed world as well.^[3]

Today, malnutrition is a major public health problem in India. Malnutrition is not only influenced by factors, such as poverty, lack of health care,

unsanitary conditions, lack of food, but also by social, & cultural factors including poor caring practices & behavior of mother regarding breastfeeding & complementary feeding practices.^[4] The link between malnutrition and infant feeding has been well established. In spite of implementation of national guidelines of Infant & Young Child Feeding (IYCF) practices in India, rate of exclusive breastfeeding and complementary feeding are still poor. According to NFHS 4, only 55% children were exclusively breast fed & only 43% children were started complimentary feeding between 6-9 months at national level.^[5] The Government of India for the first time had included specific goals to improve infant feeding practices for reducing the Infant Mortality Rate (IMR), malnutrition and promoting integrated early child development in the 10 th Five-Year Plan. It also aimed to increase the rate of initiation of breastfeeding within 1 h to 50% from the current level of 15.8%, and to increase the exclusive breastfeeding rate to 80%

during the first six months from the current level of around 41%.^[6]

This study will provide evidence about factors affecting exclusive breastfeeding and complementary feeding practices and will highlight level of problem in community and thus will help health planner and policy makers to channelize resources to address this problem at community level.

Aim:

To find out various factors affecting exclusive breastfeeding & complementary feeding practices among the mothers of Udaipur city.

Objectives:

1. To study the pattern of breastfeeding & complementary feeding practices among lactating mothers of Udaipur city.

Table 1 : Factors affecting Breastfeeding Practices

Affecting factors	Frequency(No.)	Percentage (%)
Time of initiating breast feeding		
Within 1 hr. of birth	78	37.11
Between 1-4 hr. of birth	115	54.76
Between 1-3 days	17	08.09
First breast completely emptied before putting baby on other breast	84	40.00
Prelacteal feeds		
Yes	145	69.05
No	65	30.95
Type		
Sugar water	66	45.52
Honey	53	36.55
Castor oil	07	04.83
Cow/buffalo milk	19	13.10
Colostrum given		
Yes	74	35.24
No	136	64.76

2. To identify various factors affecting breastfeeding & complementary feeding practices.

Method:

A cross-sectional study was conducted on mothers of children between age group of 12 to 24 months, attending an Urban Health Training Centre running under American International Institute of Medical Sciences, Udaipur, Rajasthan. Ethical committee approval was taken to carry out study. An oral consent was taken from the participating mothers. A total of 210 mothers were interviewed who were randomly selected from the outpatient department over a period of 6 months. A structured, pretested and

predesigned questionnaire was used to collect information on the socio-demographic profile (age, parent's education, occupation etc.), details on the initiation and duration of breastfeeding and weaning practices. Illiterate mothers were asked to answer the questions orally and were filled in by volunteers.

Results:

Table 1 shows that out of all mothers, 37.11%, 54.76% and 08.09% had initiated breast feeding within 1 hour, between 1-4 hour of birth and between 1-3 days of birth of baby, respectively. About 40% mothers emptied first breast completely before putting baby on other breast. Out of total, 69.05%

Table 2: Distribution of mothers according to their feeding practices

Feeding practices	Frequency(No.)	Percentage (%)
Exclusive breast feeding for 6 months		
Yes	71	33.81
No	139	66.19
Duration of Breast feeding		
6 months	23	10.95
12 months	108	51.43
18 months	63	43.45
24 months	16	07.62
Initiation of complementary feeding		
6 months	128	60.95
12 months	72	34.29
18 months	10	04.76
Feeding during illness		
Continued	127	60.48
Discontinued	83	39.52
Counselor whose advices were followed by beneficiary		
Local health worker	36	17.14
Doctor	29	13.81
Relatives	47	22.38
Not counseled	98	46.67

mothers gave Prelacteal feeds to their babies. In Prelacteal feeds, 45.52%, 36.55%, 4.83% and 13.10% mothers gave sugar water, honey, castor oil and cow/buffalo milk to their babies respectively. 35.24% mothers gave colostrum to their babies.

