

PREVALENCE AND REASONS FOR EARLIER THAN DESIRED CESSATION OF EXCLUSIVE BREASTFEEDING (6 MONTHS) AFTER BIRTH IN MOTHERS OF THE CHILDREN ADMITTED IN OBS/PAEDS WARDS OF A PRIVATE SECTOR HOSPITAL, PESHAWAR

Original Research

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ABSTRACT

Background: Breastfeeding is recognized globally as the most natural and beneficial way to ensure healthy growth and development in infants. Human breast milk provides all essential nutrients, antibodies, and hormones necessary for optimal neonatal health. Exclusive breastfeeding for the first six months of life is recommended by the World Health Organization to reduce infant morbidity and mortality. Despite these benefits, many mothers discontinue exclusive breastfeeding earlier than advised, due to various nutritional, psychological, and health-related factors.

Objective:

- To determine the prevalence of mothers not exclusively breastfeeding.
- To assess the factors associated with earlier cessation of exclusive breastfeeding.

Methods: A cross-sectional prevalence study was conducted over a period of six months (January–June 2019) in the Pediatric and Gynecology wards of Rehman Medical Institute and Northwest General Hospital in Peshawar. Data were collected using a structured questionnaire from 200 mothers through systematic random sampling. Inclusion criteria included mothers aged 18 years or older with infants born after 35 weeks of gestation weighing ≥ 2.5 kg. The data were analyzed using SPSS version 15.0 to identify descriptive statistics and frequency distributions.

Results: The mean maternal age was 31.72 years, and the average family size was 2.17 children. Among the participants, 71% resided in urban areas, and 83% were housewives. A total of 193 mothers (96.5%) breastfed their infants, but only 80 (40%) maintained exclusive breastfeeding for six months, while 113 (56.5%) discontinued earlier. The primary reasons reported for early cessation included insufficient milk production in 73.5% of cases, unmet infant needs (63.7%), maternal employment (8.8%), infant illness (14.1%), and maternal illness (10.6%).

Conclusion: More than half of the mothers failed to continue exclusive breastfeeding for the recommended six-month duration. Targeted education and support are essential to address misconceptions and promote sustained breastfeeding practices.

Keywords: Breast Feeding, Cessation, Exclusive, Mothers, Pakistan, Prevalence, Risk Factors.

INTRODUCTION

Breastfeeding remains the biological norm and a cornerstone of infant nutrition, offering essential nutrients necessary for healthy growth and neurodevelopment. Human milk, produced by the mammary glands, is a complete food uniquely designed to meet the physiological and immunological needs of infants (1). The practice of breastfeeding not only supports optimal child development, particularly cognitive advancement, but also improves health outcomes for both mother and child (2). Recognizing its critical importance, the World Health Organization (WHO) defines exclusive breastfeeding as the provision of only breast milk—excluding any other food or drink, not even water, except for medications and supplements—for the first six months of life (3). Despite its well-documented benefits, exclusive breastfeeding remains underutilized, particularly in low-resource settings where it could be most impactful. In Pakistan, neonatal and infant mortality remain alarmingly high, with 78 out of every 1,000 live-born infants dying before their first birthday. UNICEF reports that 16% of these deaths could be prevented if breastfeeding were initiated at birth (4). WHO guidelines emphasize exclusive breastfeeding for the first six months, followed by continued breastfeeding with appropriate complementary foods for up to two years or beyond to ensure optimal health and development. However, according to the Pakistan Demographic and Health Survey 2017-18, the rate of exclusive breastfeeding stands at only 48%, with 57% of infants being fed in a non-exclusive manner (5).

This gap in adherence to recommended practices is not without consequence. Nearly two-thirds of infant deaths in the first year of life are closely associated with inappropriate feeding methods (6). Multiple studies have identified a range of barriers to exclusive breastfeeding, including maternal perception of insufficient milk supply, lack of maternal education, socio-economic constraints, religious beliefs, and various demographic influences (7). In Uttar Pradesh, a hospital-based study revealed that only 10% of mothers-initiated breastfeeding within the first hour of birth, a delay associated with poor neonatal outcomes (8). Similarly, an international study found that the prevalence of exclusive breastfeeding up to six months was only 11.4%, significantly lower than global recommendations (9). Further evidence from a study highlighted that, maternal concerns about insufficient milk production (93.2%) and being a working mother (4.2%) were the most commonly reported reasons for early cessation of exclusive breastfeeding (10). Another investigation found neonatal illness requiring hospital admission (45%) and maternal perception of low milk supply (40%) to be the leading contributors to lactation failure (11). These findings underscore the crucial role that early postnatal care, maternal awareness, and support systems play in sustaining breastfeeding practices. In resource-constrained environments where healthcare infrastructure is limited, exclusive breastfeeding can serve as a life-saving intervention (12).

