IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 14, Issue 6 Ver. II (Jun. 2015), PP 61-64
www.iosrjournals.org

A community based study on pattern of breast feeding of under 6 months aged children in slums of an Eastern Industrial City of India.

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Abstract:
Introduction:*Breast feeding is an essential and noble practice.It helps in proper growth of the baby, creates strong bonding with mother and offers immunity and development of brain.Breastfeeding practices are determined by various factors including cultural norms, beliefs, mother's knowledge and previous experience. These factors operate differently across communities*
Aims and Objectives:*To find out socio-demographic characteristics of the population as well as to ascertain different patterns of breast feeding of under 6 month aged children slums of an eastern industrial city of India.*
Materials and Methods:*Community based cross section study on 192 study subjects whom were chosen by systematic random sampling method and interviewed by a pre designed pre tested questionnaire. Data was analyzed in SPSS 20 software and qualitative data was tested by chi-square test to find out significance at p<0.05 at 95% CI.*
Results and analysis: *25.5% of the study population were given prelacteal feed. Statistically significant result was found illiterate and daily wage earner mother in regard to prelacteal feed (P<0.05). Colostrum feeding was also low (58.3%). Again those two factors were statistically significant with low colostrum feeding (p<0.05).40.6% study population were initiated breast feeding lately. Low Social class, joint family, illiterate and daily wage earning mother was statistically significant with late initiation of breast feeding (p<0.05). Proportion exclusive breast feeding was very low (27.6%) and was statistically significant with joint family, illiteracy of the mother and daily wage earning mothers (p<0.05)*
Conclusion:*Despite massive campaign, awareness generation problems of illiteracy, low proportion of exclusive breast feeding, late initiation of breast feeding, low colostrum feeding and prelactealfeed are still problem some in slum areas. Some socio cultural and behavioral factors were affecting those feeding patterns.*
Key words:*Breast feeding, under 6 months baby, urban, slum, Durgapur, Industrial city*

I. Introduction:

Breast feeding is an essential and noble practice.It helps in proper growth of the baby, creates strong bonding with mother and offers immunity and development of brain.It helps in family planning as well as it is economically beneficial for the family.

Breast feeding pattern differs from country to country, region to region, religion to religion, rural to urban etc. Colostrum feeding, exclusive breast feeding upto 6 months, timely weaning all are good feeding practices. Prelacteal feeding, offering other feed rather than breast milk within 6 months of life etcare adverse feeding patterns.Adequate nutrition during the first 6 months of life is very important to ensure optimal, physical and mental development[1]. At this age, children are particularly vulnerable to growth retardation, micronutrient deficiencies, and common childhood illnesses such as diarrhoea and acute respiratory infections[2,3]. Good nutrition protects young children and mothers, strengthens the immune system and reduces the risk of non-communicable diseases related to foods during the lifecycle. It also enhances the productivity of the population and can help to get out gradually from the vicious circle of poverty and hunger[4].Optimal infant- and young child-feeding (IYCF) practices are crucial for nutritional status, growth, development, health, and ultimately the survival of infants and young children[5]. Factors playing a detrimental effect on health and growth in children less than 6 months of age include insufficient quantities and inadequate quality of breast feeding, poor feeding practice and high rates of infections.[6] In India Exclusive Breast feeding which was 41.2 % according to NFHS 2 (1998-99) increased to 46.3 % in NFHS 3 (2005-2006) and also DLHS 3 shows stagnation and exclusive breast

feeding was only 46.4%. Initiation of breast feeding in 1 hour of birth which was 15.8 % in NFHS 2 (1998-99) becomes 40.2 % in DLHS 3 (2007-2008)**.**[7]Despite lot of awareness programs for exclusive breast feeding by government and various NGO Ritual impacts has still deep rooted in society, hindering optimal feeding. Pre-lacteal feeds, animal milk feeding, unacceptanceof colostrum are still major problems.

Breastfeeding practices are determined by various factors including cultural norms, beliefs, mother's knowledge and previous experience (Amalet al., 2007; Nkala&Msuya, 2011). These factors operate differently across communities and therefore, do affect child health tovarying degrees.[8]Thus a community based study was done in slums of an eastern industrial city of India to find out socio-demographic characteristics of the population as well as its relationship with patterns of breast feeding.

II. Materials and Methods:

A community based cross sectional study was conducted in slums of field practice area of department of community medicine, IQ City medical college, Durgapur from January 2015 to February 2015. Informants of child aged 6 months to 1 year were interviewed with a pre tested predesigned questionnaire to find out pattern of breast feeding of them within their first 6 months period. Considering 46% exclusive breast feeding in India as an important breast feeding pattern and 10% absolute precision, sample size came to be 96. As study subjects were chosen by systematic random sampling, 2 was considered as design effect.So final sample size was come to be 192. Only one study subject was chosen from one selected house. No study subjects were missing or non-responders.

The questionnaire was divided into two parts; socio-demographic profile and breast feeding pattern. Socio-economic class was taken in regard to modified B.G. Prasad scale. Data was entered in SPSS 20 data sheet and analyzed by that software. Results were presented in forms of tables. Qualitative data's were tested by chi-square and p value <0.05 was considered as statistically significant at 95% confidence interval.

