International Journal of Medical Research Professionals
P-ISSN: 2454-6356; E-ISSN: 2454-6364
DOI: 10.21276/ijmrp

IJMRP

Original Research Article.

Infant and Young Child Feeding Practices among the Mothers in Urban Slums of Dibrugarh Town: A Cross Sectional Study

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ABSTRACT

Introduction: Infant and young child feeding practices directly affect the nutritional status of children under two years of age and ultimately, impact child survival. The present study was undertaken to assess the prevalence of infant and young child feeding practices and associated factors among the mothers having children less than 24 months.

Methodology: This cross sectional study was carried out in the urban slums of Dibrugarh town, Assam, among children between 0 - 23 months. Sample size was calculated as 180. Infant and child feeding practices were collected by interviewing mother by house to house visit on predesigned and pretested Performa.

Results: Out of 180 children of 0-23 month, prevalence initiation of BF within 1 hour of birth was 84.4% (152). Prevalence of giving prelacteal feed and colostrums were 10% (18) and 86% (155) respectively. Exclusive breast feeding was given to 70% (99) of the children, complementary feeding was started in 80% (114) of the children at 6 months. Initiation of breast feeding within 1 hour of birth and giving colostrums were significantly associated with place and type of delivery and utilization of number of antenatal checkup. Giving prelacteal feed was associated with place of delivery and utilization of antenatal check up by their mother. Exclusive breast feeding was associated with sex of the child, mother's educational status and place of delivery. Boys were more likely to be started with complementary feeding at 6 months as compared with girls.

Keywords: Exclusive Breast Feeding, Complementary Feeding, Prelacteal Feeding.

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Article History:

Received: 17-02-2019, **Revised:** 02-03-2019, **Accepted:** 19-04-2019

Access this article online	
Website: www.ijmrp.com	Quick Response code
DOI: 10.21276/ijmrp.2019.5.3.001	

INTRODUCTION

The initial years of life of a child is considered to be the most critical period for growth and development. A significantly positive impact on the cognitive and vital functions of children can be done by providing good nutrition during these years. Globally, efforts to scale up nutrition programs are working and benefiting children in many countries. Despite India's progress over the past few decades, malnutrition among children still continues to haunt its citizens.[1] Breast-feeding is one of the important determinants of child health, development, nutrition, and survival. Studies have shown that breast-feeding within the first hour of birth decreases neonatal deaths by 22%.[2] Exclusive breast-feeding for first 6 months of life can prevent morbidity and mortality due to common childhood illnesses such as diarrhea and pneumonia.[3]

Malnutrition is estimated to be an underlying cause of death up to 50-60% of under-five children. Inappropriate feeding practices are associated with over two-thirds of these deaths. Evidence suggested that optimal breastfeeding as well as complementary feeding were among the most cost-effective interventions of child survival and could prevent upto 13% and 6% respectively under-five child deaths.[4-6]

Infant and young child feeding practices also directly related to the nutritional status of children less than two years of age. Improving infant and young child feeding practices in children 0–23 months of age is hence critical to improved nutrition, health and development of children.[7]

Looking to the importance of infant and young child feeding practices and with this background the present study was conducted with objective to assess the Infant and young child feeding practices among the children less than two year of age and factors associated with it.

METHODOLOGY

The present study was conducted in the urban slums of Dibrugarh town Assam. The study was conducted among mothers of children 0-23 months of age, who were resident in the area for >6 months. The sample size was calculated by taking the prevalence of exclusive breastfeeding in <6 months children (Assam NFHS 4) as 63.6%[8] with 95% confidence interval with the relative errors (d) of 12% by using the formula.

