

Determinants of Exclusive Breast Feeding in a Rural Community of Maharashtra.

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Research Article

Abstract: BACKGROUND: - The breast feeding practices adopted in terms of duration, frequency and exclusiveness of breast feeding and weaning have great impact on complete physical, mental and psycho-social development of the child. Exclusive breast saves many lives by preventing malnutrition and infections. It gives the babies the best start in life. It is essential for the health growth of child. **OBJECTIVES:-** 1. To study the exclusive breast feeding practices in rural community. 2. To study some factors related to exclusive breast feeding. **MATERIAL & METHODS:-** The present cross sectional study was conducted in three adopted villages of Department of P.S.M., S.R.T.R. Medical College, Ambajogai, Maharashtra. 306 mothers with youngest child in age group of 4-24 months were included in the study. The information was collected by interviewing the mothers with the help of pretested, predesigned proforma. **RESULTS:-** All the mothers' age ranged between 18 to 35 years. Out of 306 mothers enrolled in the study 66.01% were illiterate. Only 87 (28.43%) mothers followed exclusive breast feeding. Very less no. of illiterate mothers followed exclusive breast feeding as compared to literate mothers. Exclusive breast feeding was less prevalent in mothers of lower socioeconomic status than the upper one. Significant number of mothers from nuclear and joint families followed exclusive breast feeding as compared to mothers from third generation families. 61 (34.46 %) of 177 hospital delivered mothers practiced exclusive breast feeding as compared to 26 (20.16%) of 129 home delivered mothers where chi square was significant. **CONCLUSION:** - Only 28.43 % mothers followed exclusive breast feeding which shows a very less. All the mothers should be encouraged to follow exclusive breast feeding practice as it is very beneficial for the physical, mental and psychosocial developmental of the child

Key Words: Exclusive breast feeding, prelacteal feeds, prevalence.

Introduction:-

Exclusive breast feeding means that no drinks like, honey, water, glucose water, gripe water, juices, vitamins, animal and powdered milks or foods other than breast milk are given to babies⁽¹⁾. WHO and UNICEF recommend that infant should be exclusively breast fed for at least 4 months of life and if possible for 6 months. The World Health Assembly at its 45th session (1992) adopted the following declaration: 'during the first 4 to 6 months of life no food or liquid other than neither breast milk, nor even water is required to meet the normal

infant's nutritional requirements⁽²⁾. So exclusive breast feeding for first 4 months is most appropriate feeding practice.

The change in infant feeding practices began in industrialized countries, and soon followed by educated female of underdeveloped countries by curtailing the duration of breast feeding. This practice is copied by uneducated counterpart of the urban and rural areas of underdeveloped countries⁽³⁾.

Exclusive breast feeding can save many lives by preventing malnutrition and infections. It gives the babies the best start in life. It is essential for the health growth of child.

In recent decades, breastfeeding promotion, protection and support actions have been implemented as a strategy to reduce child mortality and improve health of the children⁽⁴⁾.

Considering all this, the present study was conducted to know the magnitude of exclusive breast feeding and its determinants.

Materials and Methods:-

The present cross sectional study was undertaken in three adopted villages namely Lokhandi Sawargaon, Chanai and Pimpala Dhaiguda which is the field practice area of department of preventive and social medicine, Swami Ramanand Teerth Rural Government Medical College, Ambajogai Dist. Beed of central Maharashtra. It was conducted during 1st January 2004 to 31st June 2004.

Mothers with youngest child in age group 4 – 24 months were included in the study to minimize the recall bias. These mothers were enlisted by house to house survey with the help of anganwadi worker and medical social worker by the investigator to minimize the non-response. All the enlisted mothers were asked to participate in the study. Only those mothers who agreed to participate in the study were called in anganwadi with their children. Total 306 mothers were interviewed in local language with the help of pretested and predesigned

proforma. The relevant information regarding the socio-demographic structure of family and the breast feeding practices followed in the youngest child were recorded. The mothers who did not come in anganwadi were visited

at home. Those who had not come after repeated visits and after confirmation of migration; were excluded from study. At the end of interview, health education regarding importance of correct breast feeding practices was given.

