PREVALENCE OF BREAST FEEDING IN URBAN AND SEMI URBAN AREAS OF ALIGARH

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ABSTRACT

BACKGROUND

Both the pattern and duration of breast feeding are important determinants of optimal growth and development of both full-term and preterm newborns. Breast milk is easy to feed, clear and freely available. It is a well-known fact that exclusive breast feeding is sufficient for the first 6 months of life.

AIMS

To determine the prevalence of breast feeding and its pattern in urban and semi urban areas of Aligarh.

METHODS

Infants between ages 0-12 months would be enrolled in this study. Data collected from each infant and mother pair will be recorded in a separate pretested Performa. Breast feeding indicators used in this study would be as per WHO 1991 recommendations. Sample size of 907 was entertained.

RESULTS

In the initial months after birth, 87.5% of newborns were exclusively breast fed, 10.2% were partially breast fed and only 2.3% were not receiving any breast feeding at all. The figure of exclusively breast fed dropped to 70.3 at 4 months, further deteriorating to 5.8% at 6 months.

CONCLUSIONS

Prevalence of breast feeding was between 95 and 100 in initial few months, but came down drastically over next few months to reach low levels of 29% at one year. Likewise, exclusive top feeding gradually increased from 5% in initial few months to almost 71% at 1 year.

KEYWORDS

Exclusive Breast Feeding, Breast Feeding, Top Feeding.

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INTRODUCTION

Breast milk is best milk for an infant. Scientific studies all over the world have proved that breast milk have the unique quality of perfect food for ensuring optimal growth and development of both full term and majority of preterm newborns. In 1983 Government of India adopted the national code for protection and promotion of breast feeding.¹ In Feb 1991, major international organizations set up the world alliance for breast feeding action WABA with the common goal to protect and promote breastfeeding. Further August 1-7 was declared as world breastfeeding week. Despite all these advantages and measures being taken in the last century and more so in last two decades there has been a marked decline in the levels of breast feeding; moreover, no single factor in the infant's environment influences his innate genetic potential as decisively as nutrition. Recent trends in world appear to slide down when one goes from developed nation to third world countries. EBF reports are reported 37, 44 and 63% respectively from Italy,² New Zealand.³ and Sweden.⁴

Whereas turkey Brazil,⁵ Peru,⁶ and Bangladesh.⁷ shows it to be between 14% and 20%. In India the trends are encouraging, as the exclusive breast feeding rates have slightly improved from 22-50 to 52% in Delhi. The decline in trends can be reversed if appropriate training is arranged for all the health workers who in turn can educate and train the mothers for breast feeding. Baby Friendly Hospital Initiative BFHI is an important step toward the objective of 100% exclusive breastfeeding up to the age of 6 months.

Breast Feeding Pattern	Definition
Exclusive Breast Feeding (EBF)	Giving the infant no other food or drink, not even water apart from breast milk (Including expressed breast milk with exception of drops or syrups consisting of vitamin, mineral supplements or prescribed medicines)
Predominant Breast feeding	The infant's predominant source of nourishment is breast milk. However, the infant may also have received water or water based drinks, fruit juice, ORS drops and syrups of vitamins, mineral or medicines and folk fluids (Tea, etc.)
Partial Breast Feeding	Means giving a baby some breast feeds, and some artificial foods, other milk or cereal or other food.
Mixed Breast Feeding	Means giving the baby some breast milk and also any other food or fluids, even a teaspoon of water (i.e. this group includes predominant and partial breast feeding)
This definition is not a WHO definition, but a general consensus definition	

Table 1: Definitions of breast feeding patterns

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MATERIALS AND METHODS

The study was carried out in Department of Paediatrics JNMCH Aligarh. Infants between 0-12 months were enrolled with their mothers in the study. The sample size was drawn from health clinic of urban health training centre of Department of Community Medicine and from well-baby clinic of JNMCH.

Children with congenital defects, sick and admitted patients were excluded. There would be 13 such monthly groups starting from less than 1 month to 12 months. On an average 50-100 infant mother pairs were enrolled in each group. Data collected from each pair was collected on a pretested Performa. Data on current status of breast feeding when analyzed can give us a more accurate breast feeding pattern trend over infancy. A current status analysis would be performed, which will remove the recall bias.

Survival curves for exclusive breast feeding and breast feeding parameters would be made to see the median duration of exclusive breast feeding and breast feeding. The data would be analysed with the help of SSPS version 7.5 and Epiinfo6. On univariate analysis the Chi square statistics and student 't' test would be used for categorical and continuous data respectively. Both univariate and logistic regression analysis would be done for Exclusive vs. Non-exclusive breast feeding.

