

Assessment of awareness and practices regarding breastfeeding in rural community

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ABSTRACT

Background: Breastfeeding remains the simplest, healthiest, and least expensive feeding method that fulfills the infant's needs and it is also important for reducing child morbidity and mortality. It has nutritional, immunological, behavioral, and economic benefits and also provides desirable mother-infant bonding. **Objectives:** The objectives of this study were (1) to assess the awareness and practices regarding breastfeeding of rural mothers and (2) to find out the influence of sociodemographic variables on breastfeeding practices. **Materials and Methods:** A community-based cross-sectional study was conducted in the field practice area of Rural Health Training Centre, Integral Institute of Medical Sciences and Research, Lucknow. Mothers having children between 0 and 2 years age group were included in the study. A pre-designed, semi-structured questionnaire was used as a study tool. Data were compiled in MS Excel and statistical analysis was done using SPSS version 20. **Results:** About 54.8% were aware that breastfeeding should be initiated within 1–24 h after birth, but 66.7% initiated breastfeeding within 1–24 h after birth, 73.9% were aware and feed their infant on demand, and 46.2% were aware that exclusive breastfeeding (EBF) should be continued up to 6 months of age, but only 37.6% practiced EBF. Factors such as literacy status, place of delivery, and mode of delivery were found to be associated with breastfeeding practices. **Conclusion:** It is seen in the study that practice of EBF and early initiation of breastfeeding are still low.


KEY WORDS: Exclusive Breastfeeding; Early Initiation of Breastfeeding; Colostrum

INTRODUCTION

Breastfeeding remains the simplest, healthiest, and least expensive feeding method that fulfills the infant's needs and it is also important for reducing child morbidity and mortality. It has nutritional, immunological, behavioral, and economic benefits and also provides desirable mother-infant bonding. Evidence suggests that early breastfeeding, if implemented widely, can reduce the neonatal mortality rate by 20%. Breastfeeding practices if followed optimally can reduce

infant mortality and significantly contribute to the long-term health of children.^[1] A study published in Lancet shows that under 5-year children mortality can be reduced every year through optimal breastfeeding.^[2] Adequate and exclusive breastfeeding (EBF) reduces the rate of hospitalization among children from diarrhea, respiratory infections, and otitis media illnesses.^[2]

Breastmilk is the natural first food for babies, it provides all the energy and nutrients that the infant needs for the 1st month of life, and it continues to provide up to half or more of a child's nutritional needs during the second half of the 1st year and up to one-third during the 2nd year of life. In view of the benefits of breastfeeding, starting breastfeeding in the 1st h of delivery, EBF for the first 6 months of life, and continued breastfeeding together with suitable complementary foods for up to 2 years or beyond are recommended as the best

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infant feeding practices for optimal growth, development, and health.^[1] Worldwide, approximately 38% of infants up to the age of 6 months are exclusively breastfed.^[3] The trend of EBF among infants <6 months in developing countries has taken over a decade to increase from 33% in 1995 to 39% in 2010.^[4]

As India is a socially and culturally diversified nation, so breastfeeding also gets influenced by social, cultural, and economic factors. To protect, promote, and support breastfeeding in 1991, Breastfeeding Promotion Network of India was started.^[5] It is seen that major reasons for poor health indices among children main in developing countries are non-adherence to EBF, late initiation of breastfeeding after birth, and not giving colostrum to newborns.^[6] Keeping in mind, the importance of breastfeeding practices for infants, this study was planned to assess the awareness, practices, and factors affecting the breastfeeding.

Objectives

The objectives of this study were as follows:

- To assess the awareness and practices regarding breastfeeding of rural mothers
- To find out the influence of sociodemographic variables on breastfeeding practices.

MATERIALS AND METHODS

It was a cross-sectional study carried out in rural health and training center, Department of Community Medicine, Integral Institute of Medical Sciences and Research, Lucknow, from November 1, 2018, to January 31, 2019. The study participants were the mothers of children from 6 months of age up to 24 months of age. A semi-structured questionnaire was designed in English language and then it was pre-tested in a pilot study and then corrections were done. Sample size was calculated using the prevalence of EBF under age 6 months, which was 51.6% in rural area of India as per NFHS-3 data.^[7]

Hence, assuming the prevalence of EBF under the age of 6 months to be 51.6% and taking relative error of 10%, the total sample size came out to be 360. Hence, a total of 361 mothers were interviewed. The data entry was done in MS Excel and data were analyzed using statistical software and results were presented in narratives and tables. Ethical clearance was taken from the institutional ethical committee.

