Original Research Article

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Prevalence and factors associated with breastfeeding in a population with good literacy

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ABSTRACT

Background: Recent studies in the scientific world show that countries with high income levels and high maternal education have poorer breast feeding rates. This study was done in a population with good literacy with an objective to assess the knowledge, beliefs, practices, prevalence of breast feeding and factors associated with it among women with children less than two years of age.

Methods: This was a cross sectional study done among 183 women at a tertiary hospital of south India in a population with female literacy 77% and male literacy 90%. Knowledge, beliefs and practices were assessed by validated questionnaire. Data entry and analysis were done with Epidata 3.1 and SPSS18 software.

Results: The prevalence of early initiation of breast milk was 56.3% (95% CI: 48.98 to 63.62), colostrum to newborn 84.2 % (95% CI: 78.82 to 89.58), exclusive breast feeding (EBF)10.6% (95% CI: 6.02 to 15.18), predominant breast feeding 80.6% (95% CI: 74.72 to 86.48) and delayed complimentary feeding was 8.8% (95% CI: 4.58 to 13.02). Only 51% (95% CI: 42.92 to 57.68) had health professional guidance and among them only 29.34% (95% CI: 19.84 to 38.83) had received it after delivery. Lower segment caesarean section (LSCS) had 3.9 times (95% CI: 1.95 to 8.05) risk of late initiation of breast milk. Breast feeding information from relatives had protective effect from late initiation of breast milk with odds ratio 0.33 (95% CI: 0.16 to 0.66). Women who had not received health professional guidance had 3.5 times (95% CI: 1.13 to 11.00) risk of not practicing exclusive breast feeding.

Conclusions: The knowledge and beliefs about breast feeding were encouraging. Inspite of good literacy women need guidance from health personnel for EBF. Mothers who had delivered by LSCS have to be given help to initiate breast feeding earlier.

Keywords: Breast feeding, Exclusive breast feeding

INTRODUCTION

Breast feeding and exclusive breast feeding are much needed practices for children in any community. Multiple evidences exist regarding the long term public health benefits of breast feeding. There are evidences which shows association of low maternal education with lack of breast feeding. Recent studies suggest that countries with

high income levels and high maternal education have poorer breast feeding rates.² In India although the exclusive breast feeding under six months of age from 2008 to 2012 was 46%, it varies between regions.⁴ In south India the women literacy is more when compared to northern states and there are very few studies available about breast feeding practices. This study aimed to know the prevalence of breast feeding practices in a population which has women literacy of 77% and men literacy of

90% as per 2011census.⁵ The objective was to assess the knowledge, beliefs, practices, prevalence of breast feeding and factors associated with it among women with children less than two years of age.

METHODS

This study was a cross sectional study done at a tertiary care centre at Trichirapalli, Tamilnadu, a southern state of India. Assuming 50% knowledge among women regarding breast feeding practices the sample size was calculated with 15% relative precision and was estimated to be 177 women. Allowing 5% dropouts the sample size was rounded to 187 women. This study was done with ethical committee clearance of the institution numbered 31/2016. Women seeking care for their children between six months and less than two years of age at the OPDs, immunization clinic of the hospital were the study participants. The study period was 20 days and was done in August 2016. Women whose children were admitted in the wards, emergency department were excluded from the study. Totally 200 women were contacted. 183 women met the inclusion and exclusion criteria and were

recruited into the study. Informed consent was obtained and the questionnaire was administered. Data entry was done with Epidata 3.1 and data analysis with SPSS18 software.

The breast feeding practices were assessed through questions regarding birth of the child, initiation and continuation of breast milk. The breast feeding knowledge and beliefs were assessed by questions on colostrum, latching position, duration of breast feeding, duration of exclusive breast feeding, frequency of feeds and time of start of complementary food.

RESULTS

Among the 183 study participants women who had obtained education up to intermediate level (class XII) was 71.6% and paternal education was 69% respectively. 80% of women in the study were homemakers. 30% had undergone lower segment caesarean section during delivery and 56% had delivered in tertiary health care institutions. Among the study participants 46% belonged to low socio economic status (SES).

Table 1: Breast feeding knowledge and beliefs among the study participants (n=183).

