



# International Journal of Advanced Community Medicine

E-ISSN: 2616-3594  
P-ISSN: 2616-3586  
IJACM 2019; 2(1): 53-55  
Received: 28-11-2018  
Accepted: 29-12-2018

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## Assessment of breast feeding practices and its contributing factors in slums of Amritsar city (Punjab), India

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DOI: <https://doi.org/10.33545/comed.2019.v2.i1a.11>

### Abstract

**Introduction:** Feeding practices in a community directly affect the nutritional status of infants. The current study was conducted with the objective of assessing the breast feeding practices and factors contributing to it in slums of Amritsar city.

**Materials and Method:** It was a cross-sectional study conducted in a slum of Amritsar city. Mothers who have delivered within the past one year were taken as study subjects. Sample size of 235 was calculated. Mothers were interviewed by using predesigned, pretested proforma. Breast feeding practices were studied. Sociodemographic factors were studied in relation to breast feeding practices. The data was collected, compiled and analyzed by using SPSS evaluation version 19.0.

**Results:** It was observed that 90.6% infants were put to the breast milk after birth. But inappropriate early neonatal feeding practices were common. Prelacteal feed in the form of honey, sugar water or saline water was given to 86% of infants. Colostrum was discarded by 45.7% of women. Only 17% of women started breast feeding within one hour and 62.5% infants were put on exclusive breast feeding. Place of delivery was found to be a significant factor affecting exclusive breast feeding practice.

**Conclusion:** Though majority of infants were put on breast milk, inappropriate feeding practices are prevalent. As place of delivery affects the breast feeding practice, institutional deliveries should be promoted.

**Keywords:** breast, feeding, exclusive, slums

### Introduction

Feeding practices in a community directly affect the nutritional status of infants. Optimal infant and young child feeding practices rank among the most effective interventions to improve child health. Over two third of 10.9 million under five child deaths in the world are often associated with inappropriate feeding practices and occur during the first year of life<sup>[1]</sup>. Yet, only one third of world's infants are optimally fed<sup>[2]</sup> In slums, faulty feeding practices in the form of discarding colostrum, prelacteal feeding and delayed feeding are quite prevalent. In a study in urban slums of Visakhapatnam, it was observed that 28.5% mothers discarded colostrum. The common reasons for discarding colostrum were advice of elderly women, perception that it is not good for newborn, heavy to digest etc.<sup>[3]</sup> These faulty practices hinder the growth and development of a child seriously. Therefore, a study of feeding practices is essential before formulating any policies for improving the nutritional status of infants and children. The current study was conducted with the objective of assessing the breast feeding practices and factors contributing to it in slums of Amritsar city.

### Materials and Method

It was a cross-sectional study conducted in a slum of Amritsar city. Mothers who have delivered within the past one year were taken as study subjects. Sample size was calculated to be 235 by presuming exclusive breast feeding prevalence to be 30% and allowable error to be 5%. Written consent of mothers was taken after explaining purpose of study to them. Mothers who were not willing to participate or those suffering from any serious illness were excluded from the study. Mothers were interviewed by using predesigned, pretested proforma. Breast feeding practices were studied. Modified Udai Pareek Scale was used to assess the socioeconomic status. Sociodemographic factors were studied in relation to breast feeding practices. The data was collected, compiled and analyzed by using SPSS evaluation version 19.0.

**Results and Discussion**

**Table 1:** Distribution of study subjects according to cultural practices in relation to breast feeding.

Practice		n= 235 Number	Percentage
Pre-lacteal feed	None	33	14.0
	Honey	130	55.3
	Sugar water	61	26.0
	Saline water	07	03.0
	Others	04	01.7
Ever breast fed	Yes	213	90.6
	No	22	09.4
If yes, time of starting (213)	< 1hr	40	17.0
	1 – 6 hr	12	05.2
	6 – 12	19	08.0
	12 – 24	50	21.3
	> 24	92	39.1
Colostrum discarded (213)	Yes	99	45.7
	No	114	54.3

Breast feeding provides optimal nutrition and promotes the growth and development of child especially during first few months of life. In the current study, breast feeding practices were assessed (Table – 1) and it was observed that almost every child (90.6%) was put to the breast milk after birth. But inappropriate early neonatal feeding practices were common. Prelacteal feed in the form of honey, sugar water or saline water was given to 86% of infants. The figures are in consonance with the findings of a study in Patna<sup>4</sup> which showed that 87.9% mothers used prelacteal feed indicating that not much significant change has occurred over the years. Similar findings were observed in various other studies in slums [5-7] Only 17% of women started breast feeding within one hour and 5.2% of them started from 1 to 6hrs of delivery. More than half of them (51.5%) delayed it to 24hours or more. The figure for early initiation of breast feeding in the present study is on lower side when compared with district level health survey results [8] which reported that 44% of women in Punjab put the newborn to breast milk within one hour of birth. NFHS III has also reported the figure to be 22.4% for India and 30.3% for over all urban areas. In two different studies in slums of Chandigarh the figure was reported to be 58.9% and 26.9% respectively [9]. The common reasons for delaying the breast feeding were perception that milk ejection starts on third day (31.7%) and family rituals (29.2%) to be performed before starting breast feeding (Table-2).