Inclusion Criteria

The inclusion criteria were as follows: (a) Mothers of healthy infants aged 6 months up to 24 months, (b) born between 37 and 42 gestation weeks, (c) and without major birth defects such as congenital heart disease, cleft lip/cleft palate, and Down syndrome, and (d) who volunteered to participate.

RESULTS

Table 1 shows the sociodemographic profile of the study participants ($n=361$).

Majority of the study participants (46%) were in the age group of 24–29 years of age, 51% of study population were Muslims while rest 49% were Hindus. On the basis of the type of family, 52% were having nuclear type of family while 48% live in joint family. As per the literacy status of the study population, 55% were illiterate and 45% were literate. Of 361 study participants, 202 (56%) had institutional deliveries, 264 (73%) of the study population normal mode of delivery and 97 (27%) had cesarean section, 239 (66%) were multigravidae, and 122 (34%) were primigravidae.

Table 2 shows the awareness regarding breastfeeding among mothers.

About 54.8% of mothers were aware that breastfeeding should be initiated from 1 to 24 h after birth, 78.2% were aware that baby should be breastfed till the baby sleeps or leaves, regarding frequency of breastfeeding, 73.9% were aware that they breastfeed their baby on demand, 75.6% were aware to give colostrum, and 46.2% have opinion to continue EBF for 1–6 months while 39.3% have opinion

Table 1: Sociodemographic profile

Variables	Number ($n=361$)	Percentage
Age (in years)		
18–23	36	10
24–29	166	46
30–35	94	26
Above 35	65	18
Religion		
Hindu	177	49
Muslim	184	51
Others	00	00
Type of family		
Nuclear	188	52
Joint	173	48
Literacy status		
Illiterate	199	55
Primary	162	45
Place of delivery		
Institutional	202	56
Home delivery	159	44
Gravida		
Multi	239	66
Primi	122	34
Mode of delivery		
Normal	264	73
Cesarean	97	27

Table 2: Awareness regarding breastfeeding among mothers

Variables	Aware <i>n</i> =361 (%)
Initiation of breastfeeding	
<1 h	86 (23.8)
1–24 h	198 (54.8)
>24 h	77 (21.4)
Duration of each breastfeed	
<10 min	79 (21.8)
Till the baby sleeps or leaves	282 (78.2)
Frequency of breastfeeding	
On demand	267 (73.9)
At regular intervals	94 (26.1)
Mode of breastfeeding	
From one side	37 (10.3)
From both sides	324 (89.7)
Should colostrum be given	
Yes	273 (75.6)
No	88 (24.4)
Exclusive breastfeeding duration	
<1 month	142 (39.3)
1– <6 months	167 (46.2)
≥6 months	52 (14.5)
Should prelacteal feed be given (water/ghunti/honey)	
Yes	277 (76.7)
No	84 (23.3)
When to start complementary feeding	
<1 month	35 (9.7)
1– <6 months	202 (55.6)
>6 months	124 (34.7)

to continue EBF only for <1 month and 55.6% were of the opinion to start complementary feeding from 1 to 6 months.

Table 3 shows the practices followed by mothers regarding breastfeeding.

Of 361 respondents, 241 (66.7%) initiated the breastfeeding from 1 to 24 h after birth, 75.6% breastfeed till the baby sleeps or leave, 73.9% breastfeed the baby on demand, 93.4% breastfeeds from both sides alternatively, 83.9% had given colostrum to their babies, but 60.7% had also given prelacteal feed to their babies also, and only 19.2% continued EBF up to 6 months of age. About 54.3% started complementary feeding before the age of 6 months, whereas 37.9% initiated complementary feeding after the age of 6 months.

Table 4 shows the different factors affecting the initiation of breastfeeding.

