

A cross-sectional study to assess the knowledge and practices about breastfeeding among women in Sembakkam village, Kancheepuram District

Sahaya Sona Thresa, Jegadeesh Ramasamy D, Saurabh R Shrivastav

Department of Community Medicine, Shri Sathya Sai Medical College and Research Institute, Ammapettai, Kancheepuram, Tamil Nadu, India

Correspondence to: Sahaya Sona Thresa, E-mail: sonathresa@yahoo.com

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ABSTRACT


Background: Breastfeeding is one of the most effective ways to ensure child health and survival. Lack of exclusive breastfeeding (EBF) during the first 6 months of life contributes to over a million avoidable child deaths each year. **Objectives:** To estimate the prevalence of EBF and to assess the knowledge and practices about breastfeeding. **Materials and Methods:** This cross-sectional descriptive study was conducted for a period of 18-month in Sembakkam village. Universal sampling was employed based on the prevalence study, and the sample size was 334. All women with children between 6 and 24 months of age were included as study participants after obtaining written informed consent. Data entry was done in Microsoft Excel, and statistical analysis was performed using SPSS version 23. Chi-square test was used for testing the association at $P = 0.05$. **Results:** The prevalence of EBF among the mothers was observed to be 69.1% whereas 30.9% did not practice EBF for their children up to the recommended period. Further, parameters such as educational status, socioeconomic status, occupation, mode, and place of delivery had a significant impact on the prevalence of EBF, and they were statistically significant. **Conclusion:** The prevalence of EBF in this study was 69.1%. The study participants had good knowledge about breastfeeding though some gaps were observed with regard to their practices. The study clearly emphasized the importance of increasing awareness among pregnant women about breastfeeding and even gave impetus on the necessity of family supporting breastfeeding for the recommended duration.

KEY WORDS: Breastfeeding; Colostrum; Infant; Tamil Nadu

INTRODUCTION

Breastfeeding is a socially constructed practice and it plays a very essential role in the formation of another individual, development of an effective immune system, brain function establishment, socialization, and advancing long-term

health.^[1] Breast milk has been regarded as a significant source of nutrients for the children in the age category of 6-23 months. It is expected to supply in excess of 50% of a child's calorie demands in the age category of 6 months to 1 year and 33% of calorie demands for the children in the age of 1-2 years.^[2] Even for malnourished children, breast milk has been regarded as an important source of calories and nutrients during their illness as it plays a remarkable role in minimizing their deaths.^[2] World Health Organization (WHO) and United Nations Children's Educational Fund recommends exclusive breastfeeding (EBF) for the initial 6-month and further more in combination with complementary food till the child attain 2 years.^[2,3] The important nutritional interventions that break the sequence of

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promoting suitable breastfeeding practices and encouraging by giving micronutrient supplements to reduce the rate of low birth weight.^[3] According to WHO, only 38% of infants are globally breastfed.^[2] Comparing the infant mortality rate with National Family Health Survey (NFHS)-3, the rate had declined to 21 from 30 and under-five mortality rate had decreased to 27 from 35 to 100 live births in NFHS-4.^[4]

NFHS-4 data from 17 states show that India is just doing an average.^[4] The key indicators are initiation of breastfeeding 50% while the rate of institutional deliveries is 84.3%, EBF is 57%, and complementary feeding is 49.6%.^[4] Breastfeeding plays a significant role in reducing the risk of breast cancer. Thus, awareness creation about this deadly disease and promotion of breastfeeding becomes the need of the hour which can be achieved with the help of information, education and communication activities.^[5] Many health campaigns focused on breastfeeding behavior by proper education of all mothers would contribute to reduce the burden of breast cancer.^[6] With all these views in mind, this study was conducted to estimate the prevalence of EBF and to explore breastfeeding knowledge and practices among women in Sembakkam village of Kancheepuram district.

MATERIALS AND METHODS

Study Design

A cross-sectional descriptive study was conducted in Sembakkam village of Kancheepuram District during the period of January 2015 - June 2016.

