



A COMMUNITY BASED STUDY ON PREVALENCE AND DETERMINANTS OF EXCLUSIVE BREASTFEEDING PRACTICES IN AN URBAN SLUM AREA OF ASARWA, AHMEDABAD

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ABSTRACT

Background: Exclusive breastfeeding (EBF) is important for child health and growth, but its practice is low in many developing countries. This study aimed to assess the exclusive breastfeeding practices and examining the socio-demographic characteristics that influence exclusive breastfeeding.

Objectives

1. To assess the prevalence of exclusive breastfeeding practice among study population.
2. To know socio-demographic factors affecting the exclusive breast feeding practices.

Methodology: A Community based cross-sectional study was conducted among lactating mothers in urban slum, Asarwa, Ahmedabad. Simple random sampling technique was used. Data was collected by using pretested and semi-structured questionnaire through face-to-face interview of mothers.

Result: Out of 110 mothers interviewed, most of them were aged less than 25 years (52%). Most were having education up to secondary (34%) and belonged to the class IV (56.3%), majority were housewives (98.1%) and multiparous were 18.2%. Prevalence of Exclusive Breast feeding was found 74.5%. Around 58.2% of all mothers had started Breast feeding within one hour. Factors associated with practices regarding exclusive breast feeding included age of mothers, education of mothers, Type of family, Socio-economic class, Birth order, Birth weight and Gender of children. Out of them, age of mothers was statistically significant in our study.

Conclusion: Prevalence of Exclusive breastfeeding is higher than state level data from NFHS-5. Educational status and age of mothers strongly predicted maternal practice of EBF. There is need for promotion of EBF during the first six months of life and breastfeeding promotion programmes should give special attention to those women who are not practicing EBF.

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INTRODUCTION

In view of the benefits of breastfeeding, starting breastfeeding in the first hour of delivery, exclusive breastfeeding (EBF) for the first 6 months of life and continued breastfeeding together with suitable complementary foods for up to 2 years or beyond are recommended as the best infant feeding plan for optimal growth, development and health.^[1] Exclusive breastfeeding is reportedly low in many countries.^[2] Among factors identified to influence breastfeeding practices in both developing and developed countries are socio-demographic factors.^[3] Globally, just 38% of infants less than 6 months are exclusively breastfed.^[4] The trend of exclusive breastfeeding among infants less than 6 months in developing countries has taken over a decade to increase from 33% in 1995 to 39% in 2010.^[5]

Breast milk is the best source of nutrition to offer to the newborn babies which is uniquely tailored to meet all the nutritional needs of human babies for the first six months of life.^[6] It also possesses remarkable immunological and anti-inflammatory properties that protect both mothers and children against various infections and diseases.^[7] Breastfeeding

protects the infants against allergies, sickness and obesity^[8]; at the same time it reduces the risk of having childhood infections e.g. ear infections and diseases e.g. diabetes and cancer.^[8] Breastfeeding also causes no constipation, diarrhea or stomach upset in infants^[8]; it decreases postnatal mortality rates.^[9] It can help to improve cognitive and motor development^[10] and decreases the rates of sudden infant death syndrome.^[11] Hence, breastfeeding is considered as one of the most important factors for growth and development of infants. Breastfeeding offers tremendous health benefits to both child and mother.

Maternal benefits include: reduced risk of developing type 2 diabetes, ovarian and breast cancers, lactational amenorrhea which could be a natural birth control and adequate weight recovery.^[6,8] Besides health benefits, breastfeeding also ensures many other benefits that include economical, environmental and psychosocial benefits.^[12] Moreover, breastfed children have been shown to possess higher intelligence quotient (IQ).^[13] As slums are expanding at a faster rate and will present the unique public health challenges, identifying factors that influence EBF will be important to

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design interventions that can be useful. So this study was done to assess the prevalence of EBF and the factors affecting EBF among lactating mothers residing in urban slum area.

