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Original Research Article

BREASTFEEDING PRACTICES OF MOTHERS IN I.C.D.S CENTERS OF URBAN SLUMS

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ABSTRACT

Background: Exclusive breastfeeding upto 6 months of age ensures provision of adequate fluids and nutrition to the infant. This study was conducted with an aim to assess the knowledge, attitude, factors influencing exclusive breastfeeding practices in women of urban areas.

Materials and Methods: This cross-sectional observational study was conducted by the department of pediatrics, Alluri Sitaramaraju Academy of Medical Sciences, Eluru, Andhra Pradesh over a period of 1 year. This included 449 mothers residing in the urban slums of Eluru town.

Results: Prelacteal feed is very common in urban area 6.9% of mothers didn't give colostrum. 42.7% initiated breastfeeding within 1st hour of delivery.

Conclusion: Breastfeeding practices vary according to local cultures. Promotion of institutional deliveries will have positive impact on early breast feeding behaviou, along with antenatal sensitization about feeding colostrums and exclusive breast feeding.

Keywords: Breastfeeding, urban slums, exclusive breastfeeding, ICDS.

INTRODUCTION

Exclusive breastfeeding (EB) is defined as giving the infant only breast milk from his or her mother or a wet nurse, or breast milk in expressed form, and no other liquids or solids, except oral rehydration solution, drops or syrups consisting of vitamins, minerals supplements or medicines.[1] Exclusive breastfeeding is the best cost effective method for ensuring overall development of
child. Breast milk is uncontaminated and is packed with all the essential nutrients required for an infant to thrive until weaning is done. Breast milk is also loaded with necessary antibodies required for an infant to defend against infections, especially diarrheal diseases and respiratory tract infections.[2,3] Children who are exclusively breastfed for upto 6 months of age (as recommended by WHO) have a low risk for gastrointestinal infections, respiratory illness and impairment of physical and cognitive development.[4,5] Exclusive breastfeeding not only benefits the infant, it also prevents ovarian cancer, breast cancer in mothers.[6]

Continued breastfeeding is giving breast milk to the infant after months of age along with appropriate solid and liquid food until 2 years of age or beyond.
Breastfeeding practices can be influenced by cultural factors, socio-economic factors, maternal education, family structure, place of residence, access to information and support groups and infant related factors.[7]
Industrialization has led to majority of the residency to shift from rural to urban. This shift is being reflected in the breastfeeding practices of women living in urban areas. Although there have been past studies regarding factors influencing the breastfeeding practices, their significance in applying to the general population which is undergoing rapid urbanization is questionable.
Hence this study has been taken up to study the factors influencing exclusive breastfeeding practices in mothers residing in urban areas.

MATERIAL AND METHODS

This prospective study was undertaken in ICD centers of urban slums of Eluru district, Andhra Pradesh. The urban slum area of Eluru town

containsICD centers among which 52 ICD centers were selected randomly for the study. The study period was of 1 year, i.e. from November 2022 to October 2023.

Mothers having children between 0-23 months of age were included in the study. Mothers not willing for participating in study were excluded. A total of 449 subjects were selected for the study. The data was collected using a pre structured and pre tested questionnaire from the study subjects through personal house hold visits made by the post graduate to contact the mothers with the help of Anganwadi workers.

A pre structure proforma was used to study the breast feeding practices keeping the objectives in mind.

Weights of all the index children were measured using Salters scale. The data was analyzed by means of MS Excel-2007 software using the chi square test proportions and percentages and statistical tests.

RESULTS

The present study was carried out in the urban slums of Eluru District. A total of 449 urban mothers with children aged between 0-23 months were included in the study. The observations in the study and discussion were presented in the following order.

Socio-demographic profile

Majority of the families were (n = 277 (61.6%) nuclear families and 38.3% (n = 172) belonged to joint families in urban areas. Among urban women76% were literate and 24% were illiterate. 84.4% of the fathers were daily wage earners. 78% of the women were homemakers. The socio economic status was assessed by modified Kuppuswamy's classification. Majority of the families in both study groups belong to low socioeconomic status. 42% had married in their teenage years (<18 years).