Table-2 shows that 33.81% babies were given exclusive breast feeding for six months. 7.62%, 10.95%, 43.45% and 51.43% babies were breast fed for 24, 6, 18 and 12 months respectively. Complementary feeding was initiated at 6 months in 60.95% babies while it was initiated at 18 months in 04.76% babies. 60.48% mothers continued feeding during illness of babies. In our study, 17.14%, 13.81% and 22.38% mothers followed the advises of local health worker, doctor and relatives respectively about breastfeeding, while 46.67% were not counselled at all.

Table 3 shows that Exclusive breastfeeding was more in hospital delivery (68.05%), than home delivery (15.94%), and the difference was highly significant ($p < 0.00001$). Out of total hospital delivery, 38(53%) were normal and 34(47%) were done by cesarean section. EBF had more in those mothers who had >4 ANC check up (70.31%) as compared to <4 ANC check ups and the difference is also highly significant ($p < 0.00001$). Proportion of EBF babies was different in different religion but difference was not statistically significant. In primi mothers, proportion of EBF (37.88%) were more as compared to multipara but the difference was not significant. Those who highly educated had given EBF (46.15%) up to 6 months in comparison with lower education and difference was statistically significant ($p = 0.007$). Almost similar proportion of EBF (32.35%, 33.33%, 35.48%) were seen in different age of mother (<19 , 20-29, >30 respectively). EBF were seen more in socio economic class 1 & 2 (39.58%) as compared to other class but the difference was not significant. Housewives had more EBF (53.41%) as compared to working women and the difference was highly significant ($p < 0.00001$).

Discussion:

This study was conducted on mothers of children between age group of 12 to 24 months, attending an Urban Health Training Centre running under

American International Institute of Medical Sciences, Udaipur, Rajasthan. In our study, 37% of infants were fed within 1 hour of birth and while 17% were fed within 1 day. A study done by Patricia et al. revealed that 11.6% infants in urban area and 9.4% infants in rural area were put to breast within the first hour; 33.3% infants in urban area and 25.6% infants in rural area were breastfed within the first day.^[7] More than half of the infants in our study initiated breastfeeding within 1-4 hours and one third were fed with colostrum, while study from the Nepal showed that most of the infants initiated breastfeeding within 24 hours and were fed with colostrum.^[8] Only 35% of the mothers gave colostrum in Patil et al. study from Karnataka.^[9]

In our study, almost two third of infants had given prelacteal feed and sugar water was the most common Prelacteal feed given to the infant. Around 91% mothers gave pre lacteal feeds to their children in study from Karnataka and commonest prelacteal feed given was sugar water followed by sugar water plus honey.^[9] Prelacteal feed is a popular custom in the society of giving honey, sugar water and water to the newborn.^[10] Study from the Eastern India reported that 24% of infants given Prelacteal feed.^[11] Study by Sriram et al showed prelacteal feeds were given to 34.67% of infant.^[12] This custom increases the chances of infection to the infant.

One third of mothers had given exclusive breast feeding upto 6 months to their baby in our study. Only 5% of mothers given EBF upto 6 months to their babies in Patil et al. study.^[9] In study from eastern India, 60% of infants received exclusive breast feeding upto 6 months.^[11] A meta-analysis by Arun Gupta and Y. P. Gupta showed that more than half the children (54%) in the age group of 0-3 months were exclusively breastfed whereas this percentage was much lower (26%) for children in the age group of 4-6 months.^[13] Medhi GK et al in their study among the tea garden workers in Assam also found that 69% mothers EBF their infants till six months of age.^[14]

Majority of mothers (78%) practiced breast feeding upto 12 months of age while only 2% breast fed upto 24 months and 76% of mothers initiated