Results:-

Table No. 1:- Sociodemographic Profile of mothers

Sr. No.	Sociodemographic factors	No. (n = 306)	% (n = 306)
1	Age distribution (age in yrs)		
	18 to 23	171	55.88
	24 to 29	102	33.33
	30 to 35	33	10.78
2	Religion		
	Hindu	212	69.28
	Muslim	38	12.42
	Buddhist	56	18.3
3	Type of family		
	Nuclear	98	33.03
	Joint	44	14.38
	Three generation	164	53.59
4	Literacy status		
	Illiterate	104	33.99
	Primary	77	25.16
	Secondary	93	30.39
	Higher secondary	22	7.19
	Graduate and above	10	3.27
5	Socioeconomic status		
	Class I	11	3.59
	Class II	45	14.71
	Class III	84	27.45
	Class IV	111	36.28
	Class V	55	17.97
6	Working status		
	Working	134	43.79
	Nonworking	172	56.21

The age of all the 306 mothers ranged between 18 to 35 years. Of which, maximum (55.88%) were between 18 to 23 years.

Majority of mothers i.e 212 (69.28) were from Hindu family. Maximum mothers belonged to three generation family i.e. 164 (53.59%). 164 (53.59%) of mothers belonged to three generation family. The higher percentage of joint and three generation families is due to

long lasting custom and culture in rural areas of India where married couples live with their parents.

104 (33.99%) mothers were illiterate while only 10 (3.27%) were educated up to graduate and above.

Out of 306 mothers, 63.73% belonged to class III and class IV socioeconomic status. Most of the mothers were non-working i.e housewives.

Table No. 2:- Distribution of mothers according to Exclusive Breast feeding.

Sr. No.	Exclusive breast feeding	Number	Percentages
1.	Followed	87	28.43
2.	Not followed	219	71.57
Total		306	100

Out of these 306 mothers interviewed, Only 87 (28.43%) mothers followed the good practice of

exclusive breast feeding for at least 4 months. [Table no. 2].

Table No. 3:- Reasons for not following Exclusive Breast feeding.

Sr. No.	Reasons for not following Exclusive Breast feeding	Number
1.	Child thirsty so offered water	154
2.	Custom to give prelacteals	123
3.	Advice of early weaning by elder family members	103
4.	Insufficient milk secretion	95
5.	No advice by health personnel	69
6.	No knowledge about EBF	65
7.	Female child	23
Total		632*

*Multiple responses by mothers.

Table 2 shows various reasons told by mothers for not following exclusive breast feeding. There were multiple responses by the mothers. Most of the mothers i.e 154 thought that their child is thirsty so they offered water. 123 mothers told that there is custom of giving

prelacteal feeds in their community. 103 mothers responded that there was advice by elder family members to start early weaning. Of all these, 23 mothers said that they denied exclusive breast feeding because of gender bias i.e. due to birth of female child.

Table No. 4:- Distribution of mothers according to literacy status and Exclusive Breast feeding.

Sr. No.	Literacy status	Exclusive breast feeding		Total
		Followed	Not followed	
1.	Illiterate	15 (14.42)	89 (85.58)	104 (100)
2.	Primary	26 (33.77)	51 (66.23)	77 (100)
3.	Secondary	33 (35.48)	60 (64.52)	93 (100)
4.	Higher secondary	09 (40.91)	13 (59.09)	22 (100)
5.	Graduate	03 (42.86)	04 (57.14)	07 (100)
6.	Postgraduate	01 (33.33)	02 (66.67)	03 (100)
Total		87 (28.43)	219 (71.57)	306 (100)

Figures in parenthesis show percentages. $X^2 = 15.72; df = 3; p < 0.01$ Rows 4, 5 and 6 are pooled together.

Educational status was found to be one the important determinant of not following exclusive breast feeding. Out of 104 illiterate mothers, only 15 (14.42%) mothers gave exclusive breast feeding followed by 26 (33.77%) of 77 educated up to primary school and

33(35.48%) of 93 educated up to secondary school. Chi square was statistically significant revealing increase in magnitude of exclusive breast feeding with increase in literacy status except in postgraduates ($p < 0.01$) [Table 4].

Table No. 5:- Distribution of mothers according to socioeconomic status and Exclusive breast feeding.

Sr. No.	Socioeconomic status	Exclusive breast feeding		Total
		Followed	Not followed	
1.	Class I	09 (81.82)	02 (18.18)	11 (100)
2.	Class II	34 (75.56)	11 (24.44)	45 (100)
3.	Class III	41 (48.81)	43 (51.19)	84 (100)
4.	Class IV	32 (28.83)	79 (71.17)	111 (100)
5.	Class V	08 (14.55)	47 (85.45)	55 (100)
Total		87 (28.43)	219 (71.57)	306 (100)

Figures in parenthesis show percentages. $X^2 = 53.42; df = 4; p < 0.01$ Rows 1 and 2 are pooled together.

