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Original Research Article

A study on knowledge of breast feeding and complementary feeding practices among mothers in a rural area, Tamil Nadu, India

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ABSTRACT

Background: Breast feeding, an effective tool in bringing down the mortality and morbidity of infants and under 5 children has major barrier in successful establishment due to lack of proper knowledge among expectant mothers, family members and inappropriate cultural practices. Objective of this study was to determine the knowledge regarding breast feeding practices among mothers having children less than 3 years of age attending Paediatric OPD of Karpagavinayaga Institute of Medical Sciences, Kanchipuram for medical illness from rural area.
Methods: This study is a hospital based cross sectional study was conducted for a period of 5 months from September 2017 to January 2018 with pretested structured questionnaire.
Results: In this present study 81.7% of mothers were well known about exclusive breast feeding. 68.7% of the mothers knew that colostrum should be given as first feed. In this study only, the knowledge about the demand feed was present in 37.4% of mothers. Knowledge about complementary feed was present in 82.6% of mothers. 54.8% of mothers had known about Prelacteal feeds.
Conclusion: This study shows that adequate knowledge regarding breast feeding and complementary feeding should be provided to the mother during their antenatal, postnatal period and during vaccination which greatly reduces infant and under 5 mortality and morbidity.

Keywords: Complementary feeding, Demand feed, Exclusive breastfeeding, Knowledge, Prelacteals

INTRODUCTION

Breastfeeding is the safest and effective method that reduces the mortality and morbidity of children below 5 years of age. Breast feeding improves the child survival and reduces the morbidity from illness like diarrhea, lower respiratory tract illness, sudden infant death syndrome, necrotizing enterocolitis and otitis media. Breast fed children are protected from the long-term morbid illness like obesity, diabetes and hypertension.[1] World Health Organization and UNICEF recommend exclusive breastfeeding for first six months and continued breastfeeding for two years and above along with complementary feed started after six months.[2] The natural, cost effective, biological, immunological way of feeding an infant and young child is breast feeding. In child health, positive attitude of parents towards infant feeding is essential. This helps to lessen the burden of malnutrition which is a major problem among children of less than 5 years age group in the developing countries.[3] According to NFHS-4 survey (2015-2016) Infant mortality rate is 41% and under 5 mortality rate is 50% which is very high and can be reduced by effective spreading of knowledge on breastfeeding and increasing the practices of breastfeeding.[4] Breast feeding is essential for healthier growth and development of children.

Immediately after delivery the newborn will be active during the first one hour of life.[5] WHO recommends initiation of breast feeding within one hour of delivery. A study has shown that neonatal mortality rate can be reduced by 22% by early initiation of breast feeding within one hour of delivery of newborn which helps us to achieve millennium goal development.[6] Studies in developing countries like India revealed the inadequate knowledge about breastfeeding among mothers. In a study done in Uttarakhand, prelacteal feed was given to 66% of newborn babies which is very high and indicates poor knowledge about prelacteal feed.[7] Giving prelacteal feed to the newborn leads to delay in the let-down reflex of milk and lactation failure. Prelacteal feed also increases the diarrhoeal episodes and sepsis and thereby increases the infant mortality rate.[8] Studies in India and worldwide had shown that there is a declining trend in breast feeding practices due to urbanization and employment of women. Knowledge in the area of time of initiation of first breastfeed, colostrum feeding, pre-lacteal feeds, initiation of complementary feeding is lacking among mothers. This study reveals the knowledge of breastfeeding among mothers in our rural area.

METHODS

One hundred fifteen (115) mothers having children less than 3 years of age group attending Paediatric OPD of Karpagavinayaga Institute of Medical Sciences, Kanchipuram for medical illness from rural area were enrolled into this study. They were interviewed with pretested structured questionnaire. This hospital based cross sectional study was conducted for a period of 5 months from September 2017 to January 2018 after getting ethical committee clearance from our institution.

Sample size was calculated to 115 using 4pq/L2 formula where p is prevalence = 50%, q = 1-p and L is absolute precision =10%. The mothers included in this study were explained about the study and written consent was obtained. Those mother having children of age more than 3 years are excluded in order to avoid error from recall. Those mothers who were from nearby urban areas were excluded. The pretested structured questionnaire consisted of socio demographic details such as age, education and occupation of the mother, and variables like knowledge of initiation of breastfeeding, colostrum feeding, prelacteal feed, demand feed, burping, exclusive breastfeeding, continued breastfeeding and complementary feeding. All interviews were conducted by researchers. The data was entered and analysed using SPSS software version 20. Results were shown in frequency and percentage.

RESULTS

One hundred and fifteen mothers (115) were enrolled into this study. Most of the mothers interviewed in the study were found to be in the age group of 20-30 years (89.5%). The educational status of the mother was categorised and found that 49.6% of mothers had education up to secondary level. 80.9% of the mothers enrolled in this study were homemakers. Based on the mode of delivery 47.8% of the mother had delivered their babies by normal delivery and 52.2% were delivered by Lower segment caesarean section.

Table 1: Profile of children and place of delivery.

Variable	No. (n)	Percentage (%)
Child order by birth		
1st	57	49.6
2nd	48	41.7
3rd	10	8.7
Gender of children		
Male	66	57.4
Female	49	42.6
Age of the children		
0-12 months	57	49.5
12-24 months	38	33.1
24-36 months	20	17.4
Place of delivery		
Institutional	112	97.3
Home	3	2.7

Among the children 57.4% were male children and 42.6% were girl children. 49.6%of the mothers participated in this study had their first child. Most of the mother interviewed had children below or equal to 24 months (82.6%). 97.3% of the children were delivered in hospitals. Sociodemographic profile of mothers and children were given in Table1 and Table 2.