1	Exclusive Breast feeding rate=	Infants less than 4 months who are EBF in last 24 hrs. Infants less than 4 months of age
2	Predominant Breast feeding rate=	Infants less than 4 m predominantly breast fed in last 24 hrs. Infants less than 4 months of age
3	Timely complimentary feeding rate=	Infants 6-10 who have recd. complimentary feeds in last 24 hrs. Infants less than 4 months of age
4	Continued Breast feeding rate=	Children 12 -15 m who were breastfed in last 24 hrs. Children 12-15 months
5	Bottle feeding rate=	Proportion of infants less than 12 m who received bottle Infants less than 12 months of age
6	Ever Breast feeding rate=	Infants less than 12 months who were ever breast fed Infants less than 12 months of age

Table 2: Indicators for breast feeding

RESULTS

The study conducted at JNMCH has the sample size of 907.13 groups of completed months starting from 0 to 12 were made with each group having a sample size of 50-100.

In the initial months after birth 87.5% of the newborns were exclusively breastfed, 10.2% were partially breastfed and only 2.3% were not receiving any breastfeeding at all. The percent of exclusively breastfed babies showed marked decline from 70.3% at 4 months to 5.8% at 6 months of age. There were 76.8% of partially breastfed, 17.5% of exclusive top fed infants at the age of 6 months which became 29 and 71% respectively at 1 year of age. Of the various factors studied for poor breastfeeding, following seven factors are found to be statistically relevant (Table 4).

DISCUSSION

The present study was done in Department of Paediatrics Jawaharlal Nehru Medical College JNMCH. This was a cross-sectional study to determine the prevalence of exclusive breast feeding. The study had the sample size of 907. Current status of breast feeding was seen against completed month groups. It was seen that in considerable number of cases 11(12.5), exclusive breast feeding was not started at all. Further the period of EBF beyond 4 months was limited to only 32.2%. This drop in EBF beyond 4th completed months tell us that the recommendations to continue EBF up to 6 months had not yet percolated down the health personnel at grass root and community level.

The sample has been largely taken from well-baby clinic of JNMCH. Despite a repeated contact with health personnel there has been a decrease in EBF rates, which reflects ignorance and/or negligence in the health providers regarding duration of breast feeding. Only 10.2% were partially breast fed at birth, but this percentage gradually increased to 56% at 5 months of age. We also found out that exclusive top feeding rates increased steadily beyond 4 months, so by end of 1st year 71% were not receiving any breast milk at all.

Exclusive breast feeding rates in present study are higher than all others in the initial months, but after 4 months there is a rapid decline, which is not seen by other workers (Table 3). Most other studies had a relatively better breast feeding rates on 1st birthday of infant, whereas our study showed this to be meager 29%. Moreover, when studies across time it was evident that percentage of breast feeding did not dip much, rather the point of concern is marked deterioration in exclusive breast feeding. Of the various factors studied for poor breastfeeding, following seven factors are found to be statistically relevant (Table 4).

Months	Current Study	Bhandari. ⁸ (1973)	Sharma. ⁹ (1977)	Gupta. ¹⁰ (1962)	Chhabra. ¹¹ (1998)	Ahmed. ¹² (1991)
0	87.5(97.7)	88.2(100)	53.1(95.5)	42.4(86.3)	74(98)	60(97)
1	87.1(100)	72(88)			64(100)	43(99)
2	84.3(98.8)	76.2(95.2)			64(98)	38(95)
3	76.4(95.8)	61.8(91.8)	28.4(90.9)	20.9(81.7)	52(92)	25(95)
4	70.3(97.3)	68.8(90.9)			46(92)	18(95)
5	32.2(88.1)	43.2(96)			34(90)	15(94)
6	5.8(82.6)	64.2(95.9)	30.1(82.9)	9.8(75)	16(96)	5(97)
7	6.9(77/6)	43.9(100)			14(90)	4(95)
8	6.8(84.7)	12.5(100)			4(96)	4(95)
9	5.2(83.1)	29.6(96.3)	16.2(81)	4.7(74.7)	8(84)	1(93)
10	_(70.6)	21.4(92.8)			6(94)	
11	_(64.1)	21(90.8)			4(88)	
12	_(29)	15.6(96.9)	6.5(71.8)	3.2(71.5)	10(92)	

Table 3: Comparison of prevalence of exclusive breast feeding and breast feeding in different monthly groups as reported by various workers

Figures are percentages of infants exclusively breast fed in respective month groups.

Figure in parenthesis are percentages of infants receiving breast feeding in respective month groups.

Sl. No.	Variable	Non EBF	EBF	Adjusted OR	Adjusted 95% CI
1	Family income • < 2000 Rs./m • ≥2000 Rs./m	166 346	55 336	3.55	1.44_4.53
2	Family Type • Nuclear • Joint	202 311	122 268	1.84	1.20_2.82
3	Mode of Delivery • Vaginal • Caesarean	465 44	307 84	3.47	1.89_6.34
4	Prelacteal feed • Given • Not given	394 118	186 205	1.82	1.21_2.74
5	Past experience • Absent • Present	174 214	82 199	2.12	1.35_3.32
6	Approx. B. Wt. • Bow & above avg. • Average	59 453	16 375	6.59	2.46_17.64
7	Type of HP • Others • Paed/G.P.	76 350	4 292	14.05	3.29_59.96

Table 4: Statistically significant factors for poor levels of Exclusive breast feeding

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