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Research Article

Profile of Pre Lacteal Feeding, Exclusive and Continued Breast Feeding Practices among Families in Rural Community of Pondicherry

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Abstract: The practice of pre lacteal feeding, duration of exclusive and continued breast feeding are widely prevalent in different parts of the country and there are many determining and associated factors responsible for it. It is necessary to find the prevalence of such practice at periodic intervals in the community. To investigate the prevalence of pre lacteal feeding, analyse the exclusive and continued breast feeding practices among families in the rural area of Pondicherry. A descriptive, community based, cross sectional and quantitative study was conducted during the year 2014 among the 350 families residing in the rural area using the semi open ended questionnaire by direct interview at their doorsteps. Proportion, mean, median, standard deviation, chi square test were applied using SPSS statistical software version 18. The prevalence rate of pre lacteal feeding and exclusive breast feeding was 48% and 71% respectively. The mean duration of exclusive breast feeding was 5.9±3 (median 5.1 months) and continued breast feeding was 15.2±3.5 months (median 14). The differences in prevalence rates and mean duration of breast feeding were negligible with various associated factors. Conclusion: The practice of pre lacteal feeding practice among half of the newborn children and exclusive breast feeding was less than three fourth of the infants. It is necessary to create awareness to stop pre lacteal feeding to the newborns and promote exclusive breast feeding in intensive was within their cultural acceptance.
Keywords: Breast feeding, Community, pre lacteal feed, exclusive, extended, Pondicherry.

INTRODUCTION

The practice of prelacteal feeding is considered as risk indicator for infant mortality rate especially during neonatal period. Some of the practices of prelacteal feeding are associated with different belief, misconceptions, faith, and advice by the senior family members or priests of some religions. The prevalence of prelacteal feeding is showing reducing trend in many developing countries which are attributed to better antenatal care, deliveries attended by trained professionals, institutional deliveries, care of high risk newborns, educational status of the mothers, motivation by the faculties at the health facilities, awareness about hazards of pre lacteal feeds through television programs and print media etc. are encouraging mothers and family members to initiate breast feeding rather than prelacteal feeds [1-5].

The initiation of breast feeding or attempting to breast feed after birth is considered as an indicator of safe early childhood which prevents the neonatal death [6,7]. The exclusive breast feeding of infant is gaining importance since last two decades throughout the world in the interest of Child's physical , mental development, development of immunity against many infections especially diarrhoea and acute respiratory infections and reduction the risk of breast cancers for women. The exclusive breast feeding is showing declining trend in some of the rapidly advancing countries due to employment of women and associated problems in social security and work pressure at office [8].

The duration of breast feeding is influenced by education and occupation of the mothers, facilities for infants care at home or workplace, nutritional status of the mothers, aggressive promotion of infant formulae, supplementary or substitute foods in the market, cultural practices, gender bias and type of family [1,9,10]. The practice of prelacteal feeds, exclusive breast feeding and continued breast feeding (also called as extended breast feeding) are showing different prevalence rates in parts of Asia and India. These practices require investigation and analysis at periodic intervals throughout the country. This study was conducted with objectives to investigate the prevalence rate of prelacteal feeding, analyse the proportion of exclusive breast feeding and continued breast feeding practice among families in rural community of Pondicherry.

MATERIALS AND METHODS

This is a cross sectional, descriptive, quantitative and community based study conducted in the four randomly selected villages of rural area of Pondicherry during November and December 2014. The population of Pondicherry is 12 Lakhs, crude birth rate of 16.7 per 1000 population, sex ratio at birth is 1000:1038 (Male: Female), literacy rate among females is above 75 %, proportion of institutional deliveries is nearly 98% in rural area and the acceptance of limiting their family size to two is at higher proportion [11,12].

The study was undertaken in two steps. The persons involved in data collection were trained in interviewing for data collection for two days. In the first step enumeration of study subjects aged less than 24 months and data collected at their door steps by interviewing the mothers or reliable informants is the second step. The study collected the data on the breast feeding of the latest child in the family after fulfilling the eligible criteria as subject. All children currently aged 6 to 24 months are considered as subjects for this study. The questionnaire was pilot tested and relevant data were collected from the eligible families of the study. The sample size was calculated to 350 subjects. The average time spent for data collection was 20 minutes for each family or subject.

Inclusion criteria

Babies should be aged between 6 to 24 months.

Exclusion criteria

Uncooperative mothers, difficult to recollect the events and inconsistency in the data provided.

Definition criteria for variables-

Prelacteal feeding

Foods given to newborn before breast feeding is established or before breast milk 'come in' usually on the first day of life.

Exclusive breast feeding

Infants were fed with only breast milk and nothing else for first six months o life.

Continued (extended) breast feeding: Children were breast fed by the mother irrespective of with or without the supplementation or complementary foods.

