

Research Article

A community based cross sectional study of breastfeeding practices of nursing mothers at block Phagi, district Jaipur (Rajasthan)

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ABSTRACT

Background: Children are god gifted to society and we are responsible for every need of children. We can give them proper nourishments, care and good health. Breast milk is optimal food for the new born. Breastfeeding is one of the most important determinants of child survival, prevention of childhood infections.

Methods: Community based cross sectional study was conducted at block Phagi, Jaipur, (Raj.), India on 300 mothers having children between 6 months to 24 months of age. Self-administered questionnaire was used to collect information on breastfeeding practices.

Results: Out of 300 nursing mothers, majority of the participants 129 (43.00%) were the age group of 18-23 years followed by 118 (39.33%) from 24-29 years of age group. Majority of study participants 110 (36.66%) were illiterate. 156 (52.00%) participants were belonged to V SES. Large number of 188 (62.66%) of infants had pre-lacteal feeds. 202 (67.33%) of children had not Exclusive Breast Fed.

Conclusions: This study relived that need to creating an awareness of the demerit of pre-lacteal feeds and advantages of colostrum, exclusive breastfeeding in rural area.

Keywords: Colostrum, Exclusive breastfeeding, Pre-lacteal feeds

INTRODUCTION

Breast milk is a most precious gift from mother to baby. Mother's milk is a complete food of the baby for the first few months of life.¹ Breast feeding is natural physiological and ideal way of feeding the infants. It provides a unique biological & emotional basis for the health and development of the children.²

Breast milk contains all the nutrients that an infant needs in the first 6 months of life, including fat, carbohydrates, proteins, vitamins, minerals and water. Breast milk also contains bioactive factors that augment the infant's immature immune system and other factors that help digestion and absorption of nutrients.³ It provides all the energy and nutrients that the infant needs and it continues to provide up to half or more of a child's nutritional

needs during the second half of the first year, and up to one-third during the second year of life.⁴

Breast milk helps in sensory and cognitive development, and protects the infants against infectious and chronic diseases. It has long been recognized that the breast fed infant is better protected against infections and particularly diarrhoeal diseases.⁵ Early initiation of breast feeding lowers the risk of postpartum hemorrhage and anaemia in mothers. It boosts mother's immune system and reduces the incidence of diabetes and cancers.⁶

Poor feeding practices in infancy and early childhood, resulting in malnutrition, contribute to impaired cognitive and social development, poor school performance and reduced productivity in later life.⁷ In India, more than 11 lakh babies die during the first month of life, and another

5 lakh during 2 to 12 months of age. Neonatal mortality accounts for almost 40% of all under-five deaths and for nearly 60% of infant deaths.⁸ Breastfeeding has been accepted as the most vital intervention for reducing infant mortality and ensuring optimal growth and development of children. More than 15% of child death could be averted in India by optimal breastfeeding practices.⁹ Beneficial effects of breastfeeding depend on breastfeeding initiation, its duration, and the age at which the breast-fed child is weaned.¹⁰

In India, breastfeeding is culturally well accepted but inadequately practiced, partly due to ignorance. Lack of knowledge, prevailing misconceptions and cultural taboos significantly contribute to undesirable breastfeeding practices such as delayed initiation and discarding of colostrums.¹¹

So, this study was done to know the breastfeeding practices of nursing mothers.

Objectives

1. To study the practice of breast feeding among mothers having child 6 months to 24 months.
2. To study the demographic and socio-economic factors associated with breast feeding practices.

METHODS

A community based cross-sectional study was carried out in block Phagi, district Jaipur (Rajasthan), India, after obtaining ethical clearance from Geetanjali University, Udaipur, Rajasthan. There are 8 primary health centres in the block Phagi. A house to house survey was conducted at randomly selected 3 PHC's areas and after selecting first house randomly then every fifth house was visited till 300 nursing mothers with child age between 6 months to 24 months was covered by systematic random sampling. Consent was taken from the mothers for the participation in the study. Socio-economic, demographic information of the subjects and the practices of breastfeeding among participants was collected in pre-tested semi structured questionnaire. The collected data was entered in to the MS office and processed and analysed for percentages, proportions.

