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Assistant Professor, Department of Neonatology, National Institute of medical science and research, Jaipur, Rajasthan, India An observational study on assessment of component encourage breastfeeding in mothers and pregnant women

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Abstract

Introduction: Medical and public health experts advocate breastfeeding as the best method of feeding young infants for a wide variety of reasons. It is evident that even the most sophisticated and carefully adapted formulae can never replicate human milk, as human milk has anti-infective properties, and is a 'live' fluid which cannot be mimicked in an artificial formula. An adequate supply of human breast milk is known to satisfy virtually all the nutritional needs of an infant at least for the first six months of life.

Materials and Methods: The data was collected by a pre-evaluated questionnaire printed in English or local language. Only those mothers were included in this study who had a full term newborn infant with a weight gain of less than 16.6 gr/day (500 g/month). Exclusion criteria were as follow: mothers with preterm or low- birth-weight infants; working mothers; mothers with infants who had cardiac, pulmonary, musculoskeletal, metabolic, genetic and neurological disorders or anomalies; mothers who had tried bottle-feeding before counseling; mothers with multiple gestations; mothers with anatomical abnormalities of breast; mothers who had been admitted to hospital more than three days after delivery; mothers whose newborn infant had been admitted to hospital more than three days after birth.

Results: The scoring was marked such that maximum scored for positive responses and minimum for negative responses. Knowledge of the mothers in various aspects of breast- feeding was analyzed as shown in Table. On univariate analysis mothers with more than 2 children, delivery by normal vaginal labour had better knowledge of healthy breastfeeding practices. Women with a better educated partner practiced healthy breastfeeding. In our study we found that mother's education or the religion she practiced or sex of the child had no role in practicing healthy breastfeeding.

Conclusion: The need of the hour is to educate our health care personnel about the importance of providing breastfeeding counselling to mothers whenever they get the opportunity, especially during the antenatal visits.

Keywords: Component, encourage, breastfeeding

Introduction

It is known to prevent adult onset disease like coronary artery disease, diabetes and hypertension^[1]. Most under-five deaths in developing country like India can be prevented by early initiation of breastfeeding and exclusive breastfeeding up to 6 months of age ^[2]. According to the WHO recommendations, 3 factors are needed to reduce infant mortality rates, namely initiation of breast feeding within 1 hour of birth, practicing exclusive breastfeeding for 6 months and proper supplementation at 6 months. But misconceptions among mothers have made it difficult to execute the same at the community level [3]. Breastfeeding has different meanings, according to different cultures; Therefore, its care becomes a habit related to social determinants and cultural manifestations, and suffer influence of the same ideas and values shown in the woman's socialization process ^[4]. So, the following questions emerge: what is breastfeeding? What is the significance of lactation? Breastfeeding means to breastfeed, raise by the breast, lactate, feed, nourish. Lactation is a synonymous of breastfeeding, from the point of view of its definition, which has the same functional connotation of breastfeeding or raising the child with the milk it produces. Therefore, the meaning of both words isn't restricted purely to the biological aspect of the action; Instead, it goes beyond, in order to translate the emotions surrounding the woman's relationship with her child, family and the world around them ^[5]. Medical and public health experts advocate breastfeeding as the best method of feeding young infants for a wide variety of reasons.

Corresponding Author: Jai Krishan Assistant Professor, Department of Neonatology, National Institute of medical science and research, Jaipur, Rajasthan, India It is evident that even the most sophisticated and carefully adapted formulae can never replicate human milk, as human milk has anti-infective properties, and is a 'live' fluid which cannot be mimicked in an artificial formula. An adequate supply of human breast milk is known to satisfy virtually all the nutritional needs of an infant at least for the first six months of life. It is easily digestible and facilitates skin to skin contact and physical warmth between mother and child, which further strengthens the emotional bond between them ^[6]. One of the most important causes of the breastfeeding failure refers to deficient experience or knowledge of mothers about proper breastfeeding ^[7]. Despite perfect technique of breastfeeding, infant's weight gain may not be as suitable as expected; insufficient milk production by mother's breasts may be a reason for this failure, therefore many studies addressed galactogogues, medications that promote lactation [9-13]. But Hansen's study showed that metoclopramide did not improve breast milk volume or duration of breastfeeding in women delivering preterm neonates.¹⁴ Sakha compared the effects of metoclopramide and training on the breast milk in nursing mothers, results showed although the mean weight gain of infants in the metoclopramide-treated group was slightly higher than in the training group, this difference was not statistically meaningful. These results show the preferable role of training and enhancement of mother's self- confidence and motivation [8].

