

# A Descriptive Study to Assess the Knowledge Regarding Importance of Colostrum among Antenatal Mothers at Selected Hospitals Mysuru

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**Abstract:** *Background:* The first milk is the most suitable food for the newborn. It is thick and yellow coloured, the shastra call it "Peeyusha" (equal to amrita, "the liquor of life") and western science uses the word Colostrum. For most of the children breastfeeding making the difference between life and death and it is the infants passport to life. The purpose of this study to assess the knowledge regarding importance of colostrum feedings among antenatal mothers at selected hospitals at Mysore. *Methodology:* A descriptive approach was adopted for the study. Research was done using a descriptive survey design. The sample size was 80 antenatal mothers from Kamakshi and Apollo Hospitals at Mysuru. Purposive sampling was used to choose the sample. Data was gathered through questionnaire which consists of questions to assess the knowledge and data was then analyzed by using descriptive and inferential statistics.

**Keywords:** Colostrum, Antenatal

## 1. Introduction

Immediately following childbirth, the mammary gland release colostrums, which is the initial type of breastmilk. It has a lot of nutrients and is rich in antibodies and antioxidants, which help a newborn baby's immune system develop. Within two or four days of the baby birth it transforms into breast milk. Compared to regular breast milk, colostrums is thicker and more yellow in colour. It is also considered first vaccine which needs a warm chain made by mother - infant contact. It is secreted in very less amount (30 - 100ml), so the mothers need to be explained that this small amount of colostrums is adequate for infant and must not be denied.

Breast milk is a complete food and it provides all the nutrients a baby needs during first six months of life. Breast milk more easily digestible due to presence of digestive enzymes and high quality of proteins. Breast feed babies have been shown to develop better protective response to various vaccines compared to bottle feed babies.

Colostrum is significantly lower in lipids and potassium than regular milk, but particularly rich in protein, carbohydrates, vitamin A and salt chloride. Because of immature digestive systems, newborns benefit from colostrums's low volume, concentrated form of nutrient delivery. Colostrums laxative properties help Meconium, a baby first poo, pass more easily. This help to avoid jaundice by removing excess bilirubin, which produced in significant amounts before birth. Several immunoglobulin, including IgA and IgG and IgM3 are present. Colostrum also contains immune boosting substances such as lactoferrin, lysozyme/lactoperoxidase, complement, and proline -rich peptide (PRP). Additionally, it includes a number of cytokines and growth factors. PRP help against various viral infections, bacterial, HIV, which are difficult to treat, various cancer, asthma, allergies and

autoimmune diseases. It helps to reduce one of the leading cause of death like diarrhea and ARI.

## 2. Significance of study

The importance of colostrum is known to the limited population. There are still many people who believe that colostrum is a harmful substance which should be discarded. It is thought to be an unwanted substance related to ill health. There are certain barriers preventing the feeding of colostrum to the newborn babies. Maternal barriers are that many mothers lack knowledge about the importance of early initiation of breastfeeding and the benefits of colostrum feeding. . They even discard it themselves and also on the advice of family members.

It is estimated that up to 4, 000 newborns and young children worldwide perish everyday as result of not receiving colostrums within the first hour of delivery. One fourth of the nation of population is made up of mothers and children. They are the group most susceptible to diseases.

Cultural practices have its effects on colostrum feeding, as they believe it to be old milk that has been present in the mother and perceive it as unfit for the baby, hence it should be thrown out. The formula feeding has been considered as the status symbol for the mothers in many urban areas. The mistaken notions about the practice of the colostrum feeding, adversely affect the body form and the growth regarding formula feed as being superior in composition to breast milk. Lack of will to breast feed the child by the mother is another contributing factor.

A study was conducted to assess the Knowledge, attitude and practice of mothers infeeding: A hospital - based study. This is an observational descriptive cross - sectional study carried out among 220 mothers of under 2 years old children attending the pediatric out - patient department (OPD) at

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Janaki Medical College teaching hospital (JMCTH), Janakpur, Nepal. Mothers were interviewed using pre - designed questionnaire constructed after proper literature review. All mothers have idea that they have to breast feed their babies, but they did not have adequate knowledge on the appropriate way of breastfeeding. Only, 12.27% knew that they have to initiate breast feeding within 1 hour of birth, 15% idea on pre - lacteal feed, 5% had idea of importance of colostrum, 10% knew the meaning exclusive breast feeding, and 0% of the mother had idea on importance of night feeding. On 7.27% have knowledge on method on maintaining aseptic precaution during breastfeeding. Only 20.90% were practicing exclusive breast feeding, 70% mothers were practicing night feeds, 15% mothers practiced feeding one side at a time and 15% mothers were practicing appropriate attachment and positioning during BF. None of the mothers got any advice regarding breast feeding during antenatal care (ANC) visits. Only 15% mothers got proper method of breastfeeding advice after birth. 30% practiced burping after breastfeeding. 30% underwent practice of proper food to increase breast milk secretion.

Although studies have shown that colostrums is helpful for newborn babies, breastfeeding mothers and other family members are not well informed about it, which prevents the infants from consuming this nutritional nourishment. According to a study conducted in India, women were not informed of when colostrums and breastfeeding should begin. The small community is aware of colostrums's significance. Colostrum is still viewed by a sizable portion of the population as a dangerous chemical that ought to be avoided.

The study is essential since it aim to pinpoint colostum feeding gap and provide solution to close them in order to increase infant survival. Additionally, this study aid in the general public understanding of idea of colostrums. As only a small fraction of women received antenatal counselling regarding colostrums feeding.

### General objective

To assess the knowledge regarding importance of colostrum feedings among antenatal mothers.