RESULTS

Out of 300 nursing mothers, majority of the participants 129 (43.00%) were from 18-23 years followed by 118 (39.33%) and 53 (17.66%) from age group of 24-29 years and >30 years respectively. Maximum age of study participant was 36 years. Majority of mothers 213 (71.00%) were belonged to Hindu religion followed by 58 (19.33%), 27 (9.00%) and 2 (0.66%) were belonged to Muslim, Jain and Christian religion respectively. 160 (53.33%), 103 (34.33%), 21 (7.00%) and 16 (5.33%) participants were belonged to general, OBC, SC and ST caste respectively. 178 (59.33%) were from the joint

family and 122 (40.66%) were nuclear family. Majority of study participants 110 (36.66%) were illiterate, 75 (25.00%) were had primary education, 54 (18.00%) were had secondary education, 43 (14.33%) were had higher secondary education and only 18 (6.00%) participants were had education graduate and above. In the present study, majority of the study subjects 156 (52.00%) were from class V SES followed 71 (23.66%) from class IV, 39 (13.00%) from class III, 23 (7.66%) from class II and 11 (3.66%) from class I respectively.

Out of total 300 children, 157 (52.33%) were males and 143 (47.66%) were females. 286 (95.33%) of the study subjects have ever breastfed their infants, of which 149 (49.66%) and 137 (45.66%) infants were male and female respectively. Large number of 118 (62.66%) of infants had pre-lacteal feeds of which 97 (32.33%) and 91 (30.33%) male and female infants had pre-lacteal feeds respectively. 62 (20.66%) newborns had breast feed within first hour of life, out of which 33 (11.00%) male child and 29 (9.66%) female child. 66 (22.00%) newborns had received breast feed within one hour to six hours. Majority of the 138 (46.00%) newborns had received breastfeed after 24 hours. 66 (22.00%) newborns had not received colostrum of which 37 (12.33%) male and 29 (9.66%) female child had not received colostrum. 202 (67.33%) of children had not exclusive breast feeding, out of which 107 (35.66%) male and 95 (31.66%) female child.

DISCUSSION

Breastfeeding has many benefits for the both mother and infant. Breast milk has nutrients which are required for infant for his first six months of life. It is also noted that breastfeeding is highly influenced with higher intelligence quotient (IQ) in children.¹² Breastfeeding is nearly common all over in India. 95.70% and 96.00% of children have ever been breastfed in India and Rajasthan respectively.¹³ 93.60% children were ever breastfed study done by Vyas S et al.¹⁴ This is similar to present study 95.33%, where 49.66% of male child and 45.66% of female child had ever breast fed.

Something other than breast milk called pre-lacteal feeds, like glucose water, honey, ghutti, animal milk, or powdered milk. Pre-lacteal feeds are harmful to new born and it can cause diarrhoea. 46.90% and 42.10% of infants had given pre-lacteal feeds study done by Goswami and Das et al respectively.^{15,16} This is similar to present study 62.66% where 32.33% of male child and 30.33% of female child had given pre-lacteal feeds. These practices were due to low level of education status in mothers. In present study 61.66 mothers were belonged to illiterate and below primary level of education. So literacy plays a very important role to understand demerit of pre-lacteal feeding.

Breastfeeding must be started as early as possible in newborns, avoiding delay beyond an hour. The method of

“Breast Crawl” can be adopted for early initiation.¹⁷ Early initiation of breastfeeding is supported for a many of reasons. Oxytocin release due to suckling so its helps the contraction of the uterus and early contraction of uterus can prevent haemorrhage after delivery of baby. Late initiation of breastfeeding is a major cause of giving Pre-lacteal feeds. This study shows that delayed breastfeeding (more than 1hr of delivery) is still practiced. 79.34% of infant had breastfed after 1 hour this observation were similar to 58.10% DLHS-3 Rajasthan.¹⁸ 46.00% of the infant had breastfed after 24 hours. Similar results 52.78% were observed in a study done by Vyas S et al and data for India of NFHS-3 shows 44.70%.^{13,14} Practice of delay initiation of breast feeding may be due to illiteracy, customs & beliefs, less milk secretion and

inadequately motivated mothers for early initiation of breastfeeding.

Colostrum is thick and yellowish or clear in colour and produced by lactating mothers just after delivery of baby for some days. It contains vitamin A and antibodies. About 78.00% of mothers fed colostrum to their child, which is a good practice. Similar observations were reported 84.60% by Syed E. Mahmood et al and 78.40% by Rahul H Dandekar et al.^{19,20} The most common reason for discarding colostrum was their belief of that colostrum is wasted feed.

Table 1: Distribution of study subjects according to according to socio demographic profile (n=300).

