

Assessing Breast Feeding Initiation and Influencing Factors in Postnatal Mothers: A Descriptive Survey

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Abstract: Initiation of breast feeding was assessed in terms of timing, attachment (latch-on) and maternal role performance in second and third breast feeding. Objectives were to assess initiation of breast feeding and identify the factors affecting initiation of breast feeding. The factors affecting initiation of breast feeding were obstetrical factors, newborn factors, situational factors, maternal awareness and maternal beliefs regarding initiation of breast feeding. Methodology: Descriptive survey design was used for this study. Population was mothers admitted for safe confinement in medical college hospital. Sample consists of 100 antenatal mothers who were selected by consecutive sampling. Structured questionnaire was used to assess maternal awareness and beliefs regarding initiation of breast feeding. Period of data collection was 10.04.2021 to 04.05.2021. Results showed that EIBF was observed as 80% mothers. Regarding latch-on 73% and 77% showed good attachment in second and third feeding respectively. Maternal role performance in second and third feeding observed among mothers was 69% and 73% respectively. EIBF had significant association with high-risk pregnancy, type of delivery, delivery event, birth weight and respiratory pattern of newborn ($p < 0.05$). There was a significant association found between LATCH score and variables such as type of delivery, birth weight and respiratory pattern of newborn and situational factors ($p < 0.05$). Study strongly recommends adopting revised BFHI guidelines 2018 in all maternity facilities.

Keywords: Factors of early initiation of breast feeding

1. Introduction

Breast feeding is essential for neonatal survival and postpartum recovery of mothers. Early initiation of breast feeding is the healthiest start of life. Putting newborn to the breast within first hour of life is a lifesaving intervention. It reduces chances of mortality and morbidity of both mother and newborn. Even babies are ready to suckle breast before cutting the umbilical cord. It is a descriptive study to assess the factors affecting initiation of breast feeding among mothers admitted in a tertiary care hospital, Thrissur. The main objectives of the study are:

- 1) Assess the practice of initiation of breast feeding among mothers
- 2) Identify factors affecting initiation of breast feeding
- 3) Find association between socio personal variables, maternal, neonatal and situational factors and initiation of breast feeding.

Breastfeeding is the most precious gift for a newborn by the mother. It is the safest, least allergic and best infant feeding method. Breast milk alone is the ideal nourishment for infants for the first six months of life, and also their "first immunization". It contains all the nutrients, antibodies, hormones and antioxidants that an infant need to thrive- the nurture provided by nature.

Globally out of 140 million babies born yearly, 5 are not breast fed in their first hour of life.⁽¹⁾ This means 0.04 million newborn are deprived of getting first feed in first hours of life. Early initiation of breast feeding was very poor in African countries with 65%. The situation is not better in Asian countries where 40% on average.⁽²⁾ In India, the current birth rate is 17.5/ 1000 population.⁽³⁾ The current NMR in India is 21.7/1000 live births⁽⁴⁾, while EIBF is 41.5%.⁽⁵⁾ There is a hidden causation of delayed initiation of breast feeding to increased NMR and MMR. The practice of EIBF is varies across states. Surveys showed that 44.6% in 2019 at Kolkata.⁽⁶⁾

In India, it is estimated that approximately 46% of maternal death and 40% still birth and new born death takes place on the day of delivery itself. Under RCH programme, the following states of Bihar, Madhya Pradesh, Uther Pradesh and Rajasthan showed poor performance in practicing EIBF. In Kerala, practice of EIBF reported was 62.5 %.⁽⁷⁾ In Thrissur district, 46620 births occur every year. A study conducted at tertiary hospitals of Thrissur district reveals that 58% of mothers initiated breast feeding within one hour.⁽⁸⁾ Factors influencing early initiation of breast feeding are identified as maternal neonatal organizational and other factors. Factors includes mother's antenatal, intranatal and postnatal conditions influences initiation of breast feeding. Obstetrical factors are high risk pregnancy, order of pregnancy, history of abortion, gestational weeks at labour, type of delivery, delivery events, fourth stage characteristics. Newborn factors also influence initiation of breast feeding. They are birth weight, sex of the baby, and APGAR score at one minutes and five minutes. Mother's awareness and beliefs the variables regarding initiation of breast feeding. Situational factors are completed time of immediate care of new born, shifting time from birthing unit and time of bedding in. Plurality of evidence suggested that factors of initiation of breast feeding requires healthy outcome of pregnancy from birth of new born.

The researcher, during her clinical experience identified that there are many factors which are influencing the initiation of breast feeding. Hence the researcher is interested in identifying the factors influencing initiation of breast feeding. So this study mainly focuses to identify factors influencing initiation of breast feeding and unearth the possible facilitating factors and barriers to suggest recommendation for effective implementations of early initiation of breast feeding in tertiary care centre.

