

Knowledge, attitude and practice of breastfeeding among postnatal mothers

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Abstract

The current study is designed to explore the practices, knowledge and attitude towards breastfeeding among postnatal mothers and factors that determine them. This descriptive study was carried out in the Neonatal Division, Department of Pediatrics at a tertiary care hospital in South India during April – July 2009. The data was collected from 100 postnatal mothers by trained interviewers using a structured proforma. In addition to demographic data, mothers were also asked about their knowledge on and attitude towards breastfeeding and the practices they follow. Scoring of the responses to questions was done and the data was analyzed using Statistical Package for Social Sciences. The knowledge of the mothers was inadequate in areas of time of initiation of breastfeeding (92%), colostrum feeding (56%), duration of exclusive breastfeeding (38%), knowledge on expressed breastmilk (51%) and continuation of breastfeeding while baby is sick. Better scores correlated significantly with higher maternal age, better maternal education, higher socioeconomic status and having received antenatal care from tertiary care centers and private practitioners. There is still a need for programmes, which support and encourage breastfeeding particularly at a primary care level, focusing more on younger, less well-educated women and those from lower socioeconomic class.

Key words: Breastfeeding, postnatal mothers, knowledge, attitude, practice.

Accepted January 17 2010

Introduction

Breastfeeding has been accepted as the most vital intervention for reducing infant mortality and ensuring optimal growth and development of children [1]. More than 15% of 24 lakh child deaths could be averted in India by optimal breastfeeding practices [2]. Breastfeeding is the ideal method suited for the physiological and psychological needs of an infant [3]. Poor breastfeeding practices are widespread. It is estimated that sub-optimal breastfeeding, especially non-exclusive breastfeeding in the first 6 months of life, results in 1.4 million deaths and 10% of the disease burden in children younger than 5 years of age [4]. Reviews of studies from developing countries show that infants who are not breastfed are 6 to 10 times more likely to die in the first months of life than infants who are breastfed [5,6]

The key to successful breastfeeding is Information, Education and Communication (IEC) strategies aimed at behavior change. Very few women in India have access to counseling services on infant and young child feeding [7].

In such a situation, the main source of information to mothers is through family and friends, which is often inadequate [8]. The current study is designed to explore the practices, knowledge and attitude towards breastfeeding among postnatal mothers and factors that determine them.

Materials and Methods

This is a descriptive study, carried out in the Neonatal Division, Department of Pediatrics at a tertiary care hospital in South India during April – July 2009. Every 40th case entered in the confinement register maintained in the labour room was included in the study. Mothers who had lost their babies and who were sick were excluded from the study. Data was collected by trained investigators using a standard questionnaire that was read out to the mothers. Informed consent was obtained from all mothers. A total of 100 mothers were interviewed.

Socio demographic information such as age, level of education, occupation, place of residence, type of family, family income etc was recorded. Influence of previous

infant feeding experience was also collected. Scoring of the responses to questions was done i.e, a score of 1 for the correct response, 0.5 for a partially correct and 0 for a wrong response. The total score was calculated for each mother and the data was analyzed using Statistical Package for Social Sciences (SPSS) Version 15.0 by appropriate statistical tests.

Results

A total of 100 postnatal mothers were included in the study. Their age ranges from 18 to 35 with an average of 25.18 years (± 3.81 years). Among the mothers 29% had only completed primary school or less while 22% of them were graduates. Majority of the mothers (67%) were housewives. Most of the mothers (61%) belonged to families that had a per capita income of less than 1000.

Majority of the mothers (47%) hailed from joint families. Primiparous mothers accounted for 42% of cases.

Majority of the mothers (52%) did not receive any advice on breastfeeding during antenatal period and only 17% received advice from health care workers. (Fig 1).

Knowledge of the mothers in various aspects of breastfeeding was analyzed as shown in Table 1.

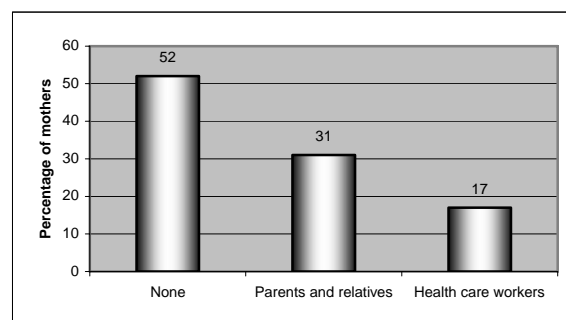


Figure 1: Source of breastfeeding information to mothers in their antenatal period

