

Knowledge and Attitude Level of Antenatal Mothers on Colostrum Feeding - An Community Based Exploratory Study

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KEYWORDS

Antenatal Mothers, Attitude, Colostrum Feeding, Knowledge.

ABSTRACT

Background: Mothers during their postpartum period do not feed the newborns after child birth as soon as possible. They derelict colostrum feeding due to cultural beliefs and practices leading to lactation failure and immune deficits among newborn. Purpose: The main purpose of the current study was to evaluate the existing level of knowledge, attitude regarding colostrum feeding and to determine the co-relation between existing level of knowledge and attitude regarding colostrum feeding among third trimester antenatal mothers. Materials and methods: A descriptive correlative research design was adopted for the current study to find out the relationship between knowledge and attitude of third trimester antenatal mothers regarding colostrum feeding. The study was conducted in Maduramangalam Village after obtaining a formal permission from the village health officer. A total of 100 antenatal mothers were recruited as study participants through convenience sampling technique based on the inclusion criteria and a self- structured questionnaire was used to collect both the demographic data as well as for assessing the existing level of knowledge and attitude on colostrum feeding among third trimester antenatal mothers. Results: The study results concluded that, majority of our third trimester antenatal mothers who participated in the are moderately knowledgeable and has unfavorable attitude towards colostrum feeding. The mean score of knowledge on colostrum feeding was 6.05 ± 1.76 and the mean score of attitude was 12.65 ± 4.56 among third trimester antenatal mothers. The calculated Karl Pearson's Correlation value of $r = 0.635$ identified a moderate positive correlation between knowledge and attitude which infers that, when knowledge on colostrum feeding among third trimester antenatal mothers increases then ultimately their attitude towards it also increases.

1. Introduction

Across the globe Malnutrition is either directly or indirectly accountable for 60% of the 10.9 million mortality among children under the threshold of five that are reported annually. [1] The cardinal nourishment for a newborn is mother's breast milk. Within half an hour of birth breast feeding should be initiated for the neonate. [2]. During late pregnancy, the mammary glands produce the first milk called colostrum which is rich in chloride, sodium, proteins, vitamin A [3] as it provides natural immunity for the newborn against specific bacterial and viral infections [4.]. The onset of breastfeeding after delivery is determined culturally. The cultural practices and beliefs prevail the mothers not to feed their neonates immediately during the postnatal period. [5] In order to meet the requirements of her baby and to get herself ready to begin lactation, pregnant women need to eat healthily [6]. In the developing countries, few mothers avert to feed the colostrum as it has no nutritional value and has an adverse impact on newborn's health based on their traditional and cultural beliefs [7]. Under nutrition among children may be due to avoidance of colostrum and delayed breast feeding. [8]. Among under five children, the major cause of death mainly due to malnutrition constitutes about 45%. [9]. Two-thirds of the estimated 2.4 million infants that die in India annually were the result of improper baby feeding habits [10] Around one-fourth of all deaths of newborns globally occur in India, where 1.2 million neonates dies year[11].

When compared to the WHO recommendation, the overall percentage of mother's who deliver colostrum to their newborns within sixty minutes to five days (64%) was low. According to WHO guidelines, all newborns should be fed colostrum breast milk within an hour of their birth.[12] S mall amount of colostrum are produced by the

mother's breast during the early stages of breast feeding which will boost their milk production shortly after few days of postpartum period. [13] Colostrum is considered as the first food for the neonates [14] which has an laxative effect which helps the neonates in passing first stool called meconium thereby removes excess bilirubin and helps in preventing jaundice Maternal barriers including mother's inadequate knowledge regarding the importance of breast feeding initiation , the positive aspects of colostrum, misinterpretation of the mothers that , immediately after the delivery the breast milk does not come for first few days and the breast milk that is produced is insufficient to meet the neonate needs which prevents the colostrum feeding to the newborn. [2] It has been reported that in the first 24 hours of life, expressing the colostrum and storing it plays a crucial role in enhancing the output of breast milk. [15]. It has been identified that, the colostrum is very often discarded, As recommended by WHO, the first step in 1st hour of newborn life is feeding colostrum as it prevents malnutrition [16]. To enhance pregnancy outcomes and reduce associated morbidity and/or mortality for both the developing fetus and the expectant mother, perinatal care is essential. [17].It has been identified by the investigators during their clinical experience in the community area, enomorous pregnant mothers during their prenatal period had inadequate knowledge regarding the importance and benefits of colostrum feeding, so the investigators by their self-interest wanted to identify their present knowledge and attitudes regarding the colostrum feeding among third trimester antenatal mothers. Therefore, the objectives of current study were

1. To evaluate the existing level of knowledge and attitude regarding colostrum feeding among third trimester antenatal mothers
2. To determine the co-relation between existing level of knowledge and attitude regarding colostrum feeding among third trimester antenatal mothers
3. To find out the association between knowledge and attitude regarding colostrum feeding among third trimester antenatal mothers with their selected demographic variables.

