

Effect of Initiation of Breastfeeding on Maternal–Newborn Attachment: A Cross-sectional Study

P. Alagh*, T. Jiwan, M. Mohi

Abstract

Introduction: Breastfeeding is the best approach for meeting an infant's psychological and physiological needs. The importance of breastfeeding is best understood in light of the fact that early breastfeeding initiation and skin-to-skin contact soon after birth are essential for a newborn's survival. The connection between a mother and her infant plays a vital role in a child's growth and maturation. Hence, a research investigation was carried out to analyse how the act of beginning breastfeeding impacts the attachment between mothers and their newborns. **Methods:** The study employed a cross-sectional format to evaluate the correlation between the commencement of breastfeeding and the attachment between mothers and their newborns after childbirth. Total of 90 postnatal mothers were selected by convenience sampling technique. Postnatal mothers were contacted on 3rd day of delivery to ask about socio-demographic information and the time for initiation of breast feeding. After 6 weeks of delivery, telephonic information was collected regarding maternal new-born attachment by standardized maternal postnatal attachment scale. **Results:** Maximum (62.2%) postnatal mothers initiated breastfeeding within 1–4 h followed by >8 h (14.4%), 5–8 h (13.3%) and within 1 h (10%) respectively. Majority (96.7%) of postnatal mothers had very good level of maternal postnatal attachment with newborn. There was no significant effect of breastfeeding initiation time on maternal newborn attachment among postnatal mothers. **Conclusion:** There was no significant association found between initiation time of breastfeeding and maternal newborn attachment, though the mean difference suggests the effect of initiation of breastfeeding on maternal newborn attachment among postnatal mothers.

Keywords: Initiation time, breastfeeding, maternal newborn attachment, postnatal mothers

INTRODUCTION

Breastfeeding is the infant's “passport to life” for the vast majority of children. It is also the first vaccine that necessitates a “warm chain” created by mother-infant interaction [1]. Breastfeeding is supported by health organisations not just as the healthiest nutritional option, but also as a way to increase the emotional link, or attachment, between mothers and newborn [2].

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Breastfeeding is considered in particular to enhance the parenting activity and bonding development of mothers, as well as to strengthen baby attachment. That is, as a result of physical, biochemical, psychological and harmonious experiences during breastfeeding, maternal attachment builds up, allowing infants to receive visual, tactile, and auditory input [3, 4].

The importance of breastfeeding is best understood in light of the fact that early breastfeeding initiation and skin-to-skin contact soon after birth are essential for a newborn's survival [5]. Early initiation of breastfeeding (EIBF) is described as “providing mothers' breast milk to infants within the first hour of birth and ensures the newborn receives colostrum [6].

The guidance from the World Health Organization suggests initiating breastfeeding within the first hour after childbirth, exclusively breastfeeding infants for the initial 6 months, and maintaining breastfeeding alongside complementary nutrition for a duration of 2 years or more [7]. Basically, skin-to-skin contact involves putting the infant in close proximity to the mother's skin to help the infant locate and latch onto the breast. Oxytocin, a hormone that promotes breast milk production and helps to build the attachment between a mother and her child, is also increased as a result of this in the mother [5].

Maternal attachment refers to the deep emotional connection and bond between a mother and her baby, which plays a significant role in promoting healthy development in infants. The initial attachment experience between the mother and baby serves as a foundation for the baby's future attachment experiences [8].

Breastfeeding is the best approach for meeting an infant's psychological and physiological needs. After childbirth, breastfeeding creates a unique connection between the mother and her child [1]. Breastfeeding initiated within 1 h of delivery enhances mother-newborn interaction and bonding [9].

Compared to alternative feeding methods, breastfeeding provides increased opportunities for maternal contact, additional bonding time between the mother and child, greater emotional nurturing, as well as direct sensory input through nipple stimulation and immediate responsiveness to infant signals [10]. As per data provided by the Ministry of Health and Family Welfare in India, the percentage of newborns who received breastfeeding within 1 h of birth increased over the years. In 2009–2010, the rate was reported at 63.3%, which rose to 71.5% in 2010–2011, further increasing to 79.2% in 2011–2012, and reaching 82.3% in 2012–2013. These figures indicate a positive trend of more newborns being breastfed within the critical first hour after birth during the specified years [11].

Despite years of thorough research, there remains an insufficiency of substantial proof to enable the early detection of families susceptible to experiencing inadequate maternal attachment. Additionally, there are limited known interventions that have proven effectiveness in promoting maternal attachment. Maternal attachment is widely recognized as a crucial factor in a child's development. However, it remains unclear whether maternal bonding encourages breastfeeding or if the opposite relationship exists. Additional research is required to clarify the intricate interactions between maternal attachment and breastfeeding [12].

