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INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI:10.21474/IJAR01/16279
DOI URL: <http://dx.doi.org/10.21474/IJAR01/16279>



RESEARCH ARTICLE

KNOWLEDGE, ATTITUDE AND PRACTICES TOWARDS BREAST FEEDING AMONG LACTATING MOTHERS IN KING GEORGE HOSPITAL, A TERTIARY CARE CENTER

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Manuscript Info

Manuscript History

Received: 15 December 2022

Final Accepted: 19 January 2023

Published: February 2023

Key words:-

Breast Feeding, Knowledge, Attitude, Practices, Mothers

Abstract

Background: Exclusive breastfeeding (EBF) is recommended for the first six months of age by the World Health Organization. Mothers' good knowledge and positive attitude play key roles in the process of exclusive breastfeeding practices.

Objectives: The objective of the present study was to examine the knowledge and attitude towards breast feeding practices among lactating mothers in inpatient wards in the Department of Obstetrics and Gynaecology, King George Hospital, Visakhapatnam.

Methodology: A cross sectional descriptive study was carried out among randomly selected postnatal mothers at Inpatient wards in the Department of obstetrics, King George Hospital, a tertiary care center in Visakhapatnam. Data was collected through face-to-face interview using a structured questionnaire.

Results: Our findings revealed that a majority 86% (n=284) of the mothers were breastfeeders. About 58% (n=191) believed that colostrum is nutritionally beneficial to child. About 46% (n=152) initiated breast feeding within an hour. 70% (n=231) of mothers felt it should be given for >6 months. 83% (n=274) of mothers were against pre lacteal feeds. Mothers have good knowledge and practices on breast feeding and fair attitude toward breast feeding.

Conclusion: The breastfeeding practices in India still can be improved, although women were aware of the exclusive breastfeeding and its importance they did not practice this to the fullest. We suggest access to nutrition information pertaining to breastfeeding can be strengthened further through various community programmes. Individual "breastfeeding counselling and health education on nutrition" to the mother by health workers should be promoted.

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Introduction:-

Exclusive breastfeeding (EBF) is defined as giving breast milk only to the infant, without any additional food or drink, not even water in the first six months of life, with the exception of mineral supplements, vitamins, or medicines^[1, 2]. The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) recommend initiation of breastfeeding within the first hour after birth; exclusively breastfeed for the first six months of age and continuation of breastfeeding for up to two years of age or beyond in addition to adequate complementary foods^[3, 4].

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The IYCF recommends early breastfeeding beginning soon after birth, preferably within an hour, exclusive breastfeeding for the first 180 days of life, timely introduction of complementary foods (solid, semisolid after six months, continued breastfeeding for two years or longer, age-appropriate complementary feeding for children 6-23 months, while continuing breastfeeding, and active feeding for children during and after illness).⁵ Infant and young child feeding methods have a direct impact on young children's nutritional status, which in turn affects their chances of survival.

Breast milk offers the fundamental building blocks for optimum growth and development and contains the ideal ratio of readily available, easily digestible nutrients for growth. It is the public health strategy that reduces newborn and child morbidity and mortality at the lowest possible cost. Given the established advantages of breastfeeding for the health of both mother and child, WHO recommends exclusive breastfeeding for the first six months after birth, followed by continued breastfeeding for at least another two years. This is followed by sustained breastfeeding with appropriate complementary foods after six months.⁶

In India, social, cultural, and economic variables seem to have an impact on breastfeeding rates. In order to safeguard, encourage, and promote breastfeeding, the Breastfeeding Promotion Network of India (BPNI) was established in 1991⁷. Additionally, the National Rural Health Mission, a project of the Indian government, aims to introduce Integrated Management of Neonatal and Childhood Illnesses (IMNCI) into the already-in-place healthcare delivery system⁸. Poor exclusive breastfeeding practises and attitudes have reportedly been cited as one of the main causes of children's poor health outcomes, especially in developing nations. Nonetheless, in developing nations with high levels of poverty, a high burden of disease, and limited access to clean water and proper sanitation, the promotion and acceptability of practises, such as exclusive breastfeeding, are particularly crucial⁹.

