Available online at http://www.ijims.com

ISSN: 2348 – 0343

Breastfeeding Practices in an Urban Slum of Western India: A Cross-Sectional Study

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Abstract

Breastfeeding practices play an important role in reducing child mortality and morbidity. This study was aimed to describe the breastfeeding practices prevalent in urban slum area. **A** cross-sectional study was conducted from January 2011 to December 2011 in slum region catering urban health training center (UHC) that is attached to a government medical college, Solapur, Maharashtra. All mothers having child 0 to 24 months included in the study, 594 women were identified using universal sampling (inclusion and exclusion criteria were used) and data was collected using pre-tested questionnaire on breastfeeding practices. Dependent variable was breastfeeding practices including exclusive breastfeeding. Analysis was done with SPSS version 16. **It was found that** More than half (70.2%) infants were exclusively breast fed (EBF) up to six months of age. Pre-lacteal feeds were given to 44.9% infants while colostrum was not given to 16.5% infants. Practice of EBF was found to be significantly associated with age of mother, type of family and education of mother.This study emphasizes the need for breastfeeding intervention programs especially forthe mother during antenatal and postnatal check-ups and practices like discarding the colostrum and pre-lacteal feed, late initiation of breastfeeding are still widely prevalent and need to be addressed.

Keywords: Breastfeeding, Exclusive breastfeeding, Pre-lacteals, Urban slum.

Introduction

Breastfeeding, the nature has designed the provision that infants be fed upon their mother's milk, they find their food and mother at the same time, it is complete nourishment for them both for their body and soul.[1]Breastfeedingis one of the most effective way to ensure child health and survival.[2]Breastfeeding is the best way to provide newborns with the nutrients they need. WHO recommends exclusive breastfeeding until a baby is six months old and continued breastfeeding with the addition of nutritious complementary foods for up to two years or beyond.[3]Breastfeeding is one of the most important determinants of child survival, birth spacing, and prevention of childhood infections.[4]

As there are many unusual breastfeeding practices prevalent in the urban slum area such as delay in initiation of breastfeeding even in normal delivery, pre-lacteal feeding in the form of honey or sugar syrup, restricting feeding of colostrum, etc. So this study was planned with the objectives of assessing practices about breastfeeding among mothers and to study socio-demographic variables affecting breastfeeding practices.

Materials and methods

A cross-sectional community based study was conducted from January 2011 to December 2011 in the field practice slum area of the urban health training center, Solapur which is integral part of Department of community medicine, Dr. Vaishampayan Memorial Government Medical College, Solapur, Maharashtra.

Inclusion criterion - Mothers having child in the age group of zero to twenty four months residing in urban slum area were included. 594 such women were identified using universal sampling with the help of anganwadi workers (AWW).

Exclusion criteria- Mothers having child more than twenty four months, women who did not give consent for the study and women who were unavailable at the time of study. Such 50 women were excluded.

House to house visits were paid to thesesubjects & they were then interviewed face to faceusing a pre-tested semi-structured questionnaireafter taking their informed consent. A semistructuredquestionnaire was prepared based on the study objectives and a pilot study was done to validate the questionnaire in the study settings. The questionnaire was suitably modified based on the findings of the pilot study. Data regarding maternal socio-demographic variables (area of residence, age, religion, education level, type of family, occupation, monthly household income) were collected. Kuppuswamy's scale of socioeconomic status classification was used to classify socio-economic class into upper, middle and lower[5]. Analysis was done with SPSS version 16. Descriptive statistics were used to summarize the data. Difference between groups was tested using Pearson Chi-square test.

Results

Majority (58.1%) of the study participants having child age 6 months to 24 months.In that 65.1% were from 20 – 25 years age group, 60.8% were Muslim,65.8% were housewives, 52.2% from nuclear family, 38.3% educated up to secondary level and 70.2% followed exclusive breastfeeding (EBF) .

Table I shows the breastfeeding practices amongst the mothers residing in urban slum area.(* mothers having child age 6 to 24 months)Breastfeeding was initiated in 40.9% infants within one hour of normal delivery and only in 9.4% infants within four hours of caesarean section. Pre-lacteal feed were given to 44.9% infants while colostrum was not given to 16.5% infants. Majority (70.2%) infants were exclusively breast fed up to six months of age. 25.9% infants were given mixed feeding while 3.9% were completely top fed. 33.8% subjects fed their babies every two hourly while 36.1% fed the baby whenever the baby cries.