$n = 4pq/d^2$

n = sample size

p = prevalence = 63.6%

q = (1-p) = 36.4%

d = relative error = 12%

The size of the sample was 159. Addition of 10% refusals or non-response, the sample size was 175 and was rounded to 180. The study was carried out between July to September 2017. A pre-designed, pretested questionnaire was prepared which included the socio demographic profile, details of ante natal care, place of birth, type of delivery, and IYCF practices namely initiation of BF, EBF, pre lacteal feeds, feeding of colostrum, and complementary feeding etc. Age of the child was calculated in completed months on the date of interview. House to house visit was done randomly to contact the mothers having children of less than 24 months and consent was obtained. Those available and willing were interviewed and the process continued till the required data were collected. Ethical approval was obtained from the Institutional Ethics Committee of Assam Medical College and Hospital before commencing the study. Data was entered in SPSS 25 (trial version) package and analyzed. Percentage and Chi square test was applied for analysis of data.

Table 1: Socio-demographic profile (n=180)

Variables		No	Percentage
Age group of children	**0-6 months**	39	21.7
	7-12 months	49	27.2
	13-23 months	92	51.1
Sex of the children	**Male**	84	46.7
	Female	96	53.3
Religion of the children	**Hindu**	135	75
	Islam	44	24.4
	Sikh	1	0.6
Type of family	**Nuclear family**	86	47.8
	Joint family	94	52.2
Mother's education status	**Illiterate**	16	8.9
	Primary school	49	27.2
	Class 6 to class 10	91	50.6
	Class 10 pass and more	24	13.3
Monthly family income	**Upto Rs 5000**	30	16.7
	>Rs 5000 to Rs 10000	118	65.5
	>Rs 10000	32	17.8
Place of delivery	**Home delivery**	7	3.9
	Institutional delivery	173	96.1
Delivery type	**Normal delivery**	136	75.6
	CS	44	24.4

Table 2: Factors associated with early initiation of breastfeeding

Variables		Yes	No	p value
Delivery place	**Home (n=7)**	2 (28.6%)	5 (71.4%)	p<0.001
	Institutional (n=173)	150 (86.7%)	28 (13.3%)	
Delivery Type	**Normal (n=136)**	124 (91.2%)	12 (8.8%)	p<0.001
	CS (n=44)	28 (63.6%)	16 (36.4%)	
Total no of under five children at house	**1 (n=88)**	75 (85.2%)	13 (14.8%)	p>0.05
	2 (n=82)	71 (86.6%)	11 (13.4%)	
	≥3 (n=10)	6 (60%)	4 (40%)	
Total No of ANC done	**Upto 3 (n=39)**	22 (56.4%)	17 (43.6%)	p<0.001
	> 3 - 6 (n=99)	90 (90.9%)	9 (9.1%)	
	> 6 (n=42)	40 (95.2%)	2 (4.8%)	

Table 3: Factors associated with giving prelacteal feeds and colostrum feeding:

Variables		Prelacteal feeds given	p value	Colostrum given	p value
Delivery place	**Home (n=7)**	4 (57.1%)	p< 0.001	4 (57.1%)	p<0 .001
	Institutional (n=173)	14 (8.1%)		151 (87.3%)	
Type of delivery	**Normal (n= 136)**	14 (10.1%)	p>0 .05	125 (91.9%)	p<0.001
	CS (n= 44)	4 (9.1%)		30 (68.2%)	
Total no of under five children at house	**1 (n=88)**	6 (6.8%)	p> 0.05	80 (90.9%)	p> 0.05
	2 (n=82)	10 (12.2%)		68 (82.9%)	
	≥3 (n=10)	2 (20%)		7 (70%)	
Total No of ANC	**Upto 3 (n=39)**	7 (17.9%)	p<0.05	28 (71.8%)	p<0.005
	>3-6 (n=99)	5 (5.1%)		93 (93.9%)	
	>6 (n=42)	6 (14.3%)		34 (81%)	

Table 4: Factors associated with EBF for 6 months and complementary feeding at 6 months of age: (n=141)