The World Health Organization (WHO) recommends breastfeeding initiation within 1 h of delivery. However, there have been no studies conducted at the institute to investigate the effect of breastfeeding initiation on “maternal-newborn attachment” [7]. Therefore, there is a need to undertake a study to assess the impact of breastfeeding initiation on the bond between mothers and newborns. This study aims to provide valuable insights into the relationship between breastfeeding initiation and maternal-newborn attachment.

OBJECTIVES

The objectives of the study are as follows:

1. To evaluate the impact of breastfeeding initiation on maternal-newborn attachment among postnatal mothers.
2. To investigate the association between selected socio-demographic variables and maternal-newborn attachment among postnatal mothers.

MATERIAL AND METHODS

Research Approach and Research Design

The quantitative research approach and non-experimental cross sectional descriptive research design was utilized to find out the effect of initiation of breastfeeding on maternal newborn attachment.

Research Setting

This was conducted in the obstetrical ward of Govt. Rajindra and Mata Kaushalya hospitals of Patiala, Punjab. This research setting was chosen based on the availability of subjects within these hospitals.

Sample and Sampling Technique

The researchers employed a non-probability convenience sampling technique to select the 90 subjects. This sampling approach entails selecting postnatal mothers who are conveniently reachable and willing to take part in the study, without adhering to a random selection procedure.

Criteria for Sample Selection

Inclusion Criteria

Postnatal mothers who:

- Delivered a newborn with vaginal delivery and lower segment caesarean section.
- Delivered at ≥ 37 weeks period of gestation.
- Willing to participate in the study.

Exclusion Criteria

- Postnatal mothers who encountered various obstetrical complications and medical-surgical diseases that hindered the initiation of breastfeeding. These complications may have included conditions such as post-partum haemorrhage and post-partum psychosis, which could impact the ability to initiate breastfeeding.
- Furthermore, the study took into account scenarios in which the newborn experienced congenital abnormalities that hindered the breastfeeding process. Furthermore, the study also included newborn that were shifted to the Neonatal Intensive Care Unit (NICU) and those with medical-surgical problems that contraindicated direct breastfeeding.

Description of Tool

The research tools included:

Part I: Socio-demographic profile.

Part II: standardized maternal postnatal attachment scale to assess maternal-newborn attachment.

Reliability of standardized maternal postnatal attachment scale by split half coefficient was 0.86.

Data Collection Protocol

Prior to gathering information, the investigator introduced themselves to the subjects and provided a clear explanation of the study purpose after determining whether the subjects met the inclusive and exclusive criteria for participation in the study. 90 postnatal mothers were contacted on 3rd day of delivery to ask about socio-demographic information and the time for initiation of breast feeding. After 6 weeks of delivery, data regarding maternal new-born attachment by using standardized Maternal Postnatal attachment Scale was collected telephonically.

Ethical Consideration

The study followed appropriate ethical procedures and obtained necessary approvals and permissions. Approval from the Institutional Ethics Committee was secured from Govt. Rajindra Hospital in Patiala. Additionally, written permission was obtained from the Head of the Department (HOD) of Obstetrics and Gynaecology at Govt. Rajindra and Mata Kaushalya Hospital in Patiala.

Written consent was obtained from the subjects, indicating their voluntary participation in the study. The study ensured the anonymity of the subjects and maintained confidentiality of their information throughout the entire procedure. Furthermore, the permission for the utilization of standardized maternal newborn attachment scale was also obtained.

RESULTS

The study included a total of 90 postnatal mothers who were enrolled and considered for analysis. The collected data from these participants underwent analysis employing both descriptive and inferential statistical methods.

Table 1 depicts that maximum postnatal women (44.4 and 48.9%) lying in age group 24–29 years were illiterate. Under socioeconomic class, 46.7% postnatal women were in lower middle class. Table 2 revealed that mostly (90%) had wanted pregnancy. Under parity (52.2%) were multipara and maximum (32.2%) had one children. Maximum (53.3%) had normal vaginal delivery with episiotomy.

Table 1. Frequency and percentage distribution of Socio-demographic variables among postnatal mothers. (N=90).

