

Assessment of Breastfeeding Practices Following Cesarean Section at Essos Hospital Center: A Research Study

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Abstract

Background: Exclusive breastfeeding, particularly when initiated early, is considered the optimal method for infant nutrition, offering significant benefits for both the child and the mother. However, the practice of breastfeeding can be influenced by the occurrence of a caesarean section.

Objective: The aim of this retrospective and analytical cross-sectional study, conducted between January 2020 and July 2020, was to evaluate breastfeeding practices after a caesarean section in the maternity ward of Essos Hospital Center.

Material and Methods: The study included women who underwent live-birth cesarean sections at Essos Hospital Center, and whose children were alive. Data was collected through interviews using a pre-established and pre-tested questionnaire. The odds ratio with a 95% confidence interval was employed to assess associations between variables. Statistical significance was determined at a p-value <0.05.

Results: Among the 70 women included in the study, all mother-child pairs experienced separation, and none of the mothers-initiated breastfeeding early. Additionally, 42.9% of lactating women breastfed between 1 and 24 hours after birth, while 52.9% initiated breastfeeding 24 hours later. A statistically significant association was found between the duration of separation and delayed breastfeeding initiation (duration of separation 24h (OR= 0.07; CI= 0.00-0.42; p=0.016); 48h (OR=0, 02; CI=0.00=0.18; p=0.002); 48h-72h (OR=0.03; CI=0.00-0.28; p=0.007)).

Conclusion: In this population, caesarean section and subsequent mother-child separation significantly delayed the initiation of breastfeeding.

2. Introduction

Breastfeeding (BF), the act of nourishing newborns and infants with breast milk, stands as the gold standard for infant feeding, particularly during the initial months of life.

The World Health Organization (WHO) strongly advocates for “exclusive breastfeeding for the first six months of life, with continued breastfeeding until the age of two years or beyond, based on maternal preferences.” Despite these recommendations, global statistics indicate suboptimal adherence, with only 38% of children under six months exclusively breastfed, and even lower rates, such as 40%, reported in Cameroon based on the DHS Cameroon 2018 report. The critical link between breastfeeding, health, and overall well-being is increasingly evident, as evidenced by studies revealing its potential to prevent neonatal deaths and significantly enhance child survival rates. However, the prevalence of cesarean section (C-section) has been identified as a factor negatively impacting breastfeeding practices. Research, such as the study conducted by Sylvie Bouvarel in France in 2015, suggests that the initiation of breastfeeding encounters more challenges in cases of cesarean section compared to vaginal deliveries, contributing to delayed first latching times. Beyond delayed initiation, the duration of exclusive breastfeeding may be compromised, with some studies indicating even more adverse effects in planned cesareans compared to emergency procedures [1,2]. These considerations gain heightened importance given the rising rates of C-sections, even in regions with limited resources. Against this backdrop, our study aims to comprehensively analyze breastfeeding practices post-C-section and explore the influencing factors in a monocentric setting [3-6].

3. Materials and Methods

We conducted a retrospective and analytical cross-sectional study from January 2020 to July 2020 in the maternity ward of the Essos Hospital Center, a tertiary-level care facility in Yaoundé. Our sample included women who underwent C-sections, delivered live newborns at term (at least 36 weeks of amenorrhea), and were within two months postpartum [7].

After reviewing their medical records, eligible participants were contacted by telephone, and the study objectives and informed consent were clearly explained. During interviews, a pre-established and pre-tested questionnaire validated for the study was employed, focusing on socio-demographic characteristics, duration of maternity ward stays, length of separation after C-section, and breastfeeding practices.

Data was entered and recorded using CSPro version 7.3.1 software. Statistical analyses were performed using R version 3.6.2. At the univariate level, frequency distributions were utilized for categorical variables, and the Chi-squared test assessed the independence between the dependent

and independent variables. In cases where the Chi-squared test conditions were not met, Fisher’s Exact test was an alternative. Unadjusted odds ratios (ORs) were estimated. At the multivariate level, logistic regression was employed to estimate adjusted ORs and their 95% confidence intervals (CIs) to identify factors associated with early breastfeeding.

4. Ethical Considerations

Ethical clearances and administrative authorization were obtained from the Essos Hospital Center’s administrative management (reference number: 29/20/DCHE/DA/CE-CHE/CNPS) and the Ethics and Institutional Committee of the University of Douala.

5. Results

Out of the 123 mothers contacted, 26 were unreachable, and 25 refused to participate in the study. Two participants were excluded due to incomplete collection sheets, resulting in the recruitment of 70 mothers (refer to Figure 1).

5.1. Sociodemographic and Biodemographic Characteristics

The participating mothers, aged between 20 and 41, with 77.1% falling within the 21 to 34 age range, had an average age of 30.5 years (see Tables 1 & 2) [8].

5.2 Feeding Practices

5.2.1 Initiation and Feeding Option

None of the mothers reported initiating breastfeeding within one hour of birth. Less than half of the mothers practiced Exclusive Breastfeeding (EBF) during the first two months.

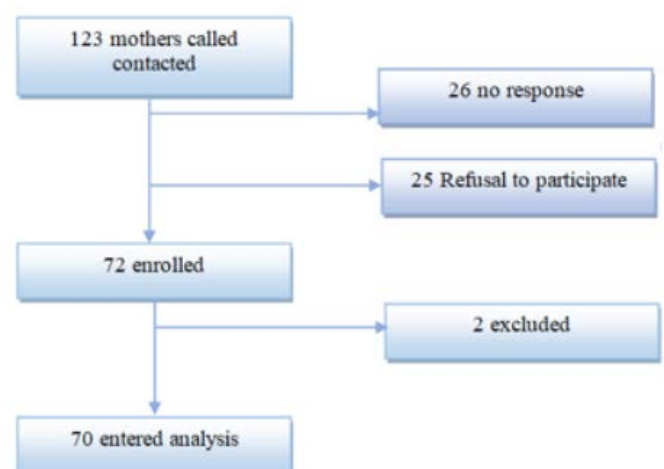


Figure 1: Flow chart of recruitment.

