

## Improve the Knowledge and Attitude Regarding Human Milk Donation and Banking among Antenatal Mothers in Outpatient Department at Selected Hospital

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### ABSTRACT

**Background And Objective:** Breastfeeding is the process of delivering and exposing the mother's breast milk to her infant either directly or through breast milk and bottle it to the infant. Donor human milk is one way to give child human milk when our own milk is not available. Human Milk Bank is a service for collecting, screening, processing, and distributing human milk donated by biologically unrelated nursing mothers to the receiving baby. A preterm newborn is an individual who always needs special care to survive and thrive.

**Materials And Methods:** A pre-experimental design and evaluative approach was used in the study. The data was collected from 60 subjects: through probability convenient sampling technique. Data was collected using structured questionnaires.

**Results:** The overall analysis of the level of knowledge of antenatal mothers regarding human milk donation and banking shows that the mean pretest knowledge obtained by the antenatal mother was 14.73 (58.92%) with standard deviation 12.72. After administration of information booklets, the mean knowledge score of the subjects was 20.45 (81.8%) with standard deviation 5.65. found to be improvement in the level of knowledge among antenatal mothers Majority of 11.66% the antenatal mothers had inadequate knowledge and 63.33% had moderate knowledge, 25% had adequate knowledge in the pre-test. After administration of the information booklets 70% of the subjects had adequate knowledge, 30% had moderate knowledge regarding human milk donation and banking in the post-test. The overall mean pretest attitude score obtained by the antenatal mother was 41.93 (52.41%) with standard deviation 11.58. The overall post-test means attitude score obtained by the antenatal mothers was 51.35 (64.18%) with standard deviation 13.35. Majority 10 (16.66%) are unfavorable opinion 30 (50%) of the antenatal mothers shows moderately favorable opinion, 20 (33.33%) shows favorable opinion, in the pre-test. After administration of the information booklets 5 (8.33%) are unfavorable opinion, 20 (33.33%) moderately favorable opinion 35 (58.33%) antenatal mothers show favorable opinion, in the post-test.

**Conclusion:** Findings of the study show that there was a significant difference in pretest and post-test level of knowledge of antenatal mothers. From this it is concluded that the information booklets are effective in improving the level of knowledge of antenatal mothers. And there was a significant association between the level of knowledge of antenatal mothers and selected demographic variables such as family annual income and also, there was a significant association between level of attitude of antenatal mothers and selected demographic variables such as area of residency.

**KEYWORDS:** Knowledge, Antenatal mothers, Attitude, Human Milk Banking

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## 1. INTRODUCTION

Breastfeeding, also known as nursing, is the process of delivering and exposing the mother's breast milk to her infant either directly or through breast milk and bottle it to the infant. The World Health Organization (WHO) Breast milk is good nutrition for infants, and it is very beneficial for their health in the short, medium and long term. As part of a balanced diet, women are recommended to breastfeed their baby exclusively for 6 months as part of balanced diet. Wikipedia. (2017, July 3).

It has been known that human milk reduces the incidence of necrotizing enterocolitis, improves Host defense, digestion, nutrient absorption, gastrointestinal function and neurodevelopment of the child, and contribute to the mother's physical and psychological well-being. There are mainly five alternatives to breastfeeding, which are complementary nursing system (SNS), nipple shield, special pumping, human milk donation, formula. Seminars in Perinatology. (2009, May 18).

Donor human milk is one way to give your child human milk when your own milk is not available. There are some human milk banks around the world to help mothers who can't produce milk. Human Milk Bank or Breast Milk Bank is a service for collecting, screening, processing, and distributing human milk donated by biologically unrelated nursing mothers to the receiving baby. Suitable nutrition for newborn babies is breastfeeding for the first year. Mitoulas, L. (2011, June 15).

Asia's first milk bank was established in 1989 at Sion hospital, Mumbai, under the leadership of Dr. Armida Fernandez, and currently managed by Neonatologist Dr. Jayashree Mondkar. In 2017, the first milk bank, Vatsalya - Maatri Amrit Kosh, was established at Lady Harding Medical College It was established in collaboration with the Norwegian Government and the University of Oslo as part of the Norway-India Partnership Initiative (NIPI). Bill, F. (2010, May 16).