Materials and Methods

This was an observational study conducted in a tertiary care

teaching centre. Pregnant women attending the outpatient departments of obstetrics and paediatrics were recruited in the study. Subjects were explained orally about the study and the consent taken. The data collection and educational counselling was done by a single observer. The data was collected by a pre-evaluated questionnaire printed in English or local language. Only those mothers were included in this study who had a full term newborn infant with a weight gain of less than 16.6 gr/day (500 g/month). Exclusion criteria were as follow: mothers with preterm or low- birth-weight infants; working mothers; mothers with infants who had cardiac, pulmonary, musculoskeletal, metabolic, genetic and neurological disorders or anomalies; mothers who had tried bottle-feeding before counseling; mothers with multiple gestations; mothers with anatomical abnormalities of breast; mothers who had been admitted to hospital more than three days after delivery; mothers whose newborn infant had been admitted to hospital more than three days after birth. The data was analysed using SPSS software. Frequencies and descriptive summary statistics were performed to describe the sample. Univariate and binary regression analyses were performed to assess the associations.

Results

A total of 320 subjects were included in the study. Their age ranged from 19 to 42 years. All the subjects were married, 45% had primary education and 22% were graduates. Religion wise, 82% were Hindus, 37% were Muslims and 8% were Christians and majority of the subjects lived in a joint family (72%).

| Table 1: Factors affecting mother's knowledge of breastfe | eding |
|---|-------|
|---|-------|

| | | Poor knowledge {<10} | % | Good knowledge {> 10} | % | p-value |
|--------------------------------|--------------------------|----------------------|------|-----------------------|------|---------|
| Education status of the mother | <7th std | 62 | 54.8 | 51 | 45.1 | 0.343 |
| | 7th -10th std | 75 | 66.3 | 38 | 33.6 | |
| | PUC | 32 | 59.2 | 22 | 40.7 | |
| | >PUC | 23 | 57.5 | 17 | 42.5 | |
| Religion | Hindu | 133 | 61.8 | 82 | 38.1 | 0.510 |
| | Muslim | 48 | 56.4 | 37 | 43.5 | |
| | Christian | 12 | 60 | 8 | 40 | |
| Type of family | Unit family | 70 | 55.1 | 57 | 44.8 | 0.110 |
| | Joint family | 121 | 62.6 | 72 | 37.3 | |
| Pregnancy | Pregnant | 69 | 66.3 | 35 | 33.6 | 0.042* |
| | Not pregnant | 122 | 56.4 | 94 | 43.5 | |
| Number of children | 0 | 55 | 67.9 | 26 | 32.1 | 0.005* |
| | < or = 2 | 128 | 59.8 | 86 | 40.1 | |
| | >2children | 8 | 32 | 17 | 68 | |
| Sex of the child | Not born/pregnant mother | 54 | 65.8 | 28 | 34.1 | 0.136 |
| | Male | 86 | 58.1 | 62 | 41.8 | |
| | Female | 50 | 55.5 | 40 | 44.4 | |
| Mode of delivery | Pregnant mother | 54 | 68.3 | 25 | 31.6 | 0.037* |
| | Vaginal | 72 | 52.9 | 64 | 47.0 | |
| | C-section | 66 | 62.8 | 39 | 37.1 | |
| Education status of father | <7th std | 44 | 49.4 | 45 | 50.5 | 0.009* |
| | 7th-10th std | 98 | 69.1 | 42 | 29.5 | |
| | PUC | 18 | 52.9 | 16 | 47.0 | |
| | >PUC | 34 | 59.6 | 23 | 40.3 | |