Despite the abundance of international and national data, there remains a significant gap in region-specific studies, particularly within Khyber Pakhtunkhwa, regarding the prevalence of exclusive breastfeeding and the contextual factors contributing to its premature discontinuation. Addressing this knowledge gap is vital for shaping targeted public health interventions. Therefore, this study aims to determine the prevalence of mothers who do not exclusively breastfeed and to identify the key factors associated with early cessation of exclusive breastfeeding, with the ultimate goal of informing strategies to enhance maternal awareness and improve child health outcomes in the region.

METHODS

This cross-sectional prevalence study was conducted to assess the prevalence and associated factors contributing to the early cessation of exclusive breastfeeding. The study was carried out in the Gynecology, Obstetrics, and Pediatrics wards of two tertiary care hospitals: Rehman Medical Institute and Northwest General Hospital, both located in Peshawar, Khyber Pakhtunkhwa. The study duration spanned from December 2018 to May 2019, encompassing all research phases, including title selection, literature review, proposal development, data collection, analysis, and final manuscript submission. A sample size of 200 participants was determined and selected through a systematic random sampling technique. Eligible participants included mothers aged 18 years or older with infants born after 35 weeks of gestation and weighing at least 2.5 kilograms. Mothers of neonates who were very recently delivered, along with those providing incomplete responses or interviews, were excluded from the study to ensure data accuracy and reliability (13).

Data collection was carried out using a structured, pre-tested questionnaire designed to gather information on the prevalence of non-exclusive breastfeeding and the factors responsible for its early discontinuation. The questionnaire was developed following an extensive

review of existing literature and was designed in simple, understandable language to minimize response bias. The research team was divided into two groups, with each group assigned to one of the two hospitals to collect data concurrently. All participants were approached in person, and informed written consent was obtained prior to their inclusion in the study. The study adhered to ethical standards and was conducted after obtaining approval from the Institutional Review Board (IRB). Following data collection, all responses were entered and analyzed using Statistical Package for the Social Sciences (SPSS) version 15. Descriptive statistics were applied to compute frequencies and percentages to evaluate key study variables. Confidentiality of participants was strictly maintained throughout the research process, and participation was entirely voluntary without any financial incentive. The methodological framework ensured a robust and ethically sound approach to identifying trends and determinants related to breastfeeding practices in the study population.

RESULTS

A total of 200 mothers participated in the study, with ages ranging from 19 to 61 years and a mean age of 31.72 years. Of these, 113 mothers (56.5%) discontinued exclusive breastfeeding before their infants reached six months of age, while 80 mothers (40%) continued breastfeeding exclusively for six months or more. Seven mothers (3.5%) did not breastfeed at all. The income distribution among participants showed that 41 respondents (20.5%) had a monthly income of PKR 30,000 or below, 74 respondents (37%) fell in the income bracket of PKR 50,000 to 70,000, and 84 mothers (42%) had a household income of PKR 90,000 and above. Regarding maternal education, 61 mothers (30.5%) were illiterate, 39 (19.5%) had completed matriculation, 41 (20.5%) attended college, and 59 (29.5%) had graduate-level or higher education. Fathers were more likely to be educated, with 107 (53.5%) having a graduate or higher degree, 45 (22.5%) educated up to college, 28 (14%) up to matriculation, and only 20 (10%) illiterate. Birth location and delivery method data indicated that 180 births (90%) took place in hospital settings, while 20 (10%) occurred at home. Vaginal delivery was the most common mode (n=130), with 67 births via caesarean section, 1 using forceps, and 2 assisted with vacuum extraction.

Among mothers who discontinued exclusive breastfeeding before six months, 83 (73.5%) attributed it to insufficient milk production, and 72 (63.7%) believed their breast milk alone did not satisfy their infants. Lactational difficulties were also notable, with 29 mothers (25.6%) reporting that their infants experienced difficulty in sucking and 36 mothers (31.8%) facing problems initiating milk flow. Medical reasons contributed less frequently to early cessation. Maternal illness was reported by 12 mothers (10.6%), infant illness by 16 mothers (14.1%), and only 8 mothers (7.07%) stated that planning another pregnancy influenced their decision to stop breastfeeding. Breastfeeding initiation timing was associated with duration. Among mothers who exclusively breastfed for six months or more, 33 had initiated breastfeeding within the first hour post-delivery. Conversely, among those who discontinued earlier, only 22 had initiated within the first hour, while 49 began between one to six hours, and 41 started after six hours. Of the few who did not breastfeed at all, four did not initiate breastfeeding at any time.

