

## A Study on Breastfeeding Skills and Practice Mechanisms among Mothers in Bangladesh

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### ABSTRACT

**Background:** Quality of care is a core concern for healthcare organizations. Quality of nursing care influences the outcomes and patient perception. Although patients' perception is an important indicator for measuring the quality of nursing care and patient satisfaction it cannot be emphasized enough.

**Objective:** This study's objective was to explore the patient's perceptions regarding the quality of nursing care at tertiary-level hospitals in Bangladesh.

**Methods:** A descriptive cross-sectional study design was carried out at Dhaka Medical College Hospital, Dhaka, Bangladesh from July 2021 to June 2022. Study participants were conveniently selected comprising of sample size of 140. Data were collected by face-to-face interview with a structured questionnaire. Both descriptive and inferential statistics were used for data analysis. **Results:** The study findings revealed that most of the (79) mothers' education levels were SSC and (90) mothers knew about the benefit of breastfeeding by counseling. Only (18) mothers ensure exclusive up to 6 months rest of them introduce various types of food before 6 months.

**Conclusion:** The quality of nursing care was poorly perceived by patients in Dhaka Medical College Hospital. There is a need to improve the quality of nursing care to enhance patients' perceptions.

**KEYWORDS:** Breastfeeding, Skill, Practice, Exclusive breastfeeding, Mechanisms.

### ARTICLE DETAILS

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### 1. INTRODUCTION

Breastfeeding is a fundamental and natural process that provides optimal nutrition and contributes to the overall health and well-being of infants. It is universally acknowledged that breastfeeding offers a range of benefits, both for the infant and the mother. In Bangladesh, where the majority of the population resides in rural areas and faces various socio-economic challenges, promoting and supporting breastfeeding practices is of paramount importance.

The World Health Organization (WHO) recommends exclusive breastfeeding for the first six months of a child's life, followed by the introduction of complementary foods while continuing breastfeeding for up to two years or beyond. The practice of exclusive breastfeeding has been shown to significantly reduce infant mortality and morbidity rates, enhance cognitive development, and confer immunological protection against various infections [1]. Additionally, breastfeeding has been linked to improved

maternal health outcomes, including a decreased risk of postpartum hemorrhage and certain types of cancer [2]. This practice decreases the risk of infant and child morbidity and mortality by eliminating the risk of contamination from formula milk and other fluids and foods and ensures proper early childhood development, including mental and motor development [3-5].

Breastfeeding is a fundamental and natural practice that plays a pivotal role in the health and development of infants. It provides infants with essential nutrients, antibodies, and bioactive compounds that are critical for their growth, immunity, and cognitive development [6]. Optimal breastfeeding practices have been associated with reduced infant morbidity and mortality, as well as improved maternal health [7]. Bangladesh, a densely populated South Asian country, has been making commendable progress in various sectors, including healthcare. However, challenges persist in ensuring optimal breastfeeding practices among mothers,

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leading to suboptimal child health outcomes. While breastfeeding initiation rates are relatively high in the country, exclusive breastfeeding rates remain below the global target of six months [8]. Consequently, there is an urgent need to understand the factors influencing breastfeeding skills and practices among mothers in Bangladesh.

The multifaceted nature of breastfeeding encompasses various skills and practices, including proper latching, milk expression, hygienic practices, and overcoming barriers. Therefore, exploring the mechanisms through which mothers acquire and implement these skills is essential for promoting optimal breastfeeding practices. This research aims to investigate the breastfeeding skills and practice mechanism among mothers in Bangladesh, shedding light on the factors that facilitate or hinder successful breastfeeding.

## 2. MATERIALS AND METHODS

## 3. RESULTS

**Table 1: Distribution of respondents according to socio-demographic Characteristics (N=140)**

Characteristics	n
<b>Parity</b>	
1	78
>1	62
<b>Education</b>	
Primary education	11
SSC	79
HSC and above	50
<b>Breastfeeding counseling</b>	
Yes	90
No	50
<b>Place of delivery</b>	
Home	23
Health facility	117
<b>Types of family</b>	
Nuclear family	122
Joint family	18

Table 1 summarizes the socio-demographic characteristics of 140 respondents. Among the surveyed population, 78 individuals have a parity of 1, while 62 have a parity greater than 1. In terms of education, 11 respondents have completed primary education, 79 have attained SSC, and 50 have achieved HSC or higher. Breastfeeding counseling was

**Study Design:** This Study was a descriptive type of cross-sectional study.

**Study population:** All those women, who come for treatment in the outpatient department and department of gynecology & obstetrics in Rajshahi Medical College and Hospital, Rajshahi, and willing to participate in this study.

**Study Area:** The study was conducted at Rajshahi Medical College and Hospital, Rajshahi.

**Sampling Technique and Sample Size:** A purposive sampling technique was used for the study and the sample size was 140.

**Data collection tools:** A structured questionnaire was used for data collection from the respondent.

**Methods of data collection:** Data was collected through face-to-face interviews.

received by 90 respondents, whereas 50 did not receive such counseling. Regarding the place of delivery, 23 respondents gave birth at home, while 117 opted for a health facility. In terms of family structure, 122 respondents belong to nuclear families and 18 to joint families.

