Section: Community Medicine

Original Research Article

INFANT AND YOUNG CHILD FEEDING PRACTICES IN URBAN AREAS OF SOUTH TAMIL NADU

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ABSTRACT

Background: Optimal Infant and Young Child Feeding (IYCF) practices are essential for nutritional status, growth, development, health and ultimately the survival of the infants and young children. The National Family Health Survey (NFHS-5) has provided useful national and state level information on infant and young child feeding practices but was not designed to provide district-level data. With this background, the present study was undertaken.
Objectives: To study the Infant and Young Child Feeding practices in the Urban areas of Southern Tamil Nadu. To find out association between the breastfeeding practices and attacks of Acute Respiratory Infections and Acute Diarrheal Disease.
Material and Methods: A community based; cross-sectional study was conducted in the Urban field practice areas of Kanyakumari Government Medical College. Mothers of children aged less than two years were interviewed using a predesigned and pretested questionnaire. After explaining the purpose of study and obtaining the informed consent details about the breast-feeding practices and health conditions of the children were collected. Data was entered in MS-EXCEL, analysed for proportions and chi-square using SPSS version 17.0.
Results: Out of 208 children, 54.8% are males and 45.2% are females. 91.3% have received colostrum. 19.3% have received prelacteal feeds. 62.5% of children were breastfed within an hour after birth. Out of 104 children, 24% are below 6 months of age and 76% have crossed six months, among which 53.8% have received exclusive breastfeeding. 58.6% have received complementary food after completion of six months. Significant associations were observed between lack of exclusive breast feeding with acute respiratory infections (p=0.022) and acute diarrheal disease (p=0.044).
Conclusion: The rate of Exclusive Breast Feeding remains sub-optimal in the Urban areas of Southern Tamil Nadu, which is associated with acute respiratory infections and acute diarrheal diseases. Hence, the health education regarding the importance of Infant and Young Child feeding practices should be strengthened.
Keywords: Infant and Young Child, breast feeding, colostrum feeding, complementary food, acute respiratory infections, acute diarrheal disease.

INTRODUCTION

Infant and Young Child Feeding (IYCF) practices are a set of recommendations to achieve appropriate feeding of newborn and children under two years of age.[1] Malnutrition has been responsible, directly or indirectly, for 60% of all deaths among children less than 5 years of age in India. Optimal Infant and Young Child Feeding (IYCF) practices are essential for nutritional status, growth, development, health and ultimately the survival of the infants and young children. Suboptimal breastfeeding accounts for death of 1.4 million children every year.[2]

Infant and young child nutrition needs the utmost attention of scientists and planners for the very

simple reason that growth rate in the early years of life is maximum and of all preventive health and nutrition interventions, IYCF (infant and young child feeding practices) has the single greatest potential impact on child survival.[2]

The World Health Organization (WHO) and UNICEF recommend exclusive breastfeeding for the first six months of life with early initiation and continuation of breastfeeding for two years or more along with nutritionally adequate and safe complementary feeding starting at six months.[3] Poor feeding practices during infancy and early childhood could result in malnutrition which will contribute to impaired cognitive functions and social development, poor school performance and less productivity in later years. The National Family Health Survey (NFHS-5) has provided useful national and state level information on infant and young child feeding practices. The operational areas need to focus on strengthening the capacity of health services to support appropriate Infant and young child feeding strengthening community-based support for infant and young child feeding4. Hence district level data on IYCF is essential to identify the gaps and take timely action. As most of the studies were done in rural areas, our study attempts to find Infant and young child practices in urban field practice areas of a tertiary care centre in South Tamil Nadu.

Objectives: To study the Infant and Young Child Feeding practices in the Urban field practice areas of a government medical college in South Tamil Nadu.

MATERIALS AND METHODS

This is a community based cross-sectional study carried out in the Urban field practice areas of Kanyakumari Govt Medical College. Mothers who have children between 6 to 24 months were enrolled in the study. 208 mothers were interviewed. Study was conducted between June 2021 to November 2021.Predesigned and pretested questionnaire was used. Details on socio demographic variables, colostrum feeding, pre-lacteal feeds, exclusive breastfeeding and supplementary feeding practices were obtained. All mothers who have children at less than two years of age, who gave consent were included in the study. Informed written consent was obtained from mothers after explaining the purpose of the study. Data was entered in MS-EXCEL and analysed using SPSS version 17.0.

RESULTS

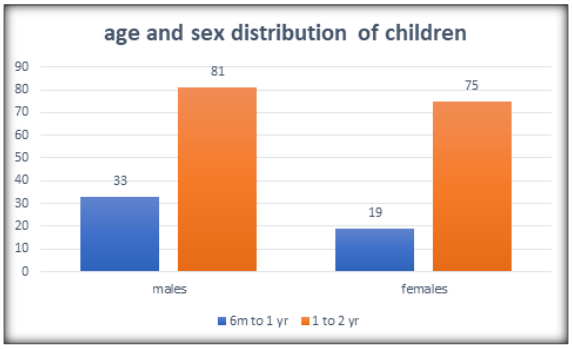

Figure 1: Bar chart showing the age and sex distribution of children (n=208)

Among the study participants, 55% were male children and 45% were female children.