S.N.	Socio-demographic variables	f	%
1	<i>Age (years)</i>		
	18–23	35	38.9
	24–29	40	44.4
	30–35	12	13.3
	>35	3	3.3
2	<i>Qualification</i>		
	Illiterate	44	48.9
	Up to matriculation	20	22.2
	10+2	15	16.7
	Graduate and above	11	12.2
3	<i>Socioeconomic class</i>		
	Upper	19	21.1
	Upper middle	29	32.2
	Lower middle	42	46.7
	Upper lower	–	–
	Lower	–	–

Table 2. Frequency and percentage distribution of clinical profile among postnatal mothers. (N=90)

S.N.	Clinical profile	f	%
1	<i>Pregnancy</i>		
	Wanted	81	90.0
	Unwanted	09	10.0
2	<i>Parity</i>		
	Primipara	43	47.8
	Multipara	47	52.2
	<i>If multipara than number of children:</i>		
	None (died)	03	3.3
	One	29	32.2
	Two	12	13.3
	More than two	03	3.3
3	<i>Mode of delivery</i>		
	Normal vaginal delivery	04	4.4
	Normal vaginal delivery with episiotomy	48	53.3
	Forceps/ventouse	–	–
	Lower segment caesarean section	38	42.2

Table 3 depicts that under gender, 52.2% were female newborn and maximum (72.2%) newborn weight was 2.5–3.0 kg.

Figure 1 reveals that maximum (62.2%) postnatal mothers initiated breastfeeding within 1–4 h followed by >8 h (14.4%), 5–8 h (13.3%) and within 1 h (10%).

Figure 2 depicts that majority (96.7%) of postnatal mothers had very good level of maternal postnatal attachment with newborn.

Table 3. Frequency and percentage distribution of newborn variables among postnatal mothers. (N=90)

S.N.	Newborn variables	F	%
1	Gender of newborn		
	Male	43	47.8
	Female	47	52.2
2	Weight at birth (kg)		
	<2.5	04	4.4
	2.5–3.0	65	72.2
	>3.0	21	23.3

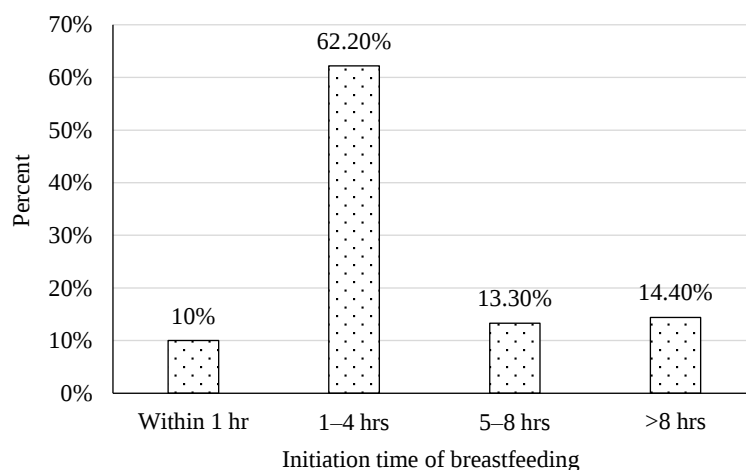


Figure 1. Percentage distribution of Postnatal mothers according to initiation time of breastfeeding.

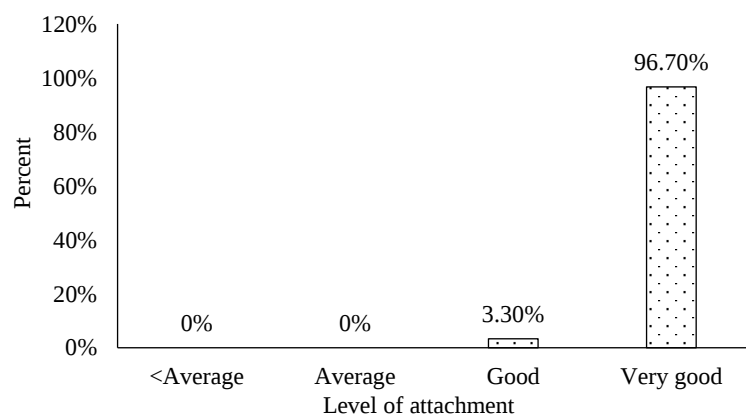


Figure 2. Percentage distribution of postnatal mothers according to Level of Maternal Newborn Attachment.

Table 4 depicts that postnatal mothers initiated breastfeeding within 1 h had slightly higher mean attachment score (89.03), followed by 1–4 h (88.26), 5–8 h (87.03) and more than 8 h (87.09).

Based on the ANOVA, the difference in mean attachment score was found statistically non-significant. Hence it can be ascertained that initiation time of breastfeeding had no influence on maternal newborn attachment.

Table 5 depicts that based on the ANOVA and t test, the mean attachment score of all demographic variables was found statistically non-significant. Hence it can be concluded that demographic variables had no impact on maternal newborn attachment among breastfeeding postnatal mothers.

