

Research Article

A study to evaluate the knowledge, attitude and practices of exclusive breast feeding among primi mothers of healthy term neonates in a tertiary care hospital and predictors of failure of establishment of exclusive breast feeding in first six months

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Received: 17 May 2016

Revised: 20 May 2016

Accepted: 24 May 2016

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ABSTRACT

Background: In India about 2.4 million children die each year of which two thirds are associated with infant feeding practices which are in appropriate. Thirteen percent reduction in infant mortality rate has been estimated with breast feeding.

Methods: This study is a cross sectional questionnaire based study done in the setting of pediatric outpatient department at Owaisi hospital and research center Hyderabad. It was carried out over a duration of two years from 2013 to 2015.

Results: Majority of mothers received antenatal counselling regarding benefits and management of breast feeding.

Conclusions: Majority of the mothers had good knowledge; attitude and practices are still prevalent in the community which needs to be addressed.

Keywords: Exclusive breastfeeding, Infant mortality rate, Misconceptions

INTRODUCTION

Exclusive breastfeeding includes initiating breastfeeding of the child within an hour of birth and continue till six months of age without supplemental bottle-feeding.¹ Breastfeeding is beneficial to the child as it is natural with optimal nutrients and has several protective factors against infections.² Breastfeeding is eco-friendly and is advantageous to mother, as it reduces the time of bleeding during postnatal period and decreases the risk for malignancies, as well as to the community.¹

The National Family health Survey-3, in India, had revealed that only 46% of children are exclusively breastfed in the 0-1 month age group.³ In India about 2.4 million children die each year of which two-thirds are

associated with infant feeding practices which are inappropriate.⁴ Thirteen percent reduction in infant mortality rate has been estimated with the promotion of exclusive breastfeeding. The children who are not exclusively breastfed are at an increased risk of dying by more than two times than those who are breastfed exclusively in the age group of 1 to 6 months.⁵

The knowledge attitude and practice of exclusive breastfeeding has been prejudiced by cultural, demographic, social, biophysical and psychosocial factors.^{6,7} In India, the rates of early initiation, exclusive breastfeeding are far from desirable.⁸ There have been studies on knowledge, attitude and practices towards breastfeeding in India but there is need to assess the extent of practice of breastfeeding and impact of current

policies.^{1,9,10,11,13} This study is aimed to assess the knowledge, attitude and practices towards exclusive breastfeeding and to find out the predictors of failure of establishment of exclusive breastfeeding in first six months. Information about breastfeeding practices in such population will be useful for policy makers and for Interventional programs.

METHODS

The study is a cross-sectional, questionnaire based study done in the setting of paediatric out-patient department of Owaisi Hospital and Research Centre, Hyderabad. The study population were the mothers with children aged between 0-6 months attending the paediatric out-patient department of Owaisi Hospital and Research Centre. Informed consent was taken from the mothers, who were willing to participate in the study and interviewed regarding breastfeeding knowledge, attitude and practices in breastfeeding. The study was initiated after the approval by the institutional ethics committee.

Study was carried out over a duration of two years from 2013 to 2015. The sample size calculation was done based on the prevalence of the practice of exclusive breast-feeding in India (46% at 0-6 months) as per Third National Family Health Survey (NHFS-3) report.³ A sample size of 397 was calculated with an error of 5%. We administered questionnaires to 400 mothers.

A face-to-face interview using a pre-designed, self-administered, standardized questionnaire regarding knowledge, attitude and practices of breastfeeding was conducted. The questionnaire, included data about maternal age, parity, type of delivery, place of delivery, education, employment, socioeconomic status, religion, residence, sex of the child, initiation and duration of exclusive breastfeeding and weaning practices. Health education was given to all the mothers interviewed regarding the advantages of breastfeeding.

Inclusion criteria

All mothers with children aged between 0-6 months of age visiting the Paediatric Out-Patient Department of Owaisi Hospital and Research Centre, Hyderabad.