Among the different variables, it was seen that literacy status, place of delivery, and mode of delivery were found to be highly associated with initiation of breastfeeding. The

Table 3: Breastfeeding practices among mothers

Variables	<i>n</i> =361 (%)
Initiation of breastfeeding	
<1 h	53 (14.7)
1–24 h	241 (66.7)
>24 h	67 (18.5)
Duration of each breastfeed	
<10 min	88 (24.4)
Till the baby sleeps or leaves	273 (75.6)
Frequency of breastfeeding	
On demand	267 (73.9)
At regular intervals	94 (26.1)
Mode of breastfeeding	
From one side	24 (6.6)
From both sides	337 (93.4)
Colostrum given	
Yes	303 (83.9)
No	58 (16.1)
Exclusive breastfeeding	
<1 month	156 (43.2)
1– <6 months	136 (37.6)
6 months	69 (19.2)
Prelacteal feed given (water/ghunti/honey)	
Yes	219 (60.7)
No	142 (39.3)
Age of starting complementary feeding	
<1 month	28 (7.6)
1– <6 months	196 (54.3)
>6 months	137 (37.9)

difference between illiterate and literate mothers in initiation of breastfeeding was found to be highly significant ($P=0.004$); similarly, the difference in initiation of breastfeeding among those delivered at home and institutional deliveries was also found to be highly significant ($P=0.01$) and also the difference among those who had normal mode of delivery and cesarean section was also found to be highly significant ($P=0.003$).

DISCUSSION

Recognizing the importance and health benefits of breastfeeding, this study was planned to assess the awareness and practices of breastfeeding among women of a rural area. In the present study, majority of mothers (66.7%) initiated the breastfeeding within 1–24 h after birth and only 14.7% initiated breastfeeding within 1 h of birth, which is considered to be an appropriate time for initiation of breastfeeding; hence, more efforts should be put to increase early initiation of breastfeeding in this region. It was also seen that only 46.2% of women were to continue EBF for 6 months; similarly, a low percentage (30%) of women were aware of EBF and 75.6% of women were aware to give colostrum, it was also

Table 4: Factors influencing the initiation of breastfeeding

Variables	Time period			Statistical test
	<1 h	1–24 h	>24 h	
Age (in years)				
18–23	6	22	8	$\chi^2=4.026$ df=6
24–29	26	108	32	P -value=0.67
30–35	15	61	18	
>35	6	50	9	
Religion				
Hindu	23	112	42	$\chi^2=6.30$ df=2
Muslim	30	129	25	P -value=0.04
Type of family				
Nuclear	32	131	26	$\chi^2=6.68$ df=2
Joint	21	110	41	P -value=0.03
Literacy status				
Illiterate	17	106	41	$\chi^2=10.73$ df=2
Literate	36	135	26	P -value=0.004
Place of delivery				
Home delivery	15	107	37	$\chi^2=8.73$ df=2
Institutional	38	134	30	P -value=0.01
Gravida				
Primi	26	74	22	$\chi^2=6.57$ df=2
Multi	27	167	45	P -value=0.03
Mode of delivery				
Normal	41	164	59	$\chi^2=11.24$ df=2
Cesarean	12	77	8	P -value=0.003

observed that only 19.2% continued EBF up to 6 months of age. The present study showed that 37.9% of women started complementary feeding after the age of 6 months of age and early initiation of breastfeeding, i.e., within 1 h of birth was 14.7%.

A study conducted by Singh *et al.*, in 2012, in Mysore, also shows that majority of women initiated breastfeeding within 24 h after birth.^[8] A study conducted in Nigeria by Oche *et al.*^[9] showed that 30% of women were aware to continue EBF for 6 months, whereas a study conducted by Onah *et al.*, in 2014, in Nigeria shows that where 95.3% of mothers had heard about EBF and 82.0% of them correctly defined EBF.^[10] A low percentage (27%) of EBF was observed by Vijayalakshmi *et al.*, in Karnataka, a study conducted in 2014.^[11] A study conducted by Tiwari *et al.*^[12] and a study conducted by Bandyopadhyay^[13] also show low rate of EBF of 7.8% and 16.5%, respectively. It was also found by Asare *et al.*, in Ghana,^[14] that 33.7% of women started complementary feeding after the age of 6 months. On the contrary, high rates of complementary feeding were seen in a study conducted by Issaka *et al.*^[15] in Ghana (72.6%) and

in Ethiopia (60.5%) by Semahegn *et al.*^[16] On the contrary, a higher percentage (63.4%) of early initiation of breastfeeding was found in Asare *et al.*^[14] study.

