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Community Medicine

A STUDY ON FACTORS AFFECTING EARLY INITIATION OF BREAST FEEDING IN URBAN SLUMS OF GUWAHATI CITY, ASSAM

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ABSTRACT

INTRODUCTION: Early and exclusive breast feeding is recognized as one of the most effective interventions for child survival to address morbidity and mortality relating to the major conditions like neonatal infections, diarrhea and pneumonia. [1,2]

METHODOLOGY: The cross sectional study was carried on 600 children from 30 slums of Guwahati city between 15th August2017 to 25th June, 2018.

RESULT: Out of 600 children 380 (63.3%) had received early initiation of breast feeding. Most of the mothers (85.4%) said that inadequate breast milk was the reason behind delayed initiation of breast feeding. Early initiation was more in children where mothers had education upto higher secondary (87.8%) than who were illiterate (57.9%).

KEYWORDS : Early initiation of breast feeding, delayed initiation of breast feeding, urban slums

INTRODUCTION

Breast feeding is the first fundamental right of the child. Early and exclusive breast feeding is recognized as one of the most effective interventions of optimal feeding practices for child survival to address morbidity and mortality relating to the major conditions like neonatal infections, diarrhea and pneumonia. [1,2]

Early initiation of breastfeeding, i.e breast feeding within one hour of birth, protects the newborn from acquiring infection and reduces newborn mortality. It facilitates emotional bonding of the mother and the baby and it has a positive impact on duration of exclusive breastfeeding. When a mother initiates breastfeeding early, production of breast milk is stimulated. The colostrum which is yellow or golden milk produced in the first few days, is very important source of nutrition and immune protection for the newborn baby. [3,4,5]

In a study done in Ethiopia it was found that timely initiation of breastfeeding has the potential to prevent 22 % of neonatal deaths. Mothers who delivered their infant in a health institution, birthed vaginally and didn't give pre lacteal food were more likely to initiate breastfeeding early than the counterparts.[23]

It was observed that education of mothers and working status were important factors associated with early initiation of breastfeeding.[6]

AIMS AND OBJECTIVES

- To find out the prevalence of early initiation of breast feeding
- To assess the factors associated with early initiation of breast feeding

METHODOLOGY

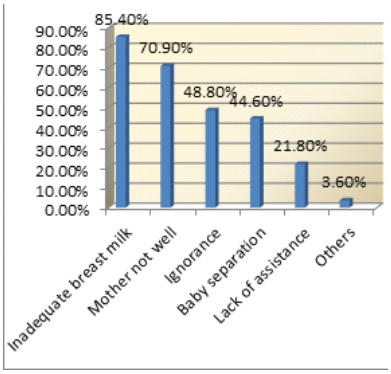
The study was a cross-sectional study. The study period was between 15th August 2017 to 25th June 2018 in urban slums of Guwahati city. The target population was children aged 0-23 months.

Based on the prevalence of early initiation of breast feeding 42.2% from the study Khanal V et al and relative error 10%, sample size was calculated as 548. From slum survey report 2009 , out of total 99 notified slums 30 slums were selected randomly using lottery method.[7] On reaching the slums the list of the children 0-23 months are collected from the respective Anganwadi centers, then by lottery method 20 children were selected randomly from each slum. Therefore, a total of 600 children were taken for the study purpose. Data was collected by house to house visit. On reaching the houses the purpose of the visit, was briefed to the mother of the child and consent was taken. The mothers of all the infants included in the study were interviewed. Structured questionnaire containing both closed and open ended questions was used for interviewing the mothers. B.G. Prasad scale was used for the socio-economic classification.[8]

TABLE 1: Socio demographic profile of the children

Socio demographic factors	Frequency (%)
Child's age in months	
0-6	186(31)
6-9	160(26.7)
9-12	130(21.7)
12-23	124(20.6)
Gender	
Males	284(47.3)
Females	316(52.7)
Birth order	
1st	168(28)
≥2nd	432(72)
Socio economic status	
I] Upper	8(1.3)
II] Upper middle	84(14.0)
III] Lower middle	278(46.3)
IV] Upper lower	176(29.3)
V] Lower	54(9.0)
Mothers education	
Graduate /PG	4(0.7)
Higher secondary	78(13.0)
High school	164(27.3)
Middle school	174(29.0)
Primary school	104(17.3)
Illiterate	76(12.7)
Working status	
Home maker	348(58)
Working outside	252(42)
Early initiation of breast feeding	
Given	380(63.3)
Not given	220(36.7)

FIGURE 1: Reasons for delayed initiation of breast feeding



RESULTS

The socio demographic characteristics are described in table 1. Out of total 600 children most of the children (31%) were in the age group 0-6 months. Majority 52.7% children were female. Only 28% children had first birth order and rest 72% had birth order 2nd or more. Among 600 children, most of them (46.3%) belonged to lower middle class. Most of the mothers (29%) had studied upto middle school, around 30% mothers were either illiterate or had attended primary school only. Majority (58%) mothers were homemakers.

