

## Original Research Article

# Delayed onset of breastfeeding: what is stopping us?

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## ABSTRACT

**Background:** Breastfeeding is the best meal for a new born child. Various initiatives are in place for early initiation of breastfeeding. The effectiveness of these interventions is put to question when a large number of neonates fail to receive breast milk soon after birth. This study analyses the parameters likely to affect the time of onset of breastfeeding and evaluate the scope for interventions. It is important to assess the factors affecting initiation of breastfeeding, determine the relationship of these factors with the time of initiation and to analyse if counselling by health care workers has any benefit on outcome.

**Methods:** This is a hospital based cross sectional observational study in 200 lactating mothers from a pre-designed questionnaire. Main outcome measure- early onset (<1 hour of birth) of breastfeeding.

**Results:** Only 55% neonates included in this study were breastfed within the first 30 minutes. Positive influence for early initiation of breastfeeding was found with non primi mothers aged more than 26 years, with secondary or higher education, who had vaginal birth with institutional delivery. Early oral intake of mother with professional women living in joint family started early breastfeeding. Use of pre lacteal feeds delayed the onset of breastfeeding. Infants fed earlier were males, weight >2.2 kg. Women counselled by health care workers fed their babies earlier.

**Conclusions:** This study surmises that pre lacteal feeds should be discouraged and active health care workers' participation should be encouraged for early breastfeeding. Breastfeeding should be initiated as soon as possible for healthy neonatal outcome.

**Keywords:** Breastfeeding, Counselling, Early onset breastfeeding

## INTRODUCTION

Breastfeeding is the best meal for a new born child. It should be initiated as soon as possible. Even though exclusive breastfeeding is advocated till 6 months of age, an unacceptable number of neonates are given top feeds in the early neonatal period.

Various initiatives are in place for early initiation of breastfeeding, the effectiveness of which is put to question when a large number of neonates fail to receive breast milk within their early hours. Counselling by

health care workers is an important determinant for initiation of breastfeeding.<sup>1</sup>

Delayed initiation of breast milk has detrimental effect on child growth and development. The effective outcome for the untoward breastfeeding techniques is the contribution of such complications on under 5 mortality. Hence, there is an urgent need for analysis and intervention for effective implementation of health care services.

This study aims to analyse the factors influencing this outcome. Many neonatal, maternal and social factors are considered for the scope of this study. The major factor

responsible for early onset of breastfeeding is the mother's motivation to feed her child and the various factors which influence it. Intervention measures are needed to increase the prevalence of breastfeeding initiation within the first hour of life.<sup>2</sup>

## METHODS

An observational study was conducted in the interview format among mothers and caregivers of 200 neonates <24 hours of life in a tertiary care centre C. U. Shah Medical college and Hospital, Surendranagar from January 2020- March 2020. Informed consent was taken and confidentiality maintained as per ICMR guidelines.

Mothers with clinically stable babies >1.9 kg birth weight and >34 week corrected gestational age. Exclusion criteria- mothers with neonates admitted to the NICU.

## RESULTS

All results generated were based on the data analysed as percentage represented in a tabular format (Table 1 and 2).

In this study, 200 mothers were studied of which 43% were primigravida women, 78% mothers were educated at least up to secondary level of education, 70% between 21-25 years and 91% agreed to the use of pre lacteal feeds prior to breastfeeding. The mean gestational age

was 38 weeks and the mean birth weight was 2.43 kg. 48% babies under this study were female. Early onset breastfeeding was considered when the first feed was given within first hour of birth.

**Table 1: Time of onset of breastfeeding.**

Time of onset	Number of women	Percentage
<1 hour	111	55.5
1-4 hours	62	31
4-24 hours	25	12.5
>24 hours	2	1

Data was tabulated and analysed for result generation using relevant statistical tests under guidance of the biostatistics department.

Only 55.5% babies received feeding within the first hour of life; contrary to the recommendation that all neonates be fed within first 30 minutes of life.