*indicates significance (p < 0.05)

The scoring was marked such that maximum scored for positive responses and minimum for negative responses. Knowledge of the mothers in various aspects of breastfeeding was analyzed as shown in Table. On univariate analysis mothers with more than 2 children, delivery by normal vaginal labour had better knowledge of healthy breastfeeding practices. Women with a better educated partner practiced healthy breastfeeding. In our study we found that mother's education or the religion she practiced or sex of the child had no role in practicing healthy breastfeeding. On binary regression analysis we found that mothers undergoing vaginal labour and new mothers had lower awareness and practice of breastfeeding compared to mothers with more than 1 child.

Discussion

In this study the average time for initiating breastfeeding or rooming in was found to be 6 h which suggests that breastfeeding was initiated at the right time and women had a very positive attitude towards initiation of breastfeeding. Breastfeeding should be initiated within 30 min of delivery. A delay in initiation will lead to a delay in the development of oxytocin reflexes, which are very important for the contraction of the uterus and the breast milk reflex. Other studies conducted also show similar trends. It was found that mothers who initiated breastfeeding quite late and introduced 'top' milk during the first few days postpartum, could not breastfeed for long. The major reason cited for this was lack of interest in the baby to feed. This is because the top feed which is high-calorie may satiate the baby's appetite and prevent it from wanting to feed at the breast Another important observation was that once the baby was fed with a bottle and a teat, which is a relatively easy exercise for the baby, it is less likely to return to the mother's breast because it finds it more easy to suck milk from the bottle than from the mother's breast ^[15]. In addition, there is the psychological and emotional benefits that the nursing mother-fetus relationship promotes in the woman's and the young kid's lives, which constitute imbricated value in the act of breastfeeding. It is inferred that this value corresponds to the experience of a living being, for the man is a valuable being that engaged in their existence. And as breastfeeding permeates this bond, it can be deduced that such affection is directly linked to sentimental value, because the nursing mother and child relationship is a unique experience, existing only in human beings, and come from the relationship that breastfeeding provides ^[16]. As for the financial benefits, milk brings with it a capable own value to supply all the needs of the fetus, making it unnecessary to buy food for him, which saves money for the nursing mother. Plus the fact that breastfeeding means preserving the health of the child, which is equal to any other important benefit. In the free-response questions, senior students revealed a belief that they are much more edu-cated about breastfeeding following their nursing education, and sophomore students a belief that they would learn about breastfeeding during their course work. In contrast, the survey responses showed that attitudes and knowledge scores did not differ greatly between the two cohorts of students. The incon-gruence between nursing students' perceptions of their knowledge level in the freeresponse questions and their actual scores on the knowledge test raises concerns about the efficacy of breastfeeding educa- tion and is worth further investigation. However, the increase in confidence seen in senior students is valuable because students' confidence in their abili- ties is important for them to give competent care [17]. The question of advocacy for breastfeeding and education of mothers about breastfeeding is an interesting one because almost all students com- mented that they believed strongly that education is an important role of the nurse, but there were divergent opinions, not only as to the role but also about the best definition of advocacy. In our study it was seen that father's education had a significant role in breastfeeding practices. Surprisingly mother's education had no significant role in early initiation of breastfeeding or colostrums feeding. In two similar international studies [18, 19] from China and Bangladesh respectively a similar correlation was highlighted. In our factors like age of the mother, age at marriage, mother's education and religion, type of the family and the sex of the child had no role in knowledge on breastfeeding.

Conclusions

The need of the hour is to educate our health care personnel about the importance of providing breastfeeding counselling to mothers whenever they get the opportunity, especially during the antenatal visits. It also needs to be noted that knowledge alone is not going to determine successful breastfeeding practice, but sensitization of the health care provider and the infrastructural amendments are needed for early initiation of breastfeeding in a hospital background.

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