2. Materials and Methods

Study Design: An exploratory correlative research design was adopted for the current study to find out the relationship between knowledge and attitude of third trimester antenatal mothers regarding colostrum feeding. **Study Setting:** The study was conducted at Mappedu Primary Health Centre (PHC), **Ethical Approval:** After obtaining the ethical clearance from the Institutional Ethical Committee (IEC) of Saveetha Institute Of Medical And Technical Sciences and a formal permission from the village health officer, the study was conducted. **Study Participants:** A total of 100 antenatal mothers from 27 weeks of gestation who fulfils and meets the inclusion criteria were recruited as study participants. The inclusion criteria for present study includes antenatal mothers of both primi and multigravida who are in the third trimester, available during the study period, willing to participate and can read and speak Tamil or English. Third trimester antenatal mothers who had already received formal education on colostrum feeding, antenatal mothers who were involuntary, not available during the data collection, non –cooperative , critically ill , those who were unable to speak and hear, mothers who were unable to give the required information during the data collection period were excluded. **Sampling Technique:** Third trimester antenatal mothers were recruited through convenience sampling technique based on the inclusion criteria. **Informed Consent:** The purpose of study was explained clearly indepth to each of the study participant and a written informed consent was obtained from them. **Assessment:** A self- structured questionnaire was used to collect both the demographic data as well as for assessing the existing level of knowledge and attitude on colostrum feeding among third trimester antenatal mothers. The collected data was tabulated in a microsoft office excel and analysed using descriptive and inferential statistics.

3. Results and Discussion

Demographic Characteristics:

In the current study, majority of the trimester antenatal mothers, 34(56.7%) were aged between 26 – 30 years, 49(81.7%) belonged to nuclear family, 45(75%) were Hindus, 41(68.3%) had 1 – 2 children, 41(68.3%) had higher secondary education, 40(66.6%) were private employees, 45(75%) had an income of Rs. 10,000 –20,000 and 41 (68.3%) were multi parity.

Assessment On Existing Level Of Knowledge And Attitude On Colostrum Feeding Among Third Trimester Antenatal Mothers.

The present study revealed that, 24(40%) had moderately adequate knowledge, 21(35%) had inadequate

knowledge and 15(25%) had adequate knowledge on colostrum feeding. (As depicted in table:1 and figure:1) The present study revealed that ,31(51.67%) had unfavorable attitude, 21(35%) had moderately favorable attitude and 8(13.33%) had favorable attitude on colostrum feeding. (As depicted in table:2 and figure:2)

Table 1: Frequency And Percentage Distribution On Knowledge Level Of Colostrum Feeding Among Third Trimester Antenatal Mothers N = 60

Level of Knowledge	Frequency	Percentage
Inadequate ($\leq 50\%$)	21	35.0
Moderately Adequate (51 – 75%)	24	40.0
Adequate ($>75\%$)	15	25.0

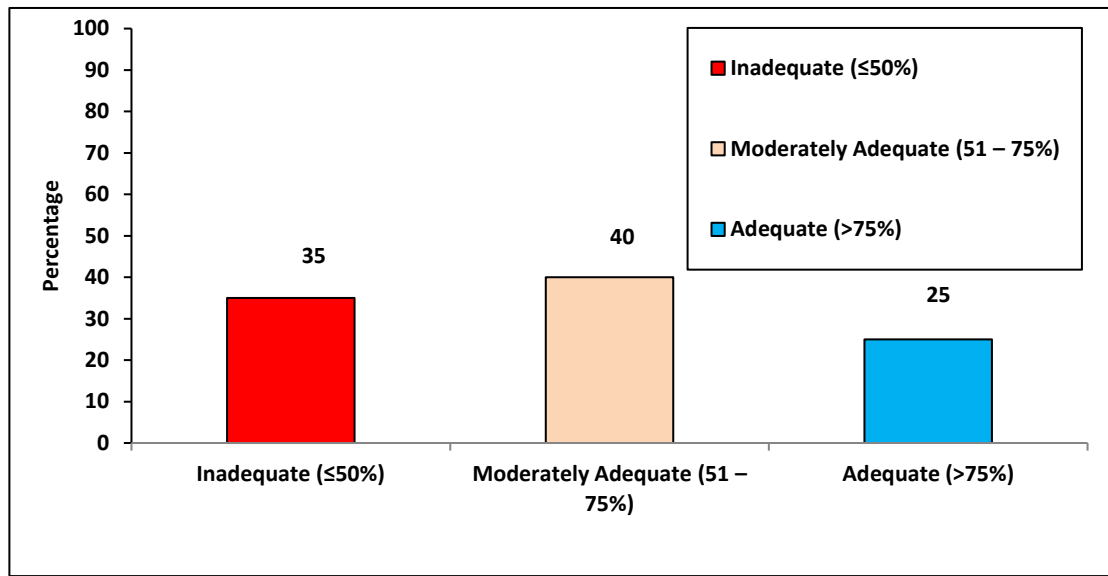


Figure: 1 Percentage Distribution On Knowledge Level Of Colostrum Feeding Among Trimester Antenatal Mothers