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2. Methods and Material

A **quantitative approach** was adopted for the present study to assess the factors affecting initiation of breast feeding among mothers. The research design of this study is descriptive survey design. Descriptive method of collecting data from mothers by observation, clinical review and interview by using structured is the design in research study adopted. Each mother and new born are observed in the process of labour and immediate postpartum period. Time, latch-on and maternal role performance were observed. Factors affecting initiation of breast feeding identified are obstetrical, newborn factors, situational factors, maternal awareness and beliefs regarding initiation of breastfeeding. The time point of breast feeding was measured at first, second and third breast feeding. The study was conducted after getting approval from institutional Ethics committee of Government College of nursing, Thrissur and approval from KUHS, permission was obtained from medical superintendent and head of department of Govt. Medical College Hospital Thrissur. Researcher conducted main study in Govt. Medical College Hospital Thrissur from 10.04.2021 to 04.05.2021 among 100 mothers who are admitted for safe confinement. For selecting participants the investigator visited the antenatal wards every day. Identified the women admitted for safe confinement based on inclusion criteria. Investigator introduced herself and established rapport with them. After initial interaction the purpose of the study was explained. After obtaining willingness to participation the study, informed consent was obtained. Confidentiality of data was assured to all participants. On an average of 5-7 participants were selected every day for data collection using consecutive sampling technique. After ensuring comfortable seating arrangements tool 1 was administered to identify the socio personal variables of antenatal mothers. It took 5 minutes for each mother to complete the tool. At the time of first stage of labour researcher assisted in labour room and watched the status of labour. Researcher filled the data sheet on completed time immediate new born care, time of first feeding of newborn and time of shifting of mother to recovery room. Researcher completed tool 2 by using clinical record of mothers and postnatal assessment at immediate post partum period. Researcher noted time of breast feeding when mother initiated first breast feeding with support. Observed LATCH score and maternal role performance regarding initiation of breast feeding during second and third feeding at fourth stage station or postnatal ward by using observation checklist to assess LATCH score and maternal role performance. Researcher taken 2-5 minutes for assessing LATCH score and maternal role performance for each feeds. Researcher approached the mother who shifted from fourth stage station to postnatal ward administered tool IV and collected data include awareness and beliefs of mothers regarding initiation of breast feeding by interview method. The time taken for data collection was 5-10 minutes for each mothers.

3. Results

Major findings of the study

The findings were organized under the following headings:

Section 1: Socio personal variables of mothers

Section 2: Initiation of breast feeding related to time, LATCH score and maternal role performance of mothers

Section 3: Obstetrical factors and its association with initiation of breast feeding among mothers

Section 4: Newborn factors and its association with initiation of breast feeding among mothers

Section 5: Situational factors and its association with initiation of breast feeding among mothers

Section 6: Maternal awareness and beliefs and its association with initiation of breastfeeding among mothers

Section 7: Association between socio personal variables with initiation of breastfeeding among mothers

Section 1: Socio personal characteristics of mothers

- Among 100 mothers 31% of mothers belonged to the age group 24-28 years. The mean age of mothers was 27 ± 5.28 years
- Nearly half (48%) of mothers were graduate and 74% of them was homemakers.
- All mothers were married, 1% was separated from spouse. Majority (85%) of
- them were belonged to nuclear family and 75% were below poverty line.
- Majority (81%) of mothers had exposure to awareness on early initiation of breast feeding.

Section 2: Initiation of breast feeding among mothers

- Time- among 100 mothers 80% had early initiation of breast feeding within first hour and 20% were not breast initiated within first hour.
- Second breast feeding between 1-4 hours was observed among 46% of mothers. And 42% breast fed for second time after 4 hours. Regarding time of third breast feeding, 69% of mothers breast fed their newborn between 5-9 hours.
- Latch-on- Majority (73%) of mothers had good attachment with LATCH score 8-10 in second breast feeding, and majority (77%) of mothers had good attachment with LATCH score 8-10 in third breast feeding. Mean LATCH score was 7.27 ± 1.95 in second breast feeding. In third breast feeding it was 8.11 ± 1.77 .
- Maternal role performance- in second feeding majority (69%) of mothers had good maternal role performance. In third feeding, majority (73%) of mothers had good score of maternal role performance than second feeding. Mean score of maternal role in second feeding was 3.16 ± 1.61 . In third feeding it was 3.68 ± 1.45 .