Table II shows association between exclusive breastfeeding and socio-demographic factors. It is observed that majority 74.3% of the study subjects up to 25 years of age were practicingEBF. The association between age of mother and practice of EBF was statistically significant ($p<0.05$) It was found that a higher percentage (74.2%) of Hindu women practice EBF compared toMuslim (70.3%) and Buddhist (63.3%) women. No significant association was found between EBF and religion, occupation of the mother and socioeconomic status. 46.8% of the illiterate subjects did not practice EBF while 72.6% subjects educated up to secondary and higher level practiced EBF. Thus, a significant association was found between level of education and practice of EBF ($p<0.05$).

Discussion

WHO recommends exclusive breastfeeding until ababy is six months old and continued breastfeedingwith the addition of nutritious complementaryfoods for up to two years or beyond.[2]In our study, Majority(70.2%) infants were exclusively breast fed up tosix months of age. (25.8%) infants were given mixed feeding while (6.8%) were completely topfed. In a KAP study to assess exclusivebreastfeeding practices in primiparous mothers it was observed that 41.5% of the women breastfedexclusively while 58.5% bottle-fed only or did so together with breastfeeding.[6]While in an assessment of infant feeding practices at a tertiary care hospital it was observed that EBF was notmaintained up to recommended age of six months i.e. exclusiveness of breastfeeding decreased from60% at (0-2 months) to 40% (3-5 months).[7] The comparison of results from studies done across the globe suggests that prevalence of EBF was better in our study area despite being an urban slum region. The most probable reasons for such findings could be the natural tendency ofbreastfeeding among Indian women, intensive efforts taken by the healthcare staff of the urban health training centre, Solapur on information, education and counselling of antenatal women about excusivebreastfeeding and its advantages.

In the current study breastfeeding was initiated (40.9%) infants within one hour of normal delivery and only in (13.0%) infants within four hours of caesarean section. In rural Punjab, it was observed that (23.8%) subjects started

breastfeeding their babies on the first day of birth, but in terms of early breastfeeding only (13.5%) respondents put their babies on the breast within four hours of birth.[8]while in Nepal it was observed that Caesarean deliveries were associated with delay in timely initiation of breastfeeding.[9] In an analysis of National SurveyData across nine East and Southeast Asian countries it was recorded that timely initiation ofbreastfeeding varied from 32% in Indonesia to 46% in Timor-Leste. EBF rate in infants under sixmonths of age ranged from 11% in Myanmar to 60% in Cambodia.[10] In a study done in WestBengal, it was observed that only 16.5% initiated breastfeeding within an hour of giving birth andabout half did not start breastfeeding until at least 24 hours after the birth (47.9%). The reasons citedfor delaying breastfeeding were that 'it was harmful for the baby' and that there was 'insufficient milk'.[11] Even though, in the current study, early initiation of breastfeeding was found to be betterthan few of the other studies, but the figures suggest a sorry state of affair and a lot needs to bedone with regards to timely initiation of breastfeeding following delivery. Initiation ofbreastfeeding was delayed after birth because of the belief that mother's milk is 'not ready' until two-to three days postpartum. Some of the other probable reasons for such findings could be poor general condition of the women post-partum, lack of awareness regarding early initiation of breastfeeding, initial insufficient milk output, baby refused to suckle, familial pressures / beliefs /superstitions, etc.

In the present study, pre-lacteal feeds were given to (44.9%) infants while colostrum was notgiven to (16.5%) infants similarly in a study conducted in urban community Navi Mumbai 36.1% subjectswere given pre-lacteal feeds.[12] In a similar study done in Bangalore, it was found that a total of 13% of the babies were fed with sugar water alone for more than 48 hours. Honey (6%) and ghee (3%) were also commonly used pre lacteal feeds.[13] The probable explanation for the above findings in our study could be the strong beliefs and rituals among urban slum population about not feeding initial milk i.e. colostrum and giving pre lacteal feeds in the form of honey or sugar syrup. These beliefs still persist in slum population despite the efforts of the healthcare staff. Thus, in order to bring about a substantial improvement in such wrong beliefs, behavioural change communication strategy needs to be developed.

In our study it was observed that majority (74.3%) of the study subjects up to 25 years of age were practicing EBF. (36.7%) of the Buddhist subjects and (29.7%) Muslim subjects were not practicing EBF. Practice of EBF was found to be significantly associated with education status of mother.Higher literacy level leads to higher level of awareness in general about healthy living including breastfeeding and its advantages.