Maternal factors: 38% mothers had one child and 53%had two children. 99% of the mothers had a minimum of 3 antenatal visits. Majority of the urban slum mothers received antenatal advice from Anganwadi workers. 92% of the women had delivery in a hospital while the rest 8% had delivered in homes.

Breast feeding factors: 93.09% gave colostrum and the rest 6.90% mothers did not give colostrum. 47.6% in urban area gave prelacteal feeds. The common prelacteal feeds given were top milk, honey and sugar water. There is significant relation between literacy status and type of delivery with initiation of pre-lacteal feeds.

Table 1: Correlation between literacy and place of delivery with feeding of colostrum in urban mothers

Literacy status	Colostrum given by urban mothers		
	Yes	No	P value
Illiterate	102 (22.7%)	8 (1.7%)	**P>0.05 (NOT SIGNIFICANT)**
Literate	316 (70.3%	23 (5.1%)	
	418 (93.09%)	**31 (6.9%)**	
Place of delivery			
Home	32 (7.1%)	01 (0.2%)	**P>0.05 (NOT SIGNIFICANT)**
Hospital	386 (85.96%)	30 (6.6%)	
Total	**418 (93.1%)**	**31 (6.9%)**	

Table 2: correlation between pre-lacteal feeding with literacy and type of delivery in urban mothers

Literacy status	Pre-lacteal feeding given by urban mothers		
	Yes	No	P value
Illiterate	154 (34.29%)	185(41.2%)	**P<0.001 (HIGHLYSIGNIFICANT)**
Literate	60 (13.3%)	50 (11.1%)	
	214 (47.7)	**235 (52.3)**	
Type of delivery			
Normal	124 (27.6%)	208 (46.3%)	**P<0.001 (HIGHLYSIGNIFICANT)**
L.S.C.S	90 (20%)	27 (6%	
Total	**214 (47.7)**	**235 (52.6%)**	

Table 3: Initiation of breast feeding in Urban Areas

In Hours	URBAN No.	(%)
<1	192	(42.8)
1–5	125	(27.7)
6-24	32	(7.1)
>24	100	(22.3)
Total	**449**	**(100.0)**

Most of the mothers (42.8%) initiated breastfeeding within 1 hour of delivery, 27.7% initiated between1 to 6 hours after delivery.

Table 4: correlation between initiation of breastfeeding with literacy status

	<1 hour	1–2 hours	3-5 hours	6–24 hours	>24 hours	P value
Illiterate	**125**	**46**	**26**	**23**	**59**	**P<0.05 (significant)**
literates	**67**	**31**	**22**	**25**	**41**	

Parity of mother						
Primiparous	**146**	**56**	**34**	**25**	**78**	**P<0.05 (significant)**
multiparous	**46**	**21**	**14**	**7**	**22**	

The correlation between literacy status and parity of mother with early initiation of breastfeeding is significant (P<0.05). 92.1% of females have exclusively breastfed their infants.

Table 5: Correlation between EBF and literacy status

Literacy status	Exclusively breast fed	Not exclusively breast fed
Illiterate	125 (27.9%)	74 (16.5%)
Literate	75 (16.7%)	175 (38.9%)
Total	**200 (44.5%)**	**249 (55.4%)**
P> 0.05(NOT SIGNIFICANT)		

No significant difference regarding practice of exclusive breast feeding was observed among literate and illiterate subjects of urban area(P>0.05).

Table 6: Predominant Breast Feeding

Age in months	Predominantly breastfed	Not predominantly breastfed
6-8 months	95 (21.1%)	200 (44.5%)
9-11 months	34 (7.5%)	120 (26.7%)
total	129(28.7%)	320 (71.2%)

92.5% of the urban mothers have continued breastfeeding at 1 year. 80.5% continued breastfeeding till 2 years of age.
12% of females resorted to bottle feeding. Bottle feeding was initiated after 1 year of age predominantly in present study.