Sample Size

Sample size calculated by the prevalence of EBF amid lactating mothers in the rural settings of Tamil Nadu was found to be 34%.^[7]

Inclusion and Exclusion Criteria

Women with children in the age of 6 months to 2 years were included as study participants. Thus, women who had delivered or will deliver during the study duration were also included as study participants. Women having children below 6 months or above 2 years and women who were not willing to give consent for the study were excluded from the study.

Study Tool

Based on the study objectives, a semi-structured schedule was prepared in English. It was subsequently translated into the local language (Tamil) and back-translated to English to check for the consistency and the clarity. The schedule consisted of three major sections, namely maternal sociodemographic variables (residential area, age, marital status, education, occupation, and monthly household

income), biomedical variables (parity, number of antenatal visits, mode of delivery, gender, gestational age, birth weight, and breastfeeding counselling), and questions pertaining to breastfeeding knowledge and practices. This schedule was pretested on 35 women and based on the responses obtained the schedule was modified. The results obtained from these subjects were excluded from the final analysis.

Methodology

Women having children in the age of 6 months to 2 years were identified with the help of Anganwadi and Auxiliary nurse midwives (ANMs) from both Primary Health Centers (PHCs) as well as Integrated Child Development Services. House to house visits were paid to those women and after taking the informed consent from the participants, face-to-face interaction was carried out in their local language (Tamil) using the pretested semi-structured schedule. Modified B.G. Prasad's scale of socioeconomic status classification was used to classify socioeconomic class.

Operational Definitions

EBF is defined as no other food or drink, not even water, except breast milk (including milk) for 6 months of life, but allows the infant to receive drops and syrups (vitamins, minerals, and medicines). The prevalence of EBF was measured with the information such as prelacteal feeding induction, time of introducing liquids/semisolid or solid foods and breastfeeding duration of 6 months.

Ethical Considerations

Institutional Ethics Committee permission for the study was obtained before the initiation of the study. Written informed consent was taken from the study participants before obtaining any information. Extreme care was taken to maintain the privacy and confidentiality of the data.

Statistics

SPSS version 23 was used for data entry and statistical analysis. For all the variables frequency distribution was calculated, and Chi-square test was used to assess the significance of association at $P = 0.05$.

RESULTS

Table 1 revealed that the knowledge about EBF was comparatively high (50.7%) among women at the age group of 18-23, whereas initiation of breastfeeding was seen high among women (94.8%) at the age group 24-29. Further, it was noticed that the knowledge of EBF (63.4%), and initiation within the time (95.1%) was relatively higher among women who completed their secondary education. It was also understandable that knowledge and initiation of breastfeeding

improves as the educational status of the women increases and it was statistically significant. Knowledge of EBF and initiation was high among housewives (51.3%) than working mothers. It was also observed that women from higher socioeconomic status (62%) had more knowledge about breastfeeding compared to other socioeconomic classes and breastfeeding initiation was also seen statistically significant. EBF knowledge (74%) and initiation (93.2%) is also seen significant among women from Christian religion.

Table 2 exposed that women who visited PHCs for antenatal check-up had comparatively higher knowledge about EBF (50.8%) and initiation (94.7%) than others who used private hospitals or other places for antenatal visits. While the knowledge about EBF was seen high among cesarean cases (62.1%), initiation of breastfeeding was seen highest at normal delivery mothers (96.2%). Apparently, initiation of breastfeeding was observed high among women who used PHC for delivery (93.8%), whereas EBF knowledge was significant among women who used tertiary care hospitals for delivery (47.9%). It was evidently seen that EBF knowledge was fair enough among deliveries conducted by doctors (51.5%). At the same time, knowledge of initiation of EBF was seen higher among deliveries conducted by others (94.5%).

