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A Community-based Study on Breastfeeding Practices in the Urban Area of Meerut, Uttar Pradesh

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ABSTRACT

Introduction: Exclusive breastfeeding is very helpful in the reduction of infant mortality and it is also helpful in protecting infants against infectious and non-infectious diseases. Exclusive breastfeeding can play important role in the reduction in infant mortality and can help in achieving health-related sustainable development goals. Various initiatives of health education and social mobilization have been taken by the department of community medicine of a private medical college of Meerut in its urban field practice area.

Objective: To find out the prevalence and associated factors of exclusive breastfeeding in urban areas of Meerut.

Methods: A cross-sectional study was conducted in the field practice area of the urban health training centre (UHTC) among 179 lactating mothers. The data collection was done by predesigned and pre-validated questionnaire. Descriptive statistics and Fisher Exact test were used for statistical analysis.

Results: The study findings revealed the initiation of breastfeeding within an hour was practised by 63.7% of mothers. The exclusive breastfeeding was practised by 134 (74.9%) mothers. Pre lacteal feeds & colostrum was given to 22.3% and 78.8% of the children respectively. The complementary feeding at 6 months was started by 76 (42.5%) mothers.

Conclusion: The practices of breastfeeding like early initialization of breastfeeding, colostrum feeding, exclusive breastfeeding till 6 months and complementary feeding from 6 months are comparatively better in the study area as compared to breastfeeding practices in Uttar Pradesh. The prevalence of exclusive breastfeeding was comparatively lesser in population belonging to upper lower socioeconomic classification.

Key Words: Colostrum, Complementary feeding, Exclusive Breastfeeding, Pre lacteal feeds

INTRODUCTION

Breast milk is the natural and complete first food for babies. It fulfils all nutritional requirements of infants for the first six months of life, and it also provides one-third of nutritional requirements during the second year of life. Breast milk promotes the mental and behavioural development of the infant and it protects the infant against infectious and non-infectious diseases. Breastfeeding promotes the health and well-being of mothers as breastfeeding decreases the risk of ovarian cancer and breast cancer. Breastfeeding is also helpful in family planning.¹

In exclusive breastfeeding, no foods or drinks other than breast milk are given for the first 6 months to the babies.²

Exclusive breastfeeding decreases the chances of infant mortality due to childhood illnesses such as diarrhoea, pneumonia.^{3,4} Exclusive breastfeeding (EBF) is estimated to prevent approximately one-tenth of child deaths. It can also play an important role in the reduction of the infant mortality rate of the country and can help achieve sustainable development goal 3.⁵ The benefits of EBF are enormous, but, the prevalence of exclusive breastfeeding practices in India remains low.⁶

According to national-level household and facility survey (NFHS-4), the overall prevalence of exclusive breastfeeding in India has increased from 46.0% to 55.0% between 2005 and 2016.⁷ In contrast; six states i.e. Uttar Pradesh, West Bengal, Chhattisgarh, Karnataka, Arunachal Pradesh, and

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Kerala had shown a decline in the prevalence of exclusive breastfeeding. Uttar Pradesh has shown a maximum decline of 9.7% (from 51.3% in 2005 to 41.6% in 2016). The prevalence of exclusive breastfeeding is even worse in the urban area of Uttar Pradesh as compared to rural areas.⁷ However; various initiatives of health education and social mobilization have been taken by the department of community medicine of Subharti Medical College, Meerut for improving exclusive breastfeeding and complementary feeding practices in its urban field practice area. Therefore; the present study was conducted to find out the prevalence of exclusive breastfeeding in Multanagar, urban field practice area of Urban Health training centre, Subharti medical college, Meerut, Uttar Pradesh.

MATERIALS AND METHODS

A community-based cross-sectional study was conducted from December 2019 to April 2020 after taking permission from the Institutional Ethical committee. Mothers of age 18 to 45 years who had the youngest child between 6 months to 2 years were included in the study.

The study was conducted in the field practice area of UHTC of a Subharti medical college, Meerut. There were approximately 3300 families and 20000 people in the study area. The study area had a total of 17 colonies and 3 slum areas. Most of the area lacks basic legal approval and facilities.