Table 7: Distribution of Child by Grade of Nutrition

Nutrition Status	URBAN (n)	Percent
NORMAL	387	86.3%
GRADEI	41	9.13%
GRADEII	13	2.8%
GRADEIII	5	1.1%
GRADEIV	3	0.67%

Table 8: Assessment of lack of knowledge about breastfeeding practices in urban women

Not aware about giving colostrum initially	6.9%
Not aware of expression and storage of breast milk	86.6%
Lack of knowledge on consuming extra nutrition during pregnancy and lactation	33.3%
Lack of knowledge about spacing of pregnancy	42.7%
Lack of knowledge regarding hind- milk	22.9%
Lack of knowledge about exclusive breast-feeding	6.6%
Lack of knowledge about prelacteal feeding	47.6%

DISCUSSION

Exclusive breastfeeding for 6 months confers many benefits to the infant and the mother. Prominent among these is the protective effect against gastrointestinal infections, which is observed not only in developing but also in industrialized countries. The risk of mortality due to diarrhea and other infections can increase many-fold in infants who are either partially breastfed or not breastfed at all. In the context of HIV, introducing other milks, foods or liquids significantly increases the risk of HIV transmission through breast milk, and reduces infant's chances of HIV- free survival. For the mother, exclusive breastfeeding can delay return of fertility.
In the present study, most of the mothers belong to lower socio-economic status and work as daily wage workers. 99% of urban mother received 3 antenatal visits in present study. This is higher to study done by Ghoshet al,[8] (72% of urban mothers received antenatal checkups).
In present study, 92% of the urban slum mothers delivered in a hospital. However, a study in Chile had reported only 86% of hospital deliveries.[9] 93.09% of the urban mothers gave colostrum and only 6.90% mothers did not give colostrum. The present findings are in concurrence with the study of Durge P.M. et al,[10] in their study found that 83.59% mothers have fed colostrum.
In present study, there is no significant difference among literacy rates and place of delivery with feeding of colostrum (P>0.05). This is in concordance with study done by S K Chowdary et al,[11] w h o reported literacy status of mother had no significant relationship with the pattern of breastfeeding adopted by mothers. Chandrasekhar et al,[12] reports 10.8% of women who delivered at home

did not feed colostrum. Unlike Gupta,[13] et al in their study found that 92% of mothers discarded colostrum with the idea that it would harm the baby.

The findings of present study were similar to the findings of S KChowdaryetal,[11] reported literacy status of mother had no significant relationship with the pattern of breastfeeding adopted by mothers. Unlike the findings of present study Mallikarjuna Rao et al,[13] reports 85% of illiterate mothers discarded colostrum. Similarly Helga Piechulek et al,[14] reports maternal education has an important effect on the use of colostrum and on advocating feeding practices in a study on mothers of 248 children of under-five age group.

Giving prelacteal feeds is a popular and deep rooted social custom in India. 47.6% in urban area gave prelacteal feeds. The common prelacteal feeds given were top milk, honey and sugar water. It is similar to the finding of study done on 270 respondentsin urban slums of Chandigarh where 40% mothers gave prelacteal feeds (Dinesh Kumar et al).[15] Prelacteal feeding practice is significantly related with type of delivery and literacy status in present study. In a study by Banpurmath,[17] 70% LSCS mothers gave prelacteal feeds.

In present study, majority of the women initiated breastfeeding within 1st hour of delivery. Unlike the findings of the present study, Pragtiet al,[18] reports 9.7% of infants being initiated breastfeeding within 1 hour after birth in urban resettlement colony of east Delhi. Similar to the findings of present study, WHO19collaborative study 1981 in Philippines has reported early initiation of breastfeeding with an increase in education level.

In present study, more of multiparous women have initiated breastfeeding early. Similar to our study of Das Gupta et al,[13] found that multiparous women had initiated earlier than primiparous women.

In present study, exclusive breast feeding practices a r e highly prevent among the urban mothers irrespective of literacy status of the mother. On the contrary, Ranjana Tiwari et al, 20 reported literacy has significant association with exclusive breastfeeding.

In present study, 12% of mother started bottle feeding, predominantly after 1 year of age. Howie et al,[21] observed that infants breastfed for >13 weeks had significantly less incidence of diarrheal disease than those who were bottle fed since birth.

CONCLUSION

The study concludes that urban women despite of having higher literacy rate need further knowledge regarding good and bad breastfeeding practices to ensure healthy growth and development of infant.

