DOI: https://doi.org/10.47391/JPMA.683

Cesarean-sections and early initiation of breast-feeding practices in tertiary care hospitals of Islamabad

Urooj Aqeel[1], Ramesh Kumar[2], Ukasha Ishfaq[3]

1 Ministry of National Health Services Regulation and Coordination, Islamabad, Pakistan; **2** Health Services Academy, Islamabad, Pakistan; **3** SEMC Limited, Lahore, Pakistan

Correspondence: Urooj Aqeel. **Email:** uroojdowhite@hotmail.com

Abstract

Objective: To assess the effect of caesarean section and factors influencing early initiation of breastfeeding by mothers.

Method: The cross-sectional study was conducted at Pakistan Institute Of Medical Sciences, Islamabad, and Polyclinic Hospital, Islamabad, Pakistan, from November 2016 to January 2017, and comprised women who had given birth through caesarean section. Data was collected using a standardised questionnaire which was modified accordingly. Data was analysed using SPSS 20.

Results: Of the 150 subjects ahed 18-49 years, 95(63.3%) breastfed their babies but not within the initial hour of the birth, as 104(69.3%) were in the recovery room post-surgery. As such, 141(94%) of the infants were given formula feeds. Overall, 120(80%) babies met their mother between 1 and five hours. In 54(57%) babies, breastfeeding was started within 6-12 hours after birth, and 149(98.7%) women had postoperative pain which delayed initiation of breastfeeding.

Conclusion: Caesarean sections were found to be associated with reduced breastfeeding rates in the initial one hour post-surgery.

Key Words: Caesarean section, Mode of birth, Vaginal delivery, Breastfeeding, Postpartum.

Introduction

Recommendations of the World Health Organisation (WHO) stipulate exclusive breastfeeding for the first 6 months of life, and complimentary foods should be introduced from 6 to 24 months along with breastfeeding[1]. The Innocenti Declaration was produced and adopted in the 1990s as part og a global effort to protect, promote and support breastfeeding. The Baby-Friendly Hospital Initiative (BFHI) was launched by the WHO and the United Nations International Children's Emergency Fund (UNICEF) in 1991[2]. The UNICEF and the WHO have promoted early initiation of breastfeeding (EIBF) to reduce vulnerability and magnitude of infectious diseases, infant morbidity and mortality through programmes, like BFHI, Community Integrated Management of Childhood Illness (C-IMCI) and Infant and Young Child Feeding (IYCF)[3,4]. EIBF refers to the early start of breastfeeding infants within an hour of birth and it should include the colostrum. Current evidence indicates that to initiate early breastfeeding skin-to-skin contact between mothers and newborns is necessary right after birth to increases the possibility of exclusive breastfeeding and it reduces the risk of hypothermia [5, 6]

Exclusive breastfeeding rate in Pakistan is 38%, which is alarmingly low, EIBF rate is 18%, bottle-feeding rate has moved from 32.1% in 2006-07 to 42% in 2012-13 [7,8,9,10]. EIBF is part of the 10 steps of breastfeeding practice and core indicators of assessing appropriate infant and young child feeding practice [11].

It is an ongoing practice for mothers and babies to meet after several hours following a caesarean section (CS), resulting in fewer opportunities for early skin-to-skin contact and the initiation of breastfeeding [12].

The mode of delivery has got considerable impact on breastfeeding practices and is considered inversely associated with CS. It is considered an ongoing risk

factor for not feeding the baby in the first hour of life. Several studies show that mothers giving birth vaginally have got higher rates of breastfeeding than those who undergo CS[11-16]. The explanation of difference between the two groups is the morbidity associated with CS, anaesthetics, and the mothers' psychological liability related to not delivering normally and fatigue from a difficult delivery that should be included as a part of interventions[17,18]. Mothers who had CS stated the possible reasons for not feeding their babies in the first few hours, like the pain which results in reduced strength to hold the baby and to maintain positioning[6,11,12]. It is a routine practice that babies are detached from their mothers, and given bottle feed[8]. Proper support and awareness of health experts regarding CS deliveries and breastfeeding training programmes are essential EIBF interventions[19].

The current study was planned to assess CS effects and factors influencing EIBF by such mothers

Subjects and Methods

The cross-sectional study was conducted at Pakistan Institute Of Medical Sciences, Islamabad, and Polyclinic Hospital, Islamabad, Pakistan, from November 2016 to January 2017, and comprised women who had given birth through CS. Both the hospitals are the Baby Friendly Initiative (BFI) hospitals and follow the standard BFI protocols and guidelines [1].

After approval from the ethics review board of the Health Services Academy, Islamabad, the sample size was calculated using the formula for determining prevalence of one proportion with an assumed prevalence of 50% for EIBF among women who experienced a CS- procedure. The assumptions used for specifying the Type I and Type II error pertained to a specified level of significance to be 95%, using value of p as 0.5, 1-p as 0.5, alpha as 0.05 and value of z as 1.67 for one-sided sample calculation. The estimated sample size

was incremented by 10% to cover up for refusals and was multiplied by two owing to the two study sites[20.]

