



(RESEARCH ARTICLE)



## Knowledge and attitude regarding expressed breast milk among lactating women in a selected hospital at Mangalore

Ramyashree S <sup>1,\*</sup>, Somin Simon <sup>2</sup>, Alphonsa Kurian <sup>2</sup>, Shwetha <sup>2</sup>, Simi Thomas <sup>2</sup> and Treasa Jacob <sup>2</sup>

<sup>1</sup> Department of Obstetrics and gynecological nursing, Father Muller College Of Nursing, Kankanady, Mangalore, Karnataka, India.

<sup>2</sup> II PBBSC Nursing, Father Muller College of Nursing, Kankanady, Mangalore, Karnataka, India.

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### Abstract

**Background:** Breast milk is the primary source of nutrition for infants. Breastfeeding is believed to decline infant mortality and morbidity rates and help attain developmental milestones. Now exclusive breastfeeding rate became low due to the engagement of lactating mothers in full-time employment and inadequate support for breastfeeding at the workplace. The study's main aim was to check lactating mothers' knowledge and attitude about expressed breastmilk.

**Methodology:** A quantitative descriptive approach was used to assess the knowledge and attitude of lactating women who met the inclusion criteria and 100 lactating mothers were selected by purposive sampling technique. The tools used were structured knowledge questionnaires and an attitude rating scale. Data were analyzed using descriptive and inferential statistics.

**Result:** Out of 100 lactating women majority of the participants, i.e., 62% had good knowledge, 29 % had excellent knowledge, 9% had average knowledge and 0% had poor knowledge of expressed breast milk. The majority of lactating women showed a favorable attitude (99%) and only 1% had an unfavorable attitude. There was no correlation or association between knowledge and attitude regarding expressed breast milk.

**Conclusion:** This study concludes that the majority of lactating women had good knowledge and a favorable attitude toward expressed breast milk.

**Keywords:** Knowledge; Attitude; Expressed Breast Milk Breastfeeding; Lactating Mother

### 1. Introduction

Breast milk is the primary source of nutrition for infants. Breastfeeding is widely believed to decline infant mortality and morbidity rate and helps to attain developmental milestones. Previous studies clearly show the health and socioeconomic benefits of breastfeeding to the babies, mothers' families, and society, special if practiced exclusively for the first 6 months of life, there are no other liquids or solids given to babies during these months. Now exclusive breastfeeding rate became low due to the engagement of lactating mothers in full-time employment and inadequate support for breastfeeding at the workplace. The study's main aim was to check the knowledge and attitude regarding expressed breast milk among lactating women<sup>1</sup>.

\* Corresponding author: Ramyashree S

## 2. Material and methods

A quantitative Descriptive design was chosen for the present study and conducted at Father Muller Medical College Hospital. The study consisted of 100 lactating women who fulfilled the inclusion criteria. Purposive sample techniques were used for the study. Primi and multigravida lactating women who had post-natal complications were excluded from the study. Initially, the Demographic characteristics of lactating women were assessed. A structured knowledge questionnaire on expressed breast milk was administered to the lactating mother. The attitude of the lactating mother on expressed breast milk was assessed by attitude rating scale.

## 3. Results

The majority of the subjects that is 57% belonged to the age group between 26-30 years, 14% belongs to 20-25 years, 19% belongs to 31-35 years and only 10% of the subjects were above 36 years, The data on education shows that 69% of subjects had UG education, 17% had graduated and 14% of subjects were postgraduates. More than half of the subjects 53% were prime mothers, 40% were 2nd pregnancy and 7% were in 3rd pregnancy. Out of 100 subjects, 64% were had a normal delivery and 36% of women were under one LSCS. About 52% of subjects were housewives, 33% were non-medical workers, 11% were in the medical field and only 4% doing other work. The data reveals that 53% of women lived in an urban area and 47% were living in a rural area. Most of the subjects 69% had previous knowledge, 30% of had no previous knowledge and only 1% not applicable (Table 1). The study revealed that that majority (62 %) of the participants had good knowledge and 29 % had excellent knowledge, 9% had average knowledge and 0% had poor knowledge on expressed breast milk (Table 2). The study showed that mean and standard deviation of knowledge score is  $8.48 \pm 1.56$  and the mean percentage is 70.6% (Table 3). The study revealed that majority of participants (99%) had a favorable attitude and only 1% of participants had an unfavorable attitude (Table 5). The study showed that there is no correlation between knowledge and attitude score ( $p=0.119$ ) of lactating women regarding the expressed breast milk (Table 8). Hence forth research hypothesis is rejected and null hypothesis is accepted. And there was no association between the knowledge score and attitude of lactating women with their selected demographic variables.