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REFERENCES

1. World Health Organization (WHO) Infant and young child feeding: model chapter for textbooks for medical students and allied health professionals. Geneva: WHO; 2009.
2. WHO. Essential nutrition actions: improving maternal, newborn, infant and young child health and nutrition. 2013.
3. Bernardo H, Cesar V, World Health Organization. Long-term effects of breastfeeding: a systematic review. 2013.
4. WHO. Global strategy for infant and young child feeding. 2003.
5. Rollins NC, Bhandari N, Hajeebhoy N, Horton S, Lutter CK, Martines JC, et al. Why invest, and what it will take to improve breastfeeding practices. The Lancet. 2016; 387:491–504.
6. Collaborative Group on Hormonal Factors in Breast Cancer Breast cancer and hormonal contraceptives: collaborative reanalysis of individual data on 53 297 women with breast cancer and 100 239 women without breast cancer from 54 epidemiological studies. Lancet. 1996; 22(9017):1713–27.
7. Horta B, Mola CL de, paediatrica CV-A, 2015 undefined. Long-term consequences of breastfeeding on cholesterol, obesity, systolic blood pressure and type 2 diabetes: a systematic review and meta-analysis. Wiley Online Libr. 2015; 104:30–7.
8. Ghosh S et al. "Socio cultural factors affecting breast feeding and other infant feeding practices in an urban community". Indian Paediatrics, 1976; XII: II: 827-832.
9. World Health Organisation – "A collaborative study on contemporary patterns of breast feeding" Report of World Health Organisation, Geneva 1981.
10. Durge PM, Dange VR, Thomas AP, Thorat DM, Desai RL. A study of Breastfeeding practices in urban slums. Journal of Obstetrics and Gynaecology of India 1996 Jun; 46(3): 361-4
11. Madhu K, Chowdary S, Masthi R. Breast feeding practices and newborn care in rural areas: A descriptive cross-sectional study. Indian J Community Med. 2009; 34:243–6.
12. Chandra Sekhar TS, HS Joshi, VS Binu, MS Rama and U Rama Chandran "Breast feeding initiation and determinants of exclusive breast feeding – A questionnaire survey in an urban population of Western Nepal". Public Health Nutrition 2006; 10(2):197-199.
13. Das Gupta A, BhattaCharya S, Das M, MandiChowdary K and Saha.S. "Breast feeding practices in a teaching Hospital of Calcutta before and after adoption of BFHI". Journal of Indian Medical Association 1997; 95:169-172. Guptha ML at al- Indian pediatrics - 1980-17:3:261-265.
14. Indian Pediatrics - Editorial [Internet]. www.indianpediatrics.net. Available from: https://www.indianpediatrics.net/sep2002/sep-861-864.html
15. Piechulek H, Aldana JM, Hasan N. Feeding Practices and Malnutrition in Children in Rural Bangladesh. Food and Nutrition Bulletin. 1999 Jan; 20(4):395–400.
16. Dinesh Kumar, NeerajAggarwal, HM Swami. "Socio-demographic factors are associated with initiation of breast feeding in urban slums of Chandigarh". Indian Journal of Medical Sciences 2006; Volume 60; 6(11): 461-466.
17. Banapurmath C Rand Selva Muthu Kumarasamy."Breastfeeding and the first breastfeeds, Correlation of Initiation pattern to mode of delivery". Indian Pediatrics 1995; 32:1299-1301
18. Chabra P, Pragathi Grover VL, Aggarwal OP, Dubey KK. "Breast feeding patterns in an urban resettlement colony of Delhi". Indian Journal of Paediatrics 1998; 65:867-872.
19. World Health Organisation – "A collaborative study on contemporary patterns of breast feeding" Report of World Health Organisation, Geneva 1981.
20. Tiwari R, Mahajan PC, Lahariya C. The determinants of exclusive breast feeding in urban slums: a community based study. J Trop Pediatr. 2009 Feb;55(1):49-54. doi: 10.1093/tropej/fmn037. Epub 2008 May 22. PMID: 18499736.
21. Howie PW, Forsyth JS, Ogston SA, Clark A, Florey CD. "Protective effect of breastfeeding against infection". BMJ, 1990 Jan 6: 300(6716): 11-16.