Table 3 highlighted that breast milk was the first milk given by most of the mothers at the age group of 18-23 years (64%), and this practice was very commonly experienced among

Christian women (74%) and educated. Since education makes the difference, this practice was very obviously seen among working (69%) and upper class women (66.7%). Apparently, this practice was also seen high among joint families (64.2%). Initiation of breastfeeding was seen at high rate among women at the age of 18-23 (86.7%) and the practice was comparatively high amid Christian women (84.9%). The practice of initiating breastfeeding within the time was very widely observed among educated, working (91.5%) and women from lower middle class (90.4%). The practice was also significant among joint families (85.1%). Pre-lacteal feeds were very commonly given by mothers at the age group of 30-35 years (11.1%), and a significant association was also seen among Christian women (8.2%). Women who completed primary school (13.8%) were also seen giving prelacteal feeds. This practice was highly seen among mothers from joint families (7.4%), housewives (6.1%), and lower socioeconomic profile (9.1%). EBF was widely practiced by women at the age of 18-23 (72%). This practice was moderately higher among upper middle class (69.6%) and working women (67.6%). A relative good percentage of illiterate mothers (77.8%) seem to practice this and also it's seen high among joint families (76.4%).

Table 4 disclosed that women who visited PHCs for antenatal visits (60.8%) have given breast milk as the first milk, and the same was extensively seen in cesarean cases (62.9%). Women used tertiary hospitals for delivery (64.2%) were seen to have this practice apparently. This practice was also

Table 1: Sociodemographic profile versus knowledge about EBF and initiation of breastfeeding

Variables	Knowledge about EBF (%)	P value	Knowledge about initiation of breastfeeding (%)	P value
Age				
18-23 years (75)	38 (50.7)	0.326	68 (90.7)	0.001*
24-29 years (212)	103 (48.6)		201 (94.8)	
30-35 years (45)	16 (42.2)		38 (84.4)	
>35 years (2)	0 (0)		0 (0)	
Religion				
Hindu (261)	119 (45.6)	0.110	239 (91.6)	0.001*
Christian (73)	49 (74)		68 (93.2)	
Education				
Illiterate (9)	3 (33.3)	0.000*	4 (44.4)	0.000*
Primary (65)	12 (35.5)		56 (93.6)	
Secondary (190)	101 (63.4)		184 (95.1)	
Graduation (70)	44 (62)		63 (90.1)	
Occupation				
Working (71)	25 (35.2)	0.016	2 (2.8)	0.067
Housewife (263)	135 (51.3)		25 (9.5)	
Socioeconomic status				
Upper (6)	3 (50)	0.017*	5 (83.3)	0.199
Upper middle (92)	57 (62)		1 (95.7)	
Middle (121)	56 (46.3)		88 (87.6)	
Lower middle (104)	39 (37.5)		98 (94.2)	
Lower (11)	5 (45.5)		10 (90.9)	
Type of family				
Nuclear (186)	86 (46.2)	0.494	166 (89.2)	0.045
Joint (148)	74 (50)		141 (95.3)	

*Corrected Chi-square value. EBF: Exclusive breastfeeding

Table 2: Antenatal and delivery details versus knowledge about EBF and initiation of breastfeeding

Variables	Knowledge about EBF (%)	P value	Knowledge about initiation of breastfeeding (%)	P value
Antenatal checkups				
PHC (240)	122 (50.8)	0.174	225 (94.7)	0.139
Tertiary care hospital (37)	18 (48.6)		31 (83.8)	
Private hospital (53)	18 (34)		47 (88.7)	
Nowhere (4)	2 (50)		4 (100)	
Mode of delivery				
Normal (210)	83 (39.5)	0.000*	202 (96.2)	0.000*
Cesarean (124)	77 (62.1)		105 (84.7)	
Place of delivery				
PHC (112)	53 (47.3)	0.740	105 (93.8)	0.233
Tertiary care hospital (165)	79 (47.9)		150 (90.9)	
Medical College (16)	6 (37.5)		16 (100)	
Private institute (41)	22 (53.7)		36 (87.8)	
Delivery conducted by				
Doctor (169)	87 (51.5)	0.185	151 (89.3)	0.081
Others (Staff nurse, ANM, VHN) (165)	73 (44.2)		156 (94.5)	