**Table 1** Frequency and percentage distribution of participants according to their baseline characteristics n=100

Sl. No.	Variables	Frequency	Percentage
1.	Age in years		
	a. 20-25	14	14
	b. 26-30	57	57
	c. 31-35	19	19
	d. 36 and above	10	10
2.	Educational status		
	a. Undergraduate	69	69
	b. Graduate	17	17
	c. Postgraduate	14	14
3.	Parity		
	a. 1 <sup>st</sup> pregnancy	53	53
	b. 2 <sup>nd</sup> pregnancy	40	40
	c. 3 <sup>rd</sup> pregnancy	7	7
4.	Delivery		
	a. Normal	64	64
	b. Caesarean	36	36
5.	Occupation		
	a. Medical	11	11

	b. Non-medical	33	33
	c. House wife	52	52
	d. Others	4	4
6	Place		
	Rural	47	47
	Urban	53	53
7	Previous knowledge		
	Yes	69	69
	No	30	30
	Not applicable	1	1

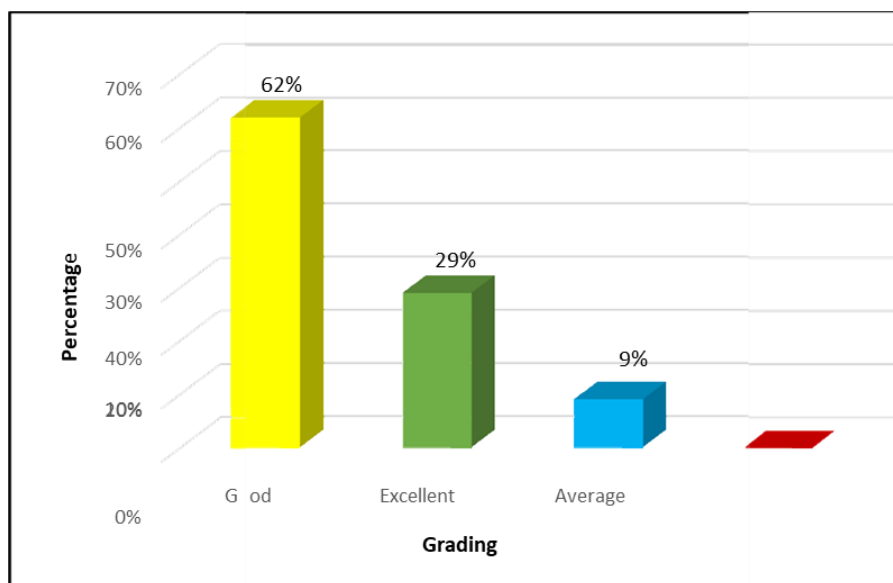
Section II: Assessment of knowledge regarding expressed breast milk among lactating women

A structured knowledge questionnaire was constructed by the investigator to assess the knowledge level of women regarding expressed breast milk and is presented using descriptive statistics.

**Table 2** Frequency and percentage distribution of participants according to the grading of their knowledge score n=100

Knowledge score	Grading	Frequency	Percentage
0-3	Poor	0	0
4-6	Average	9	9
7-9	Good	62	62
10-12	Excellent	29	29

Maximum score = 12, The data presented in Table 2 and Figure 3 reveals that majority (62 %) of the participants had good knowledge and 29 % had excellent knowledge, 9% had average knowledge and 0% had poor knowledge on expressed breast milk.



**Figure 1** Bar diagram showing the percentage distribution of participants according to their knowledge grade on expressed breast milk

**Table 3** Mean, standard deviation and mean percentage of knowledge score on expressed breast milk **n=100**

Mean ±SD	Mean percentage (%)
8.48 ± 1.56	70.6 %

Maximum score 12

The data presented in Table 3 shows that mean and standard deviation of knowledge score is 8.48±1.56 and the mean percentage is 70.6%.

