

**Knowledge and practices about breast feeding among mothers – A hospital-based study in Puducherry**

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**ABSTRACT**

**Background:** Good breastfeeding knowledge and practice is important for adequate immunity, growth and development of a child along with benefits to the mother. Various socio-cultural factors influence the practice of breastfeeding across region, hence it is important to assess and improve the knowledge and practice of the same. **Objective:** To determine the knowledge and practices related to breast feeding and their association with socio-demographic factors. **Materials and Methods:** A facility based cross sectional study was conducted at Pediatric department of Mahatma Gandhi Medical College, Puducherry for two months from 1<sup>st</sup> August 2016 to 30<sup>th</sup> September 2016. All eligible mothers who visited the Pediatric department during the two months period were included in the study and were interviewed using a semi-structured questionnaire. **Results:** 61.2% had knowledge that breastfeeding should be initiated within one hour of birth and 76% knew about colostrum. Majority (91%) knew about the proper duration of exclusive breast feeding while 70.2% knew that breastfeeding should be given to child even during mother's common illness. Total 90% of mothers were aware of at least one benefit offered by breast feeding to the child and 36% mothers were aware of at least one benefit to mother. About 97% mothers breast fed their child, of which 64.6% mothers did proper exclusive breastfeeding. Among 238 mothers who practiced breastfeeding, 42.4% mothers practiced on-demand feeding. Knowledge about initiation of breast feeding was significantly higher in those who were more than 25 years of age while knowledge about colostrum was significantly higher among women who were educated up to at least high school or above. **Conclusion:** The findings revealed that majority of mothers have good knowledge and practice of breastfeeding. Since education level of mother and age were found to be associated with some knowledge components, health education regarding breast feeding is highly recommended.

**Key Words:** Attitudes, Breast feeding, infant feeding practices, Knowledge, Practice, Mothers

**INTRODUCTION**

Good nutrition during infancy and early childhood is essential to ensure the adequate growth and development of children to their full potential.<sup>1</sup> The World Health Organization (WHO) recommends that infants be exclusively breastfed for the first six months, followed by breastfeeding along with complementary feeding for up to two years of age or beyond.<sup>2</sup> It has been recognized globally that breastfeeding is beneficial for both the child and mother.<sup>3</sup> Infants when exclusively breastfed for the first six months are significantly protected against the major childhood diseases like diarrhea, diabetes, obesity etc. Mothers who exclusively breastfeed their children also have many advantages like reduction in risk of breast cancer and ovarian cancer.<sup>4,5</sup>

Although breastfeeding is universal in India, exclusive breast feeding and appropriate complementary feeding practices rates are not satisfactory. In India, as per National Family and Health Survey (NFHS)-4, prevalence of exclusive breast feeding is 41.6%.<sup>6</sup> In few South Indian studies<sup>7,8,9</sup>, prevalence of exclusive breast feeding (EBF) was reported from 34% to

71%. Various Socio-cultural factors influence these practices, which vary from region to region. The knowledge and practices regarding breastfeeding practices must be assessed and improved.

In Puducherry, rarely any hospital-based study about knowledge and practices related to breast feeding is conducted, so the present study was conducted to know the same. It attempts to identify the gaps in knowledge and correct practices so that necessary health education can be given to mothers for betterment of the mother and child.

**Aims & Objectives:**

- 1) To determine the knowledge and practices related to breast feeding among mothers.
- 2) To determine the association between socio-demographic factors and knowledge related to breast feeding.
- 3) To determine the association between socio-demographic factors and practices related to breast feeding.

**MATERIAL AND METHODS**

A facility based cross sectional study was conducted at Pediatric outpatient department of Mahatma Gandhi Medical College and Research Institute, Puducherry. The study was conducted for two months from August to September 2016. Total 245 mothers visiting paediatric department, having at least one child between 6 months to 23 months age were interviewed. One of the researchers visited the Pediatric OPD and interviewed the subjects using a semi-structured questionnaire. Questions pertaining to socio-demographic details, knowledge and practices related to breast feeding were included. Data compilation and analysis was carried out with Microsoft-Excel and Epi info software (version 7). Data were presented as frequency and percentages. Association with socio-demographic factors was assessed by chi-square test and a p-value of <0.05 was considered statistically significant. Ethical permission was sought from Institutional Human Ethical Committee before conducting the study. Informed written consent was obtained from subjects prior to the interview and confidentiality was maintained.