*Corrected Chi-square value. ANM: Auxiliary nurse midwives, VHN: Village health nurse, EBF: Exclusive breastfeeding

Table 3: Sociodemographic profile versus type of feed, time of initiation and practice of prelacteal feed and practice of EBF

Variables	Type of feed breast milk (%)	P value	Time of initiation within recommended time (%)	P value	Pre-lacteal feeds (%)	P value	Practice of EBF (%)	P value
Age								
18-23 years (75)	48 (64)	0.010*	65 (86.7)	0.032*	0 (0)	0.000*	54 (72)	0.008*
24-29 years (212)	130 (61.3)		178 (84)		11 (5.2)		146 (68.9)	
30-35 years (45)	18 (45)		35 (77.8)		5 (11.1)		22 (48.9)	
>35 years (2)	0 (0)		0 (0)		2 (100)		0 (0)	
Religion								
Hindu (261)	142 (54.4)	0.003	216 (82.8)	0.660	12 (4.6)	0.226	169 (64.8)	0.209
Christian (73)	54 (74)		62 (84.9)		6 (8.2)		53 (72.6)	
Education								
Illiterate (9)	0 (0)	0.000*	4 (44.4)	0.000*	0 (0)	0.001*	7 (77.8)	0.002*
Primary (65)	94 (54.7)		51 (89)		9 (13.8)		32 (49.2)	
Secondary (190)	63 (76.8)		173 (85.4)		3 (1.6)		141 (74.2)	
Graduation (70)	39 (54.9)		50 (71.8)		6 (8.6)		42 (60)	
Occupation								
Working (71)	49 (69)	0.046	65 (91.5)	0.035	2 (2.8)	0.279	48 (67.6)	0.819
Housewife (263)	147 (55.9)		213 (81)		16 (6.1)		174 (66.2)	
Socioeconomic status								
Upper (6)	4 (66.7)	0.127	5 (83.3)	0.279	0 (0)	0.880	4 (66.7)	0.502
Upper middle (92)	61 (66.3)		76 (82.6)		4 (4.3)		64 (69.6)	
Middle (121)	69 (57)		94 (77.7)		7 (5.8)		74 (61.2)	
Lower Middle (104)	59 (56.7)		94 (90.4)		6 (5.8)		71 (68.3)	
Lower (11)	3 (27.3)		9 (81.8)		1 (9.1)		9 (81.8)	
Type of family								
Nuclear (186)	117 (54.3)	0.068	152 (81.7)	0.407	7 (3.8)	0.140	109 (58.6)	0.001
Joint (148)	79 (64.2)		126 (85.1)		11 (7.4)		113 (76.4)	

EBF: Exclusive breastfeeding, *Corrected Chi-square value

seen high among cases where deliveries conducted by doctors (64.5%). Breastfeeding was initiated within time by most mothers who visited PHCs for antenatal checkups (85%) and

deliveries (94.6%). Breastfeeding initiation within time was also highly seen among normal deliveries (93.3%) compared with cesarean cases. The practice of initiating breastfeeding

Table 4: Antenatal checkups, delivery details versus type of feed, time of initiation and practice of prelacteal feeds

