

ORIGINAL ARTICLE

**OPTIMAL BREAST FEEDING PRACTICES – MISSED OPPORTUNITY DURING
ANC & STAY IN HOSPITAL DURING INSTITUTIONAL DELIVERY**

* Deepak B Saxena, ** Moitra Mohuva, ** S.L.Kantharia

*Assistant Professor, Indian Institute of Public Health Gandhinagar,

** Department of Preventive and Social Medicine, Govt. Medical College, Surat

Abstract:

The practice of breast-feeding is almost universal in India. Breast-feeding is an unequalled way of providing ideal food for the healthy growth and development of all normal infants. Ideal feeding comprises of exclusive breast-feeding for 6 months followed by complementary feeding. Many research across the globe and also in India have proved that if baby is exclusively breast fed till the age of six months he/she will be protected from a number of illnesses and diseases during infancy as well during adolescence and adulthood. There are a number of barriers hindering optimal breast-feeding practices like socio cultural influences, age of mother, birth-order of the baby, place of delivery and ANC. Out of these; appropriate guidance to the mother during ANC and during her stay in hospital after delivery can help to implement optimal breast feeding practices. Present communication tries to document the missed opportunity during these two vital periods.

Key words: Institutional delivery, ANC, Exclusive breast feeding, Pre-lacteal.

Introduction

Scientific documents are flooded with the evidences on the benefits of breastfeeding The baby, the mother and family at large are all beneficiaries of this most natural process of a mother breastfeeding her baby . Human milk feeding decreases the incidence of a wide spectrum of infections, which include diarrhea, respiratory tract infections and many other infections.^{1, 2, 3}

Correspondence:

Dr. Deepak B Saxena

Assistant Professor,

Indian Institute of Public Health, Gandhinagar (Gujarat)

Email:ddeepak72@yahoo.com

Long term advantages of breastfeeding has also been documented as reduction of both type I and type II diabetes , obesity , asthma and other diseases.^{4,5,6}

The mother is also a beneficiary and besides the well known benefits of involution of the uterus, post-lactational amenorrhoea , decreased risk of cancer of the breast and ovary,^{7,8,9} breastfeeding also saves money and hence is a help both for the family and the nation.¹⁰The Lancet series on child survival have emphasized the role of exclusive breastfeeding in the first six months of life which can cut down under five child mortality by 13% to 15% .¹¹ The practice of breast-feeding is almost universal in India. Breast-feeding is an unequalled way of providing ideal food for the healthy growth and development of all normal infants.¹² In the 10th five-year plan Government of India has set a target to increase the rate of exclusive breast- feeding (EBF) to 80% from the current level of 41.2% . The present study was under taken to document the missed opportunity for optimal breast feeding practices and guidance for exclusive feeding during Ante natal check ups (ANC) as well during stay in hospital during institutional delivery.

Material & Methods

The study was carried out in selected urban slums of Surat city coming under Surat Municipal Corporation. 30 clusters were selected by cluster sampling technique. Looking into operational feasibility and access to the target population, functioning anganwadi in the slum was indexed to be the unit of study. If more than one functional anganwadi was present in the selected slum all were included. Study population included mothers of all infants registered in the anganwadi under ICDS operating in that particular slum.. A total of 1034 mothers from 30 slums distributed in the six zones were interviewed. Out of this 620 mothers had children aged less than six months and 414 mothers had children more than six months of age at the time of first survey. Pre designed and pre tested proforma with questions on socio-demographic profile, breast-feeding

practices, anthropometry of child, immunization history etc was used for data collection. A second round of visits was done for those mothers whose children were less than six months of age at the time of initial survey to obtain the exclusive breast-feeding rates at six months. Here the mothers recall was recorded verbatim. During this second visit only duration of exclusive breast-feeding was elicited. Data was collected during the study period and analyzed using the software EPI Info6 and appropriate statistical tests were applied.

Observations

Table –I Distribution of the study population according their socio-demographic characteristic and it's impact on antenatal checkups

Socio-demographic characteristic	Antenatal checkups		df	X ²	p value
	Received (n=454)	Not Received (n=580)			
Religion					
Hindu (n=697)	322 (46.20)	375 (53.8)	1	4.56	0.03
Muslim (n=337)	132 (39.17)	205 (60.83)			
Working status					
Working (n=144)	83 (57.64)	61(42.36)	1	12.81	0.00
Non working (n=890)	371(41.68)	519 (58.32)			
Education					
Illiterate (n=490)	199 (40.61)	291(59.39)	1	4.11	0.04
Literate (n=544)	255 (46.87)	289(53.13)			
Birth Order*					
1 (n=235)	120 (51.06)	115(48.94)	1	13.42	0.00
2-3 (n=731)	316 (43.23)	415(56.77)			

1 (n=120)	64 (53.33)	43 (35.83)	10 (8.33)	03 (2.5)	1	0.01	0.91
2-3 (n=316)	165 (52.21)	119 (37.66)	24 (7.60)	08 (2.5)			
4-5 (n=18)	09 (50.00)	06 (33.33)	03 (16.67)	00			
TOTAL (N=454)	238 (52.42)	167 (36.78)	37 (8.15)	12(2.64)			

*Figures in the parenthesis indicates percentage, To facilitate statistical analysis :-ANC by health professional and by other than health professional was clubbed ** Birth order 2-3 and 4-5 have been clubbed.

