

Associative Factors Involved in Avoidance of Exclusive and Non-Exclusive Breastfeeding after C-section

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ABSTRACT

Objective: To look for the associative factors in avoidance of exclusive and non-exclusive breastfeeding among mothers after lower segment Caesarean section.

Study Design: Cross-sectional study.

Place and Duration of Study: Paediatrics department, Pak Emirates Military Hospital, Rawalpindi Pakistan, from Oct to Mar 2020.

Methodology: Mothers bringing their infants for vaccination at six weeks of age with babies born with lower segment caesarean section were included in the study. They were asked simple questions regarding exclusive or non-exclusive breastfeeding. Relevant socio-demographic factors were also recorded and compared among mothers breastfeeding their babies and those avoiding it.

Results: A total of 500 mothers were included in the study. The mean age of the study participants was 33.576±9.174 years. 336(67.2%) women were primiparous, while 164(32.8%) were multiparous. 208(41.6%) women were actively breastfeeding their child, while 292(58.4%) avoided breastfeeding their babies. 150(72.1%) women were non-exclusively breastfeeding, while 58(27.9%) showed an exclusive breastfeeding pattern. Pearson chi-square test revealed that low education and working outside the home had a statistically significant association with the avoidance of breastfeeding the babies among our target population (p -value <0.05).

Conclusion: Avoidance of breastfeeding was a common finding after six weeks of birth among women who delivered the babies via lower segment caesarean section. Mothers with low education and duties to work outside the home were more at risk of avoiding this highly beneficial practice for the baby.

Keywords: Caesarean section, Child mortality, Exclusive breastfeeding, Maternal health, Women empowerment.

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INTRODUCTION

Breastfeeding is considered an essential component of childcare soon after birth. It should be the first thing administered orally to the baby in normal circumstances. Much research has been done, and it is a fact that breastfeeding plays a vital role in providing all the required nutrients to the baby for the first few months.¹ Regardless of this fact, there have still been many myths regarding this highly beneficial practice both for mother and baby, and still, a huge chunk of mothers across the globe avoid breastfeeding their babies.²

Spontaneous vaginal delivery has been the most preferred mode of delivery for babies in terms of both maternal and child health. Multiple maternal and fetal reasons could make this normal procedure difficult or impossible, and the mother has to undergo surgical procedures to deliver the baby.³ Lower segment

Caesarean section has been the commonest surgical procedure used to deliver babies which could not be delivered normally. Though it is considered a safe procedure, several minor and major adverse effects have been linked.⁴

Delivery of the baby via lower segment Caesarean section has been on the rise across the globe and especially in our part of the world.^{5,6} This trend may accompany many untoward effects on the baby, mother and even the health care system. Hobbs *et al.* 2016 conducted a study in Canada regarding the impact of caesarean section on breastfeeding initiation, duration and difficulties in the first four months postpartum. They concluded that more women delivered by planned LSCS had no intention to breastfeed their babies or did not initiate breastfeeding compared to women with SVD and emergency LSCS.⁷ Awi *et al.* in 2006, did a similar study and revealed that women who deliver via LSCS have low rates of initiation of breastfeeding. The reason may be the delay in helping the newly delivered mother. If these women get help in time and

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proper information and care, statistics may be different.⁸ Cakmak *et al.* did an observational study in Turkey using the LATCH breastfeeding charting system and compared the breastfeeding patterns of mothers who delivered their babies by SVD and via LSCS. They concluded that the pattern of delivery affects breastfeeding. They found that women who have delivered via LSCS need more help regarding breastfeeding initiation than those who have delivered via Spontaneous vaginal delivery. Positioning the baby during breastfeeding may be an important factor related to hesitancy in breastfeeding initiation among mothers who have delivered via Lower segment Caesarean section.⁹

Pakistan is a country with a population of more than 200 million. People are from different cultural and educational backgrounds, and all these factors affect routine practices, including breastfeeding and child-rearing. Noh *et al.* recently published a study regarding factors affecting breastfeeding practices in Sindh, a large southern province of Pakistan. They concluded that age, educational status and information and help provided regarding breastfeeding were the factors associated with positive attitudes and practices related to breastfeeding.¹⁰ Limited local data has been available regarding the relationship between the mode of delivery and breastfeeding. Therefore, we planned and conducted this study to look for the associative factors in avoiding exclusive and non-exclusive breastfeeding among mothers after lower segment Caesarean section.

