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Assessment of Barriers to Exclusive Breastfeeding Among Postnatal Mothers in a Selected Hospital, Kolkata

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ABSTRACT

Background: Exclusive breastfeeding (EBF) for the first six months of life is essential for optimal infant growth and development, providing numerous health benefits. Despite these advantages, the practice of exclusive breastfeeding remains suboptimal, with many mothers facing challenges. This study aims to assess the barriers to exclusive breastfeeding among postnatal mothers in a selected hospital in Kolkata.

Objective: The objective of the study is to identify the key barriers preventing postnatal mothers from practicing exclusive breastfeeding and to understand the factors influencing breastfeeding decisions.

Methods: This descriptive cross-sectional study was conducted at a selected hospital in Kolkata. A total of 200 postnatal mothers were included, and data were collected through structured interviews using a pretested questionnaire. The survey assessed sociodemographic details, knowledge, and practices related to breastfeeding, along with the barriers that prevent mothers from exclusively breastfeeding.

Results: The study found that 59% of mothers did not practice exclusive breastfeeding, with the most common barriers being insufficient milk supply (37.29%), early introduction of formula (40.68%), societal and cultural influences (16.95%), lack of breastfeeding support (69.49%), and maternal health issues (53.12%). A significant association was observed between maternal education, socioeconomic status, and breastfeeding practices.

Conclusion: The study reveals multiple barriers to exclusive breastfeeding, with insufficient milk supply and early introduction of formula being the most prominent. Addressing these barriers through targeted interventions, including education, improved healthcare support, and community awareness programs, is essential to promote exclusive breastfeeding.

Keywords: Exclusive breastfeeding, Postnatal mothers, Barriers, Breastfeeding practices, Maternal health, Infant nutrition, Breastfeeding support, Kolkata study

INTRODUCTION

Breastfeeding is one of the most crucial practices for the health of both the mother and the infant. The World Health Organization (WHO) recommends exclusive breastfeeding (EBF) for the first six months of life to provide optimal nutrition and prevent childhood illnesses. EBF not only supports physical growth but also enhances emotional bonding and cognitive development. Despite these known benefits, many mothers face challenges that prevent them from practicing exclusive

breastfeeding. In India, where infant and child malnutrition is a major public health concern, sub optimal breastfeeding practices contribute significantly to infant morbidity and mortality. Kolkata, the capital of West Bengal, has a growing number of postnatal mothers, and it is crucial to understand the barriers that prevent the adoption of exclusive breastfeeding in this region. This study aims to assess the barriers to exclusive breastfeeding among postnatal mothers in a selected hospital in Kolkata, providing insights into the factors that hinder this essential practice.

MATERIALS AND METHODS

Study Design A descriptive cross-sectional study was conducted in a selected hospital in Kolkata over a period of six months. The hospital serves a diverse urban population, including both middle-class and low-income families, making it an ideal setting for this study.

Study Population The study included 200 postnatal mothers who delivered in the hospital and were willing to participate. Mothers with infants aged 0-6 months who had a history of breastfeeding were included in the study.

Inclusion and Exclusion Criteria

Inclusion Criteria: Mothers aged 18-40 years who delivered a healthy infant and were willing to participate in the study.

Exclusion Criteria: Mothers who are seriously ill or having infant health issues requiring hospitalization, and those who were unable to communicate effectively.

Data Collection Data were collected using a structured questionnaire designed to gather information on sociodemographic details, knowledge about breastfeeding, and perceived barriers to exclusive breastfeeding. The questionnaire included both closed and open-ended questions and was administered in-person by trained interviewers.

Ethical Considerations Ethical approval for the study was obtained from the Institutional Ethical Review Board of the hospital. Written informed consent was taken from all participants, and confidentiality was maintained throughout the study.

Data Analysis Data were analyzed using SPSS version 25. Descriptive statistics (frequencies, percentages) were used to present the sociodemographic characteristics and the prevalence of breastfeeding practices. Chi-square tests were used to assess associations between sociodemographic factors and barriers to exclusive breastfeeding, with a p-value of <0.05 considered statistically significant.

RESULTS

Sociodemographic Characteristics - The mean age of the mothers was 28.3 years, with 55% of mothers in the age group of 25-30 years. Most participants (75%) had completed at least secondary education, and 70% were from middle-income families. The majority (80%) of mothers were housewives, and 60% had attended antenatal classes where breastfeeding was discussed.