Out of total 600 children aged 0-23 months 63.3% were initiated on breast feeding early i.e within one hour of delivery.

Various reasons were given by the mothers for delayed initiation of breast feeding. (Figure1).Most of the mothers (85.4%) said that inadequate breast milk was the reason behind delayed initiation of breast feeding. Around 71% mothers said that she was not feeling well enough to feed the baby after delivery.

Time of initiation of breast feeding was influenced by various factors (Table2). Early initiation of breast feeding was found to be significantly associated with socio economic status, mothers educational status, ANC , place of delivery , mode of delivery , birth order and introduction of prelacteals

Table 2: Bivariate analysis for time of initiation of breast feeding

Variables	Time of initiation of breast feeding		Odds ratio (95% CI)	P value
	Early	Delayed		
Socio economic class				
I]Upper class	6 (75%)	2 (25%)	_	<0.001
II]Upper middle	76 (90.5%)	8 (9.5 %)		
III]Lower middle	142 (51.1%)	136 (48.9%)		
IV]Upper lower	112 (63.6%)	64 (36.4%)		
V]Lower	42 (77.8%)	12 (22.2%)		
Working status Of mother				
Home maker	232 (66.7%)	116 (33.3%)	1.41 (1.01 to 1.97)	0.057
Working outside	148 (58.7%)	104 (41.3%)		
Education of mother				
Higher secondary and above	72 (87.8%)	10 (12.2%)	_	<0.001
High school	120 (73.2%)	44 (26.8%)		
Middle school	98 (56.3%)	76 (43.7%)		
Primary school	46 (44.2%)	58 (55.8%)		
Illiterate	44 (57.9%)	32 (42.1%)		
ANC				
Yes	370 (64.9%)	200 (35.1%)	3.70 (1.70 to 8.06)	0.001
No	10 (33.3%)	20 (66.7%)		
Place of delivery				
institution	370 (65.6%)	194 (34.4%)	4.96 (2.34 to10.50)	<0.001
Home	10 (27.8%)	26 (72.2%)		
Mode of delivery				
Vaginal delivery	348 (87.4%)	50 (12.6%)	36.98 (22.87to59.77)	<0.001
CS	32 (15.8%)	170 (84.2%)		
Birth order				
First	70 (41.7%)	98 (58.3%)	0.28 (0.19 to 0.41)	<0.001
Second or more	310 (71.8%)	122 (28.2%)		
Birth weight				
<2.5kg	48 (52.7%)	46 (47.3%)	0.92 (0.59-1.42)	0.78
≥2.5kg	271 (53.2%)	238 (46.8%)		
Pre lacteal feed				
Not given	332 (76.5%)	102 (23.5%)	8.00 (5.35 to 11.97)	<0.001
Given	48 (28.9%)	118 (71.1%)		

but no statistical association was found between mothers working status and birth weight of the children.

Mothers who had received ANC had 3.7 times (CI :1.70-8.06) higher chances of starting breast feeding early than who had not received ANC. Vaginal delivery was positively associated with early initiation of breast feeding (OR 36.98 , CI : 22.87-59.77). The children who had birth order 1st had less chances of getting breast feeding within one hour of delivery (OR 0.28,CI : 0.19-0.41). The children who had not received pre lacteals had 8 (CI: 5.35-11.97) times higher odds of receiving early initiation of breast feeding than who had received prelacteals.

DISCUSSION

This cross sectional study was done in slums of Guwahati city to determine the various factors associated with time of initiation of breast feeding among the slum dwellers.

In the present study early initiation of breast feeding was 63.3%. The studies done by **Gogoi et al** and **Garg et al** found early initiation of breast feeding as71.4% and 61.5% respectively , which was similar to my study.[2,9]In various studies done by **Mahmood SE et al, Sharma A et al** and **Khanal V et al** found only 22%, 38.6% and 42.2%children were initiated on early breast feeding respectively .[6,7,10]

In this study reasons for delayed initiation of breast feeding was mainly due to [85.5%] inadequate breast milk, followed by pain or unwell health condition of mother [70.9%]. The other reasons were ignorance , separation of the baby . In the study done by **Kalita et al**, **Mukunya D** found that separation of the baby was found to be the commonest reason for delayed initiation of breastfeeding among the mothers.[11] **Badruddin SH et al** [1997] reported that mother's health condition as a reason for delaying breastfeeding specifically being unconscious after delivery, unable to sit, experiencing hypertension, fatigue , or generalized illness after delivery.[13] Similar results was found in the studies done by **Khanal V et al** and **Mukunya D** where caesarean section mothers delayed in initiation of breast feeding due to their health condition.[7,11] **Haider R et at** [2010] reported that bathing rituals for mother and newborn must take place before initiating breast feeding .[14]Milk insufficiency is reported as the reason for not initiating breastfeeding within 1 h in the studies done by **Rahman N et al, Parmar et al** and **Haider R et al**.[14,15,16]The result was similar to my study.