Donor women are carefully selected and tested for HIV leukemia virus hepatitis B, hepatitis C, and syphilis-1, HIV-2, human T-cells. In the milk bank, the maintenance, storage, processing, pooling and bacterial checking follow standard algorithms. Heat treatment of human milk impairs immune properties, cellular components, growth factors and nutrients. However, the beneficial effects of donor milk remain significant, and donor milk is still worth more than the formula. The World Health Organization recommends donor human milk as the best option when mother's own milk is not available, as it significantly reduces morbidity and mortality in infants. For pre-term infants, human milk banks (HMBs) offer a life-saving alternative to ensure timely access to human milk. Bobak, I., & Lowdermilk, D. L. (1998).

Why does the mother donate her milk? This is a question that some authors have asked themselves because the motivation of voluntary gestures can initiate the understanding and activation of the mechanisms necessary to improve donation promotion strategies. Mother's own milk has long been recognized as an excellent source of nutrition for newborns. In cases where mother's milk is not available, human milk provided by select donors is a good choice. Human milk banks are the most institutionalized method of milk sharing and play an important role in breastfeeding newborns. The promotion of human milk banks is an important social service. Human milk banks depend on the donor, and it is very important to know the details of the donor. Bobak, I., & Lowdermilk, D. L. (1998).

A study was conducted in Kupang North Timor tengah regency. The purpose of this study was to explore the barriers and potentials to special breastfeeding in infants admitted to sick and low birth weight hospitalizations. A mixed-methods study was conducted using a convergent parallel design. A convenient sample of 74 mothers of hospitalized infants and 8 hospital staff participated in semi-structured interviews. Of the 73 questionnaires analyzed, 39.7% of mothers reported breastfeeding exclusively and 37% of mothers expressed breast milk. And mothers expressing their breast milk, improving DBM acceptability and increasing the feasibility of setting up a DBM bank. Bobak, I., & Lowdermilk, D. L. (1998).

The Health Technology Assessment (HTA) report was published in 2009, titled "Breastfeeding Promotion for Infants in Neonatal Units: Systematic Review and Economic Analysis". This report uses a systematic review methodology and health economics model to determine which interventions, including availability of donor breast milk, can effectively promote the onset and duration of breastfeeding in neonatal, specialty and intensive care settings. A culturally accepted approach to donor milk banking has been proposed as a means of alleviating the ethical issues surrounding milk donation in Muslim society. The report highlights the valuable contribution of donor milk to premature infants and the first step in raising

awareness about the organization of human milk donation for use in the NICU. Bobak, I., & Lowdermilk, D. L. (1998).

The Baby-Friendly Hospital Initiative has formulated ten steps to successful breastfeeding, by a joint UNICEF and WHO in 1989, in the step 2 of the policy, it has been suggested about how to use donor milk in the hospital, how to store, freeze, and thaw it as appropriate, and how to document its use, etc., The policy also recommended that all the staff that comes in contact with these mothers and their babies must be trained so that they support the breastfeeding process and the use of donated human milk. In India, the first human milk banking was started under the name of Sneha, founded by Dr. Armeda Fernandez, on November 27, 1989, at Dharavi, in Mumbai. In India, the first human milk banking was started under the name of Sneha, founded by Dr. Armeda Fernandez, on November 27, 1989, at Dharavi, in Mumbai. Sutrisminh, E., & Alfiyati, N. (2015).

According to PATH (Prioritizing Human Milk to save lives), a leader in global health innovation has estimated that 30%–50% of babies in neonatal intensive care units and 10%–15% of term healthy babies need donor human milk. Increasing access to human milk through human milk banking has the potential to reach 5 million babies in India annually. Indications for donor milk to the newborn are because of preterm birth failure to thrive malabsorption syndromes, allergies, and feeding/ formula intolerance immunologic deficiencies pre- or post-operative nutrition infectious diseases. Donor milk can be given to babies till they reach target weight up to 2.2 kg–2.5 kg in preterm babies. Sutrisminh, E., & Alfiyati, N. (2015).

On March 1, 2018, KLE Dr. Prabhakar Kore Hospital and MRC, Belagavi, started a donor milk banking facility for the mothers and neonates who are sick due to medical and other conditions. In India, even though we have 14 centers of human milk banks are serving the society, still the growth of these centers is still slow; the main factors for this poor growth are regarding lack of knowledge and positive attitude toward breast milk banks. Patel, U., & Gedam, S. (2013).