When chi square was applied; it was found that the exclusive breast feeding practice was more common in upper socioeconomic status mothers than the lower

one ($X^2 = 53.42, p < 0.01$). This may be due to high level of literacy status, awareness in the mother of upper socioeconomic class [Table 5].

Table No. 6:- Distribution of mothers according to type of family and Exclusive breast feeding.

Sr. No.	Type of family	Exclusive breast feeding		Total
		Followed	Not followed	
1.	Nuclear	67 (68.37)	31 (31.63)	98 (100)
2.	Joint	24 (54.55)	20 (45.45)	44 (100)
3.	Three generation	61 (37.2)	103 (62.8)	164 (100)
Total		87 (28.43)	219 (71.57)	306 (100)

Figures in parenthesis show percentages. $X^2 = 24.33; df = 2; p < 0.0001$

According to table no. 6, 68.37% mother from nuclear families followed exclusive breast feeding followed by 54.55% and 37.2% mothers from joint and

third generation families. Chi square showed a significant association between type of family and exclusive breast feeding practice ($p < 0.0001$).

Table No. 7:- Distribution of mothers according to place of delivery and Exclusive breast feeding.

Sr. No.	Place of delivery	Exclusive breast feeding		Total
		Followed	Not followed	
1.	Hospital	61 (34.46)	116 (65.54)	177 (100)
2.	Home	26 (20.16)	103 (79.84)	129 (100)
Total		87 (28.43)	219 (71.57)	306 (100)

Figures in parenthesis show percentages

χ^2 with Yate's correction = 6.82; $df = 1$; $p < 0.01$

61 (34.46%) of 177 mothers delivered in hospital followed exclusive breast feeding as compared to 26 (20.16%) of 129 home delivered mothers. Chi square

showed significantly higher percentage of exclusive breast feeding in hospital delivered mothers.

Table No. 8:- Distribution of mothers according to working status and exclusive breast feeding.

Sr. No.	Working status	Exclusive breast feeding		Total
		Followed	Not followed	
1.	Working	85 (63.43)	49 (36.57)	134 (100)
2.	Non Working (housewives)	131 (76.16)	41 (23.84)	172 (100)
Total		87 (28.43)	219 (71.57)	306 (100)

Figures in parenthesis show percentages.

χ^2 with Yate's correction = 5.28; $df = 1$; $p < 0.05$

Working status of mothers also proved as one of the determinants of exclusive breast feeding. Significantly higher no. of non-working mothers i.e. housewives followed exclusive breast feeding as compared to mother who are involved some kind of work outdoors.

Discussion:-

Early breastfeeding within one hour and exclusive breastfeeding for the first six months are the key interventions to achieve MDG 1 and MDG 4, which deal with reduction in child malnutrition and mortality, respectively^(5,6). Exclusive breastfeeding is safe, economical and emotionally satisfying means of feeding babies, particularly in developing country like India and probably for others. In countries where lactation support is available, six months exclusive breastfeeding has improved substantially over the time⁽⁷⁾.

The present study enabled to know the magnitude of exclusive breast feeding in first 4 months and its determinants in rural mothers of Maharashtra. Prevalence of exclusive breast feeding in the present study was only 28.43% which was less than national average as reported in National Family Health Survey 3 (NFHS 3)⁽⁸⁾. Similar findings were reported by D. K. Taneja et al⁽⁹⁾ and A. A. Kameshwarrao⁽³⁾ Apurb Sinhababu et al⁽¹⁰⁾, K. Madhu et al⁽¹¹⁾, where only 26.4%, 37%, 39% and 40% mothers followed exclusive breast feeding respectively. The mothers gave various reasons for not following exclusive breast like thirsty child during summer, harmful practice of giving prelacteal feeds, advice to start early weaning by elderly family members and inadequate health education by health personnel

during antenatal and postnatal care, no knowledge and insufficient milk secretion. Similar observations were made by Nayak Sunil et al⁽¹²⁾ who reported no knowledge of exclusive breast feeding (40%) and not having adequate breast milk (35%) Even some mothers denied exclusive breast feeding because of female sex of the baby. Educational and socioeconomic status also affected the practice of exclusive breast feeding in the present study ($p < 0.01$). Mrs. Ramaram et al⁽¹³⁾ also showed cessation breast feeding before six months in illiterate mothers. They found that 33.7% and 11.6% mothers from class III and IV respectively continued breast feeding for less than six months which was comparable with the present study.

