

## Breastfeeding Practices in Postnatal Women

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### ABSTRACT

This study was done to evaluate the breastfeeding practices of mothers, in regards to the time of initiation of breastfeeding and duration of exclusive breastfeeding in postnatal mothers and reasons if it was discontinued before 6 months. Regarding developmental milestones of the babies, it was significantly achieved in exclusive breast feeding babies compared to nonexclusive breast feeding babies at 6 months ( $P < 0.05$ ). Incidence of ARI and diarrhea was high in non EBF compared to EBF ( $P < 0.05$ ). 90% EBF babies achieved adequate weight gain compared to 68 % in Non EBF. Set up counselling services / medical counselling camps especially targeting rural and remote areas. Such an effort also helps to alleviate the ignorance among illiterate mothers

**Keywords:**diarrhea, psychological effects, pregnancy and

### 1. INTRODUCTION

Breast milk is the best natural food for babies. It is highly nutritious providing energy that is required for the infant for the first few months of life. Breastfeeding is the ideal method suited for the physiological and psychological needs of the infant [1]. Exclusive breastfeeding (EBF) is defined as “infant’s consumption of human milk with no supplementation of any type (no water, no juice, no non- human milk and no foods) except for vitamins, minerals and medications” [ 2] . Exclusive breastfeeding stands out as a single most effective intervention for child survival [3]. Colostrum, the yellowish, sticky breast milk produced at the end of pregnancy, is recommended by World Health Organization (WHO) as the perfect food for the newborn [4].

Universalising early (within one hour) and exclusive breastfeeding (for 0 -6 months), is viewed as a major public health intervention to reduce the neonatal and infant mortality [5, 6]. The leading causes of perinatal mortality are diarrhoea and pneumonia. This can be prevented by early initiation of breastfeeding and exclusive breastfeeding. It is beneficial to the mother also in the form of natural contraception. Other

benefits include reduced risk of breast trauma, lower risk of damage to nipple from breast pump, reduced risks to mother's health like reduced risk of breast cancer, other psychological effects like potential reduction in perceived stress and negative mood after feedings [7]. Breastfeeding reduces mothers' risk of developing type 2 diabetes later in their life [8]. Poor breastfeeding practices are widespread. It is estimated that sub-optimal breastfeeding, especially non-exclusive breastfeeding in the first 6 months of life, results in 1.4 million deaths and 10% of the disease burden in children younger than 5 years of age [10]. Reviews of studies from developing countries show that infants who are not breastfed are 6 to 10 times more likely to die in the first month of life than infants who are breastfed [11, 12]. The extent to which breast-feeding's beneficial effects are realized, however, depends on whether breastfeeding is initiated, its duration, and the age at which the breast-fed child is weaned [13, 14]. With this background, this study is done to evaluate the initiation and incidence of exclusive breastfeeding in postnatal mothers and reasons for stopping breastfeeding if done before six months of birth.

## 2. MATERIALS AND METHODS

**STUDY DESIGN:** Prospective KAP (knowledge, attitude, practice) study

**STUDY PERIOD:** December 2013 – August 2015

**STUDY PLACE :** Patients in Sree Balaji Medical College and Hospital, Chrompet, Chennai.

**NUMBER OF SUBJECTS STUDIED:** 500 postnatal women

### INCLUSION CRITERIA

Postnatal women
1) Aged 20-35 years
2) Who are willing to participate
3) Of all parity

4) Individual support including both face to face and via telephone
5) Irrespective of the mode of delivery whether vaginal or Caesarean section

## EXCLUSION CRITERIA

1) Women who are not willing to participate
2) Women with medical problems
Women who deliver:
3) Preterm babies (<37 weeks)
4) Low birth weight babies (<2.5kg)
5) Babies with congenital anomalies / conditions requiring intensive care after birth

## METHODOLOGY

All women who meet the inclusion criteria will be taken into the study after explaining them about the study and obtaining written informed consent. The subjects will be explained about the benefits and significance of EBF and followed up subsequently at 4 days, 8 weeks, 12 weeks and 6 months postpartum to study the time of initiation of breastfeeding, duration of exclusive breastfeeding, follow up breastfeeding practices and to study the reasons if it was discontinued before 6 months. The baby's condition will also be assessed by considering any diarrhoeal or respiratory tract infection symptom if present, achievement of developmental milestones, and weight at each visit. The results will be tabulated. Data will be statistically analysed and results will be discussed at the end of the study.

## ETHICAL APPROVAL

Ethical approval and permission was obtained from ethical committee members. The purpose of the study was explained to the mothers before they were requested to participate in the study.