Exclusion criteria

Conditions where breastfeeding is contraindicated like galactosemia, mother suffering from cancer, active tuberculosis, psychoses.

Statistical analysis

The information was collected and analysed using SPSS statistical software (Version 17). Descriptive statistics like mean, frequency and percentages of various parameters were calculated. Chi-Square test and Spearman's Correlation test was used to deduce the

association and correlation between duration of exclusive breastfeeding with different attributes and p values were calculated. The p value <0.05 was considered significant and p<0.01 was considered highly significant.

RESULTS

Mothers with children aged between 0-6 months attending the Paediatric outpatient department of Owaisi Hospital, Hyderabad were included in this study. A face-to-face interview using a pre-designed, self-administered, standardized questionnaire regarding knowledge, attitude and practices of breastfeeding were conducted.

Of 400 children, 107 were less than 1 month, 231 were between 1-2 months were and 62 were between 3-6 months of age also majority children were females.

Majority of the mothers were cases were between 20-30 years. Religion distribution of the mothers revealed that 263 (65.8%) were Hindu, 106 (26.4%) were Muslim and 11(2.7%) were Christian and 20(5%) were others. Only 6 (1.5%) mothers had not received any formal education while majority 169 (42.3%) were educated till high school. Employment wise, 19 (4.8%) mothers were employed and remaining 381 (95.2%) were Housewives. Socioeconomic Status according to modified Kuppaswamy classification majority belonged to 13 (3.2%) cases belonged to class IV. With regard to nutritional status of the mother the lowest weight and height recorded were 38 kg and 139 cm while the highest weight and height recorded was 73 kg and 179 cm. Majority, 93.2% had taken regular antenatal check-ups more than 3 times during ante-natal period. Majority, 233 (58.2%) mothers received antenatal counseling regarding benefits and management of breastfeeding. Of those who received counseling, 146 (62.66%) were counseled by doctors and 87 (37.34%) by nurses (Table 1). Regarding source information about breastfeeding before Conception only 43.2% mothers had received information from health personnel prior to conception, 22.3% from family and friends and 34.5% from media or literature.

Table 1: Antenatal counseling regarding breast feeding.

Antenatal counselling regarding breastfeeding	No. of cases	Percentage
Yes	233	58.2
No	167	41.8
Total	400	100

Majority (95%) of deliveries were conducted in Hospital, only 5% deliveries were at home. Out of 20 deliveries conducted at home 14 (70%) were conducted by Traditional Birth Attendant (TBA). Highest numbers of deliveries were conducted by normal vaginal route. With respect to knowledge of mother regarding breastfeeding, majority (72.8%) had knowledge about advantages of

breastfeeding that child remains healthy. Very few mothers knew about feeding of twin babies, fore milk and hind milk. None of the mother's in this study had knowledge about milk bank, surrogate mothers or wet nursing and breast shield or nipple shield (Table 2).

Table 2: Maternal knowledge regarding breastfeeding (multiple responses).

Knowledge	No. of cases	Percentage
Child remains healthy	291	72.8
More nutritious and hygienic	117	29.3
Gives natural immunity	25	6.3
Helps in preventing further conception	82	20.5
Mothers milk is the best milk	270	67.5
Skin to skin contact and its advantages	2	0.5
It is pure and cost nothing	20	5.0
Improves growth and development	2	0.5
Prevents from allergy	3	0.75
Feeding of twin babies	1	0.25
Fore milk and Hind milk	1	0.25
Milk Bank	0	0
Surrogate mothers and wet nursing	0	0
Breast shield/nipple shield	0	0

Attitude of mothers towards breastfeeding revealed that majority of mothers had favorable attitude towards breastfeeding. 67.5% of mothers agreed that breast milk is the best milk. Very few mothers felt that breastfeeding is old fashioned and embarrassing (Table 3).

Table 3: Maternal attitude towards breastfeeding (multiple responses).