More number of non-primigravida mothers (60.5%) began early feeding of their newborn infants as compared to primigravida mothers (48.8%). The possible reason to this difference might be the ease and comfort of breastfeeding technique, decreased fears and anxiety about baby care and earlier lactation. We opine that adequate, timely and culturally appropriate counselling can bridge this gap.

**Table 2: Factors affecting early onset of breastfeeding.**

Variable		Number of participants	Early onset of breast-feeding
<b>Order of birth</b>	Primi-gravida	86	42
	Non primi	114	69
<b>Type of delivery</b>	Vaginal	103	72
	Caesarean	56	16
	Other	41	23
<b>Place of delivery</b>	Hospital	128	93
	Home	63	15
	Other	9	3
<b>Oral intake</b>	Immediate	130	81
	Delayed	70	30
<b>Pre lacteal feeds</b>	Given	182	103
	Not given	18	8
<b>Education</b>	Illiterate	20	6
	Primary	24	10
	Secondary	103	55
	Higher secondary	50	38
	Graduate and above	3	2
<b>Maternal age</b>	<21	12	6
	21-25	140	70
	26-30	26	20
	31-35	15	10
	>35	7	5

Continued.

Variable		Number of participants	Early onset of breast-feeding
<b>Profession</b>	Housewife	108	45
	Working	92	66
<b>Type of family</b>	Nuclear	87	39
	Joint	113	72
<b>Infant gender</b>	Male	104	70
	Female	96	40
<b>Infant CGA</b>	34-37 weeks	82	38
	>37 weeks	118	73
<b>Infant weight</b>	<2.2 kg	35	16
	2.2-2.8 kg	116	80
	>2.8 kg	49	15
<b>Counseling done</b>	Yes	106	89
	No	94	22

Mothers with secondary and above education had earlier onset of breastfeeding than those with primary and below educational level. Higher education prepares the mother with better understanding and acceptance of the impact of breastfeeding on their child. Maximum women above the age of 26yr (76.9%) started feeding earlier than their younger counterparts (50%). Likely reasons are multiparity, physical and emotional maturity related to childbirth and better social support system for childbearing.

A total 72.6% Hospital delivered mothers started feeding early as compared to 23.8% of their home delivered counterparts. This is due to increased motivation from health care workers, healthy patient environment among other mothers of the post-natal ward and expert supervision in form of doctors and nurses. Vaginally delivered (69.9%) women started early breastfeeding than caesarean section (28.5%) or other forms of labour (56%). This is attributed to post labour fitness of the mother, earlier oral intake and increased sense of wellbeing among vaginally delivered mothers.

Women who were 'kept nil by mouth' post procedure delayed feeding their child as compared to those who were allowed orally. Lactation, however, began at the same time approximately, for both these sets of women. There is no delay in lactation, as is the socio-culturally acceptable belief prevalent in this area.

Professional women had higher chances of early initiation of breastfeeding (71.7%) as compared to homemakers (41.6%). This may be due to their higher education and social understanding.

The contrast was striking when mothers from joint families (63.7%) started feeding earlier than women living in nuclear families (44.8%). The reason for such observable differences lies in the social support and guidance for women living with experienced members of their family. Male (67.3%) infants were fed earlier than female babies (42.7%).

There was no significant difference between term (57.4%) and preterm neonates (50.8%). The contrast was noteworthy when <2.2 kg infants were less often fed in the first hour of life (33.3%) than >2.2 kg birth weight infants who were started feeding earlier (61.9%). Hence, it becomes necessary to counsel women with lower birth weights to start feeding as soon as possible.

Despite strict instruction by the government to its healthcare workers, counselling post labour remains a privilege available only to around 57% of the population. The bridging of this gap becomes extremely crucial to motivate maximum mothers to start feeding their child as soon as possible.

