

A Descriptive Study to Assess Knowledge and Attitude Towards Colostrum Feeding for Newborns among Third Trimester Antenatal Mothers At KMCT Women and Child Hospital, Manassery, Kozhikode

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ABSTRACT

Colostrum feeding is an important component of early newborn nutrition and is associated with protection against infection and support for neonatal health. The present descriptive study was conducted to assess the level of knowledge and attitude regarding colostrum feeding among third trimester antenatal mothers at KMCT Women and Child Hospital, Manassery, Kozhikode. The objectives were to assess knowledge, assess attitude, and determine the association between knowledge and selected demographic variables. A quantitative descriptive research design was used. Sixty third trimester antenatal mothers attending the antenatal OPD and wards were selected by non-probability convenience sampling. Data were collected using a demographic proforma, a self-structured knowledge questionnaire and a Likert scale for attitude. The data were analysed using descriptive statistics and Pearson chi-square test. The findings showed that 50 (83.33%) mothers had adequate knowledge, 8 (13.33%) had moderate knowledge and 2 (3.33%) had inadequate knowledge. Regarding attitude, 40 (66.66%) had a positive attitude, 12 (20%) had a neutral attitude and 8 (13.33%) had a negative attitude. The study reported significant associations between knowledge level and educational status, occupational status, parity, number of living children, history of previous breastfeeding, source of previous information and antenatal clinics attended. No significant association was reported for age, religion, family type, monthly income or area of residence. The findings highlight the importance of continued antenatal education and nursing support to promote appropriate colostrum feeding practices.

Keywords: Knowledge; Attitude; Colostrum feeding; Newborn; Antenatal mothers

INTRODUCTION

Motherhood and the early neonatal period are important determinants of infant health. Appropriate infant feeding practices, particularly early initiation of breastfeeding and feeding of colostrum, are important components of newborn care. Colostrum is the first milk produced after delivery and is described in the study as a thick, yellowish secretion rich in protective and nutritional components. The research document emphasizes its role in neonatal immunity and describes colostrum as the newborn's first immunization. Despite these benefits, misconceptions and cultural beliefs may influence mothers' decisions about colostrum feeding. The source study notes that some mothers may regard colostrum as undesirable and may discard it or replace it with pre-lacteal feeds such as honey or sugar water. Such practices make antenatal education particularly relevant. The literature reviewed in the study also indicates that maternal education, previous breastfeeding experience, antenatal care and access to health information may influence knowledge and attitudes toward breastfeeding and colostrum feeding.

The present study was therefore undertaken to assess knowledge and attitude regarding colostrum feeding among third trimester antenatal mothers attending KMCT Women and Child Hospital, Manassery, Kozhikode.

Problem Statement

A study to assess the knowledge and attitude towards colostrum feeding for newborn among third trimester antenatal mothers of KMCT Women and Child Hospital, Manassery, Kozhikode.

Objectives

- To assess the level of knowledge of third trimester antenatal mothers regarding colostrum feeding.
- To assess the attitude of third trimester antenatal mothers regarding colostrum feeding.
- To find out the association between level of knowledge and selected demographic variables.

Hypotheses

H1: There is a significant relationship between the level of knowledge and the attitude of antenatal mothers toward colostrum feeding.

H2: There is a significant association between knowledge/attitude scores and selected demographic variables such as maternal education or previous breastfeeding experience.

The source manuscript states that hypotheses were tested at the 0.05 level of significance.

CONCEPTUAL FRAMEWORK

The conceptual framework described in the research report is based on the General Systems Model. The antenatal mother is viewed as a system that receives information and processes it into health knowledge, attitudes and intended behaviour. Input includes socio-demographic and environmental factors such as age, parity, religion, family income, residence, education, occupation, number of children, source of information, previous breastfeeding experience and antenatal clinic attendance. Throughput represents knowledge about colostrum, its nutritional and immunological value, and attitudes concerning beliefs about colostrum and willingness to initiate breastfeeding. Output represents enhanced awareness and the intention to feed colostrum to the newborn immediately after birth.

METHODOLOGY

Component	Description
Research approach	Quantitative research approach
Research design	Descriptive research design
Setting	Antenatal OPD and antenatal wards, KMCT Women and Child Hospital, Manassery, Kozhikode
Target population	Third trimester antenatal mothers (28–40 weeks of gestation)
Sample size	60 antenatal mothers
Sampling technique	Non-probability convenience sampling
Inclusion criteria	Third trimester mothers; willing and available during data collection; able to

	communicate in the local language
Exclusion criteria	Mothers with high-risk complications who were not stable for interview; mothers who had recently attended a specific formal breastfeeding education session; mothers unwilling to participate

Data Collection Tool

The tool consisted of a demographic proforma, a self-structured knowledge questionnaire and a Likert scale for attitude. The demographic section covered age, religion, type of family, education, occupation, residence, monthly family income, parity, number of living children, previous breastfeeding history, previous information on colostrum and antenatal clinic attendance. Knowledge was classified as good/adequate, moderate or poor/inadequate according to the scoring system in the research report.