A preterm newborn is an individual who always needs special care to survive and thrive. They are the major consumers of health care. In India, about 35% of total populations are preterm new-born. They are not only large in number but also vulnerable to various health problems and considered as a special risk group. Donor breast feeding is the best natural feeding. Breast milk is thought to be the best form of nutrition for preterm new-born and infants. It is the healthiest form of milk for babies. Patel, U., & Gedam, S. (2013).

The preferred food for preterm new-born is the mother's own milk irrespective of baby's gestational age but sometimes particularly in the case of sick and immature preterm new-born, the mother is unable to maintain her lactation and alternative food is required. In 1800 BC the preterm new-born has been directly breastfeed by donor mothers. A donor mothers is a lactating woman who breast feeds another 2 preterm new-born. While this may seem to be taboo in certain cultures preterm new-born was popular until the invention of formulas. Patel, U., & Gedam, S. (2013).

The practical alternative diets for babies who are unable to breast feed are donor breast milk bank or commercially available formula. The term donor breast milk bank refers to the collection, storage and processing of donor breast milk donated by lactating mothers for preterm new-born other than their own. The term sometimes applied to the collection and storage of milk for a mother's own preterm new-born when the preterm new-born is term polarity unable to suck. Donor breast milk bank is used for the treatment of many conditions (mainly in Neonatal Intensive Care Units: NICUs): prematurity, malabsorption, short-gut syndrome, intractable diarrhea, Nephrotic syndrome, congenital anomalies, formula intolerance, failure to thrive, immune deficiencies. Patel, U., & Gedam, S. (2013).

## 2. MATERIALS AND METHODS:

### METHODS

#### *Designs and samples:*

This study employed a pre-experimental design, specifically a one-group pre-test and post-test approach, to assess the effectiveness of an information booklet. The research was conducted at Adichunchanagiri Hospital and Research Centre, B G Nagara, due to its geographical proximity and familiarity. The target population comprised antenatal mothers who met the inclusion criteria. A total of 60 antenatal mothers visited the hospital were conveniently selected for the study using non-probability convenient sampling, providing an accessible and representative sample for the research investigation.

### MATERIALS

A tool was developed to assess knowledge and attitude about Human milk donation and banking among antenatal to ensure its accuracy, the tool was reviewed by 6 experts in department of child health nursing and medicine. The tool has three sections: Section A (10 items) for socio-demographic data and Section B (25 items) for assessing knowledge, Section C (20 items) for assessing attitude about human milk donation and banking. The tool's reliability was tested on 6

antenatal mothers using test-retest method, yielding a reliability quotient of 0.91, indicating high consistency. This validated tool can now be used to effectively assess knowledge and attitude about human milk donation and banking among antenatal mothers.

**The different levels of knowledge are categorized as follows:**

Score (%)	Knowledge
< 8	Inadequate
9-16	Moderate
17-25	Adequate

**The different levels of attitude are categorized as follows:**

Score (%)	Knowledge
< 25	Unfavorable
25- 50	Moderately favorable
51-80	favorable

#### Data Collection Procedure:

Data collection commenced after Formal written permission was obtained from the medical superintendent. A three-phase approach was employed: Phase I involved a pre-test questionnaire on Human milk donation and banking administered to 60 Antenatal mothers, Phase II comprised distributing information booklets, and Phase III entailed a post-test questionnaire six days later. The data collection process was smooth, with no issues encountered and high subject cooperation. The collected data was subsequently compiled for analysis.