Table 2: Frequency And Percentage Distribution Of Attitude On Colostrum Feeding Among Third Trimester Antenatal Mothers. N = 60

Level of Attitude	Frequency	Percentage
Unfavourable ($\leq 50\%$)	31	51.67
Moderately Favourable (51 – 75%)	21	35.0
Favourable ($>75\%$)	8	13.33

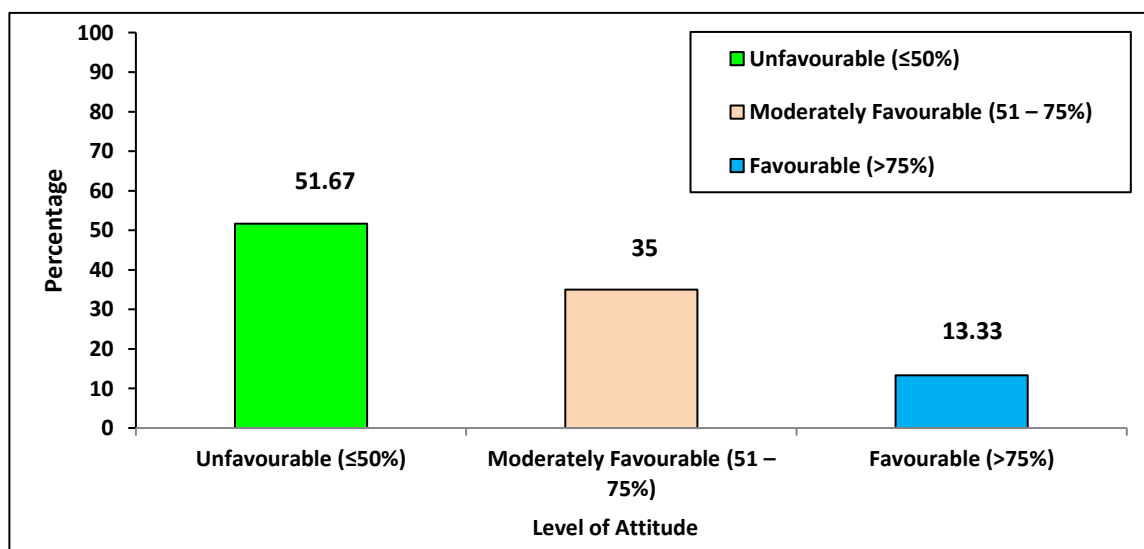


Figure:2 Percentage Distribution Of Attitude On Colostrum Feeding Among Third Trimester Antenatal Mothers

Majority of our study participant's in the present investigation, had a moderate knowledge about colostrum feeding and when asked information about the importance of colostrum to our respondents, they received the information through mass media, colleagues and health care professionals during their visit to the antenatal clinic during their routine health evaluation. Pertaining to our study participants' attitudes towards colostrum feeding. Data was gathered regarding the significance of colostrum and whether it is an appropriate diet for a newborn's growth. While colostrum is thought to be a dirty part of milk and is prohibited by culture, it is not useful since it causes diarrhoea and cramping in the abdomen.

In order to evaluate lactating women's knowledge, attitudes, and practices concerning colostrum feeding in Northeast Ethiopia, a cross-sectional study was carried out. The study's findings indicated that the respondents' knowledge and attitudes were extremely low.[18] A cross-sectional study conducted in a facility involved 342 antenatal mothers, focusing on assessing their knowledge and attitudes towards colostrum feeding using a structured interview approach. The findings revealed that 66.1% of the participants were knowledgeable, while 30.1% exhibited a negative attitude toward colostrum feeding.[19,20] A community based investigation was carried out to determine the knowledge and attitude of antenatal mothers regarding colostrum feeding and the results depicted that, there was inadequate knowledge and negative attitude towards colostrum feeding[21] whereas in our present study also, majority of our study participants 31 (51.6 7%) depicted a unfavourable attitudes towards colostrum feeding.