Table 1. Knowledge of postnatal mothers on breastfeeding

Sl. No	Factor	Percentage of correct responses
1	<i>Time of initiation of breastfeeding</i>	
	a) After normal delivery	92%
	b) After caesarean section	70%
2	Colostrum feeding	56%
3	Prelacteal feeds	74%
4	Water during first 6 months	84%
5	Adequacy of breastfeeding	91%
6	Knowledge about demand feeds	45%
7	Duration of exclusive breastfeeding	38%
8	Knowledge on expressed breastmilk	51%
9	Technique of expressing breastmilk	34%
10	Storage of expressed breastmilk in room temperature	2%
11	Knows benefits of breastfeeding	
	a) To baby	100%
	b) To mother	58%
12	Smoking while lactating	100%
13	OCPs while lactating	60%
14	Breastfeeding and obesity	96%
15	Knows contraceptive advantages of breastfeeding	33%
16	Ideal position for breastfeeding	100%
17	Informs doctors about lactation status before obtaining prescription for drugs	71%
18	<i>Continuation of breastfeeding when</i>	
	a) mother is sick	50%
	b) mother is menstruating	90%
	c) baby has fever/cold	80%
	d) baby has diarrhea	62%
	e) baby has vomiting	59%

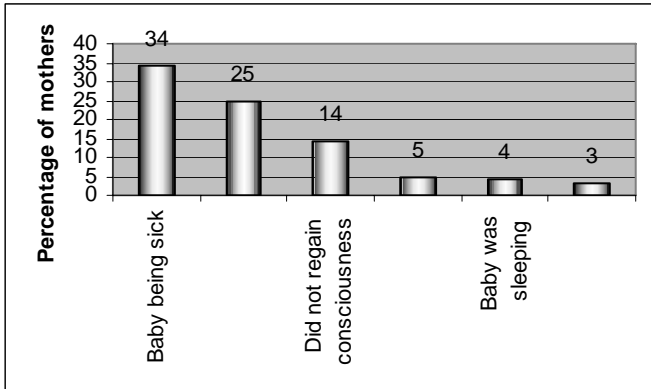


Fig 2: Reasons for delay in initiation of breastfeeding

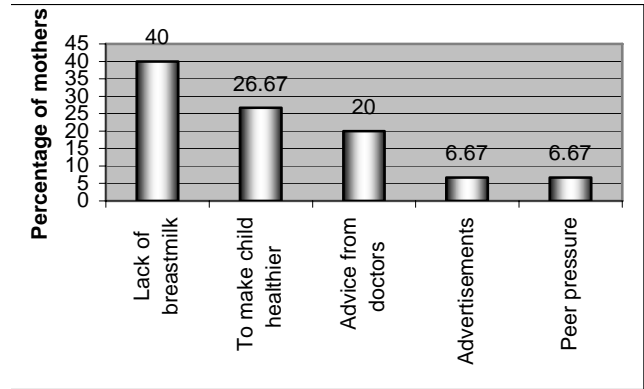


Figure 3. Reasons for giving artificial feeds in a child less than 6 months

Table 2: Comparison of breastfeeding scores with demographic profile

	No of cases	Mean score	P value
Age (years)			
Less than 20	8	13.9375	< 0.015
21-25	51	15.28	
26-30	31	15.87	
31-35	10	18.10	
Educational level			
Uneducated	15	15.3333	< 0.0001
Primary level	14	14.3929	
Secondary	30	14.5500	
High school	19	15.1579	
Graduate	22	18.5455	
Occupation			
House wife/Unskilled worker	7	18.0000	< 0.030
Professional			
Type of family			
Nuclear	47	15.2872	Not Significant
Joint	37	15.7027	
Three generation	16	16.5313	
Per capita income			
Less than 500	24	14.8542	< 0.035
500-1000	37	15.2838	
1000-1500	16	15.4063	
More than 1500	23	17.1957	
Parity			
Primi	42	15.1786	Not significant.
Multi	58	15.9741	
Type of AN care			
Primary health centre	20	13.9500	< 0.0001
Secondary care centre	16	14.3438	
Tertiary care centre	26	17.3462	
Private doctor	27	16.9444	
Health worker	8	14.0625	
No antenatal care	3	11.5000	

While 92% of the mothers knew that breastfeeding should be initiated within one hour, only 36% of the mothers had actually done so. The reasons for delay in the rest are shown in Fig 2. Out of 57 multipara mothers, 27 (47.3%) said that they had exclusively breastfed their previous child for 6 months. The reasons for giving artificial feeds in a child less than 6 months by 15 out of 57 multiparous mothers are shown in Fig 3.