Variables	Type of milk breast milk (%)	P value	Time of initiation within recommended time (%)	P value	Pre-lacteal feeds (%)	P value	Practice of EBF (%)	P value
Antenatal checkups								
PHC (240)	146 (60.8)	0.065	208 (85)	0.013*	12 (5)	0.439	170 (70.8)	0.010*
Tertiary care hospital (37)	22 (59.5)		25 (67.6)		4 (10.8)		19 (51.3)	
Private hospital (53)	24 (45.3)		41 (77.3)		2 (3.8)		29 (54.7)	
Nowhere (4)	4 (100)		4 (100)		0 (0)		4 (100)	
Mode of delivery								
Normal (211)	118 (56.2)	0.229	196 (93.3)	0.000	0 (0)	0.000*	137 (65.2)	0.536
Cesarean (123)	78 (62.9)		82 (66.1)		18 (14.5)		85 (68.5)	
Place of delivery								
PHC (112)	61 (54.5)	0.133	106 (94.6)	0.000*	0 (0)	0.000*	70 (62.5)	0.331
Tertiary care hospital (165)	106 (64.2)		128 (77.6)		14 (8.5)		114 (69.1)	
Medical College (16)	10 (62.5)		16 (100)		0 (0)		13 (81.2)	
Private institute (41)	19 (46.3)		28 (68.3)		4 (9.8)		25 (61)	
Delivery conducted by								
Doctor (169)	109 (64.5)	0.028*	124 (73.4)	0.000	18 (10.7)	0.000*	120 (71)	0.075
Others (staff nurse, ANM, VHN) (165)	87 (52.7)		154 (93.3)		0 (0)		102 (62)	

*Corrected Chi-square value. ANM: Auxiliary nurse midwives, VHN: Village health nurse, PHC: Primary health center

within the time was significant among deliveries conducted by staff nurse, ANM, village health nurse (93.3%). Prelacteal feeds were seen to be given by most mothers used tertiary hospital for antenatal checkups (10.8%) and delivery (8.5%). This practice was relatively seen among cesarean cases (14.8%) and deliveries conducted by doctors (10.7%). EBF was broadly practiced by mothers who used primary centers for antenatal visits (70.8%). EBF practice was obviously observed among cesarean cases (68.5%) and deliveries conducted by doctors (71%). This practice was also significantly seen among deliveries conducted in medical colleges (81.2%).

Table 5 revealed that the practice of giving colostrum was moderately high (91.5%) among women at the age group of 24-29 years. This practice was very effectively seen among women belong to Hindu religion. Colostrum giving practice seems to vary among women at different education levels and seen highly among working (97.2%) and upper middle class (93.5%). This was also practiced very evidently among nuclear families (91.4%). Breastfeeding frequency was very religiously followed by women at the age group of 18-23 years, and this was noticed high among Christian women (69.9%). Most of the educated women (77.5%) seem to have this practice, and this was significantly seen among housewives (68.4%). Although it appeared to vary at different socioeconomic profiles, the practice was seen high among lower middle class (75%) and in joint families (73.6%). The correct posture of breastfeeding was seen to be practiced by graduated mothers (84.5%). Age makes a difference in the practice and the percentage of practice was highly observed among women aged between 30 and 35 years (86.7%). Working mothers (84.5%) and mothers from lower middle class (84.6%) were seen to practice this effectively.

The practice of cleaning the nipple after feeding was highly noticed among mothers at the age 24-29 years. This was also seen significantly among working mothers (76.1%) and graduated mothers (85.9%). Women from joint family seem to practice this effectively (68.9%).

Table 6 stated that the practice of giving colostrum was fairly good among mothers who visited PHC for antenatal checkups (94.3%) and deliveries (97.3%). At the same time, the practice was widely practiced by mothers who had normal delivery (94.8%) and deliveries conducted by others such as staff nurse (97%). Breastfeeding frequency was practiced appropriately by women who visited PHCs for antenatal checkups (69.6%) and deliveries (69.6%). This practice was also seen high among cesarean cases (66.1%) and deliveries conducted by doctors (67.5%). The correct posture of breastfeeding was practiced efficiently by mothers who visited PHCs for antenatal checkups (75.4%) and deliveries (76.8%). This practice was also comparatively high among normal deliveries (77.1%) and deliveries conducted by doctors (75.1%). The practice of cleaning the nipple after feeding was very much observed among mothers who used PHC for antenatal check-up (73.3%) and tertiary care hospital for delivery (69.1%). This was also seen clearly among cesarean cases (65.3%) and deliveries conducted by doctors (63.3%).