Statistical analysis revealed that maternal education ($p = 0.02$), socioeconomic status ($p = 0.01$), and access to breastfeeding support ($p = 0.03$) were significantly associated with the practice of exclusive breastfeeding.

Breastfeeding Practices

Of the 200 mothers, only 41% practiced exclusive breastfeeding, while 59% introduced supplementary feeding such as formula, water, or other liquids before the age of 6 months. Among the non-exclusive breastfeeding group, 37.29% introduced formula due to the belief that their milk supply was insufficient, and 15.25% cited convenience as a reason for using formula.

Barriers to Exclusive Breastfeeding

The key barriers identified in the study were:

Insufficient milk supply: 37.29% of mothers believed they did not have enough milk, leading to the early introduction of formula.

Cultural and societal factors: 16.95% of mothers cited family and societal pressures to supplement breastfeeding with formula or give the baby water.

Lack of support: 69.49% of mothers felt that they did not receive enough support from family members or healthcare providers.

Maternal health issues: 53.12% of mothers reported difficulties such as pain during breastfeeding, fatigue, or postpartum depression that hindered exclusive breastfeeding.

Attracted by information or advertisement from social media: 22.03% mothers were attracted to formula feed by information or advertisement from social media.

Statistical Analysis

Section -A: Findings related to the background information of the samples

This section describes the frequency and percentage distribution of the selected demographic variables.
The table 1 shows that majority of the postnatal mothers i.e. 92% heard about the term 'exclusive breastfeeding' before among them 55.44% are not practicing exclusive breastfeeding and 75% have not any postpartum problems among them majority of the postnatal mothers are not practicing exclusive breastfeeding.

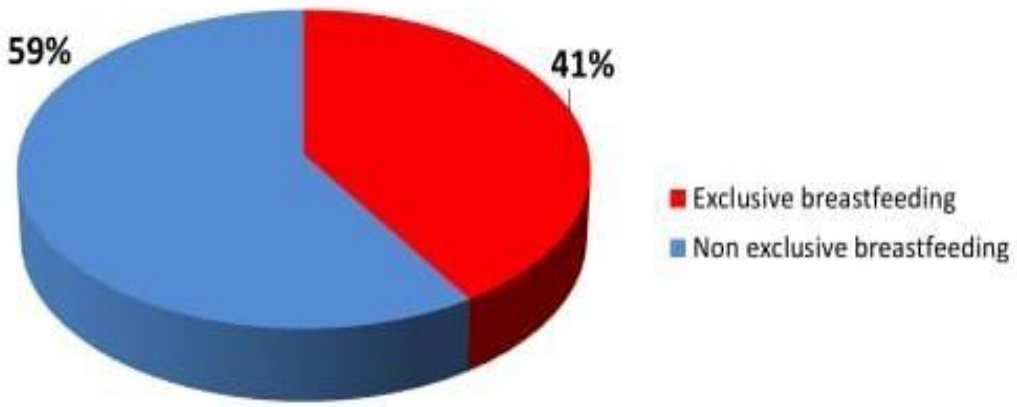
Majority of the postnatal mothers i.e. 68% had initiated exclusive breastfeeding within 1 hr. among them 60.29% are practicing exclusive breastfeeding, 73% who feed yellow milk (colostrum), 66% have not using pacifier for babies and 75% are not following prelacteal feeding tradition (honey & sugar water) among them majority of the postnatal mothers are practicing exclusive breastfeeding.

Table 1 : Frequency and percentage distribution of breastfeeding related information among postnatal mothers n=200

Variables	**Characteristics**	**Frequency**	**Percentage**	**EBF frequency**	**EBF Percentage**	**Non-EBF frequency**	**Non-EBF Percentage**
Whether heard about the term exclusive breastfeeding before	Yes	184	92	82	44.56	102	55.44
	Hospital	118	59	48	40.68	70	59.34
	Family	48	24	28	58.33	20	41.67
	Health center	12	6	6	50	6	50
	ANC	6	3	0	0	6	100
	No	16	8	0	0	16	100
Initiation of Exclusive breastfeeding	Within 1 hours	136	68	82	60.29	54	39.71
	> 1 hour	20	10	0	0	20	100
	> 1 day	44	22	0	0	44	100
Feed yellow milk (colostrum)	Yes	146	73	82	56.16	64	43.84
	No	54	27	0	0	54	100
Postpartum problems	Yes	50	25	22	44	28	56
	No	150	75	60	40	90	60
Use pacifier	Yes	68	34	0	0	68	100
	No	132	66	82	62.12	50	37.88
Following prelacteal feeding tradition (Honey and sugar water)	Yes	50	25	0	0	50	100
	No	150	75	82	45.33	68	54.67

