

## Impact of mothers' knowledge and support for sustaining exclusive breastfeeding

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### ABSTRACT

**Background:** Breast milk is the best milk for the baby. It is beneficial for the baby as well as the mother, family, and nation. In spite of an established fact, still, a very low percentage (44.2%) is implementing it. **Objective:** The objective of this study was to find out the knowledge, concerns, and difficulties in breastfeeding and the obstacles in the practicing breastfeeding. **Materials and Methods:** A cross-sectional study was done at pediatric clinics in Warangal. A total of 1010 lactating mothers who were presenting for regular check-ups were enrolled. After taking oral consent, mothers were interviewed through a predesigned questionnaire containing 50 questions on pre- and post-natal counseling received, and knowledge of exclusive breastfeeding, importance of skin-to-skin contact (SSC), and their educational status and hygiene. The entire session of interview was carried out in the optimum privacy to create a favorable environment of acquiring the data. **Results:** Of 1010 mothers enrolled, only 25.4% had received antenatal counseling, 15.8% had received postnatal counseling regarding exclusive breastfeeding, 56.4% followed exclusive breastfeeding (EBF), and SSC was maintained by only 2%, after delivery which played an important role in breastfeeding,  $p=0.000003$  for antenatal counseling and EBF. **Conclusion:** More attention should be given in educating mothers when they conceive, regarding breastfeeding, its problems and skills, during their first visit to health-care professionals.

**Key words:** Exclusive breastfeeding, Pre- and post-natal counseling, Skin-to-skin contact

Breastfeeding is the normal way of providing young infants with the nutrients they need for healthy growth and development. It is the evergreen gift given by a mother to her baby [1]. Results from the epidemiological studies and growing knowledge of the roles of epigenetics, stem cells, and the developmental origins of health and disease lend strong support to the ideas proposed by Vahlquist. Breastfeeding promotion is important in both rich and poor countries alike and might contribute to the achievement of the forthcoming sustainable development goals [2]. Lactogenesis is a phenomenon involving many hormones and reflexes. Two hormones directly affecting breastfeeding are prolactin and oxytocin, and estrogen is indirectly involved in lactation [3]. Successful breastfeeding depends on maternal factors, infant response to breastfeeding, and various psychophysiological factors.

Many studies have proved that women with positive or stronger maternal attitude and positive obstetric experiences are more likely to succeed and continue with breastfeeding [4]. Pregnancy, childbirth, and compatibility with the newborn might constitute the most perceptive developmental stage in a woman's life [5]. Successful breastfeeding is dependent on mother's physiological, social, and psychological factors [6]. Skin-to-skin contact (SSC) might have a long-term positive effect on breastfeeding. The postpartum depressive symptoms are seen in 20–40% of women,

which affect both the mother and infant. In preterm infants, daily SSC between the mother and her infant has been shown to decrease maternal postpartum depressive symptoms [7].

The WHO defines exclusive breastfeeding (EBF) as the practice of feeding only breast milk (including expressed breast milk) to the baby and allows the baby to receive vitamins, minerals, or medicine. Water, breast milk substitutes, other liquids, and solid foods are excluded [8]. The WHO recommends EBF for the first 6 months, with supplemental breastfeeding continuing for 2 years and beyond [9]. Appropriate measures should be taken to improve training in breastfeeding counseling and the number of trained professional counselors, at all levels should be increased. Selection of motivated health care workers is an important factor contributing to the improvements in breastfeeding results. Antenatal counseling helps in educating the mothers for initiation of breastfeeding immediately after delivery and practicing EBF for the first 6 months of baby's life. All pregnant women should be informed about the profits and management of breastfeeding on a priority basis during antenatal visits [10].

### MATERIALS AND METHODS

This was a cross-sectional study done at different pediatric hospitals in Hanmakonda, Telangana, India. The mothers who

were breastfeeding, formula feeding, and mixed feeding were included in the study. Mothers having children >4 years of age and not given consent were excluded from the study. After taking institutional ethical committee permission and oral consent from the mothers, they were interviewed through a predesigned questionnaire containing 50 questions on pre- and post-natal counseling received, knowledge of EBF, importance of SSC, their educational status, and hygiene.

The entire session of interview was carried out in optimum privacy to create a favorable environment for acquiring the data. For statistical analysis, IBM SPSS software Version 20.0 was used. Chi-square test was done for statistical significance. In all instances,  $p < 0.05$  was considered statistically significant. Data analysis was done using ANOVA. Charts were prepared from Microsoft Excel 2010 Version and results analyzed, tabulated with comparative tables, line diagrams, and bar charts.

## RESULTS

In the present study, we collected the data from a total population of 1010 mothers both breastfeeding and formula feeding, and results were found as below mentioned tables. Table 1 shows the demographic details of 1010 mothers and different parameters collected.

Table 2 describes the number of mothers receiving antenatal or postnatal counseling, SSC, timing of initiation of breastfeeding, use of colostrum, and knowledge of breastfeeding, partner support, and duration of feeding.

**Table 1: Demographic details wise distribution of mothers**

Demographics	Number	Percentage
Age		
19–24	536	53
25–30	409	40
31–36	59	5.8
37–42	6	0.5
Education		
None	44	4
Primary	117	12
Secondary	356	35
Graduation	424	42
Postgraduation	69	7
Type of delivery		
Normal	223	22
Cesarean	787	77.9
Type of feeding		
Exclusive breastfeeding	562	56
Formula feeding	117	11
Both	331	33
Delivery wise distribution		
Para 1	628	62.8
Para 2	339	33.5
Para 3	41	4.05
Para 4	2	0.19

Table 3 shows the comparison association antenatal counseling received and EBF.