**Table 2: Age of food introduction and type of food introduced by mothers in the intermittent mixed feeding trajectory (N=140)**

Food introduction (age in months)	Type of food	n
1	Honey	4
2	Fruit juice	5
3	Fruit juice, milk	4
4	Fruit juice, semi-solid	11
5	Cow milk	14
5.5	Semi Solid	12
6	Exclusive breastfeeding	18

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6.5	Fruit juice, solid	15
7	Fruit juice, semi-solid, solid	25
7.5	Cow milk, semi-solid, solid	32

Table 2 outlines the age of food introduction and the types of food introduced by mothers in the intermittently mixed feeding trajectory for a total of 140 respondents. The table indicates that the introduction of complementary foods begins at various ages, ranging from 1 to 7.5 months. The types of

foods introduced include honey, fruit juice, milk, semi-solid, solid, and combinations thereof. For instance, at 6 months, exclusive breastfeeding is prevalent among 18 respondents, while at 7.5 months, a combination of cow milk, semi-solid, and solid foods is introduced to 32 respondents.

**Table 3: Age of food introduction and type of food offered to infants by mothers with breast milk inadequacy (N=140)**

Food introduction (age in months)	Types of food	n
1-1.5	Cow's milk	3
2	Formula	7
2.5	Cow's milk	4
3	Cow's milk	6
3.5	Cow's milk	8
4	Cow's milk	9
4.5	Formula	10
5	Biscuit	5
5.5	Cow's milk	11
6	Hotchpotch	22
6.5	Hotchpotch and Formula	25
7	Formula and Biscuit	12
7.5	Hotchpotch, Formula, and Biscuit	18

Table 3 summarizes the age of food introduction and the types of food offered to infants by mothers facing breast milk inadequacy, based on a sample of 140 respondents. The table reveals a diverse range of foods introduced at different ages, spanning from 1 to 7.5 months. Notably, cow's milk is introduced at various stages, with other items such as formula, biscuits, and hotchpotch added to the diet. For instance, at 6 months, hotchpotch becomes a significant introduction to 22 respondents, while at 6.5 months, a combination of hotchpotch and formula is offered to 25 respondents.

### 4. DISCUSSION

Maternal and infant health outcomes are critical indicators of a nation's healthcare system and its overall social development. Various factors influence these outcomes, including parity, education, breastfeeding counseling, place of delivery, and living situation. Parity, or the number of pregnancies a woman has experienced, plays a significant role in maternal and infant health outcomes. Research has shown that primiparous women (parity = 1) tend to have better maternal health outcomes compared to multiparous women (parity >1) (9). This is partly due to the fact that first-time mothers are more likely to access prenatal care early and adhere to recommended guidelines. The level of maternal education is another crucial determinant of health outcomes. Women with higher education levels (e.g., >5 years of education) are more likely to have healthier pregnancies and better access to healthcare services (10). In contrast, those with limited education (e.g., none or 1-5 years of education)

may face barriers to accessing essential prenatal care, leading to poorer maternal and infant health outcomes.

Breastfeeding counseling has been associated with improved infant health. Research indicates that mothers who receive breastfeeding counseling are more likely to initiate and sustain breastfeeding, which is known to have numerous health benefits for infants, including enhanced immunity and reduced risk of infections (11). However, the availability of breastfeeding counseling services may vary based on geographic location and healthcare infrastructure. Delivering in a health facility, as opposed to at home, is associated with lower maternal and neonatal mortality rates (12). Health facilities typically offer skilled birth attendants, access to emergency obstetric care, and aseptic conditions, which are vital for safe childbirth. The living situation, whether nuclear or joint, can impact maternal and infant health indirectly. In joint families, where multiple generations live together, social support systems may be stronger, which can have a positive effect on maternal mental health and infant caregiving. Conversely, nuclear families may face different stressors and support dynamics (13). Maternal and infant health outcomes are influenced by a complex interplay of factors, including parity, education, breastfeeding counseling, place of delivery, and living situation. It is essential for healthcare providers, policymakers, and researchers to consider these factors when designing interventions and programs aimed at improving maternal and infant health.

Timing is crucial when introducing complementary foods to infants. The World Health Organization (WHO) recommends exclusive breastfeeding for the first six months of life,

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followed by the gradual introduction of complementary foods while continuing breastfeeding for up to two years or beyond (14). However, there is considerable variability in adherence to these guidelines among mothers practicing intermittent mixed feeding.

Research suggests that many mothers initiate complementary feeding earlier than recommended. A study by Smith et al. (2019) found that, in a sample of mothers practicing intermittent mixed feeding, the mean age of introducing complementary foods was 4.2 months, well before the recommended six-month mark. Early introduction of solids can have implications for the infant's nutritional intake, gut health, and risk of allergies (15,16). The choice of complementary foods introduced in intermittent mixed feeding can vary widely among mothers and cultures. The composition of these foods can influence an infant's nutritional status and health outcomes. Ideally, complementary foods should be nutrient-rich, diverse, and age-appropriate (17).

A study by Chen et al. (2020) highlighted that the types of foods introduced in intermittent mixed feeding often include rice cereals, pureed fruits and vegetables, and infant formula. These choices may provide energy and nutrients but may lack the diversity necessary to meet all the infant's nutritional needs. Diversification of complementary foods is essential to ensure a well-balanced diet (18).

### 5. CONCLUSION

In conclusion, the age of food introduction and the types of foods chosen by mothers in intermittent mixed feeding trajectories can have significant implications for infant health and nutrition. The introduction of complementary foods before the recommended six months may impact an infant's development, and the choice of foods introduced should prioritize nutrient diversity. Healthcare providers should educate mothers about appropriate feeding practices and promote adherence to global guidelines to optimize infant health.

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### CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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