The success of early initiation of breast feeding depends on lots of factors as evident from the present study. Socio economic status was found to be significantly associated with time of initiation of breast feeding. In studies done by **Ali S et al** [2011] and **Bbaale E** found that higher early initiation of breast feeding in families with higher socio economic status, which was similar to present study.[17,18]

No significant association was found between working status of mother with time of introduction of breast milk but **Hazir T et al and Patel et al reported that** working mothers are more likely to delay initiation compared to non-working mothers. [19,20]

Early initiation of breast feeding was more in mothers with higher education. In a study done by **Patel et al** found that delayed initiation of breastfeeding is more prevalent among women who had no formal education.[20] Studies done by **Mukunya D et al** and **Garg M et al**, reported similar results.[2,11]

The odds of early initiation of breast feeding was 3.7 times higher in mothers who had received ANC than who had not received ANC. The

study done by **Sharma A et al** and **Haider et al** reported that mother who were counselled during antenatal check-up about need and benefits of breast feeding were more likely to breast feed within one hour than their counterparts.[6,14]

The children who were born in institution had 4.96 times higher chances of receiving breast milk within one hour of delivery than who were born at home. The studies done by **Sharma A et al** showed that mother who delivered in hospital more timely breast feed their infant then the mother who delivered at home. [6]

Mode of deliver had very significant association with time of initiation of breast feeding. Mothers who had delivered vaginally had 36.98 times higher chances of early initiation of breast feeding in comparison to the mothers who had CS. The studies done by **Haider R et al** [2010] , **Khanal et al** and **Mukunya D** in found that delay in uniting the newborn and mother after CS as reasons for delayed initiation of breast feeding.[7,11,14]

In this study early initiation of breast feeding was found to be less in children who had birth order 1st than those who had birth order 2nd or more. In studies done by **Athevale A V et al**, **El-Gilany AH et al** reported that for their first-born child, women are less likely to initiate breastfeeding within 1 h of birth.[21,22] But **Sharma A et al** found no association between birth order and time of initiation of breast feeding.[6]

No significant association was found between birth weight and time of initiation of breast feeding in the present study.

Prelacteal feeding was found to have negative influence on early initiation of breast feeding. The odds of early initiation of breast feeding was 8 times higher in children who had not received any pre lacteal feeding. The studies done by **Tewabe T** and **Roy MP** reported that early initiation of breastfeeding and pre lacteal feeding was found to be negatively associated. Which was similar to my findings.[23,24]

LIMITATIONS

Prevalence of timely initiation of breastfeeding results may be influenced by in the study area due to recall bias.

CONCLUSION

The prevalence of timely initiation of breastfeeding in the study area was only 63.3%. Among different socio-demographic, maternal, and infant related factors studied; the mothers education , ANC services, place of delivery, mode of delivery and not giving prelacteal feeding were the determinant factors for higher chance of timely initiation of breastfeeding.

Recommendations for improving EBF include; behavior change communication to avoid traditional activities, minimizing indications of caesarean delivery by health professionals, training of health professionals regarding infant feeding practices, community based breastfeeding education and counseling of the pregnant women during ANC and encouraging all mothers to give birth in health facilities.

