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Knowledge of Exclusive Breastfeeding and Its Benefits Among Primipara Mothers in Selected Community Areas: A Community-Based Cross-Sectional Study

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Abstract

Exclusive breastfeeding (EBF), defined as feeding infants only breast milk without any additional food or fluids for the first six months of life, is a cornerstone of optimal infant nutrition and health. Recommended by the World Health Organization (WHO) and UNICEF, EBF provides ideal nutrients, enhances immunity, promotes mother–infant bonding, and reduces the risk of both short- and long-term health problems for infants and mothers. Despite its well-documented benefits, gaps in maternal knowledge continue to affect optimal breastfeeding practices. The present study aimed to assess the level of knowledge regarding exclusive breastfeeding and its benefits among primipara mothers. A quantitative approach with a pre-test only design was adopted. The study was conducted among 60 primipara mothers selected from community areas, using a semi-structured interview questionnaire to assess knowledge. Data were analysed using descriptive statistics, including mean and standard deviation, and results were presented in tables and charts. The findings revealed that a majority of the participants, 48.3% (n=29), had poor knowledge regarding exclusive breastfeeding, while 31.7% (n=19) demonstrated average knowledge and only 20.0% (n=12) had excellent knowledge. This distribution indicates that nearly half of the mothers lacked adequate understanding of exclusive breastfeeding and its benefits. Further analysis showed a statistically significant association between age and level of knowledge, with a p-value of 0.023, suggesting that maternal age influenced awareness levels. The study concludes that substantial knowledge deficits exist among primipara mothers regarding exclusive breastfeeding. These findings highlight the urgent need for structured health education and counselling interventions at the community level to improve knowledge and promote optimal breastfeeding practices, ultimately contributing to improved maternal and child health outcomes.

Keywords: Exclusive breastfeeding, benefits of breast-feeding Knowledge, Primipara mothers

Introduction

The first year of a baby's life is a critical period that lays the foundation for long-term physical and cognitive health. Among all feeding practices, breastfeeding is recognized globally as the best way to meet an infant's physiological and psychological needs. It provides a complete and balanced source of nutrition tailored to the infant's developmental stages and contributes to stronger immune protection and healthier growth during early life. Breastfeeding not only nourishes the baby but also promotes emotional bonding and attachment between mother and child, which supports psychosocial development(Verducci et al. 2021;Orczyk-pawiłowicz 2024).

Breast milk is universally recognized as the ideal method of infant feeding. Breastfeeding provides numerous benefits not only to the baby but also to the mother. It protects mothers against breast and ovarian cancers, serves as a natural method of contraception through exclusive breastfeeding, and helps reduce the excess weight gained during pregnancy. These maternal benefits make breastfeeding a vital component of maternal and child health(Muro-valdez et al., 2023).

Breastfeeding offers both immediate and long-term health advantages for the child and the mother. For mothers, breastfeeding promotes faster uterine involution, reduces the risk of postpartum hemorrhage, and plays a significant role in child spacing. Additionally, it protects mothers from several acute and chronic illnesses, thereby contributing to overall maternal wellbeing(Purkiewicz et al., 2025).

According to the WHO recommendations, three factors are needed to reduce infant mortality rates, namely initiation of breastfeeding within 1 h of birth, practicing exclusive breastfeeding for 6 months, and proper supplementation at 6 months (Bashir et al., 2018).

In recent years, various types of infant formula have been developed; however, significant differences exist between the nutritional composition of formula milk and breast milk. Breastfeeding remains the most natural and complete method of meeting an infant's nutritional requirements. Exclusive breastfeeding is recommended for the first six months of life, followed by continued breastfeeding along with appropriate complementary feeding up to two years of age or beyond(Luo et al., 2023).