Table 2: Frequency and percentage distribution of child related information among postnatal mothers n=200

Variables	Characteristics	Frequency	Percentage	EBF frequency	EBF Percentage	Non EBF Frequency	Non EBF Percentage
Age of baby (months)	6 - 9	114	57	44	38.60	70	61.40
	10 - 12	86	43	38	44.2	48	55.8
Sex of baby	Boy	102	51	44	43.1	58	56.9
	Girl	98	49	38	38.8	60	61.2
Birth order of current child	1st order	126	63	40	31.7	86	68.3
	2nd order	54	27	32	59.3	22	40.7
	3rd order	18	09	10	55.5	08	44.5
	4th order	02	01	0	0	02	100
Sick after delivery	yes	52	26	18	34.6	34	65.4
	No	148	74	64	43.24	84	56.76



Data presented in table 2 show that majority (57%) children belong to the age group of 6-9 months among which 61.40% are not given exclusive breastfeeding, 51% children are boys, 63% children were first born and 74% children not sick after delivery among which 56.76% are not given exclusive breastfeeding.

Table 8: Frequency and percentage distribution of barriers of exclusive breastfeeding among postnatal mothers. n=177

	A. Misconception related factors	N	%
1	Breastfeeding makes breast loose shape	42	23.73%
2	Breastfeeding can cause transmission of disease from mother to child	33	18.64%
3	Breastfeeding along with formula feeding is more beneficial for your baby	75	42.37%
4	Breastfeeding is an outdated practice	27	15.25%
5	Following Pre-lacteal feeding tradition	75	42.37%
	B. Maternal related factors		
1	Do not have adequate breast milk	66	37.29%
2	Breastfeeding was too painful	30	16.95%
3	Nipples were sore, cracked & inverted, breast were infected & abscessed.	18	10.17%
4	Breastfeeding was too tiring.	42	23.73%
5	Not having enough time to breastfeed	144	81.36%
6	Breastfeeding was too inconvenient	27	15.25%
7	Not having enough knowledge regarding exclusive breastfeeding.	126	71.19%
8	Fear to handle the baby during breastfeeding	21	11.86%
9	Facing more tension or stress during breastfeeding period	30	16.95%
	C. Infant related factors		
1	Baby had trouble sucking or latching on	147	83.05%
2	Baby become sick or any deformity after birth & couldn't breastfeed	48	27.12%
3	Breast milk alone did not satisfy baby.	72	40.68%
4	Baby was not gaining adequate weight according to age.	135	76’27%
	D. Social Related Factors		
1	No encouragement & support from family to exclusive breastfeeding.	123	69.49%
2	Friend, family or relatives pressure to wean the baby.	30	16.95%
3	Did not comfortable to breastfeed in public with maintaining privacy	129	72.88%
4	Did not get any advice regarding exclusive breastfeeding from antenatal clinic.	159	85.83%
5	Attracted to formula feed by information or advertisement from social media.	39	22.03%
6	Medical/non-medical person convinced that EBF is inadequate for growth of baby	51	28.81%
7	Demotivation from other regarding exclusive breastfeeding	36	20.34%

Section -B: Findings related to barriers of exclusive Breastfeeding among postnatal mothers

Data presented in table 8 shows that majority (42.37%) had the misconception that Breastfeeding along with formula feeding is more beneficial for the baby. Most of the mothers (81.36%) informed that they were not having enough time to breastfeed and 71.19% mothers did not have enough knowledge regarding exclusive breastfeeding. Also 83.5% baby had trouble sucking or latching on and 76.27% baby was not gaining adequate weight according to age. 89.03% mothers didn't get any advice regarding exclusive breastfeeding from antenatal clinic, 72.88% mothers were not comfortable to

breastfeed in public even with maintaining privacy and 69.49% mothers has no encouragement & from family to exclusive breastfeeding.