Figure 1 reveals that out of 334 participants, 104 mothers did not give EBF due to various reasons. The most common reason was fear of inadequate breast milk (74%) followed by factors like difficulty in breastfeeding (11.5%). Figure 2 states that the majority of the mothers 84 (25.1%) were unaware of the reason while 75 subjects (22.4%) revealed that due to the presence of either maternal or neonatal problems they were

Table 5: Sociodemographic profile versus practice of giving colostrum, breastfeeding frequency and posture of breastfeeding

Variables	Practice of giving colostrum (%)	P value	Correct breastfeeding frequency (%)	P value	Correct posture of breastfeeding (%)	P value	Practice of cleaning nipple (%)	P value
Age								
18-23 years (75)	69 (92)	0.009*	57 (76)	0.129	57 (76)	0.017*	44 (58.7)	0.199
24-29 years (212)	194 (91.5)		135 (63.7)		153 (72.2)		132 (62.3)	
30-35 years (45)	38 (84.4)		29 (64.4)		39 (86.7)		33 (73.3)	
>35 years (2)	0 (0)		2 (100)		0 (0)		2 (100)	
Religion								
Hindu (261)	242 (92.7)	0.003	172 (65.9)	0.525	185 (70.9)	0.004	156 (59.8)	0.015
Christian (73)	59 (80.8)		51 (69.9)		64 (87.7)		55 (75.3)	
Education								
Illiterate (9)	7 (77.8)	0.496	3 (33.3)	0.005*	6 (66.7)	0.153	4 (44.4)	0.000*
Primary (65)	60 (90.7)		35 (66.3)		45 (74.4)		39 (57)	
Secondary (190)	173 (92.7)		131 (62.2)		139 (67.1)		108 (58.5)	
Graduation (70)	61 (87.3)		54 (77.5)		59 (84.5)		60 (85.9)	
Occupation								
Working (71)	69 (97.2)	0.025*	43 (60.6)	0.211	60 (84.5)	0.030	54 (76.1)	0.011
Housewife (263)	232 (88.2)		180 (68.4)		189 (71.9)		157 (59.7)	
Socioeconomic status								
Upper (6)	5 (83.3)	0.553	3 (50)	0.108	6 (100)	0.001*	6 (100)	0.136
Upper middle (92)	86 (93.5)		53 (57.6)		63 (68.5)		58 (63)	
Middle (121)	110 (90.9)		81 (66.9)		88 (72.7)		72 (59.5)	
Lower Middle (104)	90 (86.5)		78 (75)		88 (84.6)		69 (66.3)	
Lower (11)	10 (90.9)		8 (72.7)		4 (36.4)		6 (54.5)	
Type of family								
Nuclear (186)	170 (91.4)	0.380	114 (61.3)	0.017*	124 (66.7)	0.000	109 (58.6)	0.052
Joint (148)	131 (88.5)		109 (73.6)		125 (84.5)		102 (68.9)	

*Corrected Chi-square value

Table 6: Antenatal and delivery details versus practice of giving colostrum, breastfeeding frequency and posture of breastfeeding