Attitude	No. of cases	Percentage
Breastfeeding leads to loss of figure	5	1.25
Breastfeeding is old fashioned	21	5.25
Breast milk is the best milk	270	67.5
Breast milk is pure and cost nothing	20	5.0
Breastfeeding fosters close bond between mother and child	286	71.5
Breastfeeding in public is Embarrassing	17	4.25
Breastfeeding prevents going to work	22	5.5

Regarding breastfeeding Practices It was noticed that timely suckling in the first hour of birth was practiced

only by 12.7% mothers. 27.0% mothers administered prelacteal feeds to their infants (Table 4). In this study, colostrum was given by 88.0% of mothers. Out of 400 cases, 128 (32.0%) babies were still on exclusive breastfeeding. 113 (41.54%) mothers continued exclusive breastfeeding for 4 months while 112 (41.17%) for 5-6 months. 88% practised colostrum feeding, 29.5% mothers in the present study received galactogogues. Majority of the mothers took metoclopramide on third or fourth day after delivery which was advised by doctors, while had ginger and garlic to increase the breast milk output. 108 (27.0%) mothers out of 400 administered prelacteal feeds to their infants, plain water being the commonest. Out of 108 mothers, 68 (62.96%) administered prelacteal feeds by spoon, 22 (20.37%) by finger, 12 (11.11%) by clothwick and 6 (5.55%) by cotton wick (Table 5). Majority (91.3%) of mother's breastfed on demand and very few (8.7%) followed scheduled timings.

Table 4: Practices regarding breastfeeding.

Practices	No. of cases	Percentage
Initiation of breastfeeding		
<1 Hours	51	12.7
1-4 Hours	179	44.8
4-12 Hours	146	36.5
12-24 Hours	6	1.5
2-3 Days	10	2.5
>4 Days	8	2.0
Prelacteal Feeds		
Given	108	27.0
Not given	293	73.0
Colostrum feeding		
Fed	352	88.0
Not Fed	48	12.0
Duration of exclusive breastfeeding (n=272)		
1 Month	1	0.36
2 Months	4	1.47
3 Months	42	15.44
4 Months	113	41.54
5-6 Months	112	41.17
Bottle feeding given		
Yes	136	34.0
No	264	66.0

Table 5: Type of Prelacteal Feeds (n=108).

Type of prelacteal feeds	No. of cases	Percentage
Glucose water	19	17.59
Plain water	62	57.40
Juice	6	5.58
Tea	2	1.85
Honey	14	12.96
ginger water	1	0.92
Herbal	4	3.70
Total	108	100.0

The breastfeeding technique followed were majority (95.3%) of mothers burped their infants after every feeds and more than two thirds knew about cleanliness of breast and hand washing before feeds.

With regard to association of first breastfeed with type of delivery. It was observed that 57.23% mothers initiated breastfeeding in less than 1 hour after normal vaginal delivery, whereas only 0.75% initiated breastfeeding in less than 1 hour after caesarean section. By applying Chi-square test, association between the time of first breastfeed after delivery and type of delivery was found to be highly significant ($p < 0.01$).

By applying Spearman's correlation, for the correlation of duration of exclusive breastfeeding with employment Employed duration of exclusive breastfeeding in months was found to be insignificant ($p > 0.05$).

When Spearman's correlation test was applied to study the correlation of duration of exclusive breastfeeding with educational status of mother educational status and duration of exclusive breastfeeding, it was found to be highly significant.

Class IV Socioeconomic Status as per Kuppaswamy classification was associated with maximum mothers practicing exclusive breastfeeding.

Reasons for stopping exclusive breastfeeding major reasons for stopping breastfeeding in this study were, 84 (43.8%) mothers felt that breast milk was inadequate and 40 (20.8%) stopped on advice of elder females (relatives advice). Very few (3.6%) had stopped breastfeeding because of inverted nipple.