Knowledge			Beliefs		
Duration of breast feeding	Adequate	47 (25.7%)		Essential	177 (96.7%)
	Inadequate	122 (66.7%)	Breast milk	Not essential	6 (3.3%)
	Don't know	14 (7.6%)			
EBF duration	Adequate	93 (50.8%)	Colostrum	Should be given	163 (89%)
	Inadequate	74 (40.4%)		Not to be given	10 (5.5%)
	Don't know	16 (8.8%)		Don't know	10 (5.5%)
Frequency of feeding	Adequate	69 (37.7%)	Mother's health	Affected	14 (7.7%)
	Inadequate	99 (54.1%)		Not affected	166 (90.7%)
	Don't know	15 (8.2%)		Don't know	3 (1.6%)
Time of start of first food	Adequate	36 (20%)	In case of sickness of child	BM can be given	175 (95.6%)
	Inadequate	133 (73%)		BM not to be given	7 (3.9%)
	Don't know	14 (7%)	of child	Don't know	1 (0.5%)
Latching position	Identified correctly	141(77%)	In case of sickness of mother	BM can be given	108 (59%)
	Identify incorrectly	Identify incorrectly 42 (23%)		BM not to be given	71 (38.8%)
	identity incorrectly			Don't know	4 (2.2%)

BM- Breast milk, EBF=Exclusive breast feeding.

Table: 2: Breast feeding practices among study participants.

	N (%)	95% CI	
Initiation of breast milk within 1 hour (n=183)	103 (56.3)	48.98 to 63.62	
Colostrum given (n=183)	154 (84.2)	78.82 to 89.58	
EBF up to six months	19 (10.6)	6.02 to 15.18	
PBF up to six months	145 (80.6)	74.72 to 86.48	
Delayed complementary feeding (n=180)	16 (8.8)	4.58 to 13.02	
Currently breast feeding Women (n=180)	112 (62.2)	54.98 to 69.42	
Had received talk about breast feeding health professional (n=180)	92 (51.1)	42.92 to 57.68	
Had received health staff talk after delivery (n=92)	27(29.3)	19.84 to 38.83	

EBF=Exclusive breast feeding, PBF= Predominant breast feeding.

Table 3: Factors associated with late initiation of breast feeding.

	Odds ratio	95% confidence interval	p value
Mother education <=XII th grade	0.48	0.19 to 1.23	0.129
Lower segment caesarean section	3.83	1.88 to 7.80*	< 0.001
Working mother	1.43	0.61 to 3.36	0.405
BF information from relatives	0.33	0.16 to 0.66*	0.002
Not received talk on BF from health professional	1.51	0.75 to 3.04	0.245
High Socio economic status	1.60	0.57 to 4.51	0.368

^{*} Statistically significant; BF-Breast Feeding.

Table 4: Factors associated with not following exclusive breast feeding for six months.

	Odds ratio	95% confidence interval	p value
Mother education <=XII th grade	0.34	0.06 to 1.68	0.187
Lower segment caesarean section	2.08	0.55 to 7.86	0.276
Working mother	0.90	0.21 to 3.73	0.886
BF information from relatives	0.58	0.20 to 1.63	0.304
Not received talk on BF from health professional	3.53	1.13 to 11.00*	0.029
High Socio economic status	2.27	0.53 to 9.68	0.265

^{*} Statistically significant; BF-Breast feeding

The women who said that the duration of exclusive breast feeding for an infant is six months and breast milk could be given up to two years were considered to have adequate knowledge regarding breast feeding. Among the study participants 25.7% of women had adequate knowledge about duration of breast feeding and 50.8% of women had adequate knowledge about duration of exclusive breast feeding. The frequency of breast feeding in 24 hours which could be between 10 to 12 times was known to 37.7% of women and 19.7% had known about the correct time to start complementary food which was considered from seventh month onwards in this study. When showed pictures of breast feeding 77% were able to identify the correct latching position (Table 1).

When beliefs were assessed 96.7% of women felt that breast milk was essential for the baby, 5.5% felt that colostrum should not be given and 7.7% felt that mother's health and would be affected due to breast feeding. In case of sickness of the child 3.8% believe that breast milk should not be given and in case of sickness of the mother, 38.8% believe that breast milk should not be given (Table 1). Around 6.6% of women felt that mother's beauty would be affected by breast feeding.

Among the study participants three women discontinued breast feeding after initiation due to medical reasons and they were excluded from further analysis regarding breast feeding practices. The breast feeding practices of the women were assessed and was found that women who had initiated breast feeding within 1 hour of birth was 56.3% (95% CI: 48.98 to 63.62) and colostrum was given by 84.2% (95% CI:78.82 to 89.58) (Table 2). The prevalence of exclusive breast feeding was 10.6% (95% CI: 6.02 to 15.18), predominant breast feeding was 80.6% (95% CI: 74.72 to 86.48) and delayed complimentary feeding was 8.8% (95% CI: 4.58 to 13.02).Only 51.1%

(95% CI: 42.92 to 57.68) had received talk/ counseling about breast feeding from health professional and among them only 29.34% (95% CI: 19.84 to 38.83) had received it after delivery. (Table 2)The results showed that 51% of the women had their source of breast feeding information as relatives, 43% from health professionals and 5% from media.