Variables		Exclusive breast feeding	p value	Complementary feeding started at 6 months	p value
Sex of the child	**Male (n=65)**	52 (80%)	p<0.02	58 (89.2%)	p<0.02
	Female (n=76)	47 (61.8%)		56 (73.7%)	
Mother's education status	**Illiterate (10)**	5 (50%)	p<0.001	7 (70%)	p>0.05
	Primary school (n=38)	19 (50%)		28 (73.7%)	
	Class 6 to class 10 (n=70)	53 (75.7%)		57 (81.4%)	
	Class 10 pass and more (n=23)	22 (95.7%)		22 (95.7%)	
Delivery Place	**Home (n=4)**	1 (25%)	p<0.05	4(100%)	p>0.05
	Institutional (n=137)	98 (71.5%)		110 (80.3%)	
Type of delivery	**Normal (n=105)**	75 (71.4%)	p>0.05	82 (78.1%)	p>0.05
	CS (n=36)	24 (66.7%)		32 (88.9%)	

RESULTS

Table 1 shows the socio demographic profile of the 180 children of 0-23 months that were included in the study. Amongst the study subject 21.7% of the children were 0-6 months of age while 27.2% were in the age group 7-12 months and 51.1% were in the age group13 - 23 months. Male constituted about 46.7% while female constituted 53.3% of the children. Amongst the children 75% were Hindu by religion, 47.8% of the children were from nuclear family while 52.2% were from joint family. Amongst the mothers 8.9% did not have any formal education whereas 50.6% mothers have studied in between class six to class ten. 65.6% of the studied family had a monthly income between Rs 5000 to Rs 10000. Most of study subject (96.1%) had institutional delivery and 75.6% of study subject had normal vaginal delivery.

Breast feeding was initiated within 1 hour of birth in 152 (84.4%) children. Table 2 shows that mothers having institutional delivery initiate breastfeeding early as compared to those having home delivery (p<0.001). Initiation of breastfeeding was delayed among the children born by caesarean section as compared to those with normal delivery (p<0.001) whereas mothers having more than six antenatal visit initiated breastfeeding early as compared to those with lesser antenatal visit ((p<0.001).

10% (18) of children were given prelacteal feed while colostrum was given to 155 (86%) children. Table 3 shows factors associated with the practice of giving prelacteal feeds and colostrum feeding. Children born at home and belonging to those mothers with less antenatal checkup received prelacteal feeds more often as compared to those delivered at institutions and those with more antenatal checkup, respectively. Similarly children born in the institution (p< 0.001), with normal vaginal delivery (p< 0.001) and more antenatal check up by their mothers (p< 0.005) were more likely to receive colostrum after birth.

Exclusive breastfeeding upto 6 months was observed in 141 children (Table 4). Exclusive breast feeding was given to 70% (99) of the children and complementary feeding was started in 80% (114) of the children at the completion of 6 months. Prevalence of exclusive breast feeding was significantly more in male as compared to female children (p<0.02). Mothers' educational status (p<0.001) and institutional delivery (p<0.05) is also significantly associated with exclusive breast feeding. Boys were more likely to be started with complementary feeding at 6 months as compared with girls (p<0.02).

DISCUSSION

The present study was conducted in the urban slums of Dibrugarh town, Assam to study the infant and young child feeding practices and its associated factors. In the present study Breast Feeding was initiated within 1 hour of birth among 152 (84.4%) children.

In a study done by Kaemee N. et al.[9] observed that majority of the mother (81.6%) reported to have started breast feeding within first hour after delivery whereas Jain S. et al.[10] in their study found that 67.3% children's mother initiated breast feeding within first hour

after delivery. The present study shows that mothers having institutional delivery initiate breastfeeding early as compared to those having home delivery (p<0.001) whereas initiation of breastfeeding was delayed among the children born by caesarean section as compared to those with normal delivery (p<0.001). Similar finding was observed in a study conducted in an urbanized village of Delhi.[11] In the present study it was also observed that mothers having more than six antenatal visit initiated breastfeeding early as compared to those with lesser antenatal visit ((p<0.001). This might be due to more counseling received during antenatal checkups by the mothers on early initiation of breast feeding.