METHODOLOGY

This cross-sectional study was conducted at the Paediatrics Department of Pak Emirates Military Hospital between October 2019 and March 2020. Permission and ethical approval from the Hospital Ethics Committee (via letter no A/28/EC/248/2021) were taken. The sample size was calculated using the WHO sample size calculator and keeping the population proportion of late initiation of breastfeeding as 50.49%.¹¹ Non-probability consecutive sampling technique was used to gather the required sample size for this study.

Inclusion Criteria: Mothers between the ages of 18 and 45, who brought their babies for vaccination at six weeks of life to a vaccination clinic and delivered their babies via lower segment Caesarean section were included in the study.

Exclusion Criteria: Mothers who delivered their babies via spontaneous vaginal delivery or those having any contraindication to breastfeeding for personal or baby-related reasons were excluded from the study. Mothers

who stayed in the intensive care unit after the delivery or those whose babies remained in the neonatal intensive care unit were also excluded from the study. Mothers with serious infections like Human immune deficiency virus, tuberculosis or any other systemic illnesses requiring long-term use of cytotoxic medications were also excluded from the study.

All the patients gave informed consent before getting enrolled on the study. Mothers who came to vaccinate their babies at six weeks of age and had delivery via LSCS were asked a simple question were they breastfeeding their baby or avoiding it? The answers were recorded in a structured proforma specially designed for this study. Almost all the mothers were entitled patients and wives of other ranks; therefore, socioeconomic status was similar. Factors in the study that were correlated with avoidance of breastfeeding included age of the mother, parity, education status and working outside the home. A consultant gynaecologist performed a lower segment Caesarean section in the sample population to deliver the baby by a transverse incision in the lower uterine segment above the attachment of the urinary bladder to the uterus.¹²

Statistical Package for Social Sciences (SPSS) version 23.0 was used for the data analysis. Frequency and percentage were calculated for the qualitative variables like parity, number of mothers working outside the home, number of mothers avoiding breastfeeding and number of mothers who had education less than matriculation. Mean and standard deviation was calculated for the age of the mothers included in the study. Pearson chi-square test was used to see the association between the age of the mother, parity, education status and working outside the home with the avoidance of breastfeeding. The *p*-value less than or equal to 0.05 was considered significant for this study.

RESULTS

A total of 500 mothers who delivered their babies via LSCS were included in the study. The mean age of the study participants was 33.576±9.174 years. The basic socio-demographic data of the mothers was shown in the Table-I. 336(67.2%) women were primiparous, while 164(32.8%) were multiparous. 208(41.6%) women were actively breastfeeding their child, while 292(58.4%) avoided breastfeeding their babies. 150 (72.1%) women were non-exclusively breastfeeding while 58(27.9%) showed an exclusive breastfeeding pattern. Pearson chi-square test revealed that low education and working outside the home had a

statistically significant association with the avoidance of breastfeeding the babies among our target population (p -value <0.05) (Table-II). In contrast, age and parity had no statistically significant association with avoidance of breastfeeding (p -value > 0.05).

Table-I: Characteristics of Mothers Included in the Study (n=500)

Study Parameters	n(%)
Age (years)	
Mean±SD	33.576±9.174 years
Range (min-max)	19 years-44years
Education	
Less than matriculate	158 (31.6)
Matriculate or above	342 (68.4)
Parity	
Primiparous	336 (67.2)
Multiparous	164 (32.8)
Avoidance of Breastfeeding to Baby	
No	208 (41.6)
Yes	292(58.4)
Pattern Among those who were Breast Feeding	
Exclusive	58 (27.9)
Non-exclusive	150 (72.1)
Working Outside Home	
No	278 (55.6)
Yes	222 (44.4)

Table-II: Relationship of Various Factors Among Mothers with the Avoidance to Breastfeed the Baby (n=500)