Table 2: Profile of mother.

Variable	No. (n)	Percentage
Age of the mothers		
20-30 years	103	89.5
31-40 years	12	10.5
Educational status		
Illiterate	5	4.3
Primary	3	2.6
Secondary	57	49.6
Higher secondary	24	20.9
Graduate and above	26	22.6
Occupation		
Home maker	93	80.9
Employed	22	19.1
Mode of delivery		
Labour natural	55	47.8
Cesarean section	60	52.2

In this study 51.3% (n = 59) of the mothers were well aware of the fact that breast feeding should be given to the newborn within one hour of delivery. 68.7% (n = 79)

of the mothers knew that colostrum should be given as first feed and should not be discarded as it is immunogenic and good to the newborn baby.

Table 3: Knowledge about breast feeding and complementary feed among mothers.

Variable	No. (n)	Percentage
Initiation of breast feeding within one hour of delivery	59	51.3
Importance of colostrum	79	68.7
Prelacteal feed	63	54.8
Adequacy of breast feed	76	66.1
Demand feed	43	37.4
Burping	106	92.2
To feed from one breast at a time	19	16.5
Exclusive breast feeding	94	81.7
Continued breastfeeding up to 2 years and above	71	61.7
Complementary feeding to start after 6 months of age	95	82.6

Prelacteal feeds are harmful and not to be practised was well known in 54.8% (n = 63). Knowledge about the adequacy of breast feeding was present in 66.1% (n = 76). Only 37.4% of the mothers knew that baby should be only feed on demand (n = 43). Knowledge about exclusive breast feeding was present in 81.7% (n = 94) and absent in 18.3% (n = 21). Knowledge about weaning was present in 82.6% (n = 95) and absent in17.4% n=20%. Weaning was started after completion of six months by 80.9% (n = 93) and before 6 months in 19.1% (n = 22). Knowledge about the continued breast feeding for 2 years and above was present in 61.7% (n = 71). 82.6% (n = 95) of mothers had known about the time of initiation of complementary feed. Knowledge about breast feeding and complementary feeding is depicted in Table 3.

DISCUSSION

In worldwide exclusive breast feeding for first 6 months were given to only less than 40% of infants below 6 months of age.[2] In this present study 81.7% of mothers had known that exclusive breast feeding for 6 months means giving only breast milk with no fluid or other feeds up to 6 months of age. In study by Som B et al knowledge about the exclusive breast feeding was present in 69% which is less compared to the present study.[9] In Maiti A et al only 34.97% mothers were aware of exclusive breast feeding which is discordant with the present study.[10] This higher percentage in the present study may be due to mothers had their antenatal check up in the hospital where they had been educated about breast feeding by their consultant doctors and attending nurses.

In the present study 51.3% of the mothers had known about timing of initiation of breast feeding (i.e. breast feeding should be given within one hour of delivery). It was found that there was doubling the risk of neonatal mortality when breast feeding initiation was delayed beyond one hour of birth.[11] In Maiti A et al 52.78% of mothers knew that breast feeding had to be given within one hour of the birth of newborn which is similar to this present study.[10] In study by Sharif M et al among nursing mothers in tertiary hospital in Navi Mumbai which is an urban area only 47.4% had known that breast feeding should be initiated within one hour.[12]

In this present study knowledge about when to start complementary feed was present in 82.6% of mothers. In study by Som B et al 63% of the mothers knew that complementary feed should be started after 6 months.[9] In Maiti A et al only 55.9% of the mothers had known about the timing of weaning.[10] The mothers in this present study were aware that breast feeding will be inadequate to support the growth of the child after 6 months and complementary feed had to be started.

In this study knowledge about demand was present in 37.4% of mothers. In study by Som B et al only 27% of mothers had known about demand feed.[9] In this present study 68.7% of mothers had known about the importance of colostrum. The importance of first milk (i.e. colostrum) is known to 52.9% of mothers in study by Sharif M et al.[12] In study by Maiti A et al 40.2% had known about colostrum feeding importance.[10] According to a study the children those who fed on demand had good cognitive and academic outcomes than that of the children who were fed on scheduled feed.[13]

CONCLUSION

Breast feeding is the best universal accepted method of feeding of infants which leads to significant reduction in mortality and morbidity in infants and under 5. It is both economical and beneficial for the developing countries in where the majority of the people in the lower per capita income group. In hospitals and medical colleges paediatric residents, obstetric residents and nurses should be given training programme on breast feeding. In the field Anganwadi workers, village health nurses, accredited social health activist, auxiliary nurse midwives should be educated about the importance of exclusive breast feeding, timely initiation of breast feeding after birth of the new born baby, importance of colostrum feeding, demand feeding, avoidance of prelacteal feed adequacy of breast feeding, timely introduction of complementary feeding, type of complementary feeding and continued breast feeding up to 2 years of age,.

This study shows that mothers need to be counselled about the importance of breast feeding during their antenatal check-up, postnatal period and during vaccination of their newborn. Breast feeding education should be extended to the family members who will enhance the outcome. The mothers should be educated about the timing and type of complementary feed

introduction and continued breast feeding to prevent the child falling into the hands of malnutrition.

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