The various factors were scored and the maximum score that can be obtained was 25. The mean score for the group was 15.6 with a standard deviation of 3.00 (range: 9 – 22.5). The influence of various demographic variables on the total score was analyzed (Table 2).

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Discussion

Adequate nutrition during infancy is essential to ensure the growth, health, and development of children to their full potential [9]. Breastfeeding confers short-term and long-term benefits on both child and mother including helping to protect children against a variety of acute and chronic disorders [10].

Preparation of mothers before they give birth is fundamental to the success of exclusive breastfeeding. However in our study it was seen that only 48% of the women had received any advice on breastfeeding during antenatal period and only 17% from a healthcare worker. Support and counseling should be available routinely during antenatal care, to prepare mothers; at the time of birth to help them initiate breastfeeding; and in the postnatal period to ensure that breastfeeding is fully established.

According to a study conducted in rural Ghana, it was concluded that if all women initiated breastfeeding within 1 hour of birth, 22% of the infants would be saved from death. In the Indian context, this means that 250,000 neonates can be saved from death annually by just one act – initiation of breastfeeding within 1 hour of birth [2]. In our study it was seen that although 92% of the mothers knew the recommendation of initiating breastfeeding

within one hour only 36% had actually done it. The data in various studies in India shows that initiation rates vary from 16 to 54.5%. [11]. One of the major reasons for the delay in our study was that the child was sick. This could be because that the study was conducted in a tertiary care institute where mothers whose babies were sick were retained in the hospital for more days and were included in the study. The second reason was that there was delay in shifting from labour room.

The other reasons (too tired to sit up and feed, baby was sleeping) only reflected that the mothers were not motivated adequately for initiating breastfeeding within one hour of birth. Hence intensive efforts need to be put for the timely initiation of breastfeeding preferably within the labour room itself if there is delay in shifting and the importance of early initiation of breastfeeding needs to be stressed to the mothers in the antenatal period itself.

The unique nutritional and antibody properties of colostrum and the disadvantages to those infants not fed with colostrum are now well recognized and documented [12].

In our study, only 56% of the mothers knew that colostrum needs to be given which is very low compared to others studies in India where the importance of colostrum was known to 75- 90% of the mothers [3,13].

WHO recommends 6 months of exclusive breastfeeding for infants. But, in our study only 38% of the mothers knew that exclusive breastfeeding should be given for 6 months. Studies show that the mean duration of exclusive breast-feeding is estimated to be more than six months in many states in India, ranging from 6.7 months in Tamil Nadu to 10.8 months in Andhra Pradesh. Poverty and ignorance are the main reasons for this practice, which is one of the major causes of malnutrition among infants [12]. Hence the importance of timely introduction of supplementary feeds needs to be stressed.

Mothers need to know how to express their milk so that they can continue to feed their babies and keep up their milk supply if they are separated from their baby [4]. However in our study it was seen that the knowledge about benefits and technique of expressed breastmilk was very low. Taking into account the increasing proportion of working mothers, this is a very essential element, which needs to be taught to expectant and postnatal mothers by health care workers.

About 38% of the mothers said that they would not breastfeed their child if the child has diarrhea. Although the rate is better than a study conducted in Australia (45.4%) [14], it is still a matter of concern that dietary practices during acute diarrheal illness is not known to so

Knowledge of breastfeeding in postnatal mothers

many women as it has a major influence on recovery from diarrhea [10].

According to our study, higher breastfeeding scores correlated with higher maternal age, with the age group of 31-35 having the highest scores. Similar finding has been reported in many other studies [15-18]. In our study, 70% of the women between age group of 31-35 years were graduates. We also found a positive association between breastfeeding and maternal education status similar to a few other studies [14,17-20]. Hence focused counseling and support needs to be given to younger and less educated mothers.

In our study, higher socio-economic status correlated with better breastfeeding scores. But this could be because of the educational status of the mothers from higher socio economic class. (65.2% of the mothers with per capita income more than 1500 were graduates). Better breastfeeding scores also correlated with maternal occupation with professionals having a better knowledge than unskilled workers/housewives, but again this could be because of the educational status as 6 out of 7 professionals in our study were graduates.

We also found that women who had antenatal care from tertiary care centers and from private practitioners had better breastfeeding scores than those who had availed care from primary health center or health care worker. In a study conducted in India in 2000 showed that those mothers who had delivered in a medical facility had positive effects on breastfeeding practices [20]. Training of health workers in primary care setting on need for appropriate and timely counseling of antenatal mothers on breastfeeding must be stressed. Breastfeeding is of extreme importance for safeguarding health and welfare of the growing infant and this practice must be preserved, protected and promoted by all means. [2]. The quality of knowledge and support has a crucial role in the success of breastfeeding promotion [8].