Given the numerous advantages it offers, breastfeeding is considered a major public health priority. Despite the well-established importance of breastfeeding, numerous barriers continue to affect its initiation and continuation. These barriers can be categorized into individual, interpersonal, community, organizational, and policy-level factors. Although many breastfeeding difficulties experienced during the first few weeks postpartum are considered normal, they often make continued breastfeeding challenging. Lactation is a time-sensitive physiological process, and experiences in the first hours and days after birth significantly influence a mother's ability to sustain breastfeeding after hospital discharge Common reasons for discontinuing breastfeeding before four weeks include sore nipples, perceived insufficient milk supply, and infant feeding difficulties, while at nine months postpartum, interference with social life has also been reported as a reason for weaning. Mothers further encounter challenges related to lifestyle adjustments, role transitions, reduced

breastfeeding self-confidence, inadequate knowledge, and limited peer support, leading to feelings of being overwhelmed during the early postnatal period. Additionally, individual-level barriers—such as a history of sexual abuse, substance abuse, use of prescription medications, lack of confidence, and traumatic birth experiences—are often the most difficult to overcome, highlighting that significant obstacles to breastfeeding persist despite its recognized benefits(Dunn et al., 2015; Mckinney, 2023; Phillips, 2011).

The knowledge attitude and practice of exclusive breastfeeding have been prejudiced by cultural, demographic, social, biophysical, and psychosocial factors. Studies have highlighted the significance of maternal knowledge in influencing breastfeeding initiation, exclusivity, and duration. Research revealed that a lack of accurate information regarding the benefits of breastfeeding and proper techniques can deter mothers from initiating or sustaining breastfeeding(Yogi et al., 2024).

Breastfeeding is aided by the positive attitude and knowledge of the mother. Offering prenatal and early postpartum education as well as ongoing breastfeeding counselling is essential to enhancing mothers' attitudes and comprehension of nursing practices, especially for new mothers(Alhamedi et al., 2025).

Findings of the studies reveal that interventions aimed at enhancing maternal knowledge through antenatal education and postnatal support significantly improved breastfeeding rates and practices. These results underscore the importance of equipping mothers with accurate and culturally relevant information to empower them in making informed decisions about breastfeeding.

Objectives

The objectives of the study were to:

1. Assess the level of knowledge regarding exclusive breastfeeding and its benefits among primipara mothers in selected community areas.
2. Associate the level of knowledge regarding exclusive breastfeeding among primipara mothers with socio demographic variables.

Hypothesis

There is no significant association between level of knowledge regarding exclusive breastfeeding and selected demographic variables

Methodology

Research design

A descriptive approach was adopted for the study.

Setting

The study was conducted in Harohalli Taluk, Ramanagara district, Karnataka.

Population and Sample

The target population comprised of Primipara mothers Sixty participants were selected using purposive sampling technique.

Inclusion Criteria

Primipara mothers

- Who were available at the time of data collection.
- Who were willing to participate in study

Exclusion Criteria

Primipara mothers:

- Who resides outside Harohalli taluk.
- Who can't read and write English and Kannada.

Tool for Data Collection

The tool used for data collection consisted of two sections.

Section A: Socio demographic data

It consists of age, mother tongue, religion, educational status, type of family, family income, occupation, past obstetric history and source of information.

Section B: Self structured knowledge questionnaire

It consists of 21 objective type questions covering the knowledge regarding exclusive breastfeeding and benefits. Each correct answer carries one mark, and the wrong answer carries zero mark. Scores ranging from 16–21 indicate excellent knowledge, scores between 10–15 reflect average knowledge, and scores from 0–9 denote poor knowledge.

Validity and Reliability

Content validity was ensured by obtaining opinions from five nursing experts. Modifications suggested for some questions were incorporated in the tool. Reliability was established using the split-half method, and the reliability coefficient was found to be 0.86, indicating high reliability.

Data Collection Procedure

After obtaining institutional permission and informed consent from participants, data was collected by distributing the self-structured questionnaire regarding exclusive breastfeeding and its benefits. 30-40 minutes were given to answer the socio-demographic data and knowledge questionnaire. An information pamphlet regarding exclusive breastfeeding and its benefits was distributed to the subjects after the data collection.