Table 4 shows the association between the 1<sup>st</sup> h initiation of breastfeeding and EBF.

## DISCUSSION

The sample of our study comprises postpartum mothers (1010), of which only 25.4% (257) had received counseling during their antenatal visits regarding breastfeeding. Alison Stuebe concluded that most of the mothers make decisions about infant feeding early in pregnancy [11]. Early in prenatal care, if obstetrician can educate mothers about the health impact of infant feeding and address potential obstacles to breastfeeding, they could

**Table 2: Breastfeeding practice wise distribution of mothers**

Practices	Number	Percentage
Antenatal counseling		
Yes	257	25.4
No	753	74.8
Postnatal counseling		
Yes	160	15.8
No	850	84.1
Skin-to-skin contact		
Yes	18	2
No	992	98
1 <sup>st</sup> h initiation		
Yes	337	33.3
No	673	66.7
Colostrum discarded		
Yes	572	56.6
No	321	35.9
Knowledge of breastfeeding		
Yes	954	94.4
No	56	5.5
Knowledge of breast milk		
Yes	633	62.6
No	377	37.3
Knowledge of exclusive breastfeeding		
Yes	519	51.3
No	491	48.6
Knowledge of risks of not breastfeeding		
Yes	201	19.9
No	809	80.09
Hygiene		
Washing	298	33.3
Wiping	614	68.7
Partner support		
Yes	934	92.4
No	76	7.5
Duration of feeding		
10 min	548	61.3
20 min	177	19.8
30 min	168	18.2

**Table 3: Antenatal counseling received versus EBF**

Antenatal counseling received	EBF		Total
	Yes (%)	No (%)	
Yes	175 (68.09)	82 (31.90)	257
No	387 (51.39)	366 (48.60)	753

Z score=21.64, p=0.000003, significant at p<0.05. EBF: Exclusive breastfeeding

**Table 4: 1<sup>st</sup> h initiation of breastfeeding versus EBF**

1 <sup>st</sup> h initiation of breastfeeding	EBF (%)		Total
	Yes	No	
Yes	186 (55.2)	151 (44.8)	337 (33.3)
No	190 (28.2)	483 (71.7)	673 (66.7)

Z score 69.85, p<0.00001. EBF: Exclusive breastfeeding

play a powerful role in improving health outcomes across two generations [11]. In the present study, 56.4% (562) of mothers followed EBF, which was higher in comparison to a study conducted by Yılmaz *et al.* [12], where it was observed in 38.9% of mothers.

It was observed that most of the C-section mothers, which were 77.9% (787) held their baby after a long time, whereas 22.0% (223) normal delivered mothers held their babies immediately. Beiranvand *et al.* concluded that SSC after delivering through cesarean section was possible and this resulted in higher maternal satisfaction level. As the holding of baby is not done immediately, there might be a chance of decreased bonding between the mother and baby which might lead to delayed suckling reflexes of the baby [13]. Postnatal counseling plays a major role in educating mothers on breastfeeding. Among the total mothers, only 15.8% (160) received postnatal counseling and the rate of EBF was 1.31 times higher among such mothers. The observed association between counseling and EBF prevalence is in accordance with the study findings from Bahir Dar, Ethiopia [14].

In the present study, majority of the mothers had given birth through cesarean delivery 77.9% (787) and only 22.1% (223) through normal delivery. Of 100%, only 2% had maintained SSC. This could be mainly due to lack of proper knowledge on SSC. The other reasons could be delayed shifting from the labor room, mother lacking energy or being unconscious due to anesthesia, and mother or baby's observation. Oche *et al.* concluded that knowledge and practice of EBF was low in their study where 94.4% of mothers knew that breast milk was good for health, but only 62.6% had awareness of its immune properties [15].

Angelsen *et al.* proposed that a longer duration of breastfeeding benefits cognitive development; hence, feeding should be continued up to 24 months, whereas our study showed that only 51.9% gave feeding up to 2 years, 35.2% up to 1 year, 12.0% up to 3 years, and 0.6% up to 4 years [16]. Our study showed that only 33.3% and 42.7% of mothers have followed washing and wiping, respectively, during breastfeeding. Hygienic conditions such as washing and wiping should be maintained during breastfeeding to prevent infections. According to Mannion *et al.*, mothers feel more capable and confident about breastfeeding when they receive positive attitude from their partners. Our study reveals that breastfeeding mothers have a good partner support (92.4%) [17].

Bruno Tongun *et al.* concluded that 52% of mothers initiated breastfeeding, whereas in our study, 33.3% of mothers had early initiation of breastfeeding [18]. Sohail and Khaliq observed that 27.9% of mothers had discarded the colostrum believing it to be non-nutritious, whereas our study reveals that 56.6% of mothers had discarded colostrum [19]. The limitations of the study are due to the lack of information from mothers and unavailability, the previous medical history of the infants was not collected.

## CONCLUSION

Mothers should be educated regarding breastfeeding from early periods of pregnancy and it should be a continuous process for increased rate of EBF. Lack of knowledge, support, and sensitization are few vital reasons for limiting breastfeeding practices. To overcome the barriers such as lack of mother's knowledge, family support, and counseling (pre- and post-natal), there is a need of health-care professionals to bring out the positive impact of breastfeeding process and support the breastfed mothers for a healthy and better society.

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