

Original Research Article

Cross-sectional study of the breastfeeding practices among women delivering in a tertiary care hospital in Puducherry, India

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ABSTRACT

Background: Global Public Health recommends that infants should receive only breastfeeding for first 6 months of life for their optimal growth and development. This study was done to find the rate of exclusive breast feeding and other feeding practices in children up to 6 months of age.

Methods: A hospital based longitudinal study was conducted in a tertiary care hospital for a period of one year. Data from 158 mothers who were admitted for safe confinement was collected using structured questionnaire which was administered at every monthly follow up visit following delivery till first six months. Data included socio-demographic factors, psychosocial factors, breastfeeding details, maternal and infant factors. Data was entered in MS-Excel and analysed on SPSS version 18 software.

Results: About 82.9% mothers had the knowledge about benefits of breastfeeding. Breastfeeding was initiated within one hour in 74% babies but exclusive breastfeeding for first six months was given only in 42.4% babies. Pre-lacteal feeds were given only in 3.2% babies. Early complementary feeds were started in 57.6% predominantly with cereal based diet. Perceived insufficiency of milk (30.3%) was the major reason mentioned for starting early complementary feeds.

Conclusions: There is a wide gap between the knowledge and practice of exclusive breastfeeding. The importance of exclusive breastfeeding should be reinforced at every immunization visit so as to increase the rate of exclusive breastfeeding.

Keywords: Complementary feeds, Exclusive breastfeeding, Knowledge about breastfeeding, Pre-lacteals

INTRODUCTION

Nature has provided every mother with enough breast milk for nourishing their new born baby, so obviously breast milk is the first ideal natural food for all neonates. 'Breast is best' is now a universal concept for any newborn.¹ It has been universally acknowledged that breastfeeding protects children from various illnesses throughout infancy to late childhood.^{2,3}

World Alliance of Breastfeeding Action (WABA) in association with WHO and UNICEF recommend to

exclusively breastfeed the infants for initial six months of life to attain adequate growth, development and health.⁴ But in reality, the figures for exclusive breastfeeding for first 6 months are quite appalling. In India, according to National Family Health Survey (NFHS-4), exclusive breastfeeding rate is 54.9%.⁵

Various factors like maternal age, occupation, inadequate knowledge of exclusive breastfeeding, perception of insufficiency of breast milk, beliefs and misconceptions, gestational age of baby, gender and birth weight affect exclusive breast feeding.⁶ This study was done to assess

the rate of exclusive breastfeeding and breastfeeding practices.

METHODS

This longitudinal study was done in the Department of Paediatrics of a tertiary care hospital in South India between January and December 2017. Institutional ethical clearance was obtained prior to the start of the study. A written consent from the mothers was taken at the time of safe confinement who were willing and eligible to take part in the study. One hundred and fifty-eight mother and infant dyad were included in the study and were followed up monthly for the first six months after delivery. The mothers and babies were followed personally at each immunisation visit and contacted telephonically from 14 weeks to 6 months. Mothers' having babies <34 weeks of gestation, admitted in NICU or were unable to feed because of illness were excluded.

A pre-designed, pre-tested questionnaire was used to interview the mothers about the knowledge of breastfeeding, time of initiation of breastfeeding, period of exclusive breastfeeding, pre-lacteal feeds, other oral feeds, complementary feeds and the reason to start them. The data was entered in Microsoft Excel and analysed using SPSS version 18 software.

RESULTS

In present study, majority of the nursing mothers were between 18-25 years old (46.8%), living in joint family (62.6%), belonging to upper middle class (44.9%) according to modified Kuppusamy scale, Hindu by religion (82.9%), homemaker (64.5%), primigravida (67.7%) and were graduates (50%).

Among the children, 67.7% were first born at term and the male to female ratio was 1.2:1 (Table 1).

Table 1: Demographic profile of the study participants.