DISCUSSION

This study revealed that majority of the mothers had good knowledge and a positive attitude towards breastfeeding which they put into practices. Misconception, customs and pseudo beliefs regarding breast feeding practices are still prevalent in this community which needs to be addressed.

We observed only half of mothers received antenatal counseling regarding benefits and management of breastfeeding from health personnel. Only a little more than half of mothers had initiated first breast feed within 1 hour after normal vaginal delivery while 3% initiated after caesarean section. Education of the women on the importance of breastfeeding and the knowledge should not only be during ante-natal period but be sensitization should start in the schools or colleges so as to groom expectant mothers to take informed choices with respect to breastfeeding and lactation management.²

Within first 4 hours, 90.57% initiated breast feed after normal vaginal delivery and 82% after caesarean section. Hence we see despite institutional deliveries there has

been delay in initiation of breastfeeding which can be overcome with proper dissemination of information, training of health care providers and ultimately provide a conducive environment.¹⁴

Majority of mothers breastfed their infants on demand. Even though the colostrum was given by three-fourth of mothers, the practice of giving pre lacteal feeds was still prevalent in about one-fourth of mothers and in majority of cases it was advised by relatives. A study by Banapurmath et al 70 in villages of central Karnataka which shows 100% prelacteal feeds practices.¹⁵ There is still a need for programmes, which support and encourage breastfeeding at a primary level, focusing more on younger women, less well educated and those from lower socioeconomic class. Training of health workers and volunteers should focus on counseling rather than just giving messages. The focus should also be on "how to breastfeed", rather than telling mothers "what to do".¹⁶ Babies thrive on mothers' milk.

The mean duration of exclusive breastfeeding was 4.5 months. Majority of mothers had favourable attitude towards breastfeeding. 67.5%. Mothers agreed that breast milk is the best milk for the infants. Reinforcement and encouragement by doctors and family members are keys to successful breastfeeding.¹⁴

The mean duration of exclusive breastfeeding was 4.5 month and mean age of starting bottle feeds in this study was 4 months. This practice deprives the child from the benefits of breastfeeding for one and half months as well as exposing child to diseases like pneumonia and diarrhea.¹⁷

Majority of mothers had good knowledge regarding techniques of breastfeeding and also about milk bank, surrogate mothers, wet nursing, breast shield, nipple shield and management of low birth weight babies using kangaroo mother care. There was a delay in initiation of feeds in mothers who delivered by Caesarean section, mainly due to delay in shifting the mother from labour room to ward. Hence intensive efforts need to be put for timely initiation of breastfeeding preferably within labour room itself if there is a delay in shifting the mothers.¹⁷

Three-fourth of mothers had favorable attitude towards breastfeeding. Top feeds were started by 48.6% mothers before completion of 6 months of the child. The reasons include aggressive promotion of baby foods by commercial companies and lack of appropriate support structures at the places of work and community.¹⁸ The gap can be bridged by regular orientation programmes on breastfeeding counselling for women can also be arranged by health providers to educate women on these aspects.¹⁹ Women organizations and mother support groups need to be associated for active dissemination of information on breastfeeding to educationally deprived women.

The practice of exclusive breastfeeding was found better after vaginal delivery, good educational status of mother, higher rung of socio-economic status ladder thus reinforcing the appropriate knowledge will lay the foundation of right attitude thus transforming into correct practice which can be done through public health education programmes.⁸ Though duration exclusive breastfeeding with employment was statistically insignificant, support at work place and motivation are of supreme importance.

Breastfeeding is not only maternal option but also that of family, health care providers and community. For the success of exclusive breastfeeding a holistic approach needs to be adopted towards fulfillment of right of child to healthy nutrition.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Naseem A, Mazher N. A study to evaluate the knowledge, attitude and practices of exclusive breast feeding among primi mothers of healthy term neonates in a tertiary care hospital and predictors of failure of establishment of exclusive breast feeding in first six months. *Int J Contemp Pediatr* 2016;3:810-4.