Sample size estimation- Finite population formula

$$n' = \frac{n}{1 + \frac{z^2 * \hat{p}(1-\hat{p})}{\epsilon^2 * N}}$$

#### KEYS:

z - z score

e- Margin of error

N- Population size

p- Population Proportion

### 3. RESULTS

#### SECTION – I

#### DEMOGRAPHIC CHARACTERISTICS OF ANTENATAL MOTHERS

**Table – 1: Frequency and percentage distribution of selected demographic variables of antenatal mothers**  
N = 60

Sl. No	Demographic variables	Frequency	Percentage
<b>1.</b>	<b>Age of the mother</b>		
	a) 18-28yrs	41	68.3
	b) 29-38yrs	19	31.6
<b>2.</b>	<b>Area of residency</b>		
	a) Rural	43	72
	b) Urban	17	28.
<b>3.</b>	<b>Obstetrical score</b>		
	a) primigravida	36	60

	b) multigravida	24	40
<b>4.</b>	<b>Education status</b>		
	a) No schooling	1	1.6
	b) primary	3	5
	c) secondary	10	16.6
	d) High school	15	25
	e) PUC _> and above	31	51.6
<b>5.</b>	<b>Religion</b>		
	a) Hindu	57	95
	b) Christian	1	1.6
	c) Muslim	2	3.3
<b>66</b>	<b>Type of family</b>		
	a) Joint	28	47
	b) Nuclear	32	53
7 777777 7 7	<b>Income</b>		
	a) Above 10,000	30	50
	b) 10,001- 15,000	16	26.6
	c) 15,001-20,000	8	13.3
	d) Above 20,000	6	10
77777788	<b>Diet</b>		
	a) Vegetarian	9	15
	b) Mixed	51	85
<b>9</b>	<b>Previous knowledge</b>		
	a) Yes	32	53.3
	b) No	28	46.6
<b>10</b>	<b>Mothers opinion</b>		
	a) Yes	27	45
	b) No	33	55

The demographic characteristics of the 60 antenatal mothers revealed that the majority 68.3% of participants are between the ages of 18 and 28, while at least 31.6% are between the ages of 29 and 38. Majority 28.3% of participants were from metropolitan areas, while 71.6% were from rural areas. Majority 40% of pregnant women are multigravida, while 60% of pregnant women are primigravida. Among the participants, 1.6% of expectant women are illiterate, 5% have completed their primary school, and 16.6% have completed their secondary education. 25% of pregnant women have completed high school, and 51.6% of them are PUC or higher educated. Majority A total of 95% of the subjects are Hindu, 1.6% are Christians, 3.3% are Muslims, and none are members of any other group. Of the participants, 53.3% of expectant moms are from nuclear families, compared to 46.6% who are from joint families. 50% of participants had incomes over 10,000 rupees, followed by 26.6% with 10,000–15,000, 13.3% with 15,001–20,000, and 10% with over 20,000. Among the participants, 15% of pregnant women follow a vegetarian diet, and 85% follow a mixed diet. Of the participants, 53.3% of expectant mothers reported having prior knowledge of human milk donation and banking, while 46.6% of expectant moms reported having no such knowledge. Of the participants, only 45% of pregnant women are eager to donate their breast milk, and 55% of pregnant women are not ready to do so.

**Section: II- Assess the pre-test and posttest level of knowledge among antenatal mothers regarding human milk donation and banking.**  
**n = 60**

**TABLE:1 Level of Knowledge**

SL NO.	LEVEL OF KNOWLEDGE	PRETEST	POST TEST
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		Frequency	%	Frequency	%
1	Inadequate (<8)	7	11.66	0	0
2	Moderate(9-16)	38	63.33	18	30
3	Adequate (17-25)	15	25	42	70

Table shows that pretest knowledge like 7(11.66%) mothers had inadequate knowledge and 38(63.33%) had moderate knowledge, 15(25%) had adequate knowledge, post test knowledge like 18(30%) had moderate knowledge 42(70%) had adequate knowledge regarding human milk donation and banking administration of information booklet.