Preterm baby

Gestational age of the newborn between 28 to 37 weeks

Full term baby

Gestational age of the newborn which is equal or more than 37 weeks

STATISTICAL ANALYSIS

The rate of pre lacteal feeds; exclusive breast feeding and continued breast feeding were reported as percentage. Mean, Median and Standard deviation were calculated for the duration of exclusive and continued breast feeding. Chi square test (X^2) was performed to evaluate the association of these variables with other factors on breast feeding. p- Value <0.05 was considered statistically significant. Statistical analysis was performed by using SPSS version 17.

RESULTS

There were 193 males and 157 females' eligible children in the age group of 6 to 24 months are shown in Table 1. Ninety percent of the subjects' mothers were aged between 21 to 30 years. Majority of the children are second birth order as it reflects the birth interval may be more than 24 months or high level of small family acceptance.

Table-1: Distribution of study subjects according to sex and age of the mothers

Age group in years	Male No (%)	Female No (%)	Total No (%)
≤ 20	17(8)	9(5.7)	26(7)
21 - 25	96(49.7)	87(55.4)	183(52)
26 - 30	75(38.8)	56(35.7)	131(37)
≥ 31	5(2.6)	5(3.2)	10(3.0)
Total	193(55)	157(45)	350(100)

Table 2 shows the prevalence of pre lacteal feeding was 48.3 % among newborns and differences in prevalence of pre lacteal feeding was negligible among male and female newborns. Similarly 18 and 70 percent of mothers in the age group of less than 20 and more than 30 years administered pre lacteal feeds and babies born by vaginal and caesarean section as found to be having similar prevalence of pre lacteal feeding. The full term babies were fed with pre lacteal foods in 62.4% and 53% among illiterate mothers. The prevalence of pre lacteal feeding was varying from 38.6% and 51.1% among different occupation of the mother. The differences in the prevalence rate were associated with sex of the child and gestational age at birth and is statistically significant ($p<0.001$).

Table 3 shows the proportion of exclusive breast feeding was observe to be 71.1% and it was less among mothers whose age was more than 30 years. The proportion was found to be less than 67 % among mothers who studied secondary schooling and graduation. Most The differences in the prevalence of exclusive breast feeding between full term and pre term infants is found to be statistically significant($p<0.001$). The mean duration of exclusive breast feeding was 5.9 ± 0.9 months (Median 5.1 months).

The proportion of exclusive breast feeding was higher among female children compared to male children. The prevalence of exclusive breast feeding was observed to b 75.8% and 67% among male and female children respectively. The prevalence was about to be less among well educated mothers. The mean duration of continued breast feeding was found to be 15.2 ± 3.5 months (Median 14 months).

Table-2: The prevalence of pre lacteal feeding practices among study subjects on various factors

	Total No (%)	Pre Lacteal feeding No (%)	p value
Total	350	169(48.3)	
Age of the mothers in years			
≤ 20	26	6(23)	0.04
21 - 25	183	93(50.8)	
26 - 30	131	63(48.1)	
≥ 31	10	7(70)	
Education of the mothers			
Illiterates	105	57(54.2)	0.6
Primary & Middle schooling	39	19(48.7)	
Secondary Schooling	120	57(47.6)	
Graduation	86	36(41.9)	
Occupation of the mothers			
Home making	247	126(51.1)	0.6
Daily Wagers	22	10(45.4)	
Office work	24	11(45.8)	
Own business	57	22(38.6)	
Gender			
Male	193	95(49.2)	0.001
Female	157	74(47.1)	
Gestational at birth			
Full term	181	113(62.4)	0.001
Pre term	169	56(33.1)	
Type of delivery			
Vaginal	246	116(47.1)	0.5
Cesarean	104	53(51.1)	

Table-3: Distribution of exclusive breast feeding according to various factors.

	Total No (%)	Exclusive Breast feeding No (%)	p value
Total	350	249(71.1)	
Age of the mother in years			
≤ 20	26	17(65.4)	0.07
21 - 25	183	143(78.1)	
26 - 30	131	84(64.1)	
≥ 31	10	5(50)	
Education of the mothers			
Illiterates	105	81(77.0)	0.3
Primary & Middle schooling	39	31(79.5)	
Secondary Schooling	120	80(66.6)	
Graduation	86	57(66.3)	
Occupation of the mothers			
Home making	247	174(70.4)	0.7
Daily Wagers	22	15(68.2)	
Office work	57	41(71.9)	
Own business	24	19(79.2)	
Gender			
Male	193	130(67.4)	0.07
Female	157	119(75.8)	
Gestational at birth			
Pre term	169	127(75.1)	0.001
Full term	181	122(67.4)	
Type of delivery			
Vaginal	246	176(71.5)	0.3
Cesarean	104	73(70.2)	

DISCUSSION

The 5131 months of age of 350 children aged between 6 to 24 months was analysed in this study. The mean age of the subject was 20.8±7.1 months. The families in this rural community are adapted to small family norm as one or two children and proportion of three or more children is accounting to less than 5 percent [12]. In this area more than 95 percent of the families are Hindu by religion.