Optimal breastfeeding techniques can avert 1.4 million deaths of children under the age of five per year in the world¹⁰. Breastfeeding prevents the occurrence of numerous childhood ailments, including chest infections, pneumonia, sudden infant death syndrome, diabetes mellitus, malocclusion, and diarrhea^{11,12} in addition to the advantages it confers on the mother-child bond. Additionally, nursing promotes healthy brain development and is linked to better results on IQ tests in kids and teenagers¹³. Breastfeeding has been demonstrated to help mothers lose weight and reduce their risk of hemorrhage, postpartum depression, breast, ovarian, and endometrial cancer^{11,14}. An important choice for postpartum family planning is the breastfeeding amenorrhea method¹⁴.

In addition to the emotional fulfilment that nursing brings to mothers, research have shown that breastfeeding reduces the risk of breast and ovarian cancer later in life in women¹⁵. As the length of breastfeeding rises, there are also benefits for the mother's health, including a decreased risk of type 2 diabetes, rheumatoid arthritis, cardiovascular disease, high blood pressure, and high cholesterol. The majority of health facilities strive to accomplish these goals, which include supporting mothers to increase breastfeeding frequency and length.

The World Health Assembly (WHA) has established a global goal to raise the rate of EBF for infants aged 0–6 months to at least 50% in the period from 2012 to 2025¹. The world's compliance with these recommendations varies; only 38% of infants are nursed exclusively for their first six months of life^{1,20}. Breastfeeding length is shorter in high-income nations like the United States (19%), the United Kingdom (1%), and Australia (15%) than it is in low-income and middle-income nations. However, only 37% of infants younger than six months are exclusively breastfed, even in low- and middle-income nations¹⁸. Only 53.5% of new-borns in east African countries, where the WHO aim is 90%, were EBF for six months¹⁹, according to recent articles in the sub-Saharan Africa region.²⁰

Indian Context

According to statistics from around the world, only 46.4% of Indian mothers exclusively nursed their babies during the first six months²¹. Between 2-6% of Indian women were literate in the years following independence. The percentage increased from 15.3% in 1961 to 28.5% in 1981²². The times are changing now. In India's 2011 population census, it was found that 65.5% of women were literate, up from more than 50% in 2001²³. The health and economic future of the entire community are directly impacted by raising the educational attainment of women.

The present study was conducted to evaluate lactating mothers' breastfeeding behaviours because there is a lack of information on those practises in this area. The results of this study will contribute to a better understanding of breastfeeding practises and the role that nutrition education plays in supporting them. Additionally, this study can be

used as a platform for ANMs (auxillary nurse midwives) and other health care professionals to prioritise their actions.

Objectives:-

The objective of the present study was to examine the knowledge and attitude towards breast feeding practices among lactating mothers in inpatient wards in the Department of Obstetrics and Gynaecology, King George Hospital, Visakhapatnam.

Materials And Methods:-

This cross-sectional study was carried out among postnatal mothers who were admitted in inpatient wards in Department of Obstetrics in King George Hospital, a tertiary care hospital in Visakhapatnam.

Study participants were selected through arandom sampling method. Those who agreed to participate were given the consent form and asked to sign the consent form.

Sample Size

The sample size was calculated using a single population proportion formula $[n = \frac{[Z [1 \pm 2]] X p X [1-p]]}{d^2}]$ with the following assumptions: 46.3% prevalence of breastfeeding and 95% confidence level with 5% degree of desired precision thus $n=380$ samples. However a total of 50 forms were incompletely filled or the consent was not signed on checking for completeness hence the final sample size was considered to be $n=330$.

Data Collection Procedures:-

The time period for this data collection was from November and December 2022. The lactating mothers in the inpatient wards in the Department of Obstetrics were approached to introduce the objectives of the study to them and seek their consent to participate. Voluntary participation was encouraged. Those who agreed to participate were taken through the consent processes, explaining to them the benefits and risks of participating in the study. Through an interview method the data was collected using the questionnaire in their locallanguage which is Telugu. The time taken by the interviewer to complete one respondent was 15 minutes.

Inclusion Criteria:

1. mothers of healthy infants
2. born between 37 and 42 gestation weeks
3. and without major birth defects such as congenital heart disease, cleft lip/cleft palate and Down syndrome
4. who volunteered to participate.

Exclusion Criteria:

1. Mothers of preterm babies, and multiple gestations were excluded.
2. Mothers who declined to participate in the study.