In the study area, 10 colonies were randomly selected. From each colony, 20 eligible mothers were selected for the interview. In case, there was a problem in finding 20 lactating mothers in the colony, then the lactating mothers were selected from the adjacent colony. Exclusive Breastfeeding was defined as only breast milk was given to the infants until the age of six months. The lactating mothers were interviewed by using a pretested, pre-validated semi-structured interview schedule. The modified Kuppaswamy scale of 2019 was used for determining the socio-economic status of mothers.⁸

As per national-level household and facility survey 4 (NFHS 4), the prevalence of EBF in urban areas of Uttar Pradesh was 35.1 % in infants of age 0-6 months.⁷ For 95% C.I. and 0.07 absolute precision, the minimum sample size came out to be 178 as per Epi Info 2000 software. In the present study, we had used the prevalence of exclusive breastfeeding (EBF) among lactating mothers as the outcome variable whereas the independent variables included demographic and socio-economic characteristics of mothers like mother education, mother occupation, socioeconomic classification, religion, and caste, etc. Data were analyzed by using SPSS 21 version. Descriptive statistics were used to show percentages. Fisher exact test was used as a test of significance. P-value of < 0.05 was considered significant.

RESULTS

The study was conducted among 179 lactating mothers having children age less than 2 years. 76 (42.4%) mothers were educated up to senior secondary and 42 (23.5%) mothers were graduate/postgraduate. Most of the mothers (97.2%) were housewives. 78 (43.6%) females belonged to upper lower socioeconomic classification whereas 79 (44.1%) females belonged to lower medium socioeconomic classification based on Kuppaswamy socioeconomic classification. The majority (96.6%) of lactating were Hindu by religion.

Table 1 depicted that 63.7% of mothers started breastfeeding within the first hour of birth of their child. 88.8% of the deliveries were institutional. It was observed that 141 (78.8%) mothers gave colostrum to their babies whereas Pre lacteal feed was given by 40 (22.3%) of the mothers. Gummy (33) was the most common form of pre-lacteal feed followed by honey (5). The pre-lacteal feed was mostly given by the advice of relatives/family members (34). The feeding on demand was practised by 130 (72.6%) mothers whereas 49 (27.4%) mothers fed on a regular interval.

Table 2 showed that 134 (74.9%) females exclusively breastfed where 45 (25.1%) did not exclusively breastfeed their babies. There was a significant association between exclusive breastfeeding and socioeconomic status and caste of mothers (p-value 0.014, 0.031 respectively). However, there was no significant association between exclusive breastfeeding and mother education, occupation, and religion (p-value 0.990, 0.492, 0.347 respectively).

Table 3 described that 45 (25.1%) of mothers did not breastfeed their babies exclusively. Social factors (57.7%) were the main reasons for discontinuing exclusive breastfeeding. Whereas 12 (26.7%) females told that they discontinued breastfeeding due to child illness and 7 (15.6%) females discontinued breastfeeding due to maternal illness.

Table 4 described that 19 (10.6%) mothers started complementary feeding before completion of 6 months whereas 76 (42.5%) mothers initiated complementary feeding after 6 months whereas the majority (46.9%) initiated complementary feeding beyond 7 months or more. The Dalia, daal, and khichri were the most commonly used food items during complementary feeding.

DISCUSSION

In the current study, it was found that only 63.7 % of mothers initiated breastfeeding within 1 hour of birth which was similar to 61.6% reported by another study done in rural Wardha.⁹ In contrast, in various other studies, observed the early initiation of breastfeeding in the fewer number of mothers (38.1%, 36.6%, respectively).^{10,11} The increase in early

initiation of breastfeeding might be due to the sensitization and training of health workers by the community medicine department in the study area. Secondly, it might be due to institutional deliveries in most study subjects.

In our study, 78.8% of babies were fed colostrum which matched well with the findings of various other studies.^{12,13} In contrast to our findings, only 11.8% of the women gave colostrum to their infants in Uttar Pradesh & only 22.7% of mothers had given colostrum to their baby in a study done in M.P.^{14,15} The variation in colostrum feeding practices across various studies could be due to different customs regarding colostrum across India. Regarding pre-lacteal feeds, the prevalence of pre-lacteal feeding was lower (22.3%) than in other studies.¹⁶⁻¹⁸ The most important reason regarding pre-lacteal feed cited among various studies was family customs and relative's advice. In the current study, the reduction in pre-lacteal feeding might be due to the participatory approach of health education by health workers.