Discussion

Major findings of the studies:

Barriers of exclusive breastfeeding findings:

• Good no. of mothers have the misconception related factor that is Breastfeeding along with formula feeding is more beneficial for the baby and also following pre-lacteal feeding tradition.

• Maternal related fact that is not having enough time to breastfeed and not having enough knowledge regarding exclusive breastfeeding is also common.

•Infant related factor that is baby had trouble sucking or latching on and baby was not gaining adequate weight according to age is frequent.

• Majority didn't get any advice regarding exclusive breastfeeding from antenatal clinic, didn't comfortable to breastfeed in public with maintaining privacy and has no encouragement & from family to exclusive breastfeeding.

Discussion in relation to other studies:

From this study, it has been observed that majority of postnatal mothers did not feel comfortable to breastfeed in public with maintaining privacy.Similar to this study,Abdelazeem E A ,Ouda S, Ismail S S[6] conducted a descriptive research study on Barriers of breastfeeding in first year life at immunization outpatient clinic in Dar Salama Abdullah maternal and child health center in Sohag City among 120 postnatal mothers. This study showed that most of the postnatal mothers agreed that embarrassment from breastfeeding in public places was a barrier to breastfeeding.

Also it has been observed that mothers who has educational level of H.S and above were not practicing exclusive breastfeeding. Contradiction to this study,Gaal D A[5] conducted a community base cross-sectional study(2022) on barriers to exclusive breastfeeding among mothers with children aged 6-9 months in mogadishu city,somalia. This study revealed that mothers who had secondary education or above were more likely to exclusively breastfeed their infants than those who had primary or no formal education.

Conclusion:

It has been observed that mothers belong to urban community, joint family, as well as family with high income are not practicing EBF. It may be due to easy reach to formula food or its availability, or pressure of following prelactial feeding tradition from the family members or the use of non-nutritive sucking practice.

• Moreover, mothers who visited antenatal clinic and had normal vaginal delivery did not maintain EBF well. It could be due to work load of the health care team members or presence of family members in postnatal ward who may not support mother for EBF.

• On the other hand, mothers who had caesarean section and who initiated breastfed within 1 hour continued EBF properly. It can be due to more post-operative supervision by health care team members in the unit.

• Study findings show that practice of EBF is less for girl baby than boy baby. It may reveal the presence of gender biasness in the society.Thus women's education along with spouse & family member's awareness & engagement in EBF, exclusive breast-feeding counselling and more support from health care team members are required to improve exclusive breastfeeding practice.

•This study highlights the significant barriers to exclusive breastfeeding among postnatal mothers in Kolkata, with insufficient milk supply and cultural pressures being the most prominent factors. Addressing these barriers through education, healthcare support, and societal awareness is crucial to promoting exclusive breastfeeding and improving infant health outcomes.

•Recommendations and suggestions for future research:

•Breastfeeding Education: Implement educational programs for pregnant women and postnatal mothers to improve knowledge about the benefits of exclusive breastfeeding.

•Healthcare Provider Training: Train healthcare providers to offer more effective breastfeeding support and counseling.

•Community Awareness Programs: Conduct community-based awareness programs to address cultural beliefs and misconceptions surrounding breastfeeding.

•Workplace Support: Advocate for policies that support breastfeeding mothers in the workplace, such as maternity leave and breastfeeding breaks.

• Similar study can be replicated with a larger sample and probability sampling technique can be adopted for generalization of the study findings.

• Experimental study can be conducted by providing educational programmes.

Summary:
The study identified multiple barriers that hindered the practice of exclusive breastfeeding among postnatal mothers. The most significant barriers were concerns about insufficient milk supply and cultural pressures to introduce formula. Similar findings were observed in other studies, where misconceptions about milk production and the early introduction of formula were common. The role of maternal education emerged as a crucial factor in promoting exclusive breastfeeding. Educated mothers were more likely to initiate and continue exclusive breastfeeding, which aligns with findings from other studies highlighting the importance of antenatal education in improving breastfeeding outcomes.

Healthcare providers must play an active role in supporting mothers by providing accurate information on breastfeeding techniques and addressing concerns about milk production. Additionally, family support is vital to overcome societal barriers that may discourage exclusive breastfeeding.

Declaration:
Conflicts of interests: The authors declare no conflicts of interest.
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