Data Collection:-

Data collection tools

The data was collected using two questionnaires

1. Lactating mother's profile: this questionnaire included general profile of the lactating mother wherein information pertaining to personal details of the subject such as name, age, occupation, family income, type of family- nuclear or joint, educational status, lactation period and parity was included.
2. Breastfeeding KAP questionnaire: Close-ended questions were used in this questionnaire to gauge respondents' breastfeeding-related knowledge, attitudes, and practises. Eight questions were included in the survey to gauge knowledge. Each mother received a knowledge score depending on how many questions she answered correctly. These included inquiries on the importance of colostrum and exclusive breastfeeding, the necessity of consuming galactagogues, and awareness about EBF. A three-point Likert scale was incorporated in the questionnaire's second section to measure the nursing mother's attitude towards breastfeeding, her willingness to breastfeed on demand, and her preference for breastfeeding over infant formulae. Options on this three-point Likert scale were agree, unsure, and disagree. This scale, which included both positive and negative attitudes towards nursing, assisted in detecting the lactating mother's attitude. The final section of the questionnaire contained a total of 5 questions about nutritional practises, such as the consumption of traditional galactagogues by the mother for milk production, which

is widely practised in South India, as well as breastfeeding practises, such as the duration of feeding and providing prelacteal feeds.

Statistical Analysis

The data collected was checked for completeness, coded and entered into Microsoft excel and analysed using SPSS version 23.0. The data was analysed using descriptive statistics comprising of frequencies, percentages and measures of central tendencies.

Results:-

Table 1:- Socio-Demographic Characteristics Of Mothers.

S.No	PARAMETER	FREQUENCY	PERCENTAGE
1.	Age group a) 18-22 b) 23-27 c) 28-35	125 165 40	38% 50% 12%
2.	Type of family a) Nuclear b) Joint	271 59	82% 18%
3.	Education a) Secondary b) Higher secondary c) Graduation	194 81 55	59% 25% 16%
4.	Occupation a) Housewife b) Professional	304 26	92% 8%
5.	Family income a) <5000 INR b) 5000-7500 INR c) >7500 INR	66 211 53	20% 64% 16%
6.	Number of gravidity a) 1 st pregnancy b) 2 nd pregnancy c) >2 pregnancies	147 161 22	45% 48% 7%
7.	Type of delivery a) vaginal delivery b) Caesarean	150 180	45% 55%

Sociodemographic Characteristics

Out of 330 lactating women, maximum i.e., about 50% (n=165) women belonged to the age group of 23 to 27 years, 82%(n=271) of them were from nuclear family. Educational characteristics reveal that 59%(n=194) completed their secondary education, 25%(n=81) completed higher secondary education and 16%(n=55) were graduates. Majority about 92%(n=304) of them were housewives. About 8%(n=26) of the population were professionals who were clerks, staff nurses etc. Average monthly income of lactating women was highest in the category of 5000-7500 about 64%(n=211). 45%(n=150) had vaginal delivery and 55%(n=180) had caesarean section.

Table 2:- Knowledge Of Mothers Towards Breast Feeding.

S.No	VARIABLE	FREQUENCY	PERCENTAGE
1.	Do you know importance of breast feeding? a) Yes b) No	310 20	94% 6%
2.	What do you prefer to feed your baby for first 6 months? a) Breast milk only b) Breast milk with plain water	295	89%

	c) Breast milk with butter d) Infant formula e) Others	9 20 0 6	3% 6% 0% 2%
3.	For how long should infant EBF only? a) <4 months b) 4-5 months c) >6 months d) Don't know	7 44 231 48	2% 13% 70% 15%
4.	Do you think bottle feeding is dangerous to the baby? a) Yes b) No	224 106	68% 32%
5.	Do you know the right time to start complementary feeds? a) 3 months b) 4 months c) 5 months d) 6 months e) 7 months	18 0 26 165 121	5% 0% 8% 50% 37%
6.	Do you know EBF? a) Yes b) No	205 125	68% 32%
7.	Have you ever heard of EBF? a) Yes b) No	189 141	57% 43%
8.	Do you know that BM alone is enough for infants <6months of life? a) Yes b) No c) Don't know	130 101 99	39% 31% 30%
9.	Do you know the right time to give BM to a child after birth? a) After giving some butter b) Within an hour c) After one hour d) After 24 hrs	51 167 92 20	15% 51% 28% 6%
10.	What do you do with first milk or colostrum? a) Discard b) Feed immediately	46 284	14% 86%
11.	Do you know breast milk alone can sustain baby for 6 months a) Yes b) No	288 42	87% 13%
12.	Do you know EBF prevents diarrheal, respiratory illness? a) Yes b) No c) I don't know	185 40 105	56% 12% 32%
13.	Do you know EBF protects mother from pregnancy? a) Yes b) No	119	36%

	c) Don't know	40 172	12% 52%
14.	Do you know expressed breast milk should be fed to the baby? a) Yes b) No	205 125	62% 38%
15.	Do you know semi-solid food to be introduced at 6 months? a) Yes b) No	211 119	64% 36%
16.	Do you know a baby should be breast fed on demand? a) Yes b) No	246 84	75% 25%
17.	It is important to give a new-born child other foods like porridge, tea, juice etc., a) Yes b) No	33 297	10% 90%
18.	Does frequent suckling help for milk production? a) Yes b) No c) No idea	257 22 51	78% 7% 15%