Socio-demographic Factors	No Avoidance (n=208)n(%)	Mothers Avoiding to Breastfeed (n=292) n(%)	p -value
Age			
<35 years	101(48.5)	151(51.7)	0.487
>35 years	107 (51.5)	141(48.3)	
Parity			
Primiparous	145(69.7)	191(65.4)	0.312
Multiparous	63(30.3)	101(34.6)	
Education Level			
Less than matriculate	51 (24.5)	107(36.7)	0.004
Matriculate or above	157(75.5)	185(63.3)	
Working Outside Home			
No	131(62.9)	147(50.3)	0.005
Yes	77(37.1)	145(49.7)	

DISCUSSION

There has always been a debate regarding what could be the best food for a baby in early life, and all the evidence until now concludes that nothing has been better than breastfeeding in this regard, especially in the first few months.¹³ Despite the extensive evidence based literature available on this matter, mothers still have different ideas. Many are reluctant to deny their babies this basic right and compromise their child’s health.¹⁴ Things become more complex when there have been difficulties in pregnancy or

delivery or after the delivery. There have been different myths regarding these complications and the relationship of these complications with breastfeeding and long-term maternal health.^{7,13,14} We designed this study with a rationale to explore the avoidance of breastfeeding in our set-up, specifically among the mothers who delivered their babies via lower segment caesarean section for any reason and analyze the factors associated with this avoidance.

Chen *et al.*¹⁵ published a prospective cohort study in 2018 regarding the influences of delivery via LSCS on breastfeeding practices and duration among Chinese mothers. They concluded that women who had a Cesarean delivery showed a lower rate of exclusive breastfeeding and any breastfeeding than those who had a vaginal delivery. Delivery via LSCS was also related to using the formula in the hospital and delayed breastfeeding initiation in their study. We did not perform the study by cohort design and included only mothers who delivered via LSCS and found a high rate of avoidance of breastfeeding among these mothers.

Another similar study published in 2018 in the European Journal of clinical nutrition to look for the association between LSCS delivery and the initiation and duration of breastfeeding in the first six months postpartum concluded that delivery via LSCS is an independent risk factor for the inability to initiate and sustain breastfeeding. Therefore, providing specific breastfeeding support during the early postpartum period is desirable to the mothers who deliver babies via LSCS.¹⁶ Our study was different in that we did not establish the association at the sixth month, but at six weeks, we had similar results as Wu *et al.*

Prior *et al.*¹⁷ in 2012 published a systematic review and meta-analysis of world literature regarding breastfeeding after LSCS delivery. They concluded a negative association between pre-labour LSCS delivery and early breastfeeding. If breastfeeding were initiated, the mode of delivery would have no apparent effect on the number of mothers still breastfeeding at six months. This highlights the importance of our study as we tried to gather the data early, at six weeks of age, to pick the problem early and then design the intervention to address this issue.

Beake *et al.*¹⁸ published an interesting meta-analysis in 2017, which had similar results as our study, that rates of breastfeeding uptake are lower after a caesarean birth than vaginal birth. They pointed out many factors related to avoidance of breastfeeding. They

postulated that immediate or early skin-to-skin contact, parent education, the provision of sidecar bassinets when rooming in, and the use of breast pumps might improve breastfeeding. The interventions should usually be culture-specific, and local qualitative and quantitative studies should be done to develop effective interventions for our own population.

LIMITATIONS OF STUDY

There were a few limitations in our study. There could be multiple factors or reasons for avoidance of breastfeeding, which may or may not be related to breastfeeding. A prospective cohort or qualitative study would have generated better and more precise results from this perspective. Moreover, the sample was drawn mainly from entitled patients who were wives of other rank military personnel; therefore, this data set is not representative of the general population of Pakistan. Future studies with better design and more representative data sets may generate generalizable results.

CONCLUSION

Avoidance of breastfeeding was a common finding after six weeks of birth among women who delivered the babies via lower segment caesarean section. Mothers with low education and duties to work outside the home were more at risk of avoiding this highly beneficial practice for the baby.

Conflict Of Interest: None.

Author's Contribution

Following authors have made substantial contributions to the manuscript as under:

AR: Study design, data analysis, critical review, drafting the manuscript, critical review, approval of the final version to be published.

QUM: Critical review, drafting the manuscript, approval of the final version to be published.

MFS & SM: Data acquisition, data interpretation, critical review, approval of the final version to be published.

MWB & SA: Conception, data acquisition, drafting the manuscript, approval of the final version to be published.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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