MATERIALS AND METHODS

A Community based cross sectional study was conducted during September 2019 to November 2019 at urban slum of Asarwa, Ahmedabad which included mothers of children having age of 6 months to 2 years. Total 110 sample size was collected based on prevalence of exclusive breast feeding (65%) from NFHS-5 Gujarat fact sheet. [15] Simple random sampling method was used for data collection. Interview was carried out by using pre-tested semi structured questionnaire. Apart from the prevalence, the study also included various factors affecting exclusive breast feeding like gender of children, education of parents, socio-economic class, time period for which exclusive breast feeding was given, age of starting of complementary feeding, birth weight of children, birth order of children, types of family etc. Mothers of children were interviewed by house to house visit. The data obtained was entered and analysed by using MsExcel. Informed verbal consent was taken from the mothers prior to the study. Ethical permission was taken from institutional ethics committee.

RESULT

Total 110 mothers were interviewed and among them, majority (56.4%) of mothers were belonged to class IV according to modified B.G. Prasad's classification, 9.1% of all belonged to class II, 25.4% were from class III and 9.1% of them belonged to class V. There was no participant in the class I. In context to literacy status of parents, literacy rate among mothers were 85.4%. Further among literate mothers, 34.5% had primary education and secondary, 5.4% had higher secondary education and only 10% had graduated. In Majority (98.2%) of the participants, mothers were housewives and only 1.9% mothers were working. Out of total participants, 49.1% were belonged to the joint family, 20% were belonged to the extended family and only 30% were belonged to nuclear family.

It was found that among all mothers, their children were having age group of 6months to 2 years, and in them, 52(47.7%) were boys and 58(52.7%) were girls. It was observed that highest children were found in 18 to 24 months (49%).

Prevalence of exclusive breast feeding was 74.5%. Exclusive breast feeding include colostrum that given after birth of children. About initiation of breast feeding after birth, out of all children, 58.2 % had received breast feeding with in 1 hour of birth.

Out of 110 children, 54(49.2%) children were found with low birth weight (<2.5Kg). 40% children had 1st birth order, 41.8% children had 2nd birth order, 14.5% children had 3rd birth order and 3.6% children had >3rd birth order.

As shown in table II, Association between exclusive breast feeding and factors like gender of children, birth weight and birth order of children were not found statistically significant.

The factors related to mothers and family of children including age of mother, education of mother, number of children, socio-economic class and type of family were shown in the table III. Out of all the factors only age of mothers was found statistically significant.

Table I Socio-demographic profile of study participants (n=110)

Variables	Frequency	Percentage (%)
Age of mothers		
<18 yr	2	1.8
18-25	56	50.9
25-30	46	41.8
>30yr	6	5.4
Occupation of mothers		
Non-working	108	98.2
Working	2	1.9
Education of mothers		
illiterate	16	14.5
Primary	38	34.5
Secondary	38	34.5
Higher sec.	6	5.4
Graduate &above	12	10.9
Types of family		
Nuclear	34	30.9
Joint	54	49.1
Extended	22	20
Socio-economic class		
II	10	9.1
III	28	25.4
IV	62	56.4
V	10	9.1

Table II Association between Exclusive Breast Feeding and Factors related to children (n=110)

Variables	Exclusive breast feeding		Total		
	Yes n(%)	No n(%)			
	82(74.5)	28(25.4)			
Gender	Female	42(72.4)	16(27.6)	58	$\chi^2= 0.29$ P value= 0.58
	Male	40(76.9)	12(23.1)	52	
Birth weight	<2.5 kg	42(77.8)	12(22.2)	54	$\chi^2= 0.58$ p value =0.44
	>2.5 kg	40(71.4)	16(28.6)	56	
Birth order	1	36(81.8)	8(18.2)	44	$\chi^2= 3.73$ p value= 0.23
	2	34(73.9)	12(26.1)	46	
	3	10(62.5)	6(37.5)	16	
	>3	2(50)	2(50)	4	

Table III Association between Exclusive Breast Feeding and Factors related to mothers (n=110)