Variables (n)	Practice of giving colostrum present (%)	P value	Correct frequency of breastfeeding present (%)	P value	Correct posture of breastfeeding present (%)	P value	Correct practice of cleaning nipple (%)	P value
Antenatal checkups								
PHC (240)	215 (89.6)	0.547	167 (69.6)	0.014*	181 (75.4)		154 (73.3)	0.040*
Tertiary care hospital (137)	32 (86.5)		21 (56.8)		24 (64.9)		26 (70.2)	
Private hospital (53)	50 (94.3)		35 (66)		40 (75.5)		31 (58.5)	
Nowhere (4)	4 (100)		0 (0)		4 (100)		0 (0)	
Mode of delivery		0.000		0.849				
Normal (210)	199 (94.8)		141 (57.1)		162 (77.1)	0.157	130 (61.9)	0.532
Cesarean (240)	102 (82.3)		82 (66.1)		87 (70.2)		81 (65.3)	
Place of delivery								
PHC (112)	109 (97.3)	0.003*	78 (69.6)	0.834	86 (76.8)	0.624	62 (55.4)	0.003
Tertiary care hospital (165)	146 (88.5)		107 (64.8)		118 (71.5)		114 (69.1)	
Medical College (16)	13 (81.3)		10 (62.5)		13 (81.3)		5 (31.2)	
Private institute (41)	33 (80.5)		28 (68.5)		32 (78)		30 (73.2)	
Delivery conducted by								
Doctor (169)	141 (83.4)	0.000	114 (67.5)	0.786	127 (75.1)	0.799	107 (63.3)	0.975
Others (Staff nurse, ANM, VHN) (165)	160 (97)		109 (66.1)		122 (73.9)		104 (63)	

*Corrected Chi-square value. ANM: Auxiliary nurse midwives, VHN: Village health nurse, PHC: Primary health center

unable to initiate breastfeeding timely. Other factors stated were the presence of traditional beliefs and sociocultural practices.

DISCUSSION

This descriptive cross-sectional study was conducted to assess the knowledge and practices about breastfeeding to estimate the prevalence of EBF and the factors influencing breastfeeding. The prevalence of EBF among mothers in the rural area of Sembakkam, Kancheepuram district was 69% in this study. The findings of a study done in Indian setting showed that knowledge of breastfeeding was good in postnatal mothers which were 85% as they had correct knowledge of EBF.^[8] Another recent study carried out in a rural area of Bangladesh had a low prevalence of 36%.^[9] Significantly, in our study, many of the literate mothers (with secondary education [56.9%] and graduation [21%]) had better knowledge about EBF compared to illiterate mothers (2.7%). Similarly, a recent study reported that women with no formal education were almost 50% less likely to initiate breastfeeding than educated mothers.^[10] Among the study participants, 66.2% (174 out of 263) of the housewives had been practicing EBF than working women 67.6% (48 out of 71). Meanwhile, it was noticed that mothers without formal job (housewives) had better practice than formal job mothers.^[11]

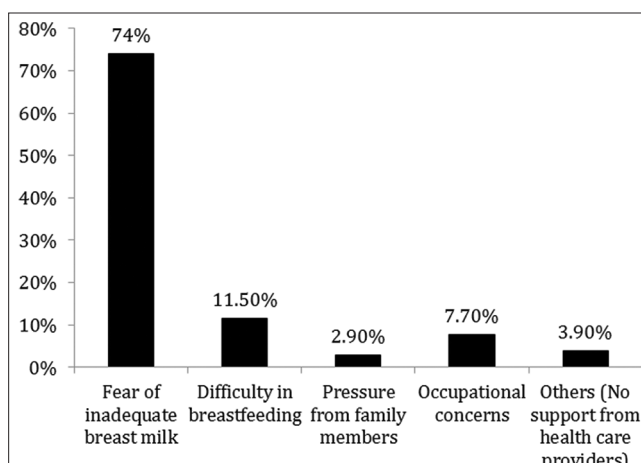


Figure 1: Reasons for not giving exclusive breastfeeding for 6 months

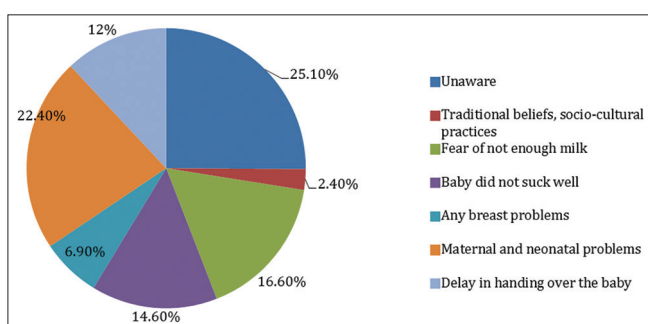


Figure 2: Opinion for not initiating breastfeeding within first 1 hr after birth from all mothers in general