**RESULTS**

Total 245 mothers were interviewed between age 20 to 37 years with mean age of 25.3 yrs (SD ±2.9). Most of the mothers (51%) belonged to age group 25 to 30 years. Majority (69%) were from rural area and most (66.9%) had education up to at least high school or above. About 94% were non-working and 56.3% were having only one child.

**Table 1: Knowledge of mothers regarding breast feeding**  
(Figures in parenthesis are percentages, \*Multiple responses)

Knowledge	Response	No.(%)
Ideal time to initiation of breast feeding after birth	Correct response (within one hour)	150(61.2)
	Incorrect response	95(38.7)
Colostrum	Correct response (First milk secreted for few days after delivery)	186(75.9)
	Don't know	59(24.1)
Duration of exclusive breast feeding	Correct response (6 months)	222(90.6)
	Incorrect response	23(9.3)
Whether to stop breast feeding the child during mother's common illness?	Correct response (No)	172(70.2)
	Incorrect response (Yes)	73(29.8)
Advantages of breast feeding for child*	Improves immunity	205(83.7)
	Healthy food	32(13.1)
	Brain & IQ development	30(12.2)
	To have a healthy child	43(17.6)
	Prevention of diarrhea	2(0.8)
	Don't know	26(10.6)
	Prevents breast cancer	117 (29.4)
Advantages of breast feeding for mother*	Helps to maintain normal weight	22(8.9)
	Acts as contraception	9(3.7)
	Prevents breast related health problems	8(3.3)
	Happiness in mother	4(1.6)
	Improves health of mother	2(0.8)
	Don't know	128(52.2)

**Table 2: Practice of mothers regarding breast feeding**

Practice	Response	No.(%)
Prelacteal feeding (n-238)	Yes	14(5.9)
	No	224(94.1)
Duration of exclusive breast feeding (n-232)	6 months	150(64.6)
	<6 months	20(8.6)
Frequency of breast feeding per day during first six months (n-238)	>6 months	62(26.7)
	On demand feeding	101(42.4)
Stopped breast feeding during mother's illness (n-238)	No practice of on demand feeding	137(57.6)
	Yes	18(7.6)
Fed with bottle any time (n-245)	No	220(92.4)
	Yes	59(24.8)
Initiation of breast feeding after birth (n-238)	Within first hour of birth	186(75.2)
	After one hour of birth	121(50.8)
		117(49.2)

Figures in parenthesis are percentages, \*Multiple responses

Of 245 mothers, 61.2% had knowledge that breastfeeding should be initiated within one hour of birth. Majority (90.6%) knew about the duration of exclusive breast feeding and 76% knew about colostrum. Total 70.2% mothers knew that breastfeeding should be given to child even during mother's common illness. Total 90% of mothers were aware of at least one benefit offered by breast feeding to the child. Improving the immunity, being a healthy food, brain & IQ development and prevention of diseases like diarrhea were some of the advantages they reported. Total 36% mothers were aware of at least one benefit to mother such as prevention of breast cancer, acting as contraceptive and improving health and happiness of mother.(Table 1).

Regarding practice, 238 (97.1%) mothers breast fed their child, among these, 232(97.4) mothers did exclusive breastfeeding for some duration. Among these 232, total 150 (64.6%) mothers did exclusive breastfeeding for six months. Among 238 mothers who practiced breastfeeding 42.4% mothers practiced on-demand feeding. (Table 2).

Knowledge about initiation of breast feeding within one hour was significantly associated with age, it was higher in those who were more than 25 years of age. Knowledge about colostrum was significantly higher among women who were educated up to at least high school or above. Regarding knowledge about breast feeding during mother's illness, significantly mothers in 25-30 years age group knew better compared to less than 25 years. (Table 3).

Prelacteal feeding practice was found significantly higher among younger age group mothers (20-25 years). Except prelacteal feeding, none of the practices were having significant association with age or education. (Table 4).