**Table 4** Domain-wise mean, mean percentage, SD, and maximum score of knowledge score on expressed breast milk

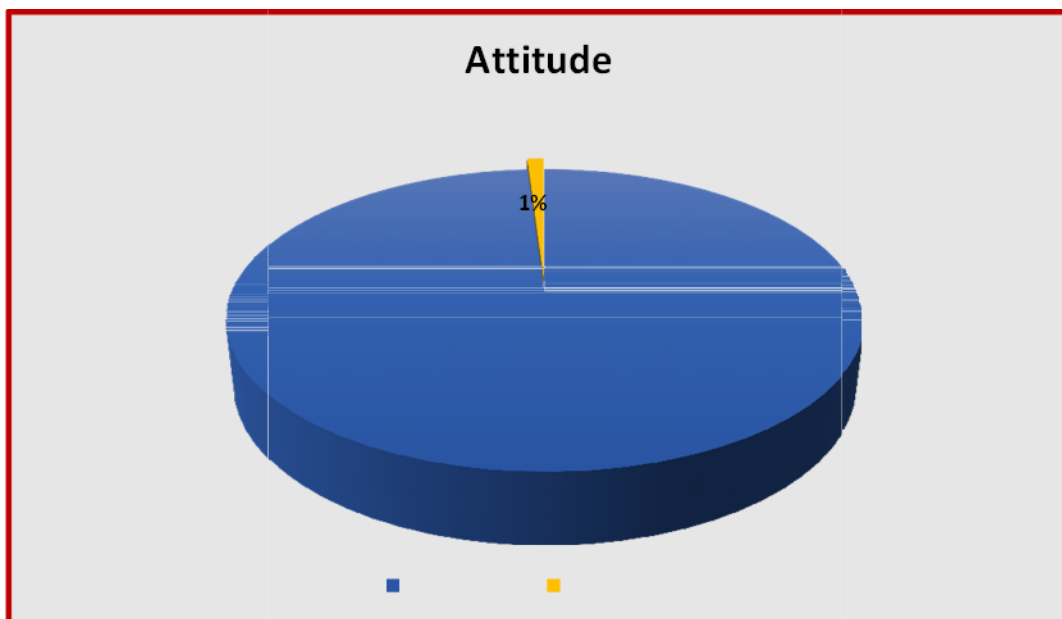
n=100	Domain	Domain		
		score	Mean±SD	Mean%
	General information on expressedbreast milk	3	2.27±0.52	18.9
	Storage of expressed breast milk	5	3.14±0.92	26.1
	Utilizations of articles	4	3.07±0.92	25.5
	Maximum score	12		

Section III: Assessment of attitude regarding expressed breast milk.

Attitude rating scale was used to assess the attitude of lactating women regarding expressed breast milk.

**Table 5** Frequency and percentage distribution of participants according to the level of attitude of expressed breast milk, n=100

Attitude score	Level of attitude	Frequency	Percentage
≥ 33	Favorable	99	99
≤ 32	Unfavorable	1	1



**Figure 2** The pie diagram showing the attitude level of expressed breast milk among lactating women

The data presented in Table 5 and Figure 4 reveals that majority of participants (99%) had a favorable attitude. attitude and only 1% of participants revealed unfavorable

**Table 6** Mean, standard deviation, and mean percentage of expressed breast milk among lactating women attitude score of n=100

Mean ±SD	Mean percentage (%)
45.8 ± 6.66	70.4 %

The data presented in Table 6 shows that the total mean percentage of the attitude is 70.4, thus majority of the lactating women had a favorable attitude towards the expressed breast milk.

Section IV: Assess the correlation between knowledge and attitude score of expressed breast milk among lactating women

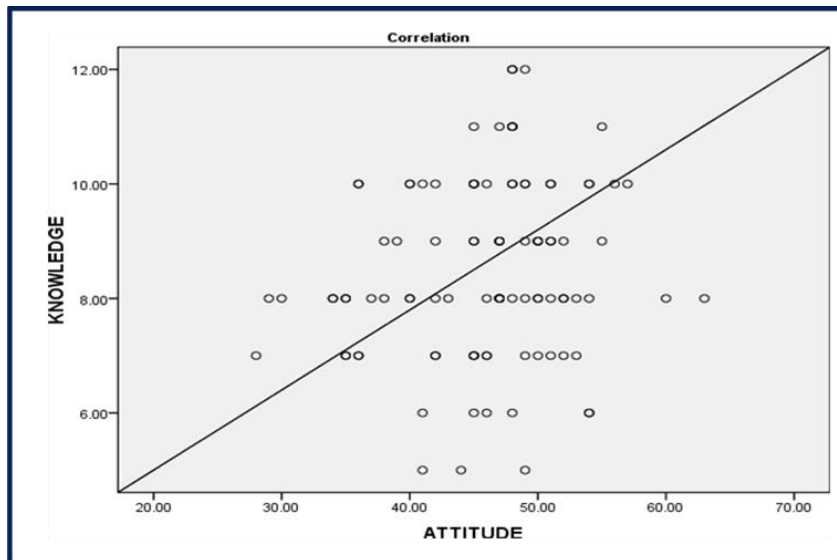
This section presents the relationship between knowledge and attitude of expressed breast milk regarding lactating women.

H1: There will be a significant correlation between knowledge and attitude regarding expressed breast milk.

The hypothesis was tested using Karl Pearson’s correlation coefficient.

**Table 7** Correlation between knowledge and attitude of lactating women regarding expressed breast milk n=100

Variables	Mean	SD	r value	P Value
Knowledge	8.48	±1.58	0.157	0.119
Attitude	45.8	±6.66		



**Figure 3** Scattered diagram showing a correlation between knowledge and attitude of lactating women regarding expressed breast milk

Data from Table 7 and Figure 5 reveals that there is no correlation between the knowledge and attitude score (p=0.119) of lactating women regarding the expressed breast milk. Hence fourth research hypothesis is rejected and the null hypothesis is accepted.