Data Analysis

The data collected was analyzed using both descriptive and inferential statistical methods. Descriptive statistics such as frequency, percentage, mean, and standard deviation were used to summarize the demographic characteristics of the participants and to describe their level of knowledge regarding breast feeding and its benefits. Inferential statistics were applied to test the study hypotheses to determine the association between knowledge scores and selected demographic variables.

Results

The results are organized under three main headings: demographic characteristics of the participants, description of knowledge scores, and the association between knowledge scores and selected demographic variables. Descriptive statistics were used to summarize participants' demographic information and knowledge levels, while inferential statistics such as Fisher's Exact test, was applied to assess the association between knowledge scores and demographic variables.

Section A: Distribution of socio-demographic variables of primipara mothers.

Out of the 60 participants, majority 45.0% (27) of subjects aged 23-25 years, 78.3% (47) of the subjects belong to Hindu religion, most of the subjects 45.0% (27) had completed their education up to higher primary, 51.7% (31) of the subjects pertain to a joint family, while 55.0% (33) of the subjects have monthly income between Rs 10001-15000 , 56.7% (34) of the subjects were housewives, majority 91.7% (55) of the subjects does not have a history of miscarriage or stillbirth and 53.3% (32) of the subjects got information about breastfeeding from their family.

Section B: Distribution of level of knowledge regarding exclusive breastfeeding and its benefits among primipara mothers

The knowledge levels of primipara mothers are described in Table 1

Table 1: Distribution of level of knowledge regarding exclusive breastfeeding

n=60

Knowledge category	Frequency	Percent
Average Knowledge	19	31.7
Excellent Knowledge	12	20.0
Poor Knowledge	29	48.3
Total	**60**	**100.0**

The above table depicts the knowledge levels of 60 mothers : 31.7% (19) had average knowledge, 20.0% (12) had excellent knowledge, and 48.3% (29) had poor knowledge. This distribution indicates that nearly half of the individuals had a poor understanding of exclusive breast feeding and its benefits.

Section C: Association between level of knowledge with socio demographic variables.

Association between the level of knowledge regarding exclusive breastfeeding among primipara mothers with socio demographic variables are described in Table 2.

Table 2: Association between the level of knowledge regarding exclusive breastfeeding among primipara mothers with socio demographic variables.

n=60

Demographic Variables		Pretest			Fisher's Exact	df	p value
		Average Knowledge	Excellent Knowledge	Poor Knowledge			
Age (Binned)	<= 19	0	1	1	12.683	6	0.023*
	20 - 22	8	0	14			
	23 - 25	7	9	11			
	26+	4	2	3			
Religion	Hindu	14	10	23	0.472	2	0.844
	Muslim	5	2	6			
Educational	Diploma	0	0	3	4.274	6	0.656
	Higher primary	10	5	12			
	Others	5	5	6			
	PUC	4	2	8			
Type of family	Joint family	12	7	12	2.421	2	0.344
	Nuclear family	7	5	17			
Family income	5001 - 10000	4	5	8	4.824	6	0.567
	10001 - 15000	12	4	17			
	15001 - 20000	3	2	3			
	20001+	0	1	1			
Occupation	Farmer	1	1	3	1.387	4	0.899
	Housewife	10	8	16			
	Others	8	3	10			
Obstetric history	Miscarriage	3	1	1	2.335	2	0.333
	Nil	16	11	28			
Information source	Family	10	7	15	3.012	4	0.58
	Hospital	5	2	11			
	Media	4	3	3			

*P< 0.05 level of significance

From table 2 it is evident that other than age (p=0.023) none of the demographic variables like Religion, Educational status, Type of family, Family income, Occupation, Obstetric history or Informational source are associated with knowledge level.

Discussion

In the present study most of the subjects 45.0% (27) aged 23-25 years. Majority 78.3% (47) of subjects belongs to Hindu religion and 45.0% (27) of subjects were educated up to higher primary. Majority 51.7% (31) of subjects belonged to a joint family and 55.0% (33) of subjects had a family income of Rs 10001-15000 and 56.7% (34) of subjects were housewives. Majority 91.7% (55) does not had a history of miscarriage or stillbirth and only 8.3% (5) had a history of miscarriage. Majority 53.3% (32) of the subjects got information from their family,30.0% (18) got their information from the hospital and 16,7% (10) got information from media.