### 3. RESULTS

#### I. ANALYSIS OF DEMOGRAPHICFACTORS

Table 1: Age of Respondents

Age	No.	Percentage (%)
20-25 years	334	66.8
26-30 years	106	21.2
31-35 years	60	12
Total	500	100%

Table 1 shows that respondents from age 20 -25 years were the majority with 334 (66.8%) followed by 26 -30years with 106 (21.2%) and lastly 31 -35years with 60 (12%) mothers.

Figure 1: Age of Respondents

Out of 500 subjects, 342 (68.4%) were Hindus, 99 (19.8%) were Muslims and 55 (11%) were Christians and 4 (0.8%) belong to other religion.

Figure 2: Religion of the Respondents

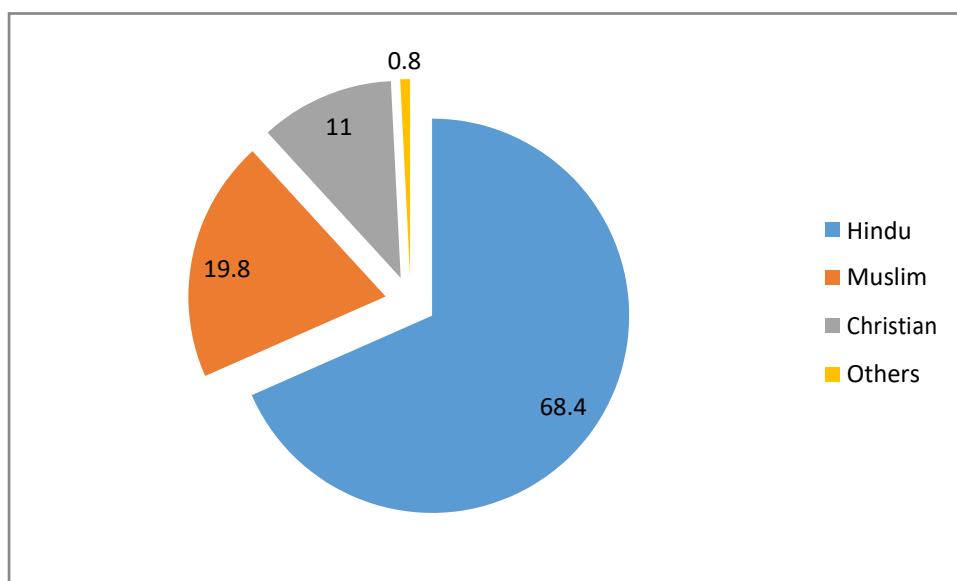


Table 2: Educational status of the Respondents

<b>Educational status</b>	<b>No.</b>	<b>Percentage (%)</b>
Illiterate	15	3
Primary School	56	11.2
High School	222	44.4
Higher Secondary School	114	22.8
College	93	18.6
Total	500	100

Out of the total 500 subjects 15 (3.0%) were illiterate, 56 subjects have done primary education (11.2%). People who did high school make great majority of 222 subjects (44.4 %). Higher secondary school level education contributes to 22.8% with 114 subjects and college level 18.6% with 93 subjects.