## DISCUSSION

This study, among many of its kind, is a small attempt to understand the shortcomings of the current system to ensure immediate and exclusive breastfeeding to all new born babies. There are adequate regulations in place to ensure adequate, timely and appropriate counselling to post-natal women. However, the implementation remains dicey and hence, it becomes all the more important for us to ensure suitable counselling to all mothers. Pre lacteal feeds proved to have a major negative effect and need to be discouraged from grass root level for earlier neonatal breastfeeding. Emotionally and physically mature mothers feed babies earlier. Appropriate age along with socioeconomic and educational status have a crucial impact on the same.

This study is based on women of a homogenous geographical and sociocultural background. The results may vary with differences in the social standing of the mother.

There is diverse literature available with regards to this subject. The significant comparisons and contrasts have been selected for the purpose of this discussion.

According to ‘Counselling interventions to enable women to initiate and continue breastfeeding: a systematic review and meta-analysis’.<sup>1</sup> Breastfeeding counselling is an effective public health intervention to increase rates of any and exclusive breastfeeding.

From ‘determinants of breastfeeding initiation within the first hour of life in a Brazilian Population: cross sectional study’.<sup>2</sup> Intervention measures are needed to increase the prevalence of breastfeeding initiation within the first hour of life. These measures should be started during the prenatal period, with the development educational actions that place value on and clarify the advantages of breastfeeding within the first hour of life, thereby arousing the willingness and good intentions among mothers, with regard to placing the baby on the breast immediately after birth. Willingness among healthcare professionals is also needed, with regard to supporting and helping mothers in situations of vulnerability that cause delays in the first breastfeeding, such as occurrences of cesarean delivery and prematurity. Our study had similar results showing counselling having beneficial effect on early initiation of breastfeeding.<sup>2</sup>

The study concluded that the prevalence of early initiation of breastfeeding was 87.2% among mothers with children of two years or less in Kassala Eastern Sudan. However, an association with delayed initiation of breastfeeding was found amongst mothers who had medical disorders and those who had a male infant. Wherever possible, early initiation of breastfeeding should be promoted for all infants’ regardless of gender. The study conducted by us had results contrasting with respect to gender where female children were initiated breastfeeding later than male babies.<sup>3</sup>

The prevention of premature birth, limitation of caesarean section indication, management of maternal anaemia, regular and effective pregnancy follow-up visits are important for the early initiation of breastfeeding. We, in our setup, have focussed more on the socio-cultural profile of the mother, rather than the medical aspect of these mothers.<sup>4</sup>

Factors associated with and barriers to early initiation of breastfeeding in South Asia are predominantly on specific socioeconomic, health related. In the context of this study, we have tried to identify these factors and establish their relationship to the outcome.<sup>5</sup>

Study conducted by Noble S titled that employed women have reduced likelihood of initiating breastfeeding. As increasing numbers of mothers are returning to work shortly after the birth of their child, this finding could have significant implications for maintaining the current level of breastfeeding. Our study had contrasting conclusions where breastfeeding was initiated earlier among professionally employed women.<sup>6</sup>

Infants born before 40 weeks are at greater risk of being artificially fed than infants born at more than 40 weeks. The study conducted at our set up had more infants of >40 gestational weeks were given pre lacteal feeds more often than their <40week counterparts.<sup>7</sup>

Mothers who have experienced caesarean and assisted vaginal delivery need more support from health care professionals for early initiation of breastfeeding- We had similar results with mothers giving birth by non vaginal deliveries having delayed initiation of breastfeeding.<sup>8</sup>

Study conducted by Sarah Earle titled, concluded that the health promotion campaigns have been influential in their ability to educate women about the benefits of breastfeeding. This study also draws similar inference.<sup>9</sup>

Maternal health and education status, lack of information about advantages of breast feed and various other socioeconomic factors played a key role in affecting the breastfeeding practices- concluded a study our study also draws similar results.<sup>10</sup>

## CONCLUSION

The counselling and good sociocultural emotional support promotes early onset while pre lacteal feeds delay it. This research has tried provide an insight into existing socio-cultural practices and policy norms negatively affecting early onset of breastfeeding and potential for changes to improve the outcome for neonates.

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