No significant association was found between EBF and occupation of the mother, religion and socio-economic status.

In contrast to our findings, in a study done in Saudi Arabia, increased maternal agewas significant positive predictor for early breastfeeding initiation as revealed by stepwise logistic forward regression. Furthermore, early initiations and exclusivity were significantly influenced by socio-demographics especially maternal educational and employment status.[14] In a study done in urban slum area of Chetla,Kolkatta, EBF was less in literate mothers and the relationship was statistically significant ($p< 0.05$).[15]There is potential for recall bias in the current study. Also possibility of confounding factors for breastfeeding cannot be ruled out. It might be more useful and scientific to conduct interventional study among antenatal women with follow up in post natal period to assess their breastfeeding practices.

Conclusions

Breastfeeding is the universally accepted means of infant feeding with proven benefits to the mother, infant and the economy. Undoubtedly, it is invaluable in the developing world, particularly amongst the lower socioeconomic and disadvantaged groups. This study identified age of mother, type of family and education status to be significantly associated with EBF.

The practice of withholding the breast milk after birth, discarding valuable colostrum and giving pre-lacteal feeds to the newborn needs to be urgently addressed through programs and breastfeeding interventions that infiltrate in to the urban slum areas across the country. Strengthening of information, education &counseling for antenatal women with active involvement of USHA / AWW / ANM regarding timely initiation of breastfeeding following delivery, duration of exclusive breastfeeding, and importance of feeding colostrum.

The women who have timely initiated breastfeeding, not given pre-lacteal feeds, fed colostrum to their child and successfully exclusively breastfed their child for six monthsshould be made role models for other antenatalwomen. A group of such women should be formed (Mother Support Group) at the community level in slum area.

Acknowledgements

We are thankful Mr.Mulje S. Statistician, Department of Community Medicine, Dr. Vaishampayan Memorial Government Medical College, Solapur, Maharashtra.

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Table I: Breastfeeding practices among the study participants

Breastfeeding practices			F	%
		< 1 hour	191	40.9
		1-2 hours	101	21.6
	Normal delivery	2-4 hours	40	8.6
Initiation of breastfeeding	n = 467	4-8 hours	44	9.4
		After 1 day	91	19.4
		< 4hours	10	13.0
	Caesarean delivery	4-8 hours	27	35.1
	n = 77	8-12 hours	31	40.2
		After 1 day	9	11.7
		Yes	454	83.5
Colostrum feeding		No	90	16.5
		Yes	244	44.9
Pre-lacteal feeding		No	300	55.1
		Yes	222	70.2
EBFup to 6 months	n = 316*	No	94	29.8
		EBF	222	70.2
Type of feeding	n = 316*	Mixed feeding	82	25.9
		Top feeding	12	3.8
		Every 2 hours	184	33.8
		Every 4 hours	80	14.7
Frequency of breastfeeding		Whenever baby cries	196	36.1
		Other	84	15.4

Table II: Practice of exclusive breastfeeding according to socio-demographic parameters

Socio-demographic parameters		Exclusive breastfeeding		p value (chi square test)
		Yes	No	
	< 20	37(67.3%)	18(32.7%)	
Age group (years)	20- 25	157(76.2%)	49(23.7%)	**<0.05**
	25- 30	24(51.0%)	23(49.0%)	
	> 30	4(50.0%)	4(50.0%)	
	Hindu	49(74.2%)	17(25.8%)	
	Muslim	135(70.3%)	57(29.7%)	
Religion	Buddhist	31(63.3%)	18(36.7%)	>0.05
	Christian	7(77.8%)	2(22.2%)	
	Housewife	150(72.1%)	58(27.9%)	
Occupation	Unskilled	22(64.7%)	12(35.3%)	>0.05
	Semi-skilled	40(65.6%)	21(34.4%)	
	Professional	10(76.9%)	3(23.1%)	
	Nuclear	125(75.8%)	40(24.2%)	
Type of family	Joint	97(64.2%)	54(35.8%)	**<0.05**
	Illiterate	25(53.2%)	22(46.8%)	
	Primary	75(74.3%)	26(25.7%)	
Education	Secondary	87(71.9%)	34(28.1%)	**<0.05**
	Higher secondary & Above	35(74.5%)	12(25.5%)	
	Upper middle	24(80.0%)	6(20.0%)	
Socio-economic class	Lower middle	63(67.7%)	30(32.3%)	>0.05
	Upper lower	85(66.9%)	42(33.1%)	
	Lower	50(75.8%)	16(24.2%)	