Strength

The study highlights the important topic of breastfeeding practices. It is a community-based study so social factors were studied more accurately. The study highlights the malpractices and deficiencies present in the community regarding breastfeeding.

Limitation

The sample size was small and the time and resources were limited for the study.

CONCLUSION

It is seen in the study that practice of EBF and early initiation of breastfeeding are still low. Factors such as literacy status, place of delivery, type of family, gravida, and mode of delivery are found to be associated with early initiation of breastfeeding. Hence, efforts should be made to increase the awareness and practice of EBF and early initiation of breastfeeding in this area.

REFERENCES

1. World Health Organization. Maternal, Newborn, Child and Adolescent Health; Breastfeeding. Geneva: World Health Organization; 2016. Available from: http://www.who.int/maternal_child_adolescent/topics/newborn/nutrition/breastfeeding/en. [Last accessed on 2016 Mar 21].
2. Victora CG, Bahl R, Barros AJ, França GV, Horton S, Krasevec J, *et al.* Breastfeeding in the 21st century: Epidemiology, mechanisms, and lifelong effect. *Lancet* 2016;387:475-90.
3. United Nation Children's Fund. Nutrition; Improving Breastfeeding, Complementary Foods and Feeding Practices. New York: United Nation Children's Fund; 2015. Available from: https://www.unicef.org/nutrition/index_breastfeeding.html. [Last accessed on 2016 Mar 23].
4. Cai X, Wardlaw T, Brown DW. Global trends in exclusive breastfeeding. *Int Breastfeed J* 2012;7:12.
5. Gupta A. BPNI: 10 years of its work. *J Indian Med Assoc* 2002;100:512-5.
6. Magawa R. Knowledge, Attitudes and Practices Regarding Exclusive Breastfeeding in Southern Africa-Part 2; 2012. Available from: <http://www.consultancyafrica.com>. [Last cited on 2016 Apr 21].
7. Government of India. Ministry of Health and Family Welfare. National Family Health Survey-4; 2015-2016. Available from: <http://www.rchiips.org/nfhs/pdf/NFHS4/India.pdf>. [Last accessed on 2017 Jul 02].
8. Singh J, Vishakaturmy DG, Charan PM. Breastfeeding practices among lactating mothers: Problems and prospects in

- a cross-sectional study. *Int J Health Allied Sci* 2012;2:54-8.
9. Oche MO, Umar AS, Ahmed H. Knowledge and practice of exclusive breastfeeding in Kware, Nigeria. *Afr Health Sci* 2011;11:518-23.
 10. Onah S, Osuorah DI, Ebenebe J, Ezechukwu C, Ekwochi U, Ndukwu I, *et al.* Infant feeding practices and maternal socio-demographic factors that influence practice of exclusive breastfeeding among mothers in Nnewi South-east Nigeria: A cross-sectional and analytical study. *Int Breastfeed J* 2014;9:6.
 11. Vijayalakshmi P, Susheela T, Mythili D. Knowledge, attitudes, and breast feeding practices of postnatal mothers: A cross sectional survey. *Int J Health Sci (Qassim)* 2015;9:364-74.
 12. Tiwari R, Mahajan PC, Lahariya C. The determinants of exclusive breast feeding in urban slums: A community based study. *J Trop Pediatr* 2009;55:49-54.
 13. Bandyopadhyay M. Impact of ritual pollution on lactation and breastfeeding practices in rural West Bengal, India. *Int Breastfeed J* 2009;4:2.
 14. Asare BY, Preko JV, Baafi D, Dwumfour-Asare B. Breastfeeding practices and determinants of exclusive breastfeeding in a cross-sectional study at a child welfare clinic in Tema Manhean, Ghana. *Int Breastfeed J* 2018;13:12.
 15. Issaka AI, Agho KE, Burns P, Page A, Dibley MJ. Determinants of inadequate complementary feeding practices among children aged 6-23 months in Ghana. *Public Health Nutr* 2015;18:669-78.
 16. Semahegn A, Tesfaye G, Bogale A. Complementary feeding practice of mothers and associated factors in Hiwot Fana specialized hospital, Eastern Ethiopia. *Pan Afr Med J* 2014;18:143.

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