Knowledge of respondents about breastfeeding

The majority 94% (n=310) lactating mothers considered exclusive breastfeeding important. More than half of the mothers (58%) believed that colostrum is nutritionally beneficial to the child. Majority of the mothers 56% (n=185) stated that exclusive breastfeeding improves the immunity of the child, although 32% (n=105) of them had no idea about the relationship between exclusive breastfeeding and immunity of the child. Concerning the initiation, majority 51% (n=167) replied that breastfeeding should be started immediately after the birth. About 56% (n=185) of them believed that frequent breastfeeding prevents diarrhea and respiratory illness. 12% (n=40) of them opined that EBF may not prevent child from diarrheal episodes.

When asked about the EBF duration 15% (n=51) of them felt that it should be less than 6 months, 70% (n=231) of lactating mothers felt it should be 6 months and 15% (n=51) did not give importance to weaning to be initiated.

Table 3:- Attitude Of Mothers Towards Breast Feeding.

S.No	VARIABLE	FREQUENCY	PERCENTAGE
1.	Giving breast milk for a new-born immediately within one hour is important? a) Strongly agree b) Agree c) Disagree d) Strongly disagree	174 132 4 20	53% 40% 1% 6%
2.	Discarding the first milk or colostrum is important? a) Agree b) Neutral c) Disagree d) Strongly disagree	48 55 68 159	15% 17% 21% 47%
3.	Only breast milk may not be sufficient for 3 months child? a) Agree b) Disagree c) Strongly disagree	161 106	49% 32%

	d) Neutral	37 26	11% 8%
4.	Do you think of starting complimentary foods before 6 months is important? a) Strongly agree b) Agree c) Disagree d) Strongly disagree	33 79 150 68	10% 24% 45% 21%
5.	What do you prefer to feed your baby for the first 6 months? a) Breast milk alone b) Breast milk with formula c) Breast milk with cow milk d) Others	284 13 24 9	86% 4% 7% 3%
6.	Do you believe that EBF is beneficial to the child? a) Agree b) Disagree c) Neutral	277 31 22	84% 9% 7%
7.	The age of the mother influences her ability to EBF? a) Agree b) Disagree c) Neutral	189 75 66	57% 23% 20%
8.	Breast fed babies are healthier than fed babies? a) Agree b) Disagree c) Neutral	295 20 15	89% 6% 5%
9.	Breast milk is more easily digested than formula? a) Agree b) Disagree c) Neutral	284 26 20	86% 8% 6%
10.	Do you think EBF prevents pregnancy? a) Agree b) Disagree c) Don't know	130 75 125	39% 23% 38%
11.	Do you think breast feeding limits activity? a) Agree b) Disagree c) Don't know	75 143 112	23% 43% 34%
12.	Formula feeding is more convenient than breast feeding? a) Agree b) Disagree c) Neutral	110 198 22	33% 60% 7%
13.	Does breastfeeding increases mother-infant bonding? a) Agree b) Disagree c) Neutral	308 15 7	93% 5% 2%
14.	Women need adequate food for EBF for 6 months?		

	a) Agree b) Disagree c) Neutral	264 37 29	80% 11% 9%
15.	Do you think that EBF is better than artificial feeding? a) Yes b) No c) Don't know	244 36 50	74% 11% 15%
16.	Do you agree that only EBF is enough for a child for up to 6 months? a) Agree b) Disagree	211 119	64% 36%
17.	Why do you encourage EBF? a) Prevent infection and infant death b) Improve infant strength c) Cost effective	103 207 20	31% 63% 6%
18.	Do you encourage mothers to EBF their infant? a) Yes b) No	271 59	82% 18%

Attitude of respondents towards breastfeeding

Attitude of lactating mothers showed that 53% (n=174) mothers believed that breast feeding should be initiated within one hour of delivery. Majority about 84% (n=277) believed that EBF is beneficial to the child. 89% (n=295) of mothers believed that breast fed babies are healthier than fed babies. 74% (n=244) mothers felt breastfeeding to be better than formula feeding. About 64% (n=211) mothers agreed that only EBF is enough for a child for up to 6 months. 84% (n=277) agreed on the health and hygiene aspect during breastfeeding the child. 93% (n=308) felt breastfeeding adds the emotional quotient and increases the mother and child bonding.