Variables	Exclusive breast feeding		Total		
	Yes n(%)	No n(%)			
	82(74.5)	28(25.4)			
Age of mothers	<18 years	1(50)	1(50)	2	$\chi^2= 11.1$ p value= 0.011
	18-25 years	38(67.8)	18(32.1)	56	
	25-30 years	40(86.9)	6(13.0)	46	
	>30 years	4(66.7)	2(33.3)	6	
Education of mothers	Illiterate	10(62.5)	6(37.5)	16	$\chi^2=2.31$ p value = 0.68
	Primary	30(78.9)	8(21.1)	38	
	Secondary	28(73.7)	10(26.3)	38	
	Higher secondary	4(66.7)	2(33.3)	6	
Types of family	Graduate	10(83.3)	2(16.7)	12	$\chi^2=0.6$ p value= 0.73
	Nuclear	24(70.6)	10(29.4)	34	
	Joint	42(77.8)	12(22.2)	54	
Socio-economic class	Extended	16(72.7)	6(27.3)	22	$\chi^2=2.41$ p value=0.5
	II	9(90)	1(10)	10	
	III	20(71.4)	8(28.6)	28	
	IV	46(74.2)	16(25.1)	62	
No. of children	V	6(60)	4(40)	10	$\chi^2=0.001$ p value= 0.97
	<3	76(74.5)	26(25.5)	102	
	>3	6(75)	2(25)	8	

DISCUSSION

Exclusive Breast Feeding (EBF) is the best recommended infant feeding method for the first six months of life and has a protective effect against child morbidity and mortality. Breast milk is the best feed for the child. It is not only beneficial to the child but also has some benefits for the lactating

mother. In countries where lactation support is available, six months exclusive breastfeeding has improved substantially over the time.^[14]

Prevalence rate of exclusive breastfeeding by 6 months in our study was 74.54%, which was higher to national level (63.7%) as reported by National Family Health Survey 5 (NFHS 5).^[15] Reduction in rate of exclusive breast feeding in developing countries is serious problem.^[16] While in another study done in semi urban community of Gujarat reported that the prevalence of EBF was higher (76.6%).^[17] Another study conducted in Tripura urban slum showed 60.5% prevalence of EBF.^[18] The possible explanation for the difference of exclusive breastfeeding rates among these studies might be due to difference of population studied, different culture of the population, sample sizes, geographic locations, as well as the year of survey.

In our study, majority study participants were not working outside (house wives) (98.2%) as compared to study done in Tripura which shows 11% of all mothers occupied as working women.^[18] Education wise distribution showed that 30 (15%) of mothers were illiterate while 8 (43%) had taken primary education in the study done by Mog C *et al* that result was almost similar to our study.^[18] Age of the mother was an important predictor of EBF. Younger mothers of age 18-25 years were more likely (67.6%) to give EBF till six months than the elder mothers in this study that also almost similar to study resulted in Tripura.^[18] In our study, education of the mothers was not statistically significant with exclusive breast feeding. This observation was consistent with study done in India by Chudasama RK *et al*.^[19] Low prevalence of exclusive breastfeeding in low socioeconomic groups as compared to high socioeconomic group was found in this study. On the contrary, the result was found in study conducted by Khassawneh M *et al* in the north of Jordan.^[20] There is no significant difference found between birth order of children in our study in the family and duration of exclusive breastfeeding. Holbrook KE *et al* have been reported that mothers having more than one child, were more likely to cease to exclusively breastfeed their children during the first six months.^[21]

Most had initiated breastfeeding (72.7%) within 24 hours of delivery and out of them 58% children were breast feed within one hour of their birth. This result from our study was contrast to study done by Mohammed Rehan Shaikat al that shows 71.5% mothers initiated breastfeeding within half an hour.^[22] However Higher rate of initiation of breast feeding within one hour (92%, 97%) were presented by Madhu *et al* and Ekambaram *et al*.^[23] This big difference might be due to presence of local belief and cultural practices.

In the present study, we identified an important determinant which influences EBF that included age of mothers, education of mothers, socio-economic class and birth order of children. The findings of our result may not be generalized to all lactating mothers residing in Ahmedabad as well as in Gujarat as the study was done only in the urban slum of Asarwa, Ahmedabad.

CONCLUSION

Overall practices regarding Exclusive breast feeding in the study area was better as compare to NFHS-5. Educational status and age of mothers strongly predicted maternal practice of exclusive breastfeeding.

There is a need for implementation of an educational program through primary health care settings as well mass media to improve, promote and support the exclusive breastfeeding practices.

Practices such as discarding the colostrum and late initiation of Exclusive breast feeding should be discouraged and community-based health education programs need to be conducted.

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Conflict of Interest: None

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