Table 1: Duration Of Breast Feeding (Months)

	Frequency	Percent
Before 6 months	113	56.5
6 months or above	80	40
Haven't done	7	3.5
Total	200	100

Table 2 (a) Education Of Mother

Education of Mother	Frequency	Percent
Illiterate	61	30.5
Matric	39	19.5
College	41	20.5
Graduate or above	59	29.5
Total	200	100

Table 2 (b) Education of Father

Education of Husband	Frequency	Percent
Illiterate	20	10
Matric	28	14
College	45	22.5
Graduate or above	107	53.5
Total	200	100

Table 3: Place Of Birth * Mode of Birth Cross Tabulation

		Mode of delivery				Total
		Vaginal	C-section	Forceps	Vacuum assisted	
Place of birth	Home	20	0	0	0	20
	Hospital	110	67	1	2	180
Total		130	67	1	2	200

Table 4: Nutritional Factors

Was the cessation of breast feeding due to insufficient milk production?

	Frequency	Percent
Yes	83	73.5%
No	30	26.5%
Total	113	100.0%

Did you think that breast milk alone did not satisfy the baby?

	Frequency	Percent
Yes	72	63.7%
No	41	36.3%
Total	113	100.0%

Table 5: Lactational Factors

Did the baby has any trouble sucking?

	Frequency	Percent
Yes	29	25.6%
No	84	74.3%
Total	113	100.0%

Problem in getting the milk flow to start.

	Frequency	Percent
Yes	36	31.8%
No	77	68.1%
Total	113	100.0%

Table 6: Medical Factors

Mother illness.		
	Frequency	Percent
Yes	12	10.60%
No	101	89.30%
Total	113	100.00%
Baby was ill.		
	Frequency	Percent
Yes	16	14.10%
No	97	85.80%
Total	113	100.00%
Were you planning on having another pregnancy?		
	Frequency	Percent
Yes	8	7.07%
No	105	92.90%
Total	113	100.00%

Table 7: Start Of Breastfeeding Of Newborn After Birth

Duration of breast feeding (months)			
	before 6 months	6 months or above	haven't done
Not at all	0	0	4
Less than an hour	22	33	2
1-6 hours	49	37	0
More than 6 hours	41	10	0
Total	112	80	6

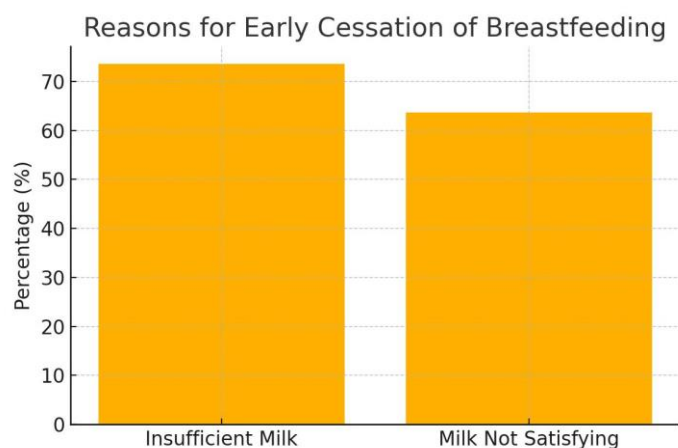


Figure 1 Reasons of Early Cessation of Breastfeeding

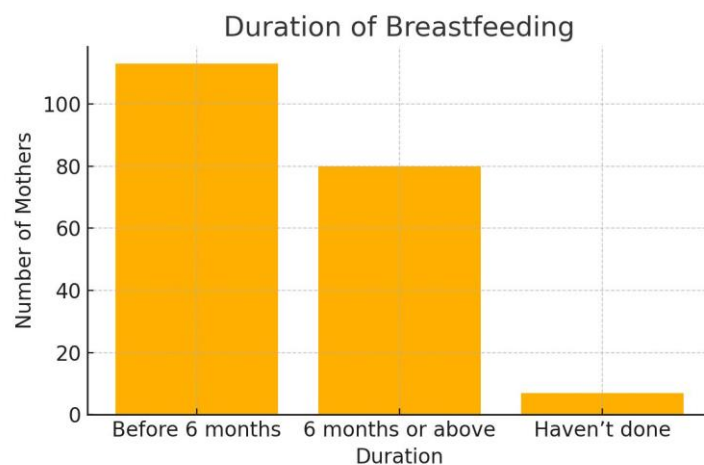


Figure 2 Duration of Breastfeeding

DISCUSSION

Pakistan continues to face high neonatal and infant mortality rates, recorded at 42 and 62 per 1,000 live births, respectively (5). Malnutrition and infectious diseases remain among the primary contributors to these alarming statistics (7). Exclusive breastfeeding