In this study, 47.9% of participants perceived that EBF should be continued till the newborn becomes 6 months old. However, another study established that 59% of the mothers knew about the continuation of EBF for 6 months of a newborn.^[12] In the age of 18-23 years, EBF was (48.6%) and (97.5%) in the age of 24-29 years. As the age of the mother increases, the knowledge of initiation and EBF was better than those mothers who had an early marriage under 18 years of age. A recent study reported that the knowledge of initiation of breastfeeding was only 10%.^[13] In this study, the knowledge about initiation of breastfeeding in vaginal delivery was 96.2% in comparison to the mothers who delivered by cesarean section. While in another study, they reported that 76.9% of vaginal deliveries and 65.2% of cesarean section had proper knowledge about the initiation of breastfeeding,^[8] and the reason for initiation of breastfeeding had the highest proportion of mothers who delivered in PHC in our study.

In our study, 69% of mothers had exclusively breastfed for 6 months and 94.6% of mothers had not given any prelacteal feed which was in proportion compared to other studies and 90.1% of mothers had given colostrum as compared to other studies. A study conducted in Nagpur reported that 21.3% mothers had given colostrum and 78.6% had given pre-lacteal feeds; babies were exclusively breastfed by 52% of mothers for 6 months.^[14] A similar study finding observed that 33% of the literate mothers gave colostrum compared to the illiterate mothers 27%.^[13] Recent study revealed that 38% mothers gave prelacteal feed in an urban area of East Delhi^[15] compared to our study because rural area mothers gave more importance not to give prelacteal feed. In this study, few mothers reported that they discarded colostrum considering it as infectious milk; a recent study also reported in rural focus group few mothers have discarded colostrum milk.^[16] Significantly another study showed that 33% mothers have given prelacteal feeds and 36% mothers had discarded colostrum.^[17] In our study, 11.1% had been advised by doctors during the antenatal visits and 27.3% by the family members. Recent study reported that 62.1% of the mothers had been advised by doctors regarding when and what type of feed should be given to the baby soon after the birth and 78.5% by family members.^[18] Frequency of breastfeeding between 2 h interval and whenever the baby cries were 74.5% in our study, while a recent study performed in Bihar expressed that breastfeeding frequency for each day were more than 12 times in 3.9% of the mothers, 10-12 times in 26.4%, 1-5 times in 31%, and 6-9 times in 38.8% of the mothers.^[19] In our study, 74% of mothers were practicing sitting posture during breastfeeding, and the reason given by the mothers for the correct posture was another posture of feeding may be uncomfortable for baby and it could cause indigestion problems especially in the lying posture. Meanwhile in another study, it was found that 74% of mothers were practicing correct technique.^[8]

The strength of the study, it is a community-based study. All the parameters related to breastfeeding were analyzed and

adequate counseling had been given to the mothers based on the study finding. The study also had some limitations like mothers who had children surviving more than 6 months of age up to 24 months were only included in this study. Further, the issue of recall bias arises in this study as the data regarding the breastfeeding practices was collected more than 12 months after delivery from a section of the rural mothers. Furthermore, as the study had been conducted in a rural setting, the findings of the study cannot be generalized to the urban setting.

CONCLUSION

The prevalence of EBF among the rural mothers was observed to be 69.1%. The most predominant reason for not adhering to EBF was fear of insufficient breast milk, followed by family members insisting on artificial feeding. Most of the reasons are preventable and can be effectively tackled by motivating and educating mothers with the help of the team of health-care providers. Further, counseling of the rural mothers by the health workers during the antenatal period, delivery and in the postnatal follow-up period is a must, to positively influence the knowledge and practice pertaining to EBF.

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