75% of the study population were between 1 to 2 years and only 25% were between 0 to 6 months.

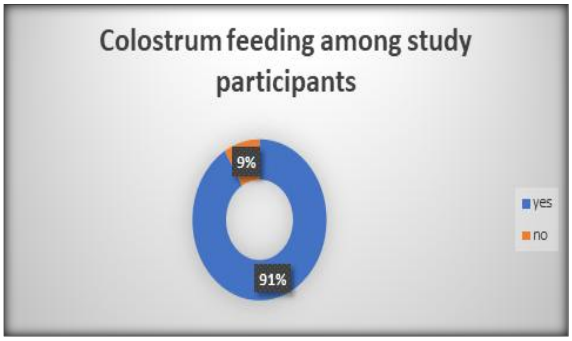

Figure 2: Colostrum feeding among study participants

91% of the children have received colostrum.

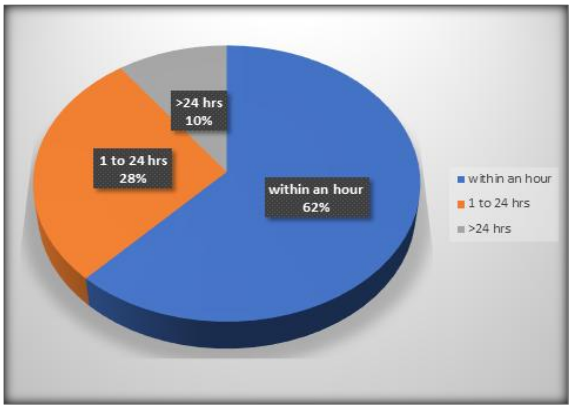

Figure 3: pie chart showing initiation of breastfeeding among study participants

62% of the children have received breast feed in the first one hour.

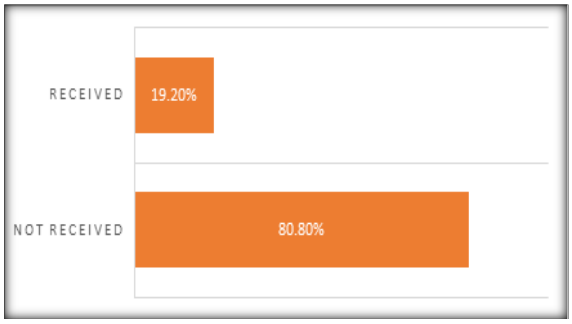

Figure 4: Bar Chart Showing Colostrum Feeding Among Infants

Only 19% of the children have received colostrum.

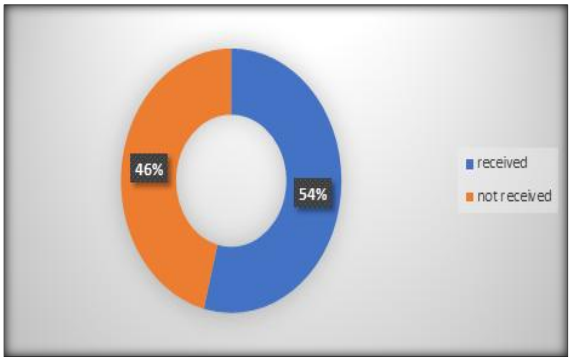

Figure 5: pie chart showing exclusive breastfeeding among study participants

54% of the children received exclusive breast feeding.

Table 1: Association between breastfeeding and hospitalisation

Breastfeeding initiation	Hospitalisation		Total
	yes	no	
Within an hour	22	108	130
1 to 24 hours	16	42	58
More than 24 hours	12	8	20
Total	50	158	208

Chi square statistic is 18.1689 p value is0.00011 (highly significant)
There is a highly significant association between breastfeeding and hospitalisation of children. ($p<0.0001$).

Table 2: Association between colostrum feeding and hospitalisation

Colostrum feeding	Hospitalisation		Total
	yes	no	
Given	40	150	190
Not given	10	8	18
Total	50	158	208

Chi square statistic is 10.719 p value is0.00106 (highly significant)
There is a highly significant association between colostrum feeding and hospitalisation of children. ($p<0.001$)

Table 3: Association between maternal education and hospitalisation

Education of mother	Exclusive breast feeding		Total
	yes	no	
Primary	4	10	14
Middle school	8	8	16
High school	14	20	34
Higher secondary	20	6	26
Degree	66	52	118
Total	112	96	208

Chi square statistic is 11.668 p value is0.0199(highly significant)
There is a highly significant association between maternal education and hospitalisation of children. ($p<0.01$)