### Specific objectives

Objectives of the study were

- 1) To assess the level of knowledge regarding importance of colostrum feeding among antenatal others
- 2) To find out the association between the level of knowledge of antenatal mother regarding the importance of colostrum feeding and with selected demographic variables.

### Study design

For the research, a descriptive design was used. The sample size for the current syudy was 80 antenatal mothers from Kamakshi and Apollo Hospitals at Mysuru. Purposive sampling statergies were used to choose the samples. Data was collected via a questionnaire that include knowledge assessment question and data was then analyzed using descriptive and inferential statistics.

### Sampling criteria

#### Inclusion criteria

- Only Antenatal mothers
- Who are Primipara
- Age between 18 to 20 years

#### Exclusion criteria

- Antenatal mothers who are uncooperative
- Antenatal mother not willing to participate in the study
- Who cannot read and write Kannada

#### Limitations

- Study limited to antenatal mothers
- Study conducted only in 2 settings - Apollo and Kamakshi Hospital Mysuru.
- Samples selected through non random sampling techniques.

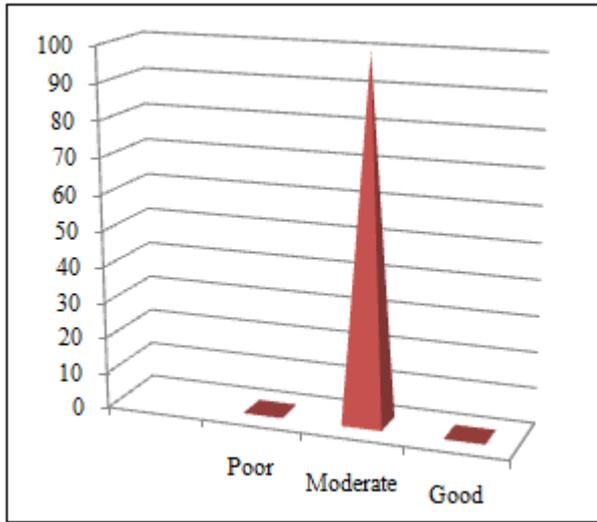
## 3. Result and discussion

### Section 1: Demographic variables

**Table 1:** Frequency and percentage distribution of antenatal mothers according to demographic variables

Demographic data	Category	Frequency	Percentage
Age	18 - 20 years	8	10%
	21 - 25 years	62	77.5%
	26 - 30 years	10	12.5%
Religion	Hindu	43	53.75%
	Christian	10	12.5%
	Muslim	25	31.25%
	Others	2	2.5%
Education	Primary education	55	68.75%
	Secondary education	21	26.25%
	Higher education	4	5%
Occupation	House wife	47	58.75%
	Professional	3	3.75%
	Others	30	37.5%
Place of residence	Rural	38	47.5%
	Urban	25	31.25%
	Semi urban	17	21.25%
Previous education on colostrum feeding	School	6	7.5%
	PHC	31	38.75%
	Family members	43	53.75%

### Section II: Data on knowledge level regarding importance of colostrum feeding among antenatal mother.



**Table 2:** Mean, median and standard deviation of knowledge regarding importance of colostrum feeding among antenatal mother

Knowledge	Maximum score	Mean	Median	Standard deviation
Importance of colostrum feeding	30	12.23	11	3.9

Table 2 represents that the obtained mean were 12.23 with standard deviation of 3.91. It was inferred that the antenatal mother has moderate knowledge regarding colostrum feeding.

**Section 3:** Analysis of association between knowledge score with selected background variable

Demographic variables	Category	Frequency	DF	X <sup>2</sup>	Table value
Age in years	18 - 20	8	2	7.91	5.99 (S)
	21 - 25	62			
	26 - 30	10			
Religion	Hindu	43	3	18.57	7.82 (S)
	Christian	10			
	Muslim	25			
	Others	2			
Education	Primary education	55	2	17.65	5.99 (S)
	Secondary education	21			
	Higher education	4			
Occupation	Housewife	4477	2	10.35	5.99 (S)
	Professionals	33			
	Others	30			
Residence place	Rural	38	2	16.59	5.99 (S)
	Urban	25			
	Semiurban	17			
Previous education on colostrum feeding	School	6	2	0.40	5.99 (NS)
	PHC	31			
	Family members	43			

**4. Discussions**

**Findings on data on knowledge regarding importance of colostrum feeding.**

The obtained mean was 12.23 with standard deviation of 3.91. it was inferred that the antenatal mother has moderate knowledge regarding colostrum feeding

**Findings on association between knowledge regarding importance of colostrum feeding with selected demographic variables.**

There is an association with selected demographic variables such as Age  $\chi^2=7.91$  (table value=5.99), Religion  $\chi^2 - 18.57$  (table value=7.82), Education  $\chi^2 - 17.65$  (table value=5.99), Occupation  $\chi^2 - 10.35$  (table value=5.99) and the place of residence  $\chi^2=16.59$  (table value=5.99).

There is no association with the selected background variable Previous education on colostrum feeding  $\chi^2=0.40$  (table value=5.99).

Above finding supported by a similar study conducted to assess the knowledge regarding colostrum feeding. The findings reveal that knowledge of colostrum feeding significantly associated with age, religion and place of residence.

**5. Interpretation and Conclusion**

Efforts may be taken to improve the knowledge regarding importance of colostrum feeding.

Extensive education on importance of colostrum feeding should include in curative aspects.

Integration of theory and practiced is vital need and is important in nursing profession therefore study result can be integrated in nursing practice.

Further awareness programs should be arranged to improve the Knowledge, Attitude and Practice of colostrum feeding in India.

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