Characteristic	Category	N (%)
Maternal		
Mother's age group (years)	18-25	74 (46.8)
	26-30	63 (39.8)
	31-35	21 (13.2)
Type of family	Nuclear	59 (37.3)
	Joint	99 (62.6)
Education level	Primary school	26 (16.4)
	High school	29 (18.3)
	Graduate	79 (50)
	Post graduate	24 (15.1)
Socioeconomic class (according to Modified Kuppusamy scale)	Upper	6 (3.7)
	Upper middle	71 (44.9)
	Lower middle	50 (31.6)
	Upper lower	30 (18.9)
	Lower	1 (0.6)
Religion	Hindu	131 (82.9)
	Muslim	14 (8.9)
	Christian	13 (8.2)
Occupation	Home maker	102 (64.5)
	Employed	56 (35.4)
Mode of delivery	Normal vaginal delivery	96 (60.7)
	LSCS	51 (32.8)
	Assisted	11 (6.9)
Gender	Male	87 (55.1)
	Female	71 (44.9)

Table 2 shows the feeding practices in the first six months in the study population. In our study, 82.9% mothers had knowledge about the benefits of exclusive breast feeding but only 42.4% exclusively breastfed their children. Sugar water was the only pre-lacteal feed given to the babies. Oral feeds in the form of gripe water, plain water, both and native medications were started in 29.8%,

26.2%, 16.7% and 19.1% babies respectively as a custom in 22.6% babies and with a perception that it aids in digestion in 38.1% or the baby is thirsty in 19.1% or hungry in 11.9%.

Out of the 39 babies who received artificial milk, mothers gave formula feeds in 66.7% babies. Also, among those

who were given artificial milk, 79.4% babies were fed by bottle followed by palladai (15.3%).

Table 2: Feeding practices.

Practice	N	%
Pre-lacteal feed	5	3.2
Colostrum	153	96.8
Initiation of breast feeding		
Within ½ hour	118	74.7
½- 4 hours	32	20.2
4-24 hours	3	1.9
>24 hours	5	3.2
Exclusive breastfeeding up to 6 months	67	42.4
Breast problems affecting breastfeeding	36	22.7
Sore nipple	29	80.5
Crack nipple	4	11.1
Inverted nipple	3	8.3
Perception of lack of breast milk production	48	30.3
Oral feeds other than milk	84	53.2
Use of artificial milk	39	24.7
Cow's milk	13	33.3
Formula feed	26	66.7
Complementary feeding	91	57.6
Type of complementary feeding		
Milk based	12	13.1
Cereal based	54	59.3
Both	25	24.6
Adequate knowledge about benefits of breast feeding	131	82.9
Use of galactagogues for milk production	6	37.9

Complementary feeding was started from first month in 2.5% babies and about 31.1% babies received complementary feeding in sixth month. In the 91 babies who received early complementary feed, the predominant reasons were perception of insufficient production of breast milk (51.6%) and mothers had to re-join work after maternity leave (25.3%).

DISCUSSION

As a global public health recommendation, infants should be exclusively breastfed for initial six months of life to attain adequate growth, development and health.⁷ In the present study, rate of exclusive breast feeding was 42.4% which is much lower than the national rate of 54.9% and also lower than the Pondicherry rate of 47.6% as reported in NFHS-4.⁵

In the present study, rate of initiation of breast feeding within one hour of birth was found among 74% of mothers which is higher than national rate of 41.6% and Pondicherry rate of 64.6%.⁵ This was similar to another study by done by Prasad KN et al from the same

geographic region.⁸ This higher rate of initiation can be attributed to institutional deliveries, adequate pre-natal counselling and helping mothers in breastfeeding as early as possible after delivery. Pre-lacteal feeds were given only in 3.2% babies which is very less compared to other studies by Madhu K et al (19%) and Mallikarjun et al (19.5%).^{9,10} Sugar water was the most common pre-lacteal used similar to few other studies done by Madhu K et al and Joseph et al.^{9,11}

In the present study, as many as 22.7% of the mothers had breast problems as sore nipple, cracked nipple and inverted nipple which affected exclusive breastfeeding. This was comparable to study done by Akinremi Z et al but Manjula et al found that improper latching was the main problem for breastfeeding.^{12,13}

Even though there was a high breastfeeding initiation rate in the present study, but the rate of exclusive breast feeding was quite abysmal. Perceived insufficiency of milk was the major reason mentioned for starting oral or complementary feeds which is consistent with findings seen in study by Oommen et al and Paliwal S et al.^{14,15} The other major reason was the mothers had to re-join work after maternity leave which was found among 25.3% of mothers.

CONCLUSION

There is a wide gap between the knowledge and practices of breastfeeding. Due to increased awareness and institutional deliveries, rate of initiation of breastfeeding within one hour is high but the continuation of exclusive breastfeeding over time decreases. The mothers and caregivers should be counselled at every vaccination visit and benefits of exclusive breastfeeding should be reinforced.

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