Antenatal checkups were received by 46.20 % of Hindu mothers and 39.17 % of Muslim mothers and by 57.64 % of working mothers and 41.68 % non working mothers. The percentage of literate mothers who took ANC was 46.87 in comparison to 40.61% illiterate mothers who took ANC. Other findings in the table above also includes 53.13% of literate mothers and 59.39 % of illiterate mothers who had not taken antenatal checkup. As the birth order increased, percentage of mothers receiving ante natal check up decreased which ranged between 51.06 % in 1st birth order to 26.47 % in 4-5 birth orders. As per religion and receipt of ANC was found significant statistically according to religion (p=.03) and education (p=.004). Working status of mothers and birth order of babies was highly significant for (p=0.00) for receipt of ANC. Majority (52.42%) of the mothers had their ANC conducted by doctors (minimum MBBS) followed by other health professionals like AWW , Nurses and FHW (36.78%). However 8.15% mothers had also received ANC by Trained birth attendant (TBAs) and 2.65% by others which included friends and relatives(Table II).

Table- III Distribution of study population by source of ante natal check up and guidance for breast-feeding

Source	Guidance given	Guidance not given	df [*]	X ²	p value
--------	----------------	--------------------	-----------------	----------------	---------

Doctor (n=238)	69 (28.99)	163 (71.01)	1	13.80	0.00
AWW/ANM/Nurse (n=167)	52 (31.14)	115 (68.86)			
TBA (n=37)	02 (5.41)	35 (94.59)			
OTHERS (n=12)	00	12(100)			
TOTAL (n=454)	123 (27.09)	325 (72.91)			

*Figures in the parenthesis indicates percentage

No significant difference was observed in source of ANC according to religion (p=0.93), working status (p=0.05), literacy (p=0.65) and birth order (0.91).

Out of 1034 mothers studied only 123 (11.90%) had received some guidance on breast-feeding during ANC which included early initiation, feeding colostrum and not to give pre lacteals. None of the mothers had received guidance on duration for exclusive breast feeding (Table-III).

Table- IV Distribution of Study Population by administration of Pre-lacteal feed

Socio-demographic characteristic	Pre-lacteal		Df	X ²	P value
	Given	Not given			
Place of Delivery					
Home (n=540)	275 (50.93)	265 (49.07)	1	96.28	0.00
Institutional (n=494)	106 (21.46)	388 (78.54)			
Type of Delivery					
Vaginal (n=930)	310(33.33)	620 (66.67)	1	49.06	0.00
CS (n=104)	71(68.27)	33 (31.73)			
Religion					

Hindu (n=697)	242(34.72)	455 (65.28)	1	4.16	0.04
Muslim (n=337)	139(41.25)	198(58.75)			
Literacy Status of Mother					
Illiterate (n=490)	176(35.92)	314 (64.08)	1	0.35	0.55
Literate (n=544)	205 (37.68)	339 (62.32)			
Total (n=1034)	381(36.85)	653(63.15)			

*Figures in the parenthesis indicates percentage

540 (52.22%) deliveries took place at home while 494 (47.78%) were institutional deliveries. Out of all deliveries pre-lacteal was given to 36.85 % babies and 63.15% of babies had not received any pre-lacteal. Out of total babies delivered at home 50.93 % received pre-lacteals which was more than double the percentage of babies who were delivered in institutions (21.46%) and received pre-lacteal, this was highly significant ($p=0.00$). Out of all babies delivered vaginally, 33.33% received pre-lacteals while pre-lacteal was given to 68.27% babies who were delivered by caesarian section and this difference was highly significant ($p=0.00$) (Table-IV). A total of 85.93% of babies delivered at home received colostrum compared to 92.10% of babies who were delivered institutionally, this was found highly significant ($p=0.00$). Number of babies exclusively breast fed at any age was 85 (8.25%) and out of this, 84 children were below the age of 6 months and were exclusively breast-fed. Hence this cluster of 84 infants was followed up. Out of these 84 babies who were followed up only 12 babies at age of 6 months were exclusively breast fed. Hence out of a cohort of 1034 who were elicited for EBF rates only 13 babies were found to be exclusively breast fed at the age of 6 months. Therefore in the present study the EBF rate at 6 months was found to be only 1.25%.