## Section V: Association of knowledge with demographic characteristics of lactating women

To determine the association between knowledge and demographic variables, the following hypothesis was stated.

H1: There will be significant association between knowledge and demographic characteristics of lactating women.

Chi square was computed to test the hypothesis.

**Table 8** Association between knowledge and demographic characteristics of lactating women, n=100

Knowledge score					
Sl. No.	Variables	≤median	>median	value	P value
1.	Age in years				
	a. 20-25	9	5		
	b. 26-30	31	26	0.714*	0.887
	c. 31-35	10	9		
	d. 36 and above	5	5		
2.	Educational status				
	a. Undergraduate	42	27		
	4.855*				0.805
	b. Graduate	9	8		
	c. Postgraduate	4	10		
	Parity				
	1st pregnancy	27	26		
	2nd pregnancy	25	15		
	3rd pregnancy	3	14		
	1.723* 0.432				
4.	Delivery				
	a. Normal	36	28	0.112	0.738
	b. Caesarean	191	17		
5.	Occupation				
	a. Medical	5	6		
	b. Non-medical	15	18	5.292*	0.149
	c. House wife	34	18		
	d. Others	1	3		
6.	Place				
	a. Urban	13	17	2.793	0.95
	b. Rural	25	28		
7.	Previous knowledge				
	a. Yes	33	36		
	4.877*				0.83

b. No	21	9		
c. Not applicable	1	0		

\* Fisher Exact test

The data from Table 8 computed chi square values shows that computed 'p' value is greater than 0.05 level of significance. Thus null hypothesis is accepted and research hypothesis is rejected. Hence there is no association of knowledge score with demographic variables of lactating women.

#### 4. Discussion

In the present study 57% of women belong to the age group of 26-30 years 19%, 14% and 10% of women belongs to 31-35 years, 22-25 years, 36 and above, respectively. About 69% of participants were under graduate and 17%, 14% were graduate and post graduate, respectively. Out of 100 women 53% were 1st pregnancy 40% 2nd pregnancy; only 7% were 3rd pregnancy. Normal delivery women were 64. And caesarean women were 36%. Half of the women are house wife and 33% women was non-medical occupation and 11% are medical occupation, only 4% coming under other type of occupation. 53% women coming from urban community and 47% women from rural community. About 69% of women had previous knowledge and 30% had no previous knowledge and only 1% coming under not applicable.

A cross sectional study was conducted among 120 mothers with their first child less than 2 years of age using structured interviews and systematic random sampling method to select the study participants. A total of 70.8% of lactating mothers had average knowledge, 55% displayed good attitude and 79.2% had good breastfeeding practices. A total of 57.5% of gave importance to colostrum and 85% delivered breastmilk as the first feed and 15% reported of pre-lacteal feeds as the first feed. The breastfeeding practices in the most literate state of India still can be improved, although women were aware of exclusive breastfeeding and its importance they did not practice this to the fullest.

The present study revealed that the majority 62% of the participants had good knowledge and 29% had excellent knowledge, 9% had average knowledge and none of the subjects had poor knowledge on expressed breast milk. The mean knowledge score of lactating women was  $8.48 \pm 1.56$  with 70.6%. A study was conducted at pediatric outpatient department of Kathmandu Medical College Teaching Hospital from June 2018 till December 2018. Out of 180 mothers, half of the mothers had adequate knowledge (50.6%) regarding expressed breastfeeding, while the other half had inadequate knowledge (49.4%) regarding expressed breast milk. Mean knowledge score was  $16.378 \pm 3.1693$ .

The finding of the present study showed that 99% of lactating women had a favourable attitude towards the expressed breast milk. The finding of the current study was found consistent with the findings of a study conducted in Malaysia. It shows that out of 300 participants mean score of attitude was  $36.1 \pm 5.16$ . 219 participants (73%) mothers had a positive attitude.

#### 5. Conclusion

This chapter deals with the conclusions drawn based on the findings of the study. The main purpose of the study was to assess the knowledge and attitude regarding expressed breast milk among lactating women. The structured knowledge questionnaire used to assess the knowledge and attitude was assessed by using a rating scale. The investigators found that the knowledge of lactating women about expressed breastmilk was good, and the majority of them have a favorable attitude toward expressed breast milk. There is no correlation between knowledge and attitude regarding expressed breast milk

#### Compliance with ethical standards

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##### *Disclosure of conflict of interest*

No conflict of interest

### *Statement of informed consent*

Informed consent was obtained from all individual participants included in the study.

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