**Table 4:** Logistic regression analysis of exclusive breast feeding practices of infant <6 month of age as a function of various socio-demographic factors

Parameter		Exclusively breast fed		Crude OR (CI)	p value	Adj. OR (CI)	p value
		Yes n=65 No. (%)	No n= 39 No. (%)				
Nativity	Native (48)	21 (43.7)	27 (56.3)	0.21 (0.09- 0.49)	<0.01	0.29 (0.01- 4.97)	0.15
	Migrant (56)	44 (78.5)	12 (21.5)				
*SES	Upper (21)	07 (33.3)	14 (66.7)	0.21 (0.07 – 0.59)	0.01	0.27 (0.13- 2.8)	0.15
	Lower (83)	58 (69.9)	25 (30.1)				
Education of mother	Schooling (42)	20 (47.6)	22 (52.4)	0.48 (0.21 -0.78)	0.04	4.24 (0.11- 15.42)	0.43
	No schooling (63)	43 (68.2)	19 (31.8)				
Place of delivery	Home (69)	52 (75.3)	17 (24.9)	5.17 (2.15 – 12.45)	<0.01	8.93 (01.2– 32.7)	0.03
	Hospital (35)	13 (37.1)	22 (62.9)				
Immuniza-tion visits	Yes (63)	34 (53.9)	29 (46.1)	0.29 (0.15- 0.9)	0.02	0.81 (0.21-3.11)	0.76
	No (41)	31 (75.6)	10 (24.4)				

\*Socioeconomic status

**Table 2:** Distribution of study subjects according to reasons for delayed breast feeding

Reason	n= 161 Number	Percentage
Perception that milk ejection starts on 3 <sup>rd</sup> day	51	31.7
Family rituals	47	29.2
Grandparents advise	33	20.5
Mother not well	20	12.4
Any other (Baby not well, doctor’s advice)	10	06.2

Early suckling provides the baby with colostrum which offers protection from various infections and provides nutrients. But, in slums, it is still common place for the child not to be given mother’s colostrum. In the present study, a little more than half (54.3%) of the mothers gave colostrum to their infants. The figure is consistent with the findings of a study in slums of Meerut [10] (50) where 53.5% infants were fed colostrum, but, it is on lower side when compared with the figure for Punjab which is 93%. (25) Similar findings were observed in another study in Kenya [11].

**Table 3:** Distribution of infants less than 6month of age according to their feeding practices

	Exclusive breast feeding (BF)	Partial BF	Artificial feeding	p value
0-<3mth n= 49	34 (69.4)	13 (26.5)	02 (4.1)	X2= 8.052 df = 2 p= 0.01
3-<6mth n= 55	31 (56.4)	11 (20.0)	13 (23.6)	
Total	65 (62.5)	24 (23.6)	15 (14.4)	

Infants less than 6months of age were studied for exclusive breast feeding practices and it was observed that out 104 infants, 62.5% were exclusively breast fed, 23.6% were partially breast fed and 14.4 % were on artificial feeding. The proportion of infants on artificial feeding increased with age from 4.1% among less than three months of age to 23.6% among those of 3 months to 6mths of age. This difference was statistically significant (p=0.01). The figure for exclusive breast feeding is on higher side when compared with the national figure [12] for all India (46.4%) and that for urban non-poor (38.6%) indicating a healthy trend. In slums of Indore, 56.7% infants were exclusively breast fed [5]. In slums of Kolkata, only 28.3% infants received exclusive breast feeding till six month of age. [13]

Various socio-demographic factors were studied in relation to exclusive breast feeding. (Table-4). Logistic regression was applied. On univariate analysis, nativity, socio-economic status (SES), education status of mother, place of delivery and immunization visits were found to be significant factors affecting the exclusive breast feeding practices. Higher percentage of migrant women are practicing breast feeding in comparison to native women. Similarly the practice of breast feeding was less prevalent among women belonging to upper socioeconomic status. The reason may be the poor affordability of women belonging to poor socioeconomic status which compels them to put the baby on breast milk. Education and place of delivery are found to be directly affecting the practice of breast feeding. An educated mother might be better aware of positive effects of breast feeding, hence putting the baby on exclusive breast milk. But multiple logistic regression analysis proved only the place of delivery as the significant factor. Hence institutions can play very important role by promoting breast milk rather than formula milk or any other type of milk. Every effort should be made to promote institutional deliveries or birth attendants should be trained for behaviour change communication skills.

### Conclusion

Though almost every child is put on breast milk in slums, but inappropriate feeding practices are prevalent which need to be addressed. Only a few number of infants are put on exclusive breast feeding. Place of birth is found to be the significant factor affecting the practice of exclusive breast feeding.

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