It is clear and that, the present study findings and the other supportive studies proves that knowledge and practices related to colostrum feeding varies based the antenatal mothers cultural and religious beliefs, life style practices, the residential living, the educational status of the mothers, the involvement of the mothers in mass media, the experience of lactation during their previous lactation period which the investigators failed to identify the exact reason for inadequate knowledge and unfavourable attitudes of our study participants towards the importance of colostrum feeding. The investigator's predicts that, any of the above factors of our study participants to have moderate knowledge and unfavourable attitude towards colostrum feeding.

Relationship Between Knowledge And Attitude On Colostrum Feeding Among Third Trimester Antenatal Mothers.

The current study depicts that, the mean score of knowledge on colostrum feeding among trimester antenatal mothers was 6.05 ± 1.76 and the mean score of attitude was 12.65 ± 4.56 . The calculated Karl Pearson's Correlation value of $r = 0.635$ shows a moderate positive correlation between knowledge and attitude which infers that when knowledge on colostrum feeding among third trimester antenatal mothers increases then ultimately their attitude towards it also increases. (As depicted in table:3 and figure:3)

Table 3: Correlation Between Knowledge And Attitude On Colostrum Feeding Among Third Trimester Antenatal Mothers. N = 60

Variables	Mean	S.D	Karl Pearson's Correlation & 'r' value
Level of Knowledge	6.05	1.76	$r = 0.635$ $p = 0.0001, S^{***}$
Level of Attitude	12.65	4.56	

*** $p < 0.001$, S – Significant

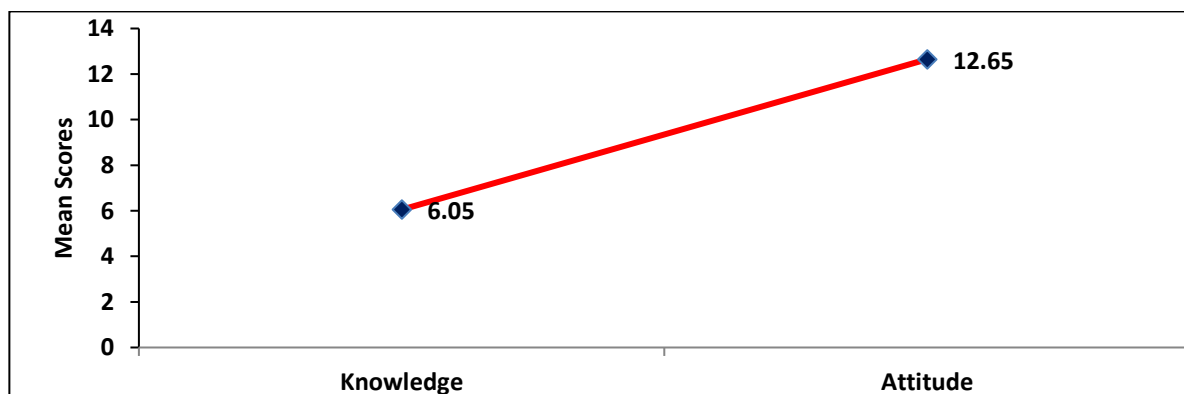


Figure: 3 Correlation Between Knowledge And Attitude On Colostrum Feeding Among Third Trimester Antenatal Mothers

Association Of Knowledge And Attitude On Colostrum Feeding Among Third Trimester Antenatal Mothers With Selected Demographic Variables

The present study revealed that, the demographic variable occupation ($\chi^2=13.860$, $p=0.031$) had shown statistically significant association with level of knowledge on colostrum feeding among third trimester antenatal mothers at $p<0.05$ level and the other demographic variables had not shown statistically significant association with level of knowledge on colostrum feeding among third trimester antenatal mothers. The demographic variables had not shown statistically significant association with level of attitude on colostrum feeding among third trimester antenatal mothers.

LIMITATIONS : Study was done with a small sample size. Multicentric studies with larger population will be helpful for attaining additional inputs.

STRENGTHS:

- 1.Education along with vigilant monitoring regarding data collection tools and procedures.
- 2.The in-person interview way of gathering information promotes data quality and the rate of responses.
- 3.A significant group was chosen to represent the high response rate.

4. Recommendations:

- 1.The current study proposes health education initiatives to be implemented for postpartum mothers on the nutritional value of colostrum.
- 2.Additionally, mothers' knowledge regarding colostrums should be impacted by health education offered by hospitals and health services with media playing an additional beneficial role.

5. Conclusion:

Based on the findings of the current study, it was evident that, majority of our third trimester antenatal mothers who participated are moderately knowledgeable and has unfavorable attitude towards colostrum feeding .So as a midwife nurse and other health care profession should initiate action in imparting the knowledge on colostrum feeding as a part of nursing care to minimize the complications that arise out of neglecting the colostrum feeding to their neonates during the postnatal period .

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