The present study indicates that 10% (18) of children were given prelacteal feed while colostrum was given to 155 (86%) children. Davalgi S. et al.[12] and Shubha DB. et al.[13] in their study observed that only 9% of the study subject under 24 months were given pre-lacteal feed. Gupta A. et al.[11] in their study also observed that colostrum was given to their children by 79.4% of the mothers whereas Masare MS et al.[14] in their study found that colostrum was given to 67.73% of the infants. The present study showed that children born at home and belonging to those mothers with less antenatal checkup received prelacteal feeds more often as compared to those delivered at institutions and those with more antenatal checkup, respectively. Kakati R. et al.[15] in their study also observed that children delivered at home used to receive prelacteal feed more often than those delivered at institution (<0.0001). In the present study we found that children born in the institution (p< 0.001), with normal vaginal delivery (p< 0.001) and more antenatal check up by their mothers (p< 0.005) were significantly more likely to receive colostrum than their counterparts. Similar findings were also observed in a study done at Delhi[11] and at Kamrup district of Assam.[15]

The present study showed that exclusive breast feeding was given to 70% (99) of the children whereas complementary feeding was started in 80% (114) of the children at the 6 months of age. Satija M. et al.[16] in their study in a rural area of North India also observed the prevalence of exclusive breast feeding among less than six month to be 75.9% whereas another study by Shubha DB. et al.[12] found that exclusive breast-feeding was carried out by 62% of at-home mothers. In another study conducted by Parashar A. et al. in a hilly state of North India observed that in 77.8% of the study subject complementary feeding was initiated at 6 months of age.[17]

The present study indicate that the prevalence of exclusive breast feeding was significantly more in male as compared to female children (p<0.02). Mothers educational status (p<0.001) and institutional delivery (p<0.05) are also significantly associated with exclusive breast feeding. Similar findings were also observed by Karmee N. et al.[9] in their study at South Odisha. Boys were more likely to be started with complementary feeding at 6 months as compared to girls (p<0.02). This could be due to preferential treatment to the boys in our society. Masare M.S. et al.[14] in their study observed that mothers education, institutional delivery, counseling regarding breastfeeding and complementary feeding were significantly associated with practice of exclusive breastfeeding to the infants (p<0.005). Another study done at Aligarh Uttar Pradesh also indicate that boys were more likely to fulfill minimum meal frequency and minimum acceptable diet than the girls among 6-23 months (p<0.05).[18]

CONCLUSION

The present study showed that the rates of initiation of breastfeeding within 1 hour after birth, giving colostrums, EBF and complementary feeding were somewhat satisfactory. Optimal infant- feeding practices should be promoted and protected to improve nutritional status of under-five children. None of the opportunities should be missed regarding imparting health education about exclusive breast feeding and complementary feeding. The infant and young child feeding practices can be improved by giving peer counseling by mother support groups.

Encouraging Family support for breastfeeding by mothers that are, supportive husband, other family member such as in-laws, friends can play a key role in the success of breastfeeding. When a mother feels to be supported, she is more likely to feel confident and empowered with her decision to breastfeed her child. To sensitize employers and mothers, seminars on importance of breastfeeding and young child feeding can be recommended. Raising awareness on breastfeeding can be done by using of social media platforms to inform and engage a wider group of people for and young child nutrition can also be recommended. Emphasis on exclusive breast-feeding practices and complementary feeding practices by mass media especially for mothers with lower literacy level can have a positive impact on feeding practices.

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Source of Support: Nil. **Conflict of Interest:** None Declared.

Cite this article as: Pranjal Sonowal, Safikul Islam. Infant and Young Child Feeding Practices among the Mothers in Urban Slums of Dibrugarh Town: A Cross Sectional Study. Int J Med Res Prof. 2019 May; 5(3):1-5. DOI:10.21276/ijmrp.2019.5.3.001