The sample was raised using convenience sampling technique from among women of child-bearing age who had delivered their babies through CS at the two hospitals. Those with post-operative complications were excluded.

After taking informed written consent from the subjects, they were interviewed at a time when they were available, stable and out of the pain post-CS.

Data was collected using a pre-structured questionnaire that had socio-demographic, antenatal, postpartum and breastfeeding sections.

Data was analysed using SPSS 20. Descriptive analysis was performed to describe the composition of different variables. Frequencies and percentages were calculated for categorical data.

Results

All the 150(100%) subjects aged 18-49 years were given spinal anaesthesia. Of them, 95(63.3%) subjects breastfed their babies but not within the initial hour of the birth, as 104(69.3%) were in the recovery room post-surgery. As such, 141(94%) of the infants were given formula feeds. Overall, 120(80%) babies met their mother between 1 and five hours. In 54(57%) babies, breastfeeding was started within 6-12 hours after birth, and 149(98.7%) women had postoperative pain which delayed the initiation of breastfeeding. **Br** Babies were not given skin-to-skin contact to prevent them from hypothermia (Table).

Discussion

The findings indicated that CS was associated with reduced breastfeeding success in the initial one hour. Similar findings have been reported earlier.[5,16,21].

This current study noted several factors affecting breastfeeding practices in the initial hour post-CS. It was been observed that mothers were mostly detained in the recovery room, they were under spinal anaesthesia, and emotionally unable

to breastfeed their babies. Studies have explained that CS is associated with co-morbidity. Anaesthetics and the emotional upheaval since the mother was unable to deliver vaginally affect EIBF[13,22].

In the current study, pain was one of the significant factors which interfered with the mother's ability to feed. The babies were kept in the nurseries and were given formula feeds, which further delayed EIBF. One study also noticed similar phenomenon[12,23].

Almost all CS mothers were not exclusively breastfeeding their babies and formula feed was given before they were handed over to their mothers. This was also observed by a study [24].

Skin-to-skin contact increases intimacy and prevents the baby from hypothermia and can be an important factor for EIBF. In this study, it was observed that neither such contact was given to the babies nor any prenatal guidance was given in this regard. A study explained the importance of skin-to-skin contact after the birth. Increasing the chances of such contact can improve the probability of exclusive breastfeeding practices[25]. One study also observed that skin-to-skin placement of the infant in the operating room and the initiation of breastfeeding is part of gentle CS delivery technique [26].

Conclusion

Planned CS were found to be associated with reduced breastfeeding success in the initial one hour post-surgery. As such CS negatively affects exclusive breastfeeding initiation.

Disclaimer: The text is based on Master of Science Public Health (MSPH) thesis done at the in Health Services Academy, Islamabad, Pakistan.

Conflict of Interest: None.

Source of Funding: None.

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228 **Table: Breastfeeding variables.**

	Breast feeding variable	**N (%)**
1.	**Breastfeeding given**	
	Yes	95 (63.3%)
	No	55(36.7%)
	If not breastfed	
	Expressed milk	0
	Formula milk	141(94%)
	Any other	0
	Nothing	9(6.0%)
2.	**Baby met with mother**	
	<1	3(2.0%)
	1-5	120(80%)
	6-10	14(9.3%)
	>10	13(8.7%)
3.	**Time interval Breastfeeding started after Caesarean section**	
	<1	1(0.7%)
	1-6	31(20.7%)
	6-12	54(57.3%)
	>12	13 (8.7%)
	Not given	51(34.0%)
4.	**Reason not breastfeeding within hour**	
	Mother was in recovery room	104(69.3%)
	Baby was in nursery	46(30.7%)
5.	**Skin to skin contact**	
	No	150(100.0%)

6.	**Substitute for breastfeeding**	
	I requested	11(7.3%)
	Doctor or staff recommended	133(88.7%)
	Not required	6(4.0%)
7.	**Inclined to breastfeeding**	
	Yes	8(5.3%)
	No	38(25.3)
	Yes, after I get stable	104(69.3%)
8.	**Prelacteal feed**	
	Yes	3(2.0%)
	No	147(98.0%)
9.	**Liquids other than feed**	
	Other fluid	1(0.7%)
	Honey	1(0.7%)
	Nothing	148(98.7%)
10.	**Breastfeeding help from hospital staff**	
	No	150(100%)
11.	**Breastfeeding physical factors**	
	Post-operative pain	149(98.7%)
	Immobility	1(0.7%)
12.	**Breastfeeding emotional factors**	
	Yes	150 (100%)
	Positioning	
	Yes	150(100%)