Discussion

In the present study around 40% of the mothers in the study population had received ANC during pregnancy. It was observed that socio demographic factors such as caste, religion, working status, literacy status and parity were found to be significantly associated with the treatment seeking behavior of mothers in terms of ANC. Although this high proportion of ANC by health professionals may be attributed to efficient network of health centers established by the corporation for maintaining health status of slum population ,the fact that out of 1034 mothers studied only 123 (11.90%) received guidance for breast feeding during ANC sends out alarming messages. It is also alarming that out of all deliveries 52.22% took place at home while 47.7% were institutional deliveries and amongst those who had delivered institutionally, trained doctors (minimum MBBS) conducted 91% of all deliveries but none of the mothers were counseled for optimal breast feeding practices. 21.46% of the babies being delivered in institutions and receiving pre-lacteals is also alarming . In urban India, health services are still in a phase of development. Private health care services dominates in curative field but a lot more needs to be done in the field of preventive and promotive services and to sustain them through this system , though some progress to date has been made. Exclusive breast feeding rates in the present study at six month was only 1.25%. Various studies at national as well as state and local level differ in the exclusive breast feeding rates at six months but the only thing common in all the studies is its lower prevalence rates^{13,14,15}. Many reasons can be attributed to this , eg. custom of giving pre lacteal prevailing in the society, discarding colostrum, late initiation of breast feeding etc. There are many other hidden challenges which are still unanswered such as: Implementation of National Infant and Young feeding Policy, creating awareness of Infant Milk Substitute Act, emphasizing the Concept of BFHI and an absence of any action plan for promotion of breast

feeding at local, state or regional level. But the basic missed opportunity which can very well be addressed is during the ANC and while the mother is in hospital immediately after birth. This elite group of health care professionals that includes Doctors , Nurses and others should acknowledge the importance of counseling about right practices of breast feeding to the mothers both before and after delivery. For this ,advocacy workshops can be organized for different fraternities of health care providers who are dealing with this and related issues in both government and private health care set up.

References

1. *Heinig MJ. Host defense benefits of breastfeeding for the infant. Effect of breastfeeding duration and exclusivity. Pediatr Clin North Am 2001; 48:105- 23.*
2. *Dewey KG, Heinig MJ, Nommsen-Rivers LA. Differences in morbidity between breast-fed and formula-fed infants. J Pediatr 1995;126:696-702.*
3. *Bachrach VR, Schwarz E, Bachrach LR. Breastfeeding and the risk of hospitalization for respiratory disease in infancy: a meta-analysis. Arch Pediatr Adolesc Med 2003;157:237-43.*
- 4 . *Pettit DJ, Forman MR, Hanson RL, et al. , Breastfeeding and the incidence of non-insulindependent diabetes mellitus in Pima Indians. Lancet 1997;350:166-8.*
5. *Armstrong J, Reilly JJ, Child Health Information Team. Breastfeeding and lowering the risk of childhood obesity. Lancet 2002;359:2003-04.*
6. *Oddy WH, Peat JK, de Klerk NH. Maternal asthma, infant feeding, and the risk of asthma in childhood. J Allergy Clin Immunol 2002;110:65–7*
7. *Labbok MH. Effects of breastfeeding on the mother. Pediatr Clin NorthAm 2001;48:143-58.*

8. Collaborative Group on Hormonal Factors in Breast Cancer. *Breast cancer and breastfeeding: collaborative reanalysis of individual data from 47 epidemiological studies in 30 countries, including 50302 women with breast cancer and 96973 women without the disease. Lancet* 2002;360:187- 95.
9. Rosenblatt KA, Thomas DB. *Lactation and the risk of epithelial ovarian cancer. WHO Collaborative Study of Neoplasia and Steroid contraceptives. Int J Epidemiol* 1993;22:192–7
10. Weimer J. *The Economic benefits of breast feeding: a review and analysis. Food Assistance and Nutrition Research Report No. 13. Washington, DC: Food and Rural Economics Division, Economic Research Service, US Department of Agriculture; 2001.*
11. Jones G, Steketee RW, Black RE et al. *How many child deaths can we prevent this year? Lancet* 2003;362:65-71.
12. Pundit N, Yeshwanth M & Albuquerque SR (1994) *Factors influencing initiation of breast-feeding in an urban setup. Ind J Paed, 31 (12): 1558-1560.*
13. Deepak Saxena, *Socio-Demographic profile of lactating mothers in South Gujarat: Dissertation submitted to VNSG-University for MD in Community Medicine-2004.*
14. Sharma Rashmi. *Situational analysis of maternal and child health service of SMC in Surat City. Dissertation submitted to South Gujarat University, Surat, 2001*
15. National Factsheet India, National Family Health Survey, India, 2005-06, Key indicators from NFHS III