Socio demographic profile	Male child No. %	Female child No. %	Total No. %
Age of study subjects			
18–23 years	67 (22.33)	62 (20.66)	129 (43.00)
24–29 years	60 (20.00)	58 (19.33)	118 (39.33)
≥ 30 years	30 (10.00)	23 (07.66)	53 (17.66)
Total	157 (52.33)	143 (47.66)	300 (100)
Religion of study subjects			
Hindu	109 (36.33)	104 (34.66)	213 (71.00)
Muslim	31 (10.33)	27 (09.00)	58 (19.33)
Christian	0 (0.00)	2 (00.66)	2 (00.66)
Jain	17 (05.66)	10 (03.33)	27 (09.00)
Total	157 (52.33)	143 (47.66)	300 (100)
Caste of study subjects			
General	83 (27.66)	77 (25.66)	160 (53.33)
OBC	53 (17.66)	50 (16.66)	103 (34.33)
SC	12 (4.00)	9 (3.00)	21 (7.00)
ST	9 (3.00)	7 (2.33)	16 (5.33)
Total	157 (52.33)	143 (47.66)	300 (100)
Family Type of study subjects			
Nuclear	55 (18.33)	67 (22.33)	122 (40.66)
Joint	102 (34.00)	76 (25.33)	178 (59.33)
Total	157 (52.33)	143 (47.66)	300 (100)
Education Status of study subjects			
Illiterate	64 (21.33)	46 (15.33)	110 (36.66)
Primary	37 (12.33)	38 (12.66)	75 (25.00)
Secondary	25 (8.33)	29 (9.66)	54 (18.00)
Higher secondary	24 (8.00)	19 (6.33)	43 (14.33)
Graduate and above	7 (2.33)	11 (3.66)	18 (6.00)
Total	157 (52.33)	143 (47.66)	300 (100)
Socioeconomic Status of study subjects (Revised BG Prasad’s classification 2014).			
Class I (Rs.5571 and above)	7 (2.33)	4 (1.33)	11 (3.66)
Class II (Rs.2786-5570)	9 (3.00)	14 (4.66)	23 (7.66)
Class III (Rs.1671-2785)	17 (5.66)	22 (7.33)	39 (13.00)
Class IV (Rs.836-1670)	38 (12.66)	33 (11.00)	71 (23.66)
Class V (Below Rs.836)	86 (28.66)	70 (23.33)	156 (52.00)
Total	157 (52.33)	143 (47.66)	300 (100)

Table 2: Distribution of study subjects according to ever had breastfed to their children (n=300).

Ever breastfed	Male child No. %	Female child No. %	Total No. %
Yes	149 (49.66)	137 (45.66)	286 (95.33)
No	8 (2.66)	6 (2.00)	14 (4.66)
Total	157 (52.33)	143 (47.66)	300 (100)

$\chi^2 = 0.13$; df = 1; p = 0.71

Table 3: Distribution of study subjects according to pre-lacteal feed given to their Children (n=300).

Pre-lacteal feeds given to the newborn	Male child No. %	Female child No. %	Total No. %
Yes	97 (32.33)	91 (30.33)	188 (62.66)
No	60 (20.00)	52 (17.33)	112 (37.33)
Total	157 (52.33)	143 (47.66)	300 (100)

$\chi^2 = 0.11$; d f = 1; p = 0.74

Table 4: Distribution of study subjects according to initiation breastfeeding their Children (n= 300).

Initiation of Breast feeding	Male child No. %	Female child No. %	Total No. %
< 1 Hours	33 (11.00)	29 (9.66)	62 (20.66)
1 hours to 6 hours	35 (11.66)	31 (10.33)	66 (22.00)
7 hours to 24 hours	12 (4.00)	8 (2.66)	20 (6.66)
>24 hours	69 (23.00)	69 (23.00)	138 (46.00)
Not breast fed	8 (2.66)	6 (2.00)	14 (4.66)
Total	157 (52.33)	143 (47.66)	300 (100)

$\chi^2 = 0.93$; d f = 4; p = 0.91

Babies who have only breast milk for 4-6 months are less sick than babies who eat other foods. Babies who feed exclusive breast feeding till 6 months they were less prone to suffering from infectious diseases. Only 32.66 mothers exclusively breast fed their babies up to 6 months. This similar to NFHS-3, 36.30% in rural area of Rajasthan and in study 28.43% done by Wadde SK et al.^{13,21} Many mothers feed water to babies within first four months of his life so it was noted that exclusive breast feeding was very low due to lower level of education and social myths.

Table 5: Distribution of study subjects according to colostrum feed to their children (n= 300).

Colostrum	Male child No. %	Female child No. %	Total No. %
Fed	120 (40.00)	114 (38.00)	234 (78.00)
Not fed	37 (12.33)	29 (9.66)	66 (22.00)
Total	157 (52.33)	143 (47.66)	300 (100)

$\chi^2 = 0.47$; df = 1; p = 0.49

Table 6: Distribution of children's according to duration of exclusive breast feeding (n=300).