REFERENCES

1. IYCF Guidelines, Government of India, 2013. [Internet]. Wcd.nic.in. 2018 [cited 1 August 2018]. Available from: http://www.wcd.nic.in/sites/default/files/ nationalguidelines
2. Garg M, Hasan M, Kapur D. Infant and Young Child Feeding (IYCF) practices in Udupi district, Karnataka. J Nut . 2015; 3(1): 38-44 .
3. Evidence on the long-term effects of breastfeeding. Geneva, World Health Organization, 2007. [Internet]. 2018 [cited 1 August 2018]. Available from: http://www.who.int/child_adolescent_health/documents/9241595230/en/index.html .
4. Pan American Health Organization, World Health Organization. Guiding Principles for Complementary Feeding of the Breastfed Child. Washington, DC, USA, Geneva, Switzerland: Pan American Health Organization, World Health Organization. 2003 [Internet]. Who.int. 2018 [cited 1 August 2018]. Available from: http://www.who.int/nutrition/publications/guiding_principles_compfeeding_breastfed.pdf
5. Edmond KM, Kirkwood BR, Amenga-Etego S, Owusu-Agyei S, and Hur LS. Effect of early infant feeding practices on infection-specific neonatal mortality: an investigation of causal links with observational data from Ghana. American Journal of Clinical Nutrition. 2007, 86(4):1126–1131
6. Sharma A., Thakur P., Tiwari R., Kasar P., Sharma R., & Kabirpanthi V. Factors associated with early initiation of breastfeeding among mothers of tribal area of Madhya Pradesh, India: a community based cross sectional study. IJCMPH. 2017 3(1), 194-199.
7. Khanal V, Scott JA, Lee AH, Karkee R, Binns CW, Tchounwou PB. Factors associated with Early Initiation of Breastfeeding in Western Nepal. Int Journal of Environmental Research and Public Health. 2015;12(8):9562-9574.
8. B.G Prasad socio economic scale modified in 2016
9. Gogoi I, Mahanta TG, Barua A. Prevalence of exclusive breastfeeding in slums of Dibrugarh Town and factors affecting the breastfeeding practice. Clinical epidemiology and global health. 2015 ;3 : 5 8 – 6 2
10. Mahmood SE, Srivastava A, Shrotriya VP, Mishra P. Infant feeding practices in the rural population of north India. Journal of Family & Community Medicine. 2012;19(2):130-135.
11. Mukunya D, Tumwine JK, Nankabirwa V, et al. Factors associated with delayed initiation of breastfeeding: a survey in Northern Uganda. Global Health Action. 2017;10(1):1-9
12. Kalita D and Borah M . Current practices on infant feeding in rural areas of Assam, India: a community based cross sectional study. International Journal of Community Medicine and Public Health. 2016 Jun;3(6):1454-1460
13. Badruddin SH, Inam SNB, Ramzanali S, Hendricks K. Constraints to adoption of appropriate breast feeding practices in a squatter settlement in Karachi, Pakistan. J Pak Med Assoc. 1997;47(2):63–8.
14. Haider R, Rasheed S, ST G, Hassan N, Pachon H, Islam S, et al. Breastfeeding in infancy: identifying the program-relevant issues in Bangladesh. Int Breastfeed J. 2010;5:21.
15. Rahman N, Dewi NU,Fitrasyah SI, Bohari. Factors Related to Exclusive Breastfeeding among Mothers in the City of Palu, Central Sulawesi, Indonesia Mal J Nutr.2017 ; 23(2): 175-189 .
16. Parmar VR, Salaria M, Poddar B, Singh K, Ghotra H, Sucharu. Knowledge, attitudes and practices regarding breastfeeding at Chandigarh. Indian J Public Health. 2000; 44:131-3.
17. Ali S, Ali SF, Imam AM, Ayub S, Billoo AG. Perception and practices of breastfeeding of infants 0–6 months in an urban and a semi-urban community in Pakistan: a cross-sectional study. J Pak Med Assoc. 2011;61(1):99.
18. Bbaale E. Determinants of early initiation, exclusiveness, and duration of breastfeeding in Uganda. Int Cent Diarrhoeal Dis Res. 2014;32(2):249.
19. Hazir T, Akram DS, Nisar YB, Kazmi N, Agho KE, Abbasi S, et al. Determinants of suboptimal breast-feeding practices in Pakistan. Public Health Nutr. 2013;16(4): 659–72.
20. Patel A, Badhoniya N, Khadse S, Senarath U, Agho KE, Dibley MJ, et al. Infant and young child feeding indicators and determinants of poor feeding practices in India: secondary data analysis of National family health survey 2005–06. Food Nutr Bull. 2010;31(2):314–33.
21. Athavale AV, Athavale SA, Deshpande SG, Zodpey SP, Sangole S. Initiation of breast-feeding by urban women. Health Pop: Perspect Iss. 2004;27(2):117–25.
22. El-Gilany AH, Sarraf B, Al-Wehady A. Factors associated with timely initiation of breastfeeding in AL-Hassa Province, Saudi Arabia. East Mediterr Health J. 2012;18:250–254.
23. Tewabe T. Timely initiation of breastfeeding and associated factors among mothers in Motta town, East Gojjam zone, Amhara regional state, Ethiopia, 2015: a cross-sectional study. BMC Pregnancy and Childbirth. 2016;16:314.
24. Roy MP, Mohan U, Singh SK, Singh VK, Srivastava AK. Determinants of prelacteal feeding in rural northern India. Int J Prev Med. 2014 May;5(5):658-63.
25. Karkee, R. and Lee, A. and Khanal, V. and Binns, C. 2014. Initiation of Breastfeeding and Factors Associated with Prelacteal Feeds in Central Nepal. Journal of Human Lactation. 2014;30: 353-357.