Table 4. Association of initiation time of breastfeeding with maternal newborn Attachment among Postnatal mothers. (N=90)

Initiation time of breastfeeding	Attachment score					
	<i>n</i>	<i>Mean</i>	<i>SD</i>	<i>F</i>	<i>df</i>	<i>p</i>
Within 1 h	9	89.03	4.25	0.91 ^{NS}	86/3	0.44
1–4 h	56	88.26	2.86			
5–8 h	12	87.03	2.95			
>8 h	13	87.09	1.76			

Maximum Score: 95, Minimum Score: 19, NS: Non significant

Table 5. Association of selected variables with attachment among breastfeeding postnatal mothers. (N=90)

S.N.	Variables	<i>n</i>	<i>Mean</i>	<i>SD</i>	<i>F/t</i>	<i>df</i>	<i>P</i>
1	Clinical variables						
	Pregnancy:						
	Wanted	81	88.4	2.6	1.94 ^{NS}	88	0.05
	Unwanted	09	86.4	4.3			
2	Parity:						
	Primipara	43	88.7	2.4	1.48 ^{NS}	88	0.14
	Multipara	47	87.8	3.2			
	If multipara than number of children:						
	None (died)	03	-	-	1.54 ^{NS}	2/41	0.22
	One	29	87.9	2.9			
	Two	12	88.5	2.3			
	More than two	03	85.1	5.4			
3	Mode of delivery						
	Normal vaginal delivery	04	88.8	1.7	0.41 ^{NS}	2/87	0.66
	Normal vaginal delivery with episiotomy	48	87.9	3.0			
	Forceps/ventouse	-	-				
	Lower segment caesarean section	38	88.4	2.4			
6	Newborn variables						
	Gender of newborn:						
	Male	43	88.2	3.0	0.06 ^{NS}	88	0.95
	Female	47	88.2	2.8			
7	Weight at birth (kg):						
	<2.5	4	90.0	0.0	1.3 ^{NS}	2/87	0.25
	2.5–3.0	65	88.3	2.5			
	>3.0	21	87.5	3.9			

NS: Non-significant.

DISCUSSION

The study was undertaken with the objective of assessing the effect of breastfeeding initiation on maternal-newborn attachment, recognizing that there is variation in the practice of breastfeeding initiation across different institutions, despite the World Health Organization's recommendation of initiating breastfeeding within the first hour of delivery.

This study depicts that 56 (62.2%) postnatal mothers initiated breastfeeding within 1–4 hours followed by 12 (13.3%) 5–8 hours and 9 (10%) within 1 hour. Thus 77 (85.5%) postnatal mothers initiated breastfeeding within 8 hours. The results are corroborated by the research, which indicated that among infants with birth weights exceeding 2500 gm, breastfeeding initiation occurred within the first hour for 146 cases (41.83%) and within 1–4 h for 172 cases (49.28%). Thus, 91.1% initiated breastfeeding in first 8 h [13].

Mother-to-infant bonding rates were greater, according to a study conducted to assess newborn mothers' bonding status in Turkey [14]. The majority of postnatal mothers (96.7%) reported very good levels of maternal postnatal attachment with their newborn, according to the study's findings.

Postnatal mothers who initiated breastfeeding within an hour had a mean attachment score (89.03) followed by 1–4 h (88.26), 5–8 h (87.03), and more than 8 h (87.09). The mother's bond to her newborn has no significant impact on the timing of breastfeeding initiation. It is significant to highlight that breastfeeding has not always been proven to be directly related to attachment quality in this context. For instance, several researches did not discover a link between mother-infant bonding and breastfeeding experience [10, 15]. These results go counter to the study's finding that breastfeeding should begin within an hour of delivery in order to promote mother-newborn baby attachment [9].

Results of study indicate that all the demographic variables (Pregnancy, parity, number of children, mode of delivery, gender and weight of newborn) did not influence maternal attachment with newborn. The study revealed that the attachment score of postnatal mothers who had wanted pregnancy is more than unwanted pregnancy. These findings are similar to the study which concluded that bonding states of the mothers who were willing for their pregnancies were more positive [14]. The findings of the study are consistent with previous research that suggests a correlation between the level of maternal bonding and the number of pregnancies and children. Specifically, as the number of pregnancies and children increases, the level of maternal bonding tends to decrease [16].

Furthermore, similar to the findings of the current study, previous research has also reported no significant relationship between maternal attachment and the type of birth. This means that whether the birth is vaginal or through a caesarean section does not seem to have a substantial impact on the maternal-newborn attachment bond, at least as assessed by the measures used in these studies [17, 18]. This study is supported by the results of the studies which did not show significant relationships between maternal postpartum bonding and a child's characteristics (gender of the baby and birth weight) [9, 19].

CONCLUSION

The study concludes that maximum postnatal mothers initiated breastfeeding within 4 h and have very good maternal newborn attachment. There was no significant association found between initiation time of breastfeeding and maternal newborn attachment among postnatal mothers and newborns at 6 weeks of postnatal period.

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Nil.

Conflicts of Interest

There is no conflict of interest.

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