Section 3: Obstetrical factors and its association with initiation of breast feeding among mothers

- Among mothers majority (62%) mothers were multi para and more than half (55%) of mothers had no high risk pregnancy and majority (80%) of them had no history of abortion. Majority (75%) mothers had normal delivery. 44% had fatigue and 76% had mild pain after delivery.
- Time- There was a significant association found between selected obstetrical factors and time of initiation of breast feeding. There was a significant association between time and events during labour and pain after delivery
- Latch-on- There was a significant associations found between selected obstetrical factors and LATCH score of initiation of breast feeding. There was a significant

association between LATCH score and type of delivery, events during labour fatigue and pain after delivery.

- Maternal role performance- There was a significant associations found between selected obstetrical factors and maternal role performance of initiation of breast feeding. The was a significant association between maternal role performance and high risk pregnancy, type of delivery, events during labour and pain after delivery.

Section 4: Newborn factors and its association with initiation of breast feeding

- Among newborns, majority of newborns had more than 2.5kg of weight and more than half (51%) of newborns were male. Most (91%) of the new-borns had APGAR score of 8-10 at 1 minute and most (99%) of the new-borns had APGAR score of more than 8-10 at 5 minutes.
- Time- There was a significant association found between selected newborn factors and time of initiation of breast feeding. The was a significant association between time and birth weight and respiratory pattern immediate after birth.
- Latch-on- There was a significant association found between selected newbornfactors and LATCH score of initiation of breast feeding. The was a significant association between LATCH score and birth weight and respiratory pattern.
- Maternal role performance- There was a significant association found betweenselected newborn factors and maternal role performance of initiation of breast feeding. The was a significant association between maternal role performance and birth weight and respiratory pattern.

Section 5: Situational factors and its association with initiation of breast feeding

- Regarding situational factors, most (91%) of the immediate care of new born were completed within 10 minutes. Majority (68%) of mothers were shifted to recovery room within 30 minutes. Majority (62%) of mothers and new- borns had bedding in within 1 hour.
- Time- There was a significant association found between selected situational factors and time of initiation of breast feeding. The was a significant association between time and completed time of immediate care of newborn, time of bedding in and shifting time to fourth stage station.
- Latch-on- There was significant associations found between selected situational factors and LATCH score of initiation of breast feeding. The was a significant association between LATCH score and completed time of immediate care of newborn, time of bedding in and shifting time to fourth stage station.

Section 6: Maternal awareness and beliefs and its association with initiation of breast feeding.

- Among mothers, majority (69%) of mothers had adequate awareness regarding initiation of breast feeding. Most (96%) of the mothers had favourable beliefs regarding initiation of breast feeding.
- Latch-on- There was no significant association found between maternal awareness and beliefs with LATCH score of initiation of breast feeding.
- Maternal role performance- There was a no significant association found between maternal awareness and maternal role performance of initiation of breast feeding.

Table 12: Association between antenatal factors and time of initiation of breast feedingamong mothers, (n=100)

Antenatal history	Time of initiation of breast feeding		df	χ ²	P value
	Early initiation	Delayed initiation			
Order of pregnancy					
Primi para	31	7	1	0.09	0.75
Multi para	49	13			
History of abortion					
Yes	16	4	1	0	1
No	64	16			
High risk pregnancy					
No	55	7	2	9.3	0.01**
GDM/PIH	16	6			
Others	9	9			

**significant at 0.01 level

From table 12, it is shows that chi square value between time of initiation of breast feeding with order of pregnancy, history of abortion and high-risk pregnancy among mothers. Chi square value between time of initiation of breast feeding and order of pregnancy (χ² 0.09, p 0.75.), history of abortion (χ² 0.01, p 1.0). Since the p value was greater than 0.05, the null hypothesis was accepted. It is interpreted that there was no significant association between time of initiation of breast feeding with order of pregnancy and history of abortion among mothers.

The chi square value calculated between initiation of early initiation of breast feeding and high risk pregnancy among mothers was 9.30 with a p value 0.01.Since the p value was less than 0.05, the null hypothesis was not accepted. It is interpreted that there was a significant association between time of initiation of breast feeding and high risk pregnancy among mothers.

Table 16: Association between intranatal factors and time of initiation of breast feedingamong mothers, (n=100)

Intranatal factors	Initiation of breast feeding		Df	χ ²	p value
	Early initiation	Delayed initiation			
Type of delivery					
Normal	68	7	1	21.54	0.00***
LSCS	12	13			
Delivery event					
Uneventful	72	13	1	7.84	0.01**
Complicated	8	7			

***significant at 0.001, ** significant at 0.001

Table 16 shows that chi square value between time of initiation of breast feeding and type of delivery among mothers was 21.54 with a p value 0.00. Sincethe p value was less than 0.05, the null hypothesis was not accepted. It is interpreted that there was a significant association between time of initiation of breast feeding and type of delivery among mothers.