The attitude scale classified responses into negative, moderate or positive categories. The tools were translated into Malayalam and back-translated into English with expert assistance. A pilot study was conducted among six antenatal mothers. Data collection was started after obtaining consent from participants. The research report states that descriptive analysis included frequency, percentage, mean and standard deviation, and that Pearson chi-square testing was used for association analysis.

RESULTS

A total of 60 third trimester antenatal mothers participated in the study. The principal findings are presented below.

Knowledge level	Frequency (n)	Percentage
Adequate / Good	50	83.33%
Moderate	8	13.33%
Inadequate / Poor	2	3.33%
Total	60	100%

Table 1. Distribution of antenatal mothers according to level of knowledge.

Attitude category	Frequency (n)	Percentage
Positive	40	66.66%
Neutral	12	20.00%
Negative	8	13.33%
Total	60	100%

Table 2. Distribution of antenatal mothers according to attitude toward colostrum feeding.

Measure	Mean score	Mean % score	SD
Knowledge	1.20	83.33%	0.52

Attitude	1.47	66.66%	0.72
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Table 3. Overall mean score, mean percentage score and standard deviation.

Demographic variable	χ^2	df	Table value	Interpretation
Age	2.94	6	12.59	Not significant
Religion	2.27	4	9.493	Not significant
Family type	1.56	4	9.496	Not significant
Educational status	13.20	6	12.59	Significant
Occupational status	14.80	6	12.59	Significant
Monthly income	1.18	6	12.59	Not significant
Area of residence	0.30	2	5.991	Not significant
Parity	7.54	2	5.981	Significant
Number of living children	10.60	4	9.496	Significant
History of previous breastfeeding	13.10	3	7.876	Significant
Source of previous information	8.90	6	12.59	Significant
Antenatal clinic attended	15.80	2	5.998	Significant

Table 4. Association between selected demographic variables and level of knowledge.

DEMOGRAPHIC VARIABLES	CHI SQUARE VALUE	DEGREE OF FREEDOM	TABLE VALUE	SIGNIFICANCE
Age	2.94	6	12.59	Not statistically significant
Religion	2.27	4	9.493	Not statistically significant
Family type	1.56	4	9.496	Not statistically significant
Educational status	13.2	6	12.59	Statistically significant
Occupational status	14.8	6	12.59	Statistically significant
Monthly income	1.18	6	12.59	Not statistically significant
Area of residence	0.30	2	5.991	Not statistically significant
Parity	7.54	2	5.981	Statistically significant
Number of living children	10.6	4	9.496	Statistically significant

History of previous breastfeeding	13.1	3	7.876	Statistically significant
Source of previous information	8.9	6	12.59	Statistically significant
Antenatal clinic attended	15.8	2	5.998	Statistically significant

The findings indicate that educational status, occupational status, parity, number of living children, history of previous breastfeeding, source of previous information and antenatal clinic attendance were significantly associated with knowledge regarding colostrum feeding. Age, religion, family type, monthly income and area of residence were not significantly associated with knowledge.

DISCUSSION

The present study found that most third trimester antenatal mothers had adequate knowledge (83.33%) regarding colostrum feeding, while 13.33% had moderate knowledge and 3.33% had inadequate knowledge. The study also found that 66.66% had a positive attitude, 20% had a neutral attitude and 13.33% had a negative attitude.

These findings differ from some of the studies reviewed in the source report. Moncy Francis and Bimla Rani (2021), for example, reported good knowledge in 48.1%, average knowledge in 44.2% and poor knowledge in 7.7% of antenatal mothers. Padmapriya et al. (2024) reported predominantly moderate knowledge and a positive correlation between knowledge and attitude ($r = 0.635$). The current study's comparatively high proportion of adequate knowledge may reflect the characteristics of the study population and setting.

The association analysis showed significant relationships between knowledge and educational status, occupation, parity, number of living children, previous breastfeeding history, source of previous information and antenatal clinic attendance. This is broadly consistent with the literature reviewed in the research report, which describes maternal education, previous experience and antenatal guidance as factors that can influence breastfeeding knowledge and practices.

The source report also states that age, religion, family type, monthly income and area of residence were not significantly associated with knowledge. The findings support the continued role of nurses and antenatal services in providing accurate information and reinforcing positive attitudes toward early breastfeeding and colostrum feeding.

Nursing Implications

Nursing Education

- Antenatal mothers and their families should receive structured education regarding the importance and benefits of colostrum feeding.
- Educational materials such as charts, posters and booklets can be used in antenatal clinics and wards.

Nursing Practice

- Nurses should encourage initiation of breastfeeding within the first hour after birth.
- Nurses should emphasize the protective value of colostrum and address misconceptions that may lead to its rejection.

Nursing Administration

- Continuous supervision and support can help ensure that antenatal education on colostrum feeding is incorporated into routine care.