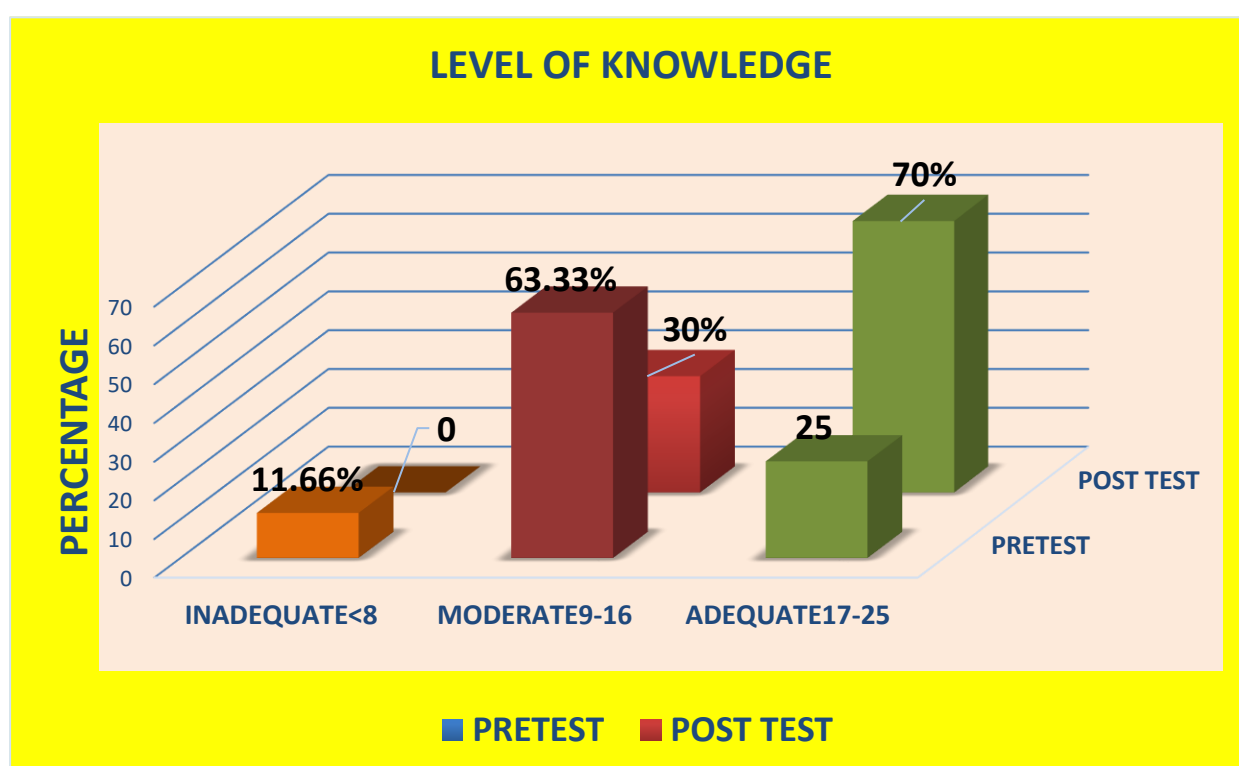


Figure NO. -01. Percentage distribution of antenatal mothers knowledge before and after administration of information booklets.

Section: III- Assess the pre-test and posttest level of attitude among antenatal mothers regarding human milk donation and banking  
n = 60

TABLE:2.1 Level of Attitude

SL NO.	LEVEL OF ATTITUDE	PRETEST		POST TEST	
		Frequency	%	Frequency	%
1	Unfavorable (< 25)	10	16.66	5	8.33

2	Moderately favorable (26-50)	30	50	20	33.33
3	Favorable (50-80)	20	33.33	35	58.33

Table 2.1. shows that pre-test attitude like 10(16.66%) of antenatal mothers had unfavorable attitude, 30(50%) of antenatal mothers had moderately favorable attitude and 20(33.33%) had favorable attitude and posttest attitude like 5(8.33%) of antenatal mothers had unfavorable attitude, 20(33.33%) of antenatal mothers had moderately favorable attitude and 35(58.33%) had favorable attitude regarding human milk donation and banking