The chi square value calculated between time of initiation of breast feeding and delivery events among mothers was 7.84 with a p value 0.00. Since thep value was less than 0.05, the null hypothesis was not accepted. It is interpreted thatthere was a significant association between time of initiation of breast feeding and type of delivery among mothers.

Table 20: Association between postnatal factors and time of initiation of breast feeding among mothers, (n=100)

Postnatal factors	Time of initiation of breast feeding		df	χ ²	p value
	Early initiation	Delayed initiation			
Fatigue after delivery					
Yes	35	9	1	0.01	0.19
No	45	11			
Pain after delivery					
Moderate Pain	67	9	1	13.17	0.001***
Severe pain	13	11			

***significant at 0.001

Table 20 shows that chi square value between time of initiation of breast feeding and fatigue after delivery among mothers was 0.010 with a p value 0.19. Since the p value was greater than 0.05, the null hypothesis was accepted. It is interpreted that there was no significant association between time of initiation of breast feeding and fatigue after delivery among mothers.

The chi square value calculated between time of initiation of breast feeding and pain after delivery among mothers was 13.17 with a p value 0.001. Since the p value was less than 0.05, the null hypothesis was not accepted. It is interpreted that there was a significant association between time of initiation of breast feeding and pain after delivery among mothers.

Table 29: Association between situational factors with time of initiation of breast feeding among mothers, (n=100)

Situational factors	Time of initiation of breast feeding		Fisher's exact value	P Value
	Early initiation	Delayed initiation		
Time of immediate care of new born				
Within 10 minutes	75	16	3.69	0.05*
11-30 minutes	5	4		
Time of bedding in				
Within one hour	59	3	23.44	0.001***
>One hour	21	17		
Shifting time to fourth stage station (Min)				
Within 30 minutes	64	4	27.75	0.00***
31-60	14	12		
61-90	2	4		

*significant at 0.05 level, *** significant at 0.001

Table 29 shows that Fisher's exact value between time of initiation of breast feeding and time of immediate care of new borns after birth among neonates was 3.69 with a p value 0.05. Since the p value was less than 0.05, the null hypothesis was not accepted. It is interpreted that there was a significant association between time of initiation and time of immediate care of new born after birth.

The Fisher's exact value between time of initiation of breast feeding and time of bedding in among mothers and neonates was 23.44 with a p value 0.00. Since the p value was less than 0.05, the null hypothesis was not accepted. It is interpreted that there was a significant association between time of initiation of breast feeding and time of bedding in among mothers and neonates.

The Fisher's exact value between time of initiation of breast feeding and shifting time to fourth stage station among mothers was 2.64 with a p value 0.00. Since the p value was

Table 25: Association between newborn factors and time of initiation of breast feeding among mothers, (n=100)

Newborn factors	Initiation of breast feeding		df	χ ²	p value
	Early initiation	Delayed Initiation			
Birth weight					
≤ 2.5kg	19	12	1	9.82	0.003**
>2.5 kg	61	8			
Respiration					
Spontaneous	72	14	1	5.31	0.03*
After stimulation	8	6			

*significant at 0.05 level, ** significant at 0.01 level.

Table 25 shows that chi square value between time of initiation of breast feeding and birth weight among newborns was 9.82 with a p value 0.003. Since the p value was less than 0.05, the null hypothesis was not accepted. It is interpreted that there was a significant association between time of initiation of breast feeding and birth weight among neonates.

The chi square value between time of initiation of breast feeding and respiration among neonates was 7.84 with a p value 0.03. Since the p value was less than 0.05, the null hypothesis was not accepted. It is interpreted that there was a significant association between time of initiation of breast feeding and respiration among neonates.

less than 0.05, the null hypothesis was not accepted. It is interpreted that there was a significant association between time of initiation of breast feeding and shifting time to recovery room among mothers.

4. Conclusion

The study was conducted to identify factors affecting initiation of breast feeding among mothers in a tertiary care hospital. Mothers who are admitted for safe confinement are the study participants. Early initiation of breast feeding is the healthiest beginning of life. It reduces mortality and morbidity of both mother and new born. There were so many programmes for EIBF. But some studies showed that EIBF rate is not attained at 100%.

So, there was a need to gather data regarding factors influencing initiation of breast feeding. In this study initiation of breast feeding assessed in terms of three aspects

including time of 1st, 2nd and 3rd breast feeding, latch-on (good, moderate and poor LATCH score) and maternal role performance (good and poor maternal role performance) of second and third breast feeding.

The study results showed that 80% of mothers-initiated breast feeding within one hour. In second breast feeding, 73% mothers had good attachment and 69% of mothers had good maternal role performance. Factors influencing initiation of breast feeding in this study are obstetrical, newborn and situational factors.

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