Exclusive Breast Feeding	Male child No. %	Female child No. %	Total No. %
Fed	50 (16.66)	48 (16.00)	98 (32.66)
Not fed	107 (35.66)	95 (31.66)	202 (67.33)
Total	157 (52.33)	143 (47.66)	300 (100)

$\chi^2 = 0.10$; d f = 1; p = 0.75

CONCLUSION

This study revealed that large no of infants had pre-lacteal fed, only 20.66% of mothers fed their child within one hour of delivery and 67.33% of children had not exclusively breast feeding. Thus policy makers should do emphasize on more IEC activity in females. Health programme for breast feeding like baby friendly hospital initiative must be implemented at the at village level by the ANM, ASHA, AWW and other health agency. This programme should be strictly monitored by administrative agencies under the NRHM. Celebrates MCHN day in a month as a breastfeeding day to increase the awareness and promote the breastfeeding.

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REFERENCES

- Hiregoudar V, Hemagiri K, Goud G. Breast feeding practices in Bellary, Karnataka: A hospital based study. J Pub Health Med Res. 2013;1(2):76-80.

2. Ramesh K, Kumar KP. Knowledge and Attitude of Post Natal Mothers towards Breast Feeding in A Tertiary Care Hospital, Bellary, Karnataka. *International J Sci Res*. 2014;3(4):368-70.
3. WHO, Infant and young child feeding Model Chapter for textbooks for medical students and allied health professionals. http://apps.who.int/iris/bitstream/10665/44117/1/9789241597494_eng.pdf?ua=1&ua=1. Assessed on 02/07/2015.
4. WHO, Nutrition topics, exclusive breastfeeding, <http://www.who.int/nutrition/topics/exclusive-breastfeeding/en/>. Assessed on 01/07/2015.
5. Shrivastava P, Saha I, Nandy S. A study on feeding practice of under 6 months infants attending the Nutrition Clinic of a tertiary care hospital of West Bengal, India, *Epidemiology Biostatistics and Public Health*. 2013;10(2):1-6.
6. Park K. Park's Text book of Preventive & Social Medicine. M/s Banarsids Bhanot. 2011:488-497.
7. Government of India. National guidelines on infant and young child feeding: Ministry of women and child development (food and nutrition board). 2006:9-28.
8. Singh J, Vishakantamurthy DG, Charan PM. Breastfeeding practices among lactating mothers: Problems and prospects in a cross-sectional study. *International J Health & Allied Sci*. 2012;1(2):54-8.
9. Thamizhvanan EP, Ganesh K, Chaitanya BL. A quasi experimental study to assess the effectiveness of educational package on knowledge regarding breastfeeding among primigravidae mothers: a study from southern India. *Asia Pacific J Res*. 2015;1(24):66-72.
10. Victora CG, Smith PG, Vaughan JP, Nobre LC, Lombardi C, Teixeira AM. Evidence for protection against infant deaths from infectious diseases in Brazil. *The Lancet*. 1987;330(8554):319-22.
11. Subbiah N, Jeganathan A. Socio-cultural beliefs influencing breastfeeding practices among primi postnatal mothers residing in urban slum area of Delhi, *Health and Population-Perspectives and Issues*. 2012;35(2):61-73.
12. WHO. E-library of evidence for nutrition actions (eLENA), Early initiation of breastfeeding. CET. 2015;09:01.
13. National Family Health Survey, 2005-2006 (NFHS-3) India. International Institute of Population Sciences, Mumbai. 274-287.
14. Shaili V, Parul S, Kandpal SD, Jayanti S, Srivastava A, et al. A community based study on breastfeeding practices in rural area of Uttarakhand. *National J community med*. 2012;3(2):283-6.
15. Goswami A. Analytical study of prevalent and traditional pre-lacteal feeding practices and their relevance, *Indian journal of preventive and social medicine*. 2009;40:218-24.
16. Das N, Chattopadhyay D, Chakraborty S, Dasgupta A. Infant and Young Child Feeding Perceptions and Practices among Mothers in a Rural Area of West Bengal. *India annals of medical and health sciences research*. 2013;3(3):370-5.
17. Infant and young child feeding guidelines. *Indian academy of paediatrics*. 2010;47:996.
18. Fact sheet Rajasthan, District level household and facility survey 3, Ministry of health and family welfare, Govt. Of India, 2007 – 2008, P 4.
19. Mahmood SE, Srivastava A, Shrotriya VP, Mishra P. Infant feeding practices in the rural population of north India. *Journal of Family and Community Medicine*. 2012;19(2):130-5.
20. Dandekar RH, Shafee M, Kumar R. Breastfeeding and weaning practices among literate mothers A community based study in rural area of Perambalur taluk, Tamil Nadu. *The Health Agenda*. 2014;2(1):15-21.
21. Wadde SK, Vedpathak VL, Yadav VB. Breast feeding practices in rural Mothers of Maharashtra. *International Journal of Recent Trends in Science and Technology*. 2011;1(3):115-9.

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