Table 1: Characteristics of the population.

	N	%
Age years		
21-34	54	77.1
≥35	16	22.9
Total	70	100
Employment		
No	30	42.9
Yes	40	57.1
Total	70	100
Marital status		
Single	17	24.3
Married	53	75.7
Total	70	100
Antenatal Follow-up		
Yes	70	100
No	0	0
Total	70	100

6. Factors Influencing Early Breastfeeding

6.1 Mother-Child Separation and Early Breastfeeding

All mothers experienced separation from their newborns at birth, with 40% separated for 24 hours. Sixty-five newborns were admitted to neonatology. Analyzing the duration of mother-child separation, it was observed that mothers separated for less than 24 hours initiated breastfeeding earlier (delay 1h-24h) compared to those in the 24h, 48h, and 48-72h categories. A statistically significant association was found between the duration of separation and the initial breastfeeding delay ($p=0.016$; 0.002 ; and 0.007). Adjusted odds ratios indicated a significant difference between the duration of separation (24 hours ($p=0.026$) and 48 hours ($p=0.004$)) and the time to breastfeed.

6.2 Difficulties During Breastfeeding

Approximately 60.9% of breastfeeding mothers faced difficulties, with the primary challenge being nipple cracks (30.8%), followed by insufficient milk secretion (20.5%).

Table 2: Multivariate distribution of factors associated with delay in breastfeeding after caesarean section.

Birth-first latch time		Adjusted OR (95% CI, p)
	<24h	-
Separation time (hours)	24h	0.04 (0.00-0.47, $p=0.026$)
	48h	0.01 (0.00-0.16, $p=0.004$)
	>48h	0.07 (0.00-1.39, $p=0.107$)
Reason for admission in Neonatology	Surveillance	-
	Special care	0.36 (0.04-2.77, $p=0.335$)
Mother in recovery room	Yes	-
	No	1.42 (0.03-64.79, $p=0.844$)
Age	21-34 years	-
	≥35 years	0.20 (0.02-1.38, $p=0.125$)
Level of education	Primary	-
	Secondary	0.20 (0.00-5.46, $p=0.363$)
	Higher	0.11 (0.00-1.47, $p=0.131$)
Employment	No	-
	Yes	1.83 (0.37-10.90, $p=0.473$)
Marital status	Single	-
	Married	0.17 (0.01-1.31, $p=0.115$)
Parity	Primiparous	-
	Multiparous	1.64 (0.23-15.28, $p=0.638$)
Type de pregnancy	Single	-
	Multiple	7.60 (0.72-104.09, $p=0.103$)
	Preterm	-
Term	Normal term	0.21 (0.02-1.69, $p=0.161$)
	post-Term	0.74 (0.07-7.94, $p=0.806$)

7. Discussion

Our investigation into breastfeeding practices following caesarean section at the Essos Hospital Center revealed a notable delay in breastfeeding initiation, primarily attributed to the separation of mothers and infants. However, the rate of exclusive breastfeeding (EBF) remained comparable to that observed in the general population. The importance of early breastfeeding initiation is well-established, as it positively correlates with prolonged breastfeeding duration. Caesarean section, as demonstrated in our study, significantly hinders EBF by delaying the onset of breastfeeding, consistent with findings from Wu et al in China, although our observed rate was slightly lower [9].

7.1 Factors Influencing Early Latch-On After Caesarean Section

All interviewed mothers experienced separation from their newborns at birth, contributing to a negative impact on early breastfeeding. This aligns with results reported by Albo Khary and James in Saudi Arabia, where none of the caesarean-delivered mothers initiated early breastfeeding. Our data corroborates a delayed start in breastfeeding after 24 hours, contrary to the 48% initiation rate within one hour of birth reported in the latest demographic health survey.

7.2 Problems During Breastfeeding

Approximately 60.9% of breastfeeding mothers faced difficulties, with nipple cracks (30.8%) and insufficient milk secretion (20.5%) identified as the primary challenges. Our findings are consistent with Saeed et al but differ from Hobbs et al.

7.3 Limitations of the Study and Recommendations

Limitations include a small sample size due to non-availability and significant refusals, the impact of the Covid-19 pandemic preventing direct patient interactions, and the omission of anesthesia type in the retrospective study [10-13]. The monocentric nature might lead to an overestimation of newborn transfer rates and separation duration.

Based on these limitations, we propose a comprehensive study utilizing demographic and health survey data to thoroughly understand the impact of caesarean sections on breastfeeding initiation and continuation in our context. Additionally, capacity-building initiatives for staff at the Essos Hospital Center are recommended, focusing on essential care for newborns after caesarean sections, particularly early breastfeeding and the practice of skin-to-skin contact for women after caesarean, especially with locoregional anesthesia.

8. Conclusion

At the Essos Hospital Center, the prevalent practice of immediate mother-child separation following caesarean sections substantially contributed to a notable delay in breastfeeding initiation. While this delay had moderate repercussions on the breastfeeding rate within the first two months of life, it emphasizes the need for reconsideration of such automatic separation protocols.

9. Acknowledgment

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11. Conflicts of Interest

The authors confirm the absence of any conflicts of interest related to the publication of this article.

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