**DISCUSSION**

In present study, 61.2% mothers had knowledge that breastfeeding should be initiated within one hour of birth which is almost similar to the finding of a study done in 2012 in a rural area of Ajmer, Rajasthan by Karnawat et al.<sup>10</sup>,

**Table 3: Association of knowledge about breast feeding with age and education of mothers**

Variable	Response	Age (yrs)		P value	Education		P value
		20-25	>25		Middle school or less	High school or above	
		(n=100)	(n=145)		(n=22)	(n=223)	
Initiation of breast feeding after birth	Correct response (Within one hour)	53(53)	97(66.9)	0.028*	16(72.7)	134(60)	0.37
	Incorrect response	47(47)	48(33)		6(27.3)	89(40.0)	
Knowledge about Colostrum	First milk secreted for few days after delivery	76(76)	110(75.9)	0.98	12(54.5)	174(78)	0.014*
	Don't know	24(24)	35(24.1)		10(45.5)	49(22)	
Whether breast feeding should be stopped during mother's illness?	Correct response (No)	63(63)	109(75.2)	0.041*	10(45.5)	63(28.3)	0.09
	Incorrect response (Yes)	37(37)	36(24.8)		12(54.5)	160(71.7)	

Figures in parenthesis are percentages, \*significant

**Table 4: Association of breastfeeding practices with age and education of mothers**

Practice		Age		P value	Education		P value
		20-25	≥25		Middle school or less	High school or above	
		Frequency of breast feeding per day during first six months (n=238)	On demand		36(37.5)	65(45.8)	
Duration for exclusive breast feeding (n=232)	No on demand feeding	60(62.5)	77(54.2)	0.6	8(40)	129(60.2)	0.6
	6 months	62(66.7)	88(63.3)		12(66.7)	138(65.1)	
Stopped breast feeding during mother's illness (n=238)	More or less than 6 months	31(33.3)	51(36.7)	0.17	8(33.3)	74(34.9)	0.65
	Yes	10(10.4)	8(5.6)		1(5)	17(7.8)	
Fed with bottle any time (n=245)	No	86(89.6)	134(94.3)	0.37	19(95)	201(92.2)	0.37
	Yes	27(27)	32(22.1)		7(31.8)	52(23.3)	
Initiation of breast feeding after birth(n=238)	Within one hour	73(73)	113(77.9)	0.09	15(68.2)	171(76.7)	0.06
	After one hour	51(53.1)	70(49.3)		15(75)	106(48.6)	
Prelacteal feeding(n=238)	Yes	45(46.9)	72(50.7)	0.015*	5(25)	112(51.4)	0.24
	No	10(10.4)	4(2.8)		0(0)	14(6.4)	
		86(89.6)	138(97.2)		20(100)	204(93.6)	

while it was higher in a South Indian study in 2015 by Balaji Chinnasami et al.<sup>11</sup> The same study also reported a 75% knowledge of colostrum among study subjects, which is similar to our present study finding where majority (75.9%) of the mothers knew about colostrum. Our study found that 36.7% had knowledge about on demand feeding of the child while 3.7% had no knowledge about frequency of breast feeding. A study by Mittal et al. in 2013 in Rajasthan found that 57% knew that baby should be breastfed on demand.<sup>12</sup> Regarding knowledge of exclusive breast feeding (EBF), 91% knew that it should be done for first six months which is

similar to the study by Vijayalakshmi P et al. in 2014 in Bangalore, where 85.2% mothers had this knowledge.<sup>13</sup> Their study also reported that 68% had knowledge to continue breastfeeding up to 2 years<sup>13</sup>, while in present study it was 86.1%.

In our study, 89.4% mothers were aware of any benefit offered by breast feeding to the child, which is similar to the finding (96.3%) by Kamath et al. in their study on perceptions of breastfeeding done in 2012, among post-natal women in a tertiary hospital at Mangalore.<sup>14</sup> In present study, only some mothers (36%) knew about the benefits to the

mother. It may be due to the less common discussion of advantages for mother by the health care provider or media. If the mothers are made aware about benefits to them, then probably the prevalence of breast feeding may increase.