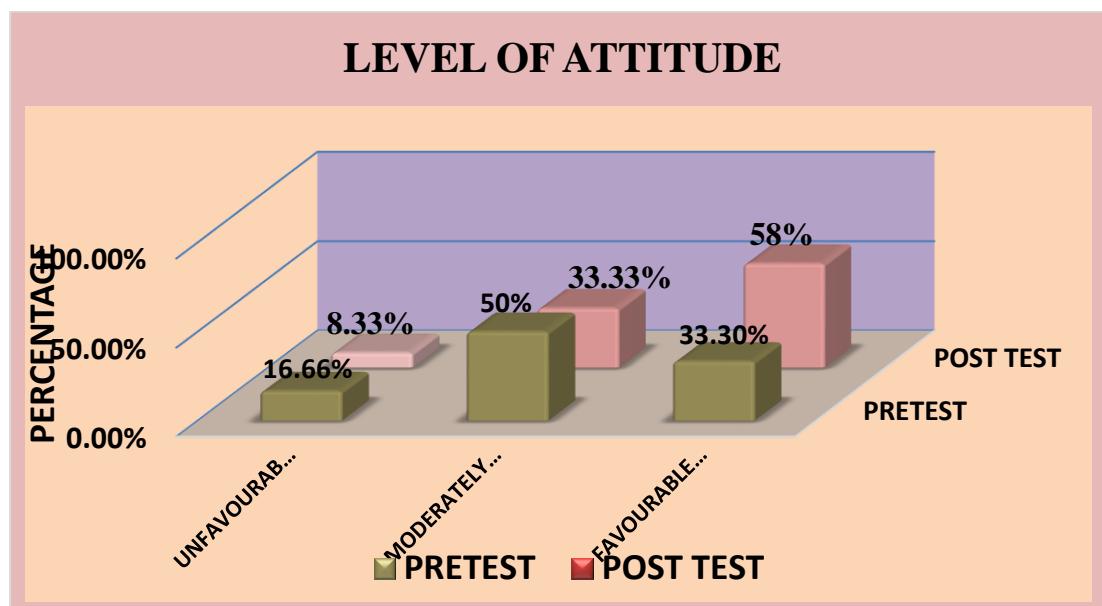


Figure no. -2 percentage distribution of antenatal mothers attitude in pre test and post test

#### Section: IV- Evaluate the effectiveness of information booklet on knowledge among antenatal mothers regarding human milk donation and banking

n = 60

TABLE:2.2 EFFECTIVENESS OF INFORMATION BOOKLET

SL NO	Variables	Maximum score	PRETEST			POST TEST			t Test
			Mean	Mean %	SD	Mean	Mean %	SD	
1	Knowledge	25	14.73	58.92	12.72	20.45	81.8	5.65	t=10.24
2	Attitude	80	41.93	52.41	11.58	51.35	64.18	13.35	t=4.9
Significant difference in level of knowledge			22.8 %						

t(59)= 2. Significant at p<0.05

Table no:2.2 shows that knowledge level of antenatal mothers in pretest mean 14.73(58.92%) with standard deviation 12.72 and posttest mean 20.45( 81.8%) with standard deviation 5.65 ,t calculated value is 10.24.and attitude level of antenatal mothers in pretest mean 41.93(52.41%) with standard deviation 11.58 and posttest mean 51.35(64.18%) with standard deviation13.35,t calculated value is 4.9.and significant difference in the level of knowledge is 22.8%. Therefore, "t" value is found to be significant at  $p<0.05$ . so, the information booklet is effective in enhancing the knowledge of antenatal mothers regarding women milk donation and banking. Hence the hypothesis was accepted.

**Section: V- Find the correlation between pre-test and post-test level of knowledge and attitude of antenatal mothers regarding human milk donation and banking**

**n=60**

**TABLE NO: 2.3 CORRELATION**

SL NO	Variables	PRETEST			POST TEST		
		Mean	SD	Correlation	Mean	SD	Correlation
1	Knowledge	14.73	12.72	0.33	20.45	5.65	0.23
2	Attitude	41.93	11.58		51.35	13.35	

Table no:2.3 shows that knowledge level of antenatal mothers in pre-test mean 14.73 with standard deviation 12.72. and posttest means 20.45 with standard deviation 5.65. and the attitude level in pre-test mean 41.93 with standard deviation 11.58 and posttest mean 51.35 with standard deviation 13.35.and it represented that the correlation obtained between pre-test knowledge and attitude score  $r=0.33$ . And the correlation obtained between posttest knowledge and attitude score  $r=0.23$ . So, the correlation is moderately positive hence the hypothesis was accepted.