Figure 2: Parity of Respondents

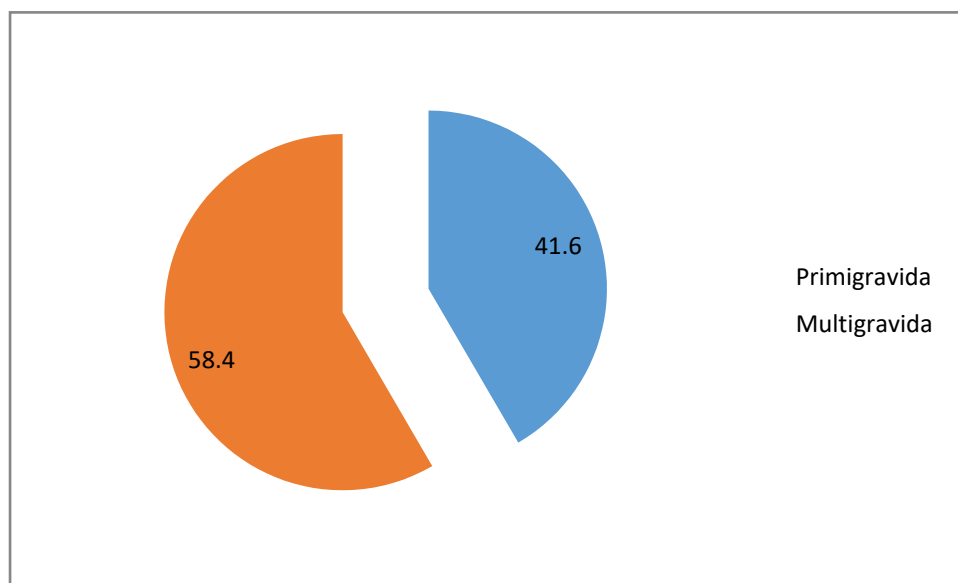


Table 3: Perinatal Factors of Respondents

<b>Mode of delivery</b>	<b>No.</b>	<b>Percentage (%)</b>
Vaginal delivery	242	48.4
Caesarean section	208	41.6

Assisted vaginal delivery	50	10
Total	500	100

Table 3 shows that 242 (48.4%) of respondents had vaginal delivery, 208 (41.6%) had Caesarean section while the rest 50 (10%) had assisted vaginal delivery.

Figure 3: Knowledge towards breastfeeding

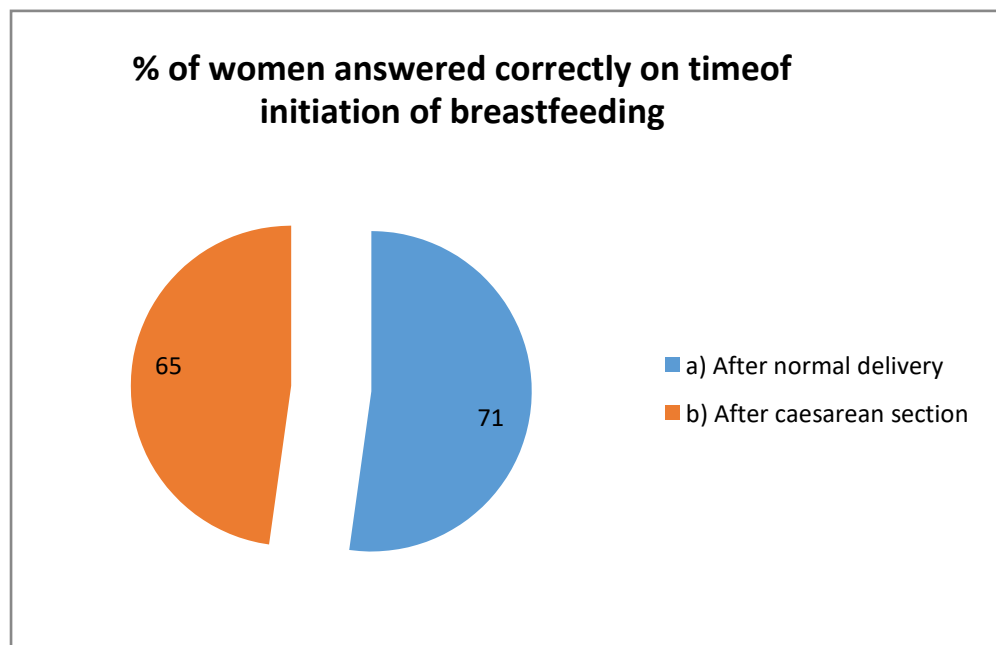


Table 4: Attitude towards breastfeeding

Attitude	Positive	Negative
15.Intention towards breastfeeding	485 (97%)	15 (3%)
16.Intention to breastfeed future children	500(100%)	-
17.Breast feeding is old fashioned	Yes	No
	40 (8%)	460 (92%)
18.Breast milk is the best milk	455 (91%)	45 (9%)

Out of 500 subjects, 485 (97%) have positive intention towards breastfeeding, all have intention to

breastfeed future children, 8% said that breast feeding is old fashioned. 91% of the study population said that breast milk is the best milk (Table-4)