In present study, we found that only the knowledge about initiation of breast feeding within one hour was significantly associated with age ( $p=0.028$ ), which was higher in those who were more than 25 years of age. It may be due to the past experience as there may be mothers in higher age group who had two children. Karnawat D et al. in their study found that knowledge of choice of milk for newborn was significantly associated with place of residence while other socio demographic factors were not significant.<sup>10</sup>

Present study found that the knowledge about colostrum was significantly associated with education ( $p=0.014$ ), knowledge was higher among those whose educational level is at least high school or above. It could be due to the fact that importance of breastfeeding is included in teaching at high school level. Choudhary AK et al. in 2014 in their study on postnatal mothers in central India, found education to be a significant determinant of good knowledge of breastfeeding.<sup>15</sup>

In present study, it was found that total 97% mothers breastfed their child anytime. The only reason cited by 3% mothers who didn't breast fed the child was "Insufficient or very less milk secretion", it is a one of the common reasons cited by mothers in India. Kamath et al. in their hospital based study on practice of breastfeeding also found lack of secretion to be the common reason for not breastfeeding.<sup>14</sup>

In present study, 66.4% mothers-initiated breast feeding within one hour of delivery which is similar to the finding observed in NFHS-4 in Puducherry, where 65.3% children were breastfed within one hour of birth.<sup>6</sup> In a study at Indore during 2004-05 it was found to be 54.5%.<sup>16</sup> Hence early initiation of breast feeding is better in Puducherry compared to other parts of India. On a Global level, in developing countries, only 39% of newborns are put to the breast within one hour of birth.<sup>17</sup>

In our study we found that among those who practiced breast feeding ever, 42.2% gave breastfeed on demand. In a study by Balaji et al. in South India, it was found that 45% mothers gave breastfeeding at two hourly intervals and 72% mothers gave EBF for six months.<sup>11</sup> In developing countries, only 37% of infants under six months of age are exclusively breastfed.<sup>17</sup> In our study, EBF for six months was practiced by 64.6% mothers. It is higher than the finding (45.5%) in NFHS-4 in Puducherry.<sup>6</sup>

Pre-lacteal feeding practice is observed in many countries. Two studies, one from South Nepal and other from Pakistan reported prevalence of pre-lacteal feeding as 55.6% and 87.6% respectively.<sup>18,19</sup> The practice of prelacteal feeding varies across India. Kumar et al. (2009) in Chandigarh found 40% prevalence of prelacteal feeding.<sup>20</sup> These figures are very high compared to our study where only 5.9% gave prelacteal feeding. Those who gave prelacteal feed, they used lactogen, cow's milk or jaggery water.

In present study, among those who breast fed their children, EBF for six months was seen more in mothers who were educated till middle school or less compared to those who

were educated more, but this as well as other differences regarding breast feeding practices were not significant. Prelacteal feeding was significantly higher in younger age group, it may be due to the possibility that it was a first child and they didn't have any previous experience, there may be elderly women in such families who insist usually on age old tradition of giving prelacteal feeds. There was no significant age or education wise difference in practice of initiation of breast feeding within one hour. Similar to our study, education was not associated with early initiation in studies done during 2006 to 2013 at Karnataka, China and Bangladesh.<sup>21-22</sup>

#### Conclusion:

Present study about knowledge and practices of the mothers regarding breastfeeding revealed that majority of the mothers had good knowledge about breastfeeding and its practice is also favourable. Education level of mother and age were found to be associated with some knowledge components hence health education regarding breast feeding is highly recommended.