Table 3 : Association of exclusive breastfeeding with different factors

Variable	EBF (%) (n=71)	Non-exclusive breast feeding (%) (n=139)	Chi-square	P value*
Place of delivery				
Hospital**	49 (68.05%)	23(31.95%)	57.41	<0.00001
Home Delivery	22 (15.94%)	116 (84.06%)		
Ante Natal Care				
>4 ANC check up	45 (70.31%)	19 (29.69%)	54.81	<0.00001
<4 ANC check ups	26 (17.81%)	120 (82.19%)		
Religion				
Hindu	57 (36.77%)	98(63.23%)	2.9946	0.2237
Muslim	11(28.95%)	27 (71.05%)		
Other	03 (17.65%)	14(82.35%)		
Parity				
Primi	25 (37.88%)	41 (62.12%)	1.3081	0.5199
1 to 3	37 (33.63%)	73(66.36%)		
>3	09 (26.47%)	25 (73.53%)		
Education				
Illiterate	07 (17.07%)	34 (82.93%)	11.8492	0.0079
Primary/Middle	22 (28.57%)	55 (71.43%)		
High school	24 (45.28%)	29 (54.72%)		
College & Above	18 (46.15%)	21 (53.85%)		
Age of the mother				
<19 years	11 (32.35%)	23 (67.65%)	0.1215	0.9410
20-29 years	38 (33.33%)	76 (66.67%)		
>30 years	22 (35.48%)	40 (64.52%)		
Socio Economic Status				
I & II	19 (39.58%)	29 (60.42%)	0.9283	0.628674
III 29 (32.22%)	61 (67.78%)			
IV & V	23 (31.94%)	49 (68.06%)		
Occupation				
House wife	47 (53.41%)	41 (46.59%)	40.7071	<0.00001
Labourer	01 (1.85%)	53 (98.15%)		
Service	12 (29.27%)	29 (70.73%)		
Business	11 (40.74%)	16 (59.26%)		

*p<0.05 statistically significant, **Normal Delivery: 38, Cesarean Section: 34

complementary feeding by 6 months of age in Das et al. study.^[11] In present study more than half of the women continued breast feeding upto 12 months and after that most of them continued upto 18 months and 60 % of mothers started complementary feeding at 6 months of age. A study from Ahmedabad showed 74.67% mothers initiated complementary feeding by 6 months but only 29.33% had the right attributes.^[15] Majority of mothers (49.2%) introduced complementary feeding after completion of six months in study from Assam.^[16] Similar to our study observations Basnet S et al found that 50% of the mothers started complementary feeds at 6 months of age.^[17] In a study by Rao S et al 77.5% mothers were found to have started complementary feeding at the recommended time.^[18] But a study by Kavitha S et al found that 62% of infants were weaned prematurely.^[19] 88% of mothers had continued feeding during illness and Local health worker was the most frequent counselor regarding feeding followed by Doctor in study from South India,^[11] while in our study 60% of mothers continued breastfeeding during in illness . Almost half of the mothers in present study were not counseled about feeding. The most frequent counselor regarding feeding was doctor in the study from Gujarat.^[15] It is essential to educate the mother regarding exclusive breast feeding, timely and appropriate initiation of complementary feeding for adequate growth of the infant.

On bivariate analysis of certain maternal and socio-demographic factors influencing Exclusive Breast Feeding (EBF), it was seen that exclusive breast feeding was significantly associated with 4 or more numbers of ANC visits, place of delivery, educational status and occupation of mother in current study. Katila D et al in their study also observed similar results for ANC visits and education of mother.^[16] Bharati SR in a study conducted in South India identified the factors that significantly influence the duration of breast-feeding was income, education and employment.^[20] Swetha R et al also observed in their study that employment was significantly associated with duration of EBF.^[21]

Conclusion:

In this study we can see that most of mothers had initiated breastfeeding between 1 to 4 hours of birth of baby. Prolactal feeds was given in nearly two third of babies. Sugar water was mostly preferred as Prolactal feed by mothers. Only one third mothers gave colostrum to their babies. Exclusive breastfeeding was received by only one third babies. Less than 10% of babies were breastfed for 2 years. Nearly two third of mothers continued to give breastfeeding during illness of babies. Almost half mothers were not counselled at all. The association was statistically significant between exclusive breastfeeding and factors like place of delivery, numbers of Antenatal visits, education and occupation of mother. While difference was not significant in case of factors like religion, parity, age of mother and socio-economic status.

Declaration:

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Conflict of Interest: Nil

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