Table 4:- Breast Feeding Practices Of The Mothers.

S.No	VARIABLE	FREQUENCY	PERCENTAGE
1.	When did you start breast feeding after delivery? a) Within one hour b) After one hour	152 178	46% 54%
2.	What is the daily frequency of breast feeding? a) On- demand b) Regularly c) Randomly- <4 times a day >4 times a day <8 times a day 8-12 times a day >12 times a day	130 13 13 18 31 79 46	39% 4% 4% 5% 10% 24% 14%
3.	Do you breast feed your baby exclusively? a) Yes b) No	295 35	89% 11%
4.	Did you give colostrum to your baby? a) Yes b) No	207 123	63% 37%

5.	Have you given your last baby anything before initiating breast feeding (pre lacteal feed)? a) Yes b) No	57 273	17% 83%
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Breastfeeding Practices of respondents

In this study, all mothers reported breastfeeding their child. 63% (n=207) of lactating mothers reported to have given colostrum to their babies. Exclusive breastfeeding was reported by 89% (n=294) lactating mothers. Almost 46% (n=152) lactating mothers started breastfeeding within an hour after delivery. 39% (n=130) reported of breastfeeding on demand and 57% (n=187) breastfeed at random. About 83% (n=273) mothers had negative attitude towards pre lacteal feeds and 17% (n=57) of mothers gave pre lacteal feeds.

Discussion:-

Global movements towards protecting, encouraging and supporting breast milk as a part of optimal feeding practices among infants has been emphasized since many years however there is incongruence between what is recommended and what is practiced in reality. Therefore, the present study aimed at identifying the KAP of breastfeeding among lactating mothers. EBF is estimated to prevent approximately one-tenth of child deaths and could play an important role in meeting India's Millennium Development Goal 4 of reducing child mortality²⁴. WHO recommends exclusive breastfeeding upto 6 months, in the current study the importance to exclusive breastfeeding was given by 94% (n=310) of lactating women; however only 70% (n=231) were knowledgeable about practising EBF upto 6 months whereas 15% (n=50) felt it should be practised for less than 6 months. In the present study 30% (n=99) of lactating mothers felt the need to continue breastfeeding even after 6 months which highlights the unawareness related to initiation of supplementary feeds through weaning at age 6 months.

The benefits of breastfeeding were largely accepted by majority of lactating mothers, wherein 56% (n=185) felt it improved immunity, 58% (n=191) had knowledge about colostrum being beneficial for the child and 74% (n=244) agreed on the changes in growth patterns of child fed with breastmilk and formula feeds.

In the present study a total of 63% (n=208) lactating mothers provided breastmilk as the first feed for the child. 83% (n=274) showed a negative attitude towards giving pre-lacteal feeds to their infants yet 17% (n=56) gave pre lacteal feeds. Providing the infant with pre-lacteal feeds is a custom practised in most of the rural sections of India. Pre lacteal feeds mostly as honey or sugar water happen to be the most common feeds seen in the present study. It is believed that pre lacteal feeds act as laxatives in clearing the meconium. Sadly, the mothers are not aware that the pre-lacteal feeds that could be a source of contamination²⁵. Studies show that the earlier breastfeeding begins the earlier and more effective the consolidation of the process, and therefore, a better impact on the after-birth period, which helps in the earlier initiation of the secretion of breast milk²⁶. It was observed that the initiation of breastfeeding within one hour was undertaken by 46% (n=152) of lactating women which is almost two-fold as compared to the national average of 23.4% (NFHS-3).

Conclusions:-

Maternal knowledge, maternal level of education and age of the child may also be important in promoting the practice of EBF. Healthcare professionals should go beyond the mere dissemination of information to encouraging and helping mothers to overcome barriers of practicing EBF. Informing all pregnant women about the breastfeeding can be considered as a priority during antenatal visits. Strengthening of prenatal and postnatal interventions to improve breastfeeding practices is recommended.

Acknowledgements:-

We would like to express our gratitude to all the mothers who participated in this study.

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