Nursing Research

- The findings can serve as baseline information for future studies on colostrum feeding in different populations and settings.
- Further studies can evaluate structured teaching or counselling interventions.

Limitations

The source research report identifies the small sample size and single study setting as limitations that restrict generalization of the findings.

RECOMMENDATIONS

1. Replicate the study with a larger sample size and in other settings.
2. Conduct similar studies using a quasi-experimental design.
3. Conduct follow-up studies to assess the effectiveness of structured teaching programmes.

CONCLUSION

The present descriptive study assessed knowledge and attitude regarding colostrum feeding among 60 third trimester antenatal mothers at KMCT Women and Child Hospital, Manassery, Kozhikode. Most participants (83.33%) had adequate knowledge and 66.66% had a positive attitude toward colostrum feeding. Significant associations with knowledge were reported for educational status, occupational status, parity, number of living children, history of previous breastfeeding, source of previous information and antenatal clinic attendance. The findings underline the importance of sustained antenatal counselling and nursing education to reinforce appropriate colostrum feeding practices.

REFERENCES

1. Moncy Francis, Bimla Rani. A descriptive study to assess the knowledge regarding colostrum feeding and exclusive breastfeeding among antenatal mothers in Idukki. Anapublishing Private. 2021.
2. Padmapriya, et al. Knowledge and attitude regarding colostrum feeding among antenatal mothers: a community-based exploratory study. South Eastern European Journal of Public Health (SEEJPH). 2024.
3. Raju, et al. Knowledge and attitudes of nursing mothers as potential determinants of effective breastfeeding. Cureus. 2025.
4. Tejaswini, Balakrishna. A comparative study on knowledge regarding colostrum feeding among antenatal mothers in urban and rural areas of India. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2021.
5. Roy SK, Mallick AK. Knowledge and practice of breastfeeding and complementary feeding among mothers of under one year age children. International Journal of Medical and Pharmaceutical Research. 2025;6(4):1039–1042.
6. Asaro TB, Gutema BT, Weldehawaryat HN. Colostrum avoidance practice and associated factors among mothers of infants less than six months in Chenchu District: cross-sectional study. BMC Nutrition. 2023;9(1):18.

7. Agbokou A, Compaoré WRE, Traoré S, Ouédraogo O, Ouattara A, et al. Knowledge, attitudes and practices of mothers of children aged 6 to 12 months on breastfeeding in the province of Sissili in Burkina Faso. *BMC Nutrition*. 2025;11:1–11.
8. Baugh M. Breastfeeding practices and the use of colostrum in Eastern Nepal [dissertation]. 2018.
9. Joseph A, et al. Attitude towards breastfeeding among antenatal mothers. *International Journal of Maternal and Pediatric Nursing*. 2023.
10. Tejaswini, Balakrishna. A comparative study on knowledge regarding colostrum feeding among antenatal mothers in urban and rural areas of India. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*. 2021;10(6):2263–2267.
11. George A, et al. Knowledge, attitude and practice of breastfeeding among mothers in a rural area of Thrissur district. *International Journal of Community Medicine and Public Health*. 2022;9(3).
12. Sharma S. Knowledge and attitude of primigravida mothers regarding colostrum feeding. *The International Medicine*. 2023.
13. Padmapriya D, Mahalakshmi M, Manisha V, Manju S, Suganya M, Hemavathi R, Sridevi B. Knowledge and attitude level of antenatal mothers on colostrum feeding: a community-based exploratory study. *South Eastern European Journal of Public Health*. 2024;25(S1):2431–2436.
14. Khan A, et al. Attitude towards colostrum feeding among mothers. *International Journal of Health and Psychology*. 2025.
15. Shahid M, Wasqa TW, Saleem M, Kainat A, Zubair K. Assess the level of knowledge, attitude and practice among mothers about colostrum feeding. *International Journal of Healthcare Professions*. 2025;2(1):13–18.
16. Wassie YA, Ayalew AF, Belay YA. Colostrum feeding practice and associated factors among mothers having children less than 24 months of age in Ethiopia. *International Breastfeeding Journal*. 2019;14:1–8.
17. Joseph A, et al. Breastfeeding practices and factors influencing them among antenatal mothers in Wayanad, Kerala. *International Journal of Maternal and Pediatric Nursing*. 2023.
18. Tzani A, Xixi NA, Sokou R, Karapati E, Iliodromiti Z, Volaki P, Paliatsiou S, Iacovidou N, Boutsikou T. Factors influencing the colostrum's microbiota: a systematic review of the literature. *Children (Basel)*. 2025;12(10):1336.
19. Mohammed A, et al. Colostrum avoidance and associated factors among postnatal mothers in Ethiopia. *BMC Public Health*. 2025.
20. Wang Y, et al. Perinatal factors influencing infant feeding practices among mothers in China: a cross-sectional study. *BMC Pregnancy and Childbirth*. 2024;24:6711.