during the neonatal and infant periods has been recognized as one of the most effective interventions to enhance child survival, ensuring adequate nutrition, immunity, and developmental progress (14). In 2001, the World Health Assembly endorsed exclusive breastfeeding for the first six months as the optimal strategy for infant feeding. Despite this global directive, challenges in implementation persist across many settings, including Pakistan. The findings of the present study revealed that only 40% of the mothers exclusively breastfed their infants for six months, while 56.5% discontinued exclusive breastfeeding earlier, and 3.5% did not breastfeed at all. This local prevalence contrasts with the 48% exclusive breastfeeding rate reported by the Pakistan Demographic and Health Survey 2017–2018, and significantly exceeds the 11.4% prevalence reported in some international studies (15,16), indicating some regional variation but also highlighting the global shortfall in adherence to WHO recommendations. A meaningful aspect of this study is the identification of the timing of breastfeeding initiation as a predictive factor in breastfeeding duration. Only 29.1% of mothers in this study, initiated breastfeeding within the first hour after birth, which is a modest improvement compared to previous regional findings where only 10% of mothers, initiated breastfeeding in the same time frame (17). This delay in initiation may reflect systemic gaps in postnatal care and underscores the importance of hospital policies that support immediate breastfeeding practices.

The most frequently cited reason for early cessation of breastfeeding in this study was perceived insufficient milk production, reported by 73.5% of mothers. This aligns with both local and global findings where maternal perception of inadequate lactation remains a dominant barrier to sustained breastfeeding (18). While international reports have documented similar trends with up to 80% of mothers citing the same reason, the frequency observed in this study still reflects a substantial burden. Comparatively, another local study identified an even higher percentage of mothers attributing breastfeeding failure to this factor, further emphasizing the need for lactation education and support systems to address misconceptions and foster maternal confidence. Additional contributing factors in the current study included maternal illness (10.6%), infant illness (14.1%), challenges with infant sucking (25.6%), and difficulty in initiating milk flow (31.8%). These findings are consistent with previous literature that highlights neonatal complications and lactational difficulties as key deterrents. Notably, a smaller proportion (7.07%) cited a new pregnancy as a reason for cessation, which, while less common, indicates the influence of reproductive planning on infant feeding decisions (19,20). A unique observation in this study was the role of employment. Approximately 8.8% of working mothers reported initiating bottle feeding before returning to work after maternity leave. This emphasizes the need for workplace interventions that facilitate continued breastfeeding, such as designated nursing areas and flexible schedules. Cultural and societal norms also play a role, as evidenced by delays in data collection due to local sensitivities surrounding the discussion of breastfeeding, which may similarly influence mothers' practices and openness to seek support (21).

One of the strengths of this study is its dual-institutional design, enhancing the generalizability of findings within the urban Peshawar setting. Moreover, the use of systematic random sampling minimized selection bias, and the structured questionnaire facilitated consistent data collection. However, several limitations must be acknowledged. The short duration of the study limited the sample size, potentially restricting the ability to detect subtler associations. The reliance on female data collectors due to cultural constraints may have further delayed data collection and limited access to certain participants. Additionally, the lack of prior regional studies limited the comparative depth of the discussion. Future research should focus on qualitative explorations of maternal perceptions and cultural beliefs regarding breastfeeding, as these can provide nuanced insights not captured by quantitative methods. Interventional studies that assess the impact of antenatal and postnatal counseling, breastfeeding support programs, and policy-level changes in public and workplace settings are also warranted. Strengthening these components can create a more enabling environment for mothers to initiate and sustain exclusive breastfeeding, ultimately improving neonatal health outcomes in the region.

CONCLUSION

The study concluded that a significant proportion of mothers were unable to sustain exclusive breastfeeding for the recommended duration, primarily due to perceived insufficient milk supply and the belief that breast milk alone did not meet their baby's needs. Other contributing factors included maternal employment, illness, and subsequent pregnancy. These findings highlight the urgent need for targeted breastfeeding education and support, particularly during the antenatal and postnatal periods. Strengthening counseling services and creating supportive environments—both at home and in workplaces—can play a vital role in promoting and sustaining exclusive breastfeeding practices, ultimately improving infant health outcomes.

AUTHOR CONTRIBUTION

Author	Contribution
Mian Tayyab Shah*	Substantial Contribution to study design, analysis, acquisition of Data Manuscript Writing Has given Final Approval of the version to be published
Omaima Shah	Substantial Contribution to study design, acquisition and interpretation of Data Critical Review and Manuscript Writing Has given Final Approval of the version to be published
Usama Tila Khan	Substantial Contribution to acquisition and interpretation of Data Has given Final Approval of the version to be published
Rizwan Haider	Contributed to Data Collection and Analysis Has given Final Approval of the version to be published
Muhammad Idrees	Contributed to Data Collection and Analysis Has given Final Approval of the version to be published
Syed Amir Zeb Jan	Substantial Contribution to study design and Data Analysis Has given Final Approval of the version to be published

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