A similar study conducted in Egypt showed that majority 74.5% of the subjects pertain to the age group of 20-30 years and 27.4% of the subjects completed their university education. 80.2% of the subjects were housewives, majority of the subjects are married and most of them had a sufficient income to meet the needs of the family and majority of the subjects lived in a nuclear family(Mohammed et al., 2024).

In this study almost 31.7% (19) of subjects had average knowledge, 20.0% (12) had excellent knowledge, and 48.3% (29) had poor knowledge. This distribution indicates that nearly half of the individuals had a poor understanding of breast feeding and its benefits.

A cross-sectional study conducted at Kerala, India which included 50 primipara mothers showed that majority 70% (35) had average knowledge, 22% (11) had adequate knowledge and 8% (4) had inadequate knowledge(K Lakshmi, 2021).

Another similar comparative cross-sectional study conducted in West Tripura which included 200 primipara mothers revealed that 59% of the mothers had adequate knowledge about breast feeding and 41% of the mothers had inadequate knowledge (Mog, 2021)

The present study found that only age has association between level of knowledge with socio demographic variables. In contradictory to findings of this study one study reported that occupation of the mothers had the strongest association between level of knowledge about breast feeding .Similarly, reported educational level is associated with the level of knowledge of the mothers about breast feeding (Mohammed et al., 2024 ;Gajalakshmi S, Janki Bartwal, Chandra Mohan Singh Rawat, 2024) .

Implications

The findings of this community-based cross-sectional study highlight the existing level of knowledge regarding exclusive breastfeeding and its benefits among primipara mothers, underscoring the critical role of early maternal education in promoting optimal infant feeding practices. The study emphasizes the need for strengthening antenatal and postnatal health education services at the community level, particularly through nurses, ASHA workers, and other frontline health professionals. Improved knowledge among first-time mothers can positively influence breastfeeding initiation, exclusivity, and duration, thereby contributing to better maternal and child health outcomes, reduced infant morbidity and mortality, and progress toward national and global breastfeeding promotion goals.

Strengths and Limitations

A key strength of this study is its community-based approach, which provides a realistic understanding of knowledge levels among primipara mothers in their natural setting, thereby enhancing the applicability of the findings. The use of a structured questionnaire ensured uniform data collection. However, the cross-sectional design limits the ability to establish causal relationships between knowledge and breastfeeding practices. Additionally, the study relied on self-reported data, which may be subject to recall and social desirability bias, and the findings may have limited generalizability due to the restriction to selected community areas and small sample size.

Recommendations

Based on the study findings, it is recommended that structured and continuous breastfeeding education programs be incorporated into routine antenatal and postnatal care services, with special focus on primipara mothers. Community-based interventions such as group education sessions, mother support groups, home visits, and counseling by trained nurses and community health workers should be strengthened. Educational materials tailored to cultural beliefs and literacy levels should be developed, and family members—especially husbands and elders—should be involved to enhance support for exclusive breastfeeding. Further interventional and longitudinal studies are also recommended to assess the effectiveness of educational strategies on actual breastfeeding practices.

Conclusion

This community-based cross-sectional study concludes that primipara mothers in selected community areas possess varying levels of knowledge regarding exclusive breastfeeding and its benefits, indicating notable gaps despite the recognized importance of breastfeeding for maternal and child health. Adequate knowledge is essential for the successful initiation and continuation of exclusive breastfeeding during the first six months of life. The findings emphasize the need for targeted, consistent, and culturally appropriate educational interventions during the antenatal and postnatal periods. Strengthening the role of nurses and community health workers in breastfeeding education and support can significantly enhance mothers'

understanding and contribute to improved exclusive breastfeeding practices, ultimately promoting better health outcomes for both mothers and infants.

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