DISCUSSION

Breastfeeding is one of the effective interventions that can reduce 55% to 87% of neonatal mortality and morbidity, particularly due to infections like diarrhea, neonatal sepsis, and pneumonia. Timely initiation of breastfeeding (TIBF) is giving breast milk to the newborn within one hour of birth.[5] This helps the newborn to take colostrum which enables them to get protective factors such as antibodies. Early initiation of breastfeeding protects the newborn from acquiring infection thus reducing newborn mortality. It facilitates emotional bonding of the mother and the baby and has a positive impact on duration of exclusive breastfeeding 6,7. Present study revealed that the initiation of breast feeding within an hour of birth was 62%, which is more than the national average 41.6% and 54.7% in Tamil Nadu. (NFHS-5:2015-16). Study done by Praween Senanayake, Elizabeth O'Connor et al. found that the proportion of mothers who initiated breastfeeding within the first hour of birth for children aged 0–23 months was 41.5% [95% confidence interval (CI): 40.9–42.5, $P < 0.001$] in the total population. The study found a higher proportion of mothers with secondary and above education levels who put their babies to the breast within the first hour of birth in the total population[8]
Exclusive Breastfeeding in the present study was 54.9% and is higher than all–India average 46.4% and Tamil Nadu 48.3%. The use of prelacteal feeding was 19.2%, which is found to be far less

compared to the national average 57.2% and state average 52%. Study conducted by N. Das, D. Chattopadhyay, Chakraborty et al in areas of West Bengal in 2013. 24.5% mothers-initiated breast feeding within 1 hour of birth, 58.5% exclusively breastfed their babies up to 6 months [9]

Malini M Bhattathiry, Santha Kumari in Kollam, Kerala there was early initiation of breast feeding and exclusive breast feeding in 60% of children. Colostrum was given to 78% of children. 32% were given prelacteal feeds.[10]

Prerna Singhal, Seema Jain in UP, 15.0% mothers started breastfeeding within 1 hour of birth, 29.8% started complementary feeding at 6 months, while 38.3% exclusively breastfed for six-month duration.[11] Jerome S. N., Catherin N., Sulekha T in Bangalore, Exclusive breast feeding up to six months was practiced by 54.2% of the mothers. Of all of them 59.0% initiated breastfeeding within one hour of birth. 82.0% had fed their children with prelacteal feeds and colostrum respectively.[12]

Rana Kakati, Rupali in Assam, Early initiation of BF was significantly higher in children born in government institutions, normal births and in families with higher income. Colostrum was given by 79% of the mothers. Pre-lacteal feeds were given by 34% of mothers.[13]

Findings from a systematic review conducted for South Asia and studies from India, Pakistan, Bangladesh and Nepal indicated that higher maternal educational attainment in the total population was associated with Early Initiation of Breast feeding compared to those with no schooling. [14,15]

This may be due to the increased receptivity of a mother with formal education to health promotion campaigns and their empowerment status within the household to make informed health-related decisions.[16] The association between higher maternal educational attainment and EIBF highlights the wide-ranging importance of improving women's access to quality education, in line with the Sustainable Development Goal–4,[17] (SDG–4).

In Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, Rajasthan and Uttar Pradesh—the seven states where 55% of Indian infants were born and 64% of newborn deaths occurred—the combined rate of early initiation of breast feeding was a mere 12.5%.[18] This could be attributed to their low female literacy rates.

WHO and UNICEF recommend colostrum as the perfect food for newborn and should be initiated within the first hour after birth. Mortality due to diarrheal diseases and other infections was found to be higher in infants who were partially breastfed or not breastfed at all. Breastfeeding is almost universal in our country. Even then, the rate of avoidance of colostrum feeding for newborn was much higher and it differs in different communities across the country. Contemporary studies have focused on the fact that breastfeeding mothers and their family members lack adequate knowledge and importance of colostrum feeding and early initiation of breast feeding in preventing diseases and promoting their overall growth and development.

Knowledge, ignorance and undesirable sociocultural beliefs and misconceptions prevailing in the community are reported to influence breastfeeding practices of mothers.[19]

An international collaborative study in India reported that 59% of mothers reported no milk or insufficient milk as the reason for not breastfeeding their babies. It has also been proved that higher the educational status of the mother, lower is the incidence of successful breastfeeding practices.[20]

Therefore, there is an urgent need to continue to strengthen national and state policies, hospital and maternity practices, and the knowledge and skills of birth attendants-physicians, midwives and nurses to support early initiation of breastfeeding community-based health workers provide mothers and families with timely information and counselling to support early initiation of breast feeding.

CONCLUSION

Recommendation

Though the rate of Exclusive Breastfeeding was found to be more than national average, still it remains sub-optimal in the Urban areas of Southern Tamil Nadu. Health Education regarding the benefits of colostrum feeding and EBF should be imparted to mothers/caregivers by involving community health workers. Lack of adequate knowledge of mothers, culturally prevailing misconceptions and lack of sustained support and motivation of mothers are major contributors to the prevailing situation.

Educating families about correct IYCF practices is the need of the hour to reduce child malnutrition thus recommends and directs for uplifting the educational status of mothers. Improving infant and young child development and reducing their health costs through breastfeeding will result in economic gains for individuals, families, communities and at the national level.

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