Figure 4: Time of initiation of breast feeding

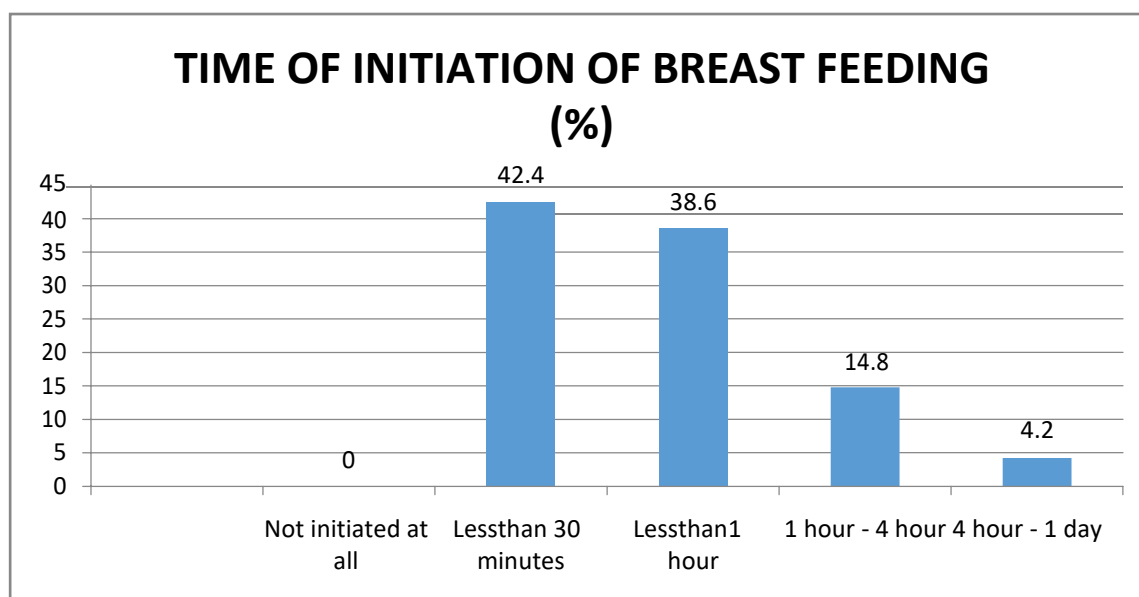


Table 5: Supplementary feeds (n=293) 58.6% (before 6 months)

Food other than breastmilk offered to newborn	No.	Percentage (%)
Water	123	42
Top milk	141	48
Others	29	10
Total	293	100

Out of the various Supplementary feeds used by 58.6% subjects, top milk was used by 48% mothers, and water by 42%.

Figure 6: Episodes of acute diarrhoeal disease(ADD):

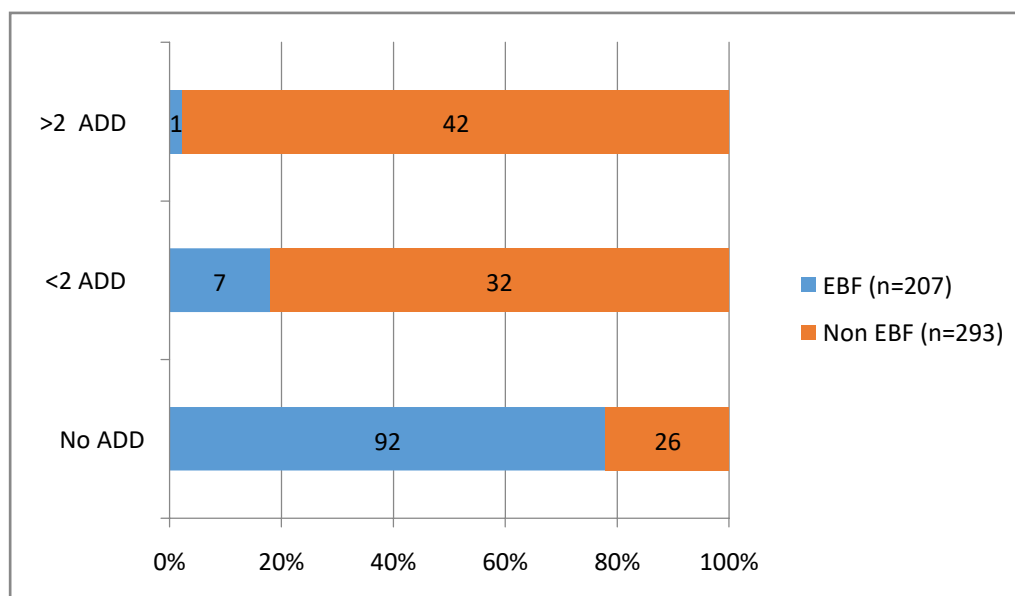


Table 6 : Weight gain

Status of feeding	Adequate weight gain	Underweight	Overweight	P Value
EBF (n=207)	186(90%)	12 (6%)	8 (4%)	<0.0001
Non EBF (n=293)	199 (68%)	59 (20%)	35 (12%)	

Among 207 exclusively breastfed infants, 90% have adequate weight gain, 6% are underweight, 4% are overweight. Out of 293 infants who are not exclusively breastfed, 68% have adequate weight gain, 20% are underweight, 12% are overweight. Out of 207 exclusively breastfed babies, 0.3% infants showed delay in fine motor milestone development, 0.9% infants delayed in the development of language milestones. Among 293 non-exclusively breastfed babies, 2.5% infants showed delay in motor milestone development, 5% delayed in Social and adaptive milestones, 2.7% infants delayed in the development of language milestones. The difference in categories of weight gain was statistically significant between groups.