Prelacteal feeding

Feeding the prelacteal may be in context to ritual, custom and status of the family in their community. It is believed by the community members of the specific religion or caste that it is substitute to the breast milk, colostrum is danger to newborn health, to clean the meconium in the newborn babies' stomach or ill health to the baby which are not scientifically true [13].

The prelacteal feeding include plain water, gripe water, cow's milk, sugar water, and salt solution and many more depending on the choice may be specific to community, religion or caste [1]. Water is dangerous pre lacteal feed in terms of detrimental effect on the nutritional aspect and makes the neonate more prone for early risk of severe gastro intestinal infections.

The prevalence of pre lacteal feeding practice was observed to be present in all the countries with varying prevalence rate of 16.9 % to 88% [9,13-20]. In the present study it was investigated to be having prevalence rate of pre lacteal feeding was 48 % which is influenced by maternal age, education and occupation of the mothers and high prevalence rate was seen among full term babies was 62.4%.However the prevalence rate is observed to be at similar rate compared to the above mentioned studies [14-20]. The differences in the prevalence rate of pre lacteal feeding between different factors were found to be statistically not significant except for sex of the child and gestational age at birth.

Exclusive breast feeding

Exclusive breast feeding is an indicator of prevention of early infant deaths. The practice of exclusive breast feeding is influenced by many factors which are similar to the pre lacteal feeds and problems in early initiation of breast feeding. The trend of exclusive breast feeding is reducing in many developed countries such as Singapore etc.[8] There are mathematical models and life tables are developed for exclusive breast feeding and duration of breast feeding [21,22].

The prevalence rate of exclusive breast feeding was observed to be varying from 17.9 to 84% since last decade in different parts of India [9,10,23-29]. The prevalence of exclusive breast feeding in this study was observed to be 71% irrespective of pre lacteal feeding. The report on prevalence of exclusive breast feeding was estimated to be 18.9% and duration of breast feeding for 12 months during the year 2001 in Pondicherry [7]. In the last 15 years it was improved by four times as seen in this study which may be attributed to reduction in certain cultural practices , awareness through the mass media, improved urbanization and female literacy. It was observed that female children were exclusive breast fed for longer duration than male children shows that the gender bias does not exist in this community. The exclusive breast feeding was better among the basic educated mothers and mothers having their private commercial business. This association between the gestational age at birth and exclusive breast feeding was found to be statistically significant ($p < 0.001$).

The mean duration of exclusive breast feeding was observed to be 5.9±0.9 months (Range 2 to 10) in this study. Among male and female children average duration was 5.9±0.9 and 5.8±0.9 months respectively. The median duration of exclusive breast feeding was observed to be 5.1 months compared to 5.53 months in other study [23]. The cultural practice of initiating the semisolid foods at the fourth or fifth month is existing in this community. Thus reflects the majority of women exclusively breast fed their children at least 5 month.

Continued or extended Breast feeding

The study on 3726 months of breast feeding among the total of 350 children was observed to be 15.2±3.5 months (median 14 months). The male and female babies found to be breast fed for 15.0±3.7 and 15.1±3.4 months respectively. The mean duration of all the subgroups in this study is almost the same with marginal differences in the standard deviation. Thus the statistical analysis in detail was not shown in the table. There was no gender preferential for increase in duration of breast feeding in this study. The total duration of breast feeding by mothers is varying from 2 months to 28 months in the world and it is emphasised by the World Health Organization, UNICEF and other international agencies to breast feed the babies till completion of one year of age [7,8].

The pattern of duration of breast feeding was observed to be different in various parts of our country .The mean duration of breast feeding was observed to be two to seventeen months [28,30-32]. It was better among full term and male children. It is happy that the mean duration of breast feeding was improved from 12 months to 15.2 months [7]. It may be attributed to the better acceptance to health facility, awareness about the mother and child health service and decrease in infant mortality.

Limitations

The analysis in the study has not elaborated on associated factors such as type of family, socio

economic group, beneficiaries of Janani Suraksha Yojana scheme, quality of antenatal care and motivational factors.

CONCLUSION

The prevalence of rate of pre lacteal feeding was observed to be 48% and the exclusive breast feeding of 71% and mean duration of continued breast feeding was 15 months. The differences between feeding practices among male and female children were negligible in this community. The community needs to create awareness in intensive way to avoid pre lacteal feeding and promote exclusive and continued breast feeding to the optimum period in the interest of children health.

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