The prevalence of exclusive breastfeeding was 74.9% in this study. According to NFHS 4 data, 41.6% children under age 6 months were exclusively breastfed in U.P.⁷ The higher prevalence of exclusive breastfeeding in the study area was due to extensive health awareness activities in form of role plays by medical students and health workers regarding the benefits of breastfeeding among the lactating mothers of the area. The breastfeeding day was celebrated regularly to increase awareness in society by the health workers in the study area. The current study showed a significant association of exclusive breastfeeding with socioeconomic status and caste of study subjects. However, another study reported exclusive breastfeeding practices were impacted by the educational status of mothers.¹⁹

WHO/UNICEF has recognized feeding on-demand as an important step for successful breast-feeding. In the current study, feeding on demand was found in the majority (72.6%) of mothers. Similarly, 84.1% of mothers fed their babies on demand in a study in Bengal.²⁰ In another study, feeding on demand was found to be only 38%.²¹ In the present study, the initiation of complementary feeding at 6 months was done in 42.5 % children which is slightly higher than the results of various other studies.^{7,22,23}

CONCLUSION

In the current study, practices of breastfeeding like early initialization of breastfeeding, colostrum feeding, exclusive breastfeeding till 6 months, complementary feeding from 6 months are comparatively better in the study area as compared to breastfeeding practices in Uttar Pradesh. The higher prevalence of breastfeeding practices was due to awareness campaigns and social mobilization by health workers in the

study area. However, the prevalence of exclusive breastfeeding was comparatively lesser in population belonging to upper lower socioeconomic classification. Therefore, we recommend that more health awareness activities should be planned in population belonging to the upper-lower socioeconomic status. We should also encourage lactating mothers to initiate complementary feeding of infants at the right time so that we can achieve the goals of reduction in child mortality.

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Table 1: Breastfeeding practices among the study subjects (n=179)

Initiation of Breastfeeding	Number	%
<1 hour	114	63.7
1-4 hours	25	14.0
5-24 hours	21	11.8
>24 hours	19	10.6
Place of birth		
Home	20	11.2
Public hospital	63	35.2
Private Clinic /hospital	96	53.6
Colostrum		
Fed	141	78.8
Discarded	38	21.2
Pre lacteal feed		
Yes	40	22.3
No	139	77.7
Burping after feed		
Yes	177	98.9
No	2	1.1
Timing of feed		
On crying	130	72.6
At regular interval	49	27.4

Table 2: Association of exclusive breastfeeding with Socio demographic variable

Variable	Category	0-4 months	5-6 months	>6 months	Total	P-value
Mother Education	Illiterate	1	2	8	11	0.990
	Up to 8th	5	7	38	50	
	9-12	8	11	57	76	
	Graduate & above	3	8	31	42	
	Total	17	28	134	179	

Table 2: (Continued)

Variable	Category	0-4 months	5-6 months	>6 months	Total	P-value
Mother occupation	Non-working	16	28	130	174	0.492
	Working	1	0	4	5	
	Total	17	28	134	179	
Socioeconomic Status	Lower	0	1	15	16	0.014
	Upper lower	8	13	57	78	
	Lower middle	9	10	60	79	
	Upper Middle	0	4	2	6	
	Total	17	28	134	179	
Caste	General	9	11	29	49	0.031
	OBC	3	10	60	73	
	SC/ST	5	7	45	57	
	Total	17	28	134	179	
Religion	Hindu	17	26	130	173	0.347
	Muslim	0	2	2	4	
	Others	0	0	2	2	
	Total	17	28	134	179	

Table 3: Reason for not exclusive breastfeeding the child (N=45)

Reason	Number	%
Child illness	12	26.7
Mother illness	7	15.6
Social	26	57.7

Table 4: Complementary feeding practices of the study subjects

Complementary feeding	Number	%
Before 6 months	19	10.6
At 6 months	76	42.5
After 6 months	84	46.9
Type of complementary food		
Daliya	94	52.5
Daal	89	49.7
Khichri	104	58.1
Other	116	64.8