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#### REFERENCES

1. World Health Organization. Infant and young child feeding-Model Chapter for textbooks for medical students and allied health professionals 2009.[online][cited on 2018 Dec 12]. Available from:URL:[http://apps.who.int/iris/bitstream/10665/44117/1/9789241597494\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/44117/1/9789241597494_eng.pdf)
2. Hanif HM. Trends in breastfeeding and complementary feeding practices in Pakistan, 1990-2007. *Int Breastfeed J.* 2011 Oct 21;6-15.
3. Ku CM, Chow SK. Factors influencing the practices of exclusive breastfeeding among Hong Kong Chinese women: a questionnaire survey. *J Clin Nurs.* 2010 Sep;19(17-18):2434-45
4. World Health Organization. The optimal duration of exclusive breastfeeding: report of an expert consultation 2001: Geneva, Switzerland. [online] [cited on 2018 Nov 1]. Available from:[http://www.who.int/nutrition/publications/optimal\\_duration\\_of\\_exc\\_bfeeding\\_report\\_eng.pdf](http://www.who.int/nutrition/publications/optimal_duration_of_exc_bfeeding_report_eng.pdf)
5. World Health Organization. Innocenti declaration on the protection, promotion and support of breastfeeding 1990: Florence, Italy. [online] [cited on 2018 Nov 2]. Available from:URL:
6. <https://www.unicef.org/programme/breastfeeding/innocenti.htm>
7. International Institute for Population Sciences. National family health survey - 4 - 2015-16: India fact sheet. 2015. [online] [cited on 2018 Nov 1]. Available from: [https://www.rchiips.org/nfhs/factsheet\\_nfhs-4.shtml](https://www.rchiips.org/nfhs/factsheet_nfhs-4.shtml).
8. Radhakishnan S, Balamuruga SS. Prevalence of exclusive breast feeding practices among rural women in Tamil Nadu. *International Journal of Health and Allied Sciences.* 2012;1(2):64-7.

9. Jennifer HG, Muthukumar K. A Cross sectional Descriptive Study was to estimate the prevalence of the early initiation of and exclusive breast feeding in rural health training centre of a medical college in Tamil Nadu, South India. *J Clin Diagn Res.*2012;6(9):1514-7.
10. Jain RR, Sriram C, Yasobant S, et al Breast Feeding Practices: A Predictor Based Study from Thiruvallur district, Tamil Nadu. *Online International Interdisciplinary Research Journal.* 2014;4(2):78-85.
11. Karnawat D, Kamawat BS, Joshi A et al. Knowledge, attitude and practices about infant feeding among mothers of urban and rural areas of Ajmer district. *J. Med. Res.* 2015;1(3):90-94.
12. Chinnasam B, Sundaramoorthy S, Sadasivam K, Pasupathy S. Knowledge, Attitude and Practices of Mothers Regarding Breastfeeding in A South Indian Hospital. *Biomed Pharmacol J.* 2016;9(1):195-9.
13. Mital PL, Hooja N, Bansal A et al. Knowledge, attitude and practices of breastfeeding at a tertiary care centre in Rajasthan. *Sch. Acad. J. Biosci.*2014;2(10):714-8.
14. 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(4):364-74.
15. Kamath SP, Garg D, Khan MA et al. Perceptions and Practices regarding Breastfeeding among Postnatal Women at a District Tertiary Referral Government Hospital in Southern India. *International Journal of Nursing Education.* 2018;10(4):128-3.
16. Choudhary A, Bankwar V, Choudhary A. Knowledge regarding breastfeeding and factors associated with its practice among postnatal mothers in central India. *International Journal of Medical Science and Public Health.*2015;4(7):973.
17. Agarwal S, Srivastava K, Sethi V. Maternal and Newborn Care Practices among the Urban Poor in Indore, India: Gaps, Reasons and Possible Program Options. *Urban Health Resource Centre.* New Delhi.2007
18. United Nations Children's Fund. *Tracted Progress on Child and Maternal Nutrition.* New York:UNICEF;2009.
19. Karas DJ, Mullany LC, Katz J, et al. Home care practices for newborns in rural southern Nepal during the first 2 weeks of life. *J Trop Pediatr.* 2011;58(3):200-7.
20. Khadduri R, Marsh DR, Rasmussen B, Bari A, Nazir R, Darmstadt GL. Household knowledge and practices of newborn and maternal health in Haripur district, Pakistan. *J Perinatol.*2008 Mar;28(3):182-7.
21. Kumar D, Agarwal N, Swami HM. Socio-demographic correlates of breastfeeding in urban slums of Chandigarh *Indian J Med.Sci.*2006:461-6.
22. Shetty SB, Shetty SK. KAP study of factors promoting breastfeeding in Nursing mothers and pregnant women. *Nitte University Journal of Health Science.* 2013;3(3).
23. EYL Leung, KYA Au, SSW Cheng et al. Practice of breastfeeding and factors that affect breastfeeding in Hong Kong. *Hong Kong Med J* 2006;12:432-633.
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