Multivariate analysis of various factors associated with delayed initiation of breast feeding was done. The practice of initiation of breast milk was tested for association and after adjusting for all the factors it was found that lower segment caesarean section had 3.9 times (95% CI:1.95 to 8.05) risk of initiation of breast milk later than 1 hour of birth than normal mode of delivery. The source of breast feeding information from relatives had a protective effect from late initiation of breast feeding with odds ratio 0.33 (95% CI: 0.16 to 0.66). (Table 3) It was found that women who had not received talk on breast feeding from health professional had 3.5 times (95% CI: 1.13 to 11.00) risk of not following exclusive breast feeding for six months (Table 4).

DISCUSSION

In the study the beliefs about breast feeding among the women are encouraging but the knowledge about breast feeding is not complete. The knowledge on exclusive breast feeding, correct latching position were good except duration of breast feeding, frequency of feeds and time of start of complementary feeding. This incomplete knowledge could be because of less information, incomplete information, misguided information or complete lack of information regarding breast milk and breast feeding rather than the education they received. The maternal education levels in the study was good with 71% of them have received high and higher secondary

education. In a systematic review which had 23 selected articles 11 studies had maternal education associated with exclusive breast feeding whereas others did not.⁶ The present study too doesn't have maternal education associated with exclusive breast feeding.

Although the prevalence of practice of initiation of breast milk within 1 hour is 56% and 84% give colostrum to the newborn the prevalence of exclusive breast feeding is low (10.6%) and more women are practicing predominant breast feeding. This is low when compared to 52% by District level household survey data 2013. Only 51% had received a talk/ counseling regarding breast feeding from a health professional and among them only 29% received it after delivery. The low prevalence of exclusive breast feeding could be because this. The underperformance of health system to pass the breast feeding information to reach all the recent mothers could play a major role leading to present situation. The study also shows the major source of breast feeding information is from relatives.

The mode of delivery through LSCS having risk of 3.8 times on delayed initiation of breast milk is understandable as mother takes nearly 4-6 hours to recover from sedation similar to a study done in Uganda, Africa where LSCS had 8.6 times risk of delayed initiation.⁸ Source of breast feeding information from relatives has a protective effect on initiation of breast feeding within 1 hour. This could be because of the social structure is closely knit and any family member has access to pass the information directly to the mother. The other reason could be birth companion system is practiced in the state at primary; secondary and tertiary care hospitals and mostly married relatives of the pregnant woman accompany them at the time of labor and child birth. The practice of exclusive breast feeding needs frequent motivation and doubts clearance from the health system. This study shows that women who have not received professional advice any time either during pregnancy or after delivery have 3.53 times risk of not following exclusive breast feeding. This emphasizes the need for frequent contacts with the mother and the newborn, motivation to breast feed and clearance the doubts.

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REFERENCES

- 1. Horta BL, Victora CG. Horta, BL. Long-term effects of breastfeeding-a systematic review, 2013.
- 2. Victora CG, Bahl R, Barros AJD, França GVA, Horton S, Krasevec J, et al. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. Lancet. 2016;387(10017):475–90.
- 3. Bertini G, Perugi S, Dani C, Pezzati M, Tronchin M, Rubaltelli FF. Maternal education and the incidence and duration of breast feeding: a prospective study. J Pediatr Gastroenterol Nutr. 2003;37(4):447–52.
- Statistics India UNICEF. Available at: https://www.unicef.org/infobycountry/india_statistic s.html. Accessed on 24 February 2017.
- 5. TamilNadu_PPT_2011-BOOKFINAL.pdf. Available at: http://censusindia.gov.in/2011-provresults/data_files/tamilnadu/3.Tamil%20Nadu_PPT _2011-BOOK%20FINAL.pdf. Accessed on 18 February 2017.
- 6. Boccolini CS, de Carvalho ML, de Oliveira MIC. Factors associated with exclusive breastfeeding in the first six months of life in Brazil: a systematic review. Rev Saude Publica. 2015;49.
- 7. Ministry of Health and Family Welfare District Level Household And Facility Survey-4 State Fact Sheet Tamil Nadu (2012-13). Available at: http://rchiips.org/pdf/dlhs4/report/TN.pdf. Accessed on 27 February 2017.
- 8. Kalisa R, Malande O, Nankunda J, Tumwine JK. Magnitude and factors associated with delayed initiation of breastfeeding among mothers who deliver in Mulago hospital, Uganda. Afr Health Sci. 2015;15(4):1130–5.

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