The magnitude of exclusive breast feeding was more in nuclear families as compared to joint and three generation families ($X^2 = 24.33$, $p < 0.001$). The low magnitude in joint and three generation families was due to the advice of early weaning, prelacteal feeding by the other family members. A significantly more number of mothers delivered in hospital followed exclusive breast feeding as compared to mothers delivered at home ($p < 0.01$). This may be due to their better exposure to prevailing practice and mode of infant feeding during hospitalization and possibly because of greater emphasis on breast feeding by hospital personnel. 76.16 % of non-working mothers (housewives) followed exclusive breast feeding as compared to 63.43% working mothers ($X^2 = 5.28$ $p < 0.05$). The present study findings were comparable with Kok Leong Tan⁽¹⁴⁾ who reported 56.2 % of non-working mother followed exclusive breast feeding

where the difference was statistically significant (OR = 3.28, 95% CI 2.73 – 5.30)

Conclusion & Recommendations:-

The prevalence of exclusive breast feeding in the present study was only 28.43% which was very low. There were various reasons told by mothers for not following exclusive breast feeding like inadequate and incorrect advice. Other factors which affected this practice include low level of literacy, lower socioeconomic status, place of delivery and working status of mothers.

Present study also showed a higher percentage of home deliveries. Mothers should be encouraged to deliver in hospitals. Hospital is the place where mothers can be encouraged to start early breast feeding.

The community health workers should impart counselling services in breast feeding in rural areas. This study emphasizes the need of breast feeding education programme regarding duration of exclusive breast feeding.

References:-

- [1] Training manual on breastfeeding management – steps towards baby friendly care. UNICEF, Mumbai, 1996.
- [2] S. Gopalan, R. K. Puri. Breast feeding and infant growth. Indian Paediatrics. August 1992; 29: 1079-1080.
- [3] Kameshwara Rao AA. Breast feeding behaviour of Indian women. Indian Journal of Community Medicine 2004; 29(2):62-64.
- [4] Rajesh K. Chudasama, Panna C. Patel, Abhay B. Kavishwar. Determinants of Exclusive Breastfeeding in South Gujarat Region of India. J. Clin. Med. Res. 2009;1(2):102-108.
- [5] Bryce J, Tetteri N, Victora CG, Mason E, Daelmans B, Bhutta ZA, *et al.* Countdown to 2015: tracking

- intervention coverage for child survival. Lancet 2006; 368: 1067-1076.
- [6] Black RE, Allen LH, Bhutta ZA, Caulfield LE, de Onis M, Ezzati M, *et al* , for the Maternal and Child Undernutrition Study Group. Maternal and child undernutrition: global and regional exposures and health consequences. Lancet 2008; 371(9608):243-260.
- [7] World Health Organization. Infant and young child nutrition: global strategy on infant and young child feeding. Geneva; 2002 (Fifty fifth World Health Assembly).
- [8] Ministry of Health and Family Welfare: National Family Health Survey 3, India, 2007. (<http://mohfw.nic.in/nfhs3/CD.htm>)
- [9] D. K. Taneja. A study of infant feeding practices and the underlying factors in a rural area of Delhi. Indian Journal of community medicine, July – September 2003; 28(3) : 107 – 111.
- [10] Apurba Sinhababu, Dipta K. Mukhopadhyay, Tanmay K. Panja, Asit B. Saren, Nirmal K. Mandal, and Akhil B. Biswas. Infant- and Young Child-feeding Practices in Bankura District, West Bengal, India. J of Health, Popul Nutr June 2010;28(3):294-299
- [11] K. Madhu, Shriram Choudary, Ramesh Masthi. Breast feeding and newborn care in rural areas: a descriptive cross sectional study. Indian Journal of Community Medicine. July 2009; 34(3):243 - 246.
- [12] Nayak Sunil, Jay Padodara, Patel Sushil, Gharat Vaibhav, Patel Swati, Choksi Vivek, Desai Toral. Breast feeding practices in urban community of Surat city. National Journal of Community Medicine 2010;1(2) 111 – 113.
- [13] (Mrs.) Rama Ram, M. N. Ghosh, J. B. Saha, S. K. Bhattacharya, Anima Haldar (Biswas), Chitra Chatterjee. Breast feeding practice in rural community of district of Darjeeling, West Bengal. Indian Journal of Community Medicine April – June 2000; 25(2): 79 – 82.
- [14] Kok Leong Tan. Factors associated with exclusive breastfeeding among infants under six months of age in peninsular malaysia. International Breastfeeding Journal 2011; 6 (2).