#### 4. DISCUSSION

In this study, the respondents from age 20 -25 years were the majority with 66.8% followed by 26 -30 years with 21.2% and lastly 31 -35 years with 12%. The majority of the population under study included Hindus with 68.4%, 19.8% of Muslims, 11% with Christians and 0.8% belong to other religions like Jainism, Buddhism, Sikhism. Out of 500 mothers a majority of 44.4 % did high school, 22.8% did higher secondary school, 18.6% graduated from college, 11.2% did primary education, and 3% were illiterate. Working women comprised of 28% and 72% women were home-makers. Regarding socioeconomic class, 39.6% were from lower middle class contributing the majority, 23% from upper lower class, 19.4% in lower class group, 13.6% belong to upper middle class, and 4.4% women belong to upper class. 5.2% mothers were booked, out of whom 42% had 5 -7 visits, 39.9% had 2 -4 antenatal visits, and 18.1% had above 7 visits. 4.8% mothers were unbooked. Mode of delivery was vaginal for 48.4%, Caesarean section for 41.6% and 10% had assisted vaginal delivery.

WHO recommends 6 months of exclusive breastfeeding for infants. In our study 91.4% of the mothers knew that exclusive breastfeeding should be given for 6 months. This is much better when compared to the rate of 38% obtained in studies done by Maseer Khan et al in Hyderabad in 2012 [15] and Maheswari et al in 2010 [14]. Out of 500 mothers, 65% of them answered that breast feeding should be given within 2 hours of caesarean section. This rate is equal to that collated in a study by Maseer Khan et al but less when compared to the rate obtained in a study by Maheswari et al [16-17]. In our study 34% post natal women thought that pre lacteal feeds should not be given, which is less when compared to the previous two studies [16-17]. Looking into the attitude of the mothers, 97% have positive intention towards breastfeeding, all mothers said that they would breastfeed their future children, 8% said that breast feeding is old fashioned. 91% of the study population said that breast milk is the best milk. These results are better compared to that found in a studies by Maseer Khan et al [18] and Mbada et al in 2013 [80].

Regarding the initiating of breastfeeding, 81% have initiated breastfeeding in less than 1 hour, 14.8% in less than 4 hours and 4.2% after 4 hours. This when compared with the Nation's rate of initiation of breastfeeding in less than 1 hour of 23.4% [19], is far below the rate obtained in our study.

Among 207 exclusively breastfed infants, 74% were healthy, 23% had <2 episode of Acute respiratory infection (ARI), 3% had >2 episodes. Out of 293 infants who were not exclusively breastfed, only 15% were healthy, 38% had <2 episodes of ARI and 47% had >2 episodes. These rates of ARI episodes of 3% and 47%, when compared to a study by Diallo FB et al in 2009 [20] (with 28.7% versus 48.8%) is far much better but when compared to the figures obtained in another study by Chantry C et al in 2006 [21] (with 1.6% versus 6.5%), is less. Thus the results regarding acute respiratory infection

show that exclusively breastfed babies had lesser episodes when compared to non exclusively breastfed babies. Acute respiratory infection,s per a study by Kaur et al [22], in exclusively and non exclusively breastfed infants the mean weight were  $8.41 \pm 9.78$  versus  $6.02 \pm .67$  in infants aged 6 months, the findings of which revealed that growth in terms of weight of exclusive breastfed infants was better as compared to non exclusive breastfed infants, coincides with our study.

## CONCLUSION

Hence in an effort to optimize the quality and duration of exclusive breastfeeding among mothers, more emphasis can be effected through the following measures. The key to successful spreading of awareness regarding breastfeeding is by adopting "Right Information, Adequate Education & Effective Communication" strategies aimed at mothers from antenatal period onwards. **HEALTH** versus **LIFESTYLE**: To stress the gravity of exclusive breastfeeding as a basic health issue rather than opting it as a lifestyle choice especially for working women. **PROMOTION** : To promote good breastfeeding practices as well as timely breastfeeding. **MEDIA** : In this era where media holds the top priority, it is through these that people can easily access as well as to spread the word like virus and hence benefit the mothers. **COUNSELLING** : Set up counselling services / medical counselling camps especially targeting rural and remote areas. Such an effort also helps to alleviate the ignorance among illiterate mothers.

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

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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