This study reveals that the knowledge and attitude of postnatal mothers towards breastfeeding is far from satisfactory. There is still a need for programmes, which support and encourage breastfeeding particularly at a primary care level, focusing more on younger, less well-educated women and those from lower socioeconomic class.

References

1. Gupta A, Arora V. The State of World's Breastfeeding -Tracking Implementation of the Global Strategy for Infant and Young Child Feeding. International Baby Food Action Network (IBFAN), Asia Pacific. South Asia report. Feb 2007
2. Gupta A, Arora V, Bhatt B. The State of World's Breastfeeding: India Report card 2006. International Baby Food Action Network (IBFAN), Asia Pacific. India. 2006.
3. Subbiah N. A Study to assess the Knowledge, Attitude, Practice and Problems of Postnatal Mothers regarding Breastfeeding. *Nursing J Ind* 2003; 94 (8) : 177-179
4. World Health Organization. Infant and young child feeding Model Chapter for textbooks for medical students and allied health professionals. World Health Organization. 2009.
5. WHO Collaborative Study Team on the Role of Breastfeeding on the Prevention of Infant Mortality. Effect of breastfeeding on infant and childhood mortality due to infectious diseases in less developed countries: a pooled analysis. *Lancet* 2000; 355:451-455.
6. Bahl R, Frost C, Kirkwood BR, Karen E, Martines J, Bhandari N *et al*. Infant feeding patterns and risks of death and hospitalization in the first half of infancy: multicentre cohort study. *World Health Organization*, 2005; 83: 418-426
7. Dadhich JP, Gupta A. Assessment of Status of Infant and Young Child Feeding (IYCF) practice, policy and program-Achievements and Gaps. Breast feeding promotion network of India. 2005.
8. Issler H, Rodrigues de Sá MBS, Senna DM. Knowledge of newborn healthcare among pregnant women: basis for promotional and educational programs on breastfeeding. *Sao Paulo Med J* 2001; 119 (1) :7-9
9. World Health Organization. The global burden of disease: 2004 update. Geneva, World Health Organization, 2008.
10. Leon-Cava N, Lutter S, Ross J, Martin L. Quantifying the benefits of breastfeeding: A summary of the evidence. Pan American Health Organization, Washington DC, 2002.
11. 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 Center, New Delhi. 2007.
12. Khan ME. Breast - feeding and Weaning Practices in India. *Asia Pac Popul J* 1990; 5(1): 71-88.
13. Tiwari V, Singh A. Knowledge, attitude and practice regarding breastfeeding in an urban area of Fazidabad district (U.P). *Indian J Prev Soc Med* 2007; 38(1): 18-22.
14. Wen LM, Baur LA, Rissel C, Alperstein G, Simpson M. Intention to breastfeed and awareness of health recommendations: findings from first-time mothers in southwest Sydney, Australia. *Int Breastfeed J* 2009, 4:9. doi:10.1186/1746-4358-4-9.
15. Narayan S, Natarajan N, Bawa KS. Maternal and Neonatal Factors Adversely Affecting Breastfeeding in the Perinatal Period. *Med J Armed Forces Ind* 2005; 61: 216-219.
16. Scott JA, Aitkin I, Binns CW, Aroni RA. Factors associated with the duration of breastfeeding amongst women in Perth, Australia. *Acta Paediatr* 1998, 88 (4): 416-421.
17. Feinstein JM, Berkelhamer JE, Gruszka ME, Wong CA, Carey AE. Factors Related to Early Termination of

- Breast-Feeding in an Urban Population. *Pediatrics* 1986; 78 (2): 210-215
18. Michaelsen KF, Larsen PS, Thomsen BL, Samuelson G. The Copenhagen cohort study on infant nutrition and growth: duration of breast feeding and influencing factors. *Acta Pædiatr* 1994; 83:565-571.
 19. Baqui AH, Willams EK, Darmstadt GL, Kumar V, Kiran TU, Panwar D et al. Newborn care in rural Uttar Pradesh. *Indian J Pediatr* 2007; 74(3): 241-247.
 20. Anandaiah R, Choe MK. Are the WHO guidelines on breastfeeding appropriate for India. National Family Health Survey Subject Reports Number 16. International Institute for Population Sciences, Mumbai, India. 2000.

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