III. Results and analysis:

Table 1: Distribution of the study subjects according to their socio-demographic and cultural characteristics.(N=192)

Variables	Character	Frequency	Percentage
Sex	Female	82	42.7
	Male	110	57.3
Religion	Hindu	132	68.8
	Muslim	33	17.2
	Others	27	14.1
Socio-economic class	Upto class III	127	66.1
	Class IV & V	65	33.9
Family type	Joint	116	60.4
	Nuclear	76	39.6
Literacy status of mother	Illiterate	113	58.9
	Literate	79	41.1
Occupation of mother	Daily wage	78	40.6
	Housewife	93	48.4
	others	21	10.9
Prelacteal feed	No	143	74.5
	Yes	49	25.5
Initiation of breast feeding	Late	78	40.6
	Timely	114	59.4
Colostrum offered	Offered	112	58.3
	was not offered	80	41.7
Exclusive breast feeding	upto 6months	53	27.6
	not done till 6mnths	139	72.4
	Total	192	100.0

Table 2: Distribution of study subjects in regard to socio-demographic characteristics and prelacteal feed given. (N=192)

Characteristics	Prelacteal feed given	P value
Female child	22.0%	0.327
Socio-economic class IV & V	24.6%	0.837
Joint family	24.1%	0.587
Illiterate mother	36.3%	0.000*
Mother daily wage earner	35.9%	0.014*

Table 3: Distribution of study subjects in regard to socio-demographic characteristics and colostrum feeding offered. (N=192)

Characteristics	Colostrum feeding offered	P value
Female child	58.5%	0.961
Socio-economic class IV & V	60.0%	0.738
Joint family	60.3%	0.485
Illiterate mother	37.2%	0.000*
Mother daily wage earner	42.3%	0.000*

Table 4: Distribution of study population in regard to socio-demographic characteristics and late initiation of breast feeding (N=192)

Characteristics	Late initiation of breast feeding	P value
Female child	58.5%	0.838
Socio-economic class IV & V	46.2%	0.008*
Joint family	67.2%	0.006*
Illiterate mother	46%	0.000*
Mother daily wage earner	51.3%	0.043*

Table 5: Distribution of study population in regard to socio-demographic characteristics and Exclusive breast feeding upto 6 months or more (N=192)

Characteristics	EBF upto 6 months or more	P value
Female child	24.4%	0.390
Socio-economic class IV & V	33.8%	0.166
Joint family	32.8%	0.048*
Illiterate mother	8.8%	0.000*
Mother daily wage earner	16.7%	0.018*

IV. Discussion:

A community based study on pattern of breast feeding of under 6 months aged children in slums of Durgapur; a steel city of India, was done to find out socio-demographic characteristics of the study population as well as to ascertain different breast feeding patterns of them.

The study showed (Table 1) that majority of the study children were male child (57.3%). Hindus were the majority (68.8%) in regard to religion and maximum of the study children (66.1%) were belonged to social-class upto III. 60.4% of the study population belonged to joint family. A big share of the mothers was illiterate (58.9%) and housewives (48.4%).

Regarding socio-cultural characteristics, this study revealed that 25.5% of the study children were given prelacteal feed. To some extent this result resembles with H Gladius Jennifer[9] et al (29.3%) . Proportion of prelacteal feed was high in comparison with Wagh SV et al[10] (15%) and low in comparison with Khan MH[11] et al (80%), YadavannavarMC[12] et al (92.25%), Rawal D[13] et al (61.9%)and Singh J et al (47%).

58.3% of the study subjects were offered colostrum, much less than a study of Gladius H J[9], Parmer et al[14] but was more than a study by YadavannavarMC[12] et al(35%) Regarding initiation of breast feeding it was found that 40.6% were late to initiate breast feeding. The result resembles with studies of Khan MH[11]et al, (37%and 42.1%), Bhatt S[15]et al (67.4%) Rawal D[13] et al.

Only 26.7% of the study population were offered exclusive breast feeding upto 6 months or more. Much less than national level[16] (46%) and many other studies like Gladius H J[9] et al(35%), Chudasma RK et al[17] (62%). In the early 1970's a decline in breastfeeding was documented in almost every country that was evaluated in the developing world[18]. Recent studies[19-21]in India has also shown a declining trend of breastfeeding especially in the urban slums[20].

Relationship table (Table 2) between socio-demographic characteristics and prelacteal feeding showed no statistical significance was found with sex of the child, social class and type of family, but illiteracy of mother and daily wage earner mother given prelacteal feed in more percentages i.e 36.3% and 35.9% respectively and that was found to be statistically significant. ($p<0.05$). Similar type of study conducted by Wadde SK et al[22]showed statistically significant result of prelacteal feeding with literacy status, socio-economic status and family type.

Another relationship table (Table 3) showed that sex of the child, social class and family type were not statistically significant with colostrum feeding whereas percentage of colostrum feeding was less in case of illiterate and daily wage earning mothers i.e 37.2% and 42.3% respectively which was found to be statistically significant.($p<0.05$)

No statistical significance was found in regard to late initiation of breast feeding and sex of the child (Table 4), but statistically significant result was found with social class(class IV& V), joint family, illiterate and daily wage earner mothers.($p<0.05$). This result matches with a similar type of study by Dabar D[23] et al which showed no statistical significance between sex of the child and late initiation of breast feeding.($p=0.14$)

An another table (Table 5) showed that despite low proportion of exclusive breast feeding, percentage of EBF was more among joint family (32.8%), and less among illiterate and daily wage earner mothers i.e. 8.8% and 16.7% respectively and both were statistically significant.($p<0.05$). Similar type of study conducted by Varshney AM[24] et al revealed that statistically significant result with literacy status of mother and exclusive breast feeding.

V. Conclusion:

In the early 1970's a decline in breastfeeding was documented in almost every country that was evaluated in the developing world. India have also shown a declining trend of breastfeeding especially in the urban slums. This study may be an eye opener as it supports the previous statement with evidence. Problems of illiteracy, low social status, daily wage earning and family type affecting different breast feeding patterns. Proportion of very low exclusive breast feeding, late initiation of breast feeding, discarding colostrum and prelacteal feeding was very much present in that community.

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