**Section VI: Association of pre-test level of knowledge score with demographic variables.**

**Table 2.4 Association of pretest level of knowledge score with demographic variables.**

**n = 60**

DEMOGRAPHIC VARIABLES			< Median(54)		≥ Median(6)		Chi-square value	p-value
			No	%	N	%		
<b>1. Age of the mother</b>	<b>Frequenc y</b>	<b>%</b>						
a) 18-28yrs	41	68.3	38	70.37	3	50	$\chi^2 = 1.02$ d.f=2 NS	P<0.05
b) 29-38yrs	19	31.6	16	29.62	3	50		
<b>2. Area of residency</b>							$\chi^2 = 1.53$ d.f = 1 NS	P<0.05
a) Rural	43	71.6	40	74.07	3	50		
b) urban	17	28.3	14	25.92	3	50		
<b>3. Obstetrical score</b>							$\chi^2 = 1.95$ d.f =1 NS	P<0.05
a) Primigravida	36	60	34	62.96	2	33.33		
b) Multigravida	24	40	20	37.03	4	66.66		
<b>4. Education status</b>							$\chi^2 = 0.61$ d.f	P<0.05
a) No schooling	1	1.6	1	1.85				

b) primary	3	5	3	5.55			=4 NS		
c) secondary	10	16.6	9	16.66	1	16.66			
d)High school	15	25	13	24.07	2	33.33			
e) PUC and above	31	51.6	28	51.85	3	50			
5. Religion								$\chi^2 = 0.35$ d.f=3 NS	P<0.05
a) Hindu	57	95	51	94.44	6	100			
b) Christian	1	1.6	1	1.85					
c) Muslim	2	3.3	2	3.70					
6. Family								$\chi^2 = 0.02$ d.f=1 NS	
a) Nuclear	28	46.6	25	46.29	3	50			
b) Joint	32	53.3	29	53.70	3	50			
7. Income								$\chi^2 = 13.6$ d.f=3 S	P<0.05
a) less than 10,000	30	50	30	55.55					
b) 10,001- 15,000rs	16	26.6	13	24.07	3	50			
c) 15,001-20,000rs	8	13.3	5	9.25	3	50			
d)	6	10	6	11.11					
8. Diet								$\chi^2 = 1.16$ d.f=1 NS	P<0.05
a) Vegetarian	9	15	9	16.66					
b) Mixed	51	85	45	83.33	6	100			
9. Previous knowledge								$\chi^2 = 3.58$ d.f=1 NS	P<0.05
a) Yes	32	53.3	31	57.40	1	16.66			
b) No	28	46.6	23	42.59	5	83.33			
10. opinion of mothers								$\chi^2 = 2.14$ d.f=1 NS	P<0.05
a) Yes	27	45	26	48.14	1	16.66			
b) No	33	55	28	51.85	5	83.33			

Demographic variable =7, calculated value  $\chi^2=13.6$  Table value = 7.815

\*Significant

The results of chi square analysis are presented in tables 2.4. indicated that there was significant association between knowledge scores with family annual income , and it is associated with demographic characteristics of antenatal mothers . Hence research hypothesis was accepted, that H3- there will be significant association between the pre-test knowledge regarding human milk donation and banking with their selected demographic variables.

**SECTION: VII Association of pre-test level of attitude of antenatal mothers regarding human milk donation and banking with demographic variables.**

**Table 2.5 Association of pre-test level of attitude score with demographic variables.**  
**n = 60**

DEMOGRAPHIC VARIABLES			< Median(28)		≥ Median(32)		Chi-square value	p-value
1. Age of the mother	Frequency	%	No	%	No	%		
a) 18-28yrs	41	68.3	22	78.57	19	59.37	$\chi^2 = 2.51$ d.f=2 NS	P<0.05
b) 29-38yrs	19	31.6	6	21.42	13	40.62		
2. Area of residency							$\chi^2 = 5.82$ d.f=1 S	P<0.05
a) Rural	20	33.3	18	54.54	2	7.40		
b) urban	40	66.6	15	45.45	25	92.59		
3. obstetrical score							$\chi^2 = 00$ d.f=1 NS	P<0.05
a) Primigravida	37	61.6	17	60.71	20	62.5		
b) Multigravida	23	38.3	11	39.28	12	37.5		
4. Education status							$\chi^2 = 1.57$ d.f= 4 NS	P<0.05
a) No schooling	1	1.6			1	3.12		
b) primary	3	5	2	7.14	1	3.12		
c) secondary	10	16.6	5	17.85	5	15.62		
d)High school	16	26.6	8	28.57	8	25		
f) PUC and above	30	50	13	46.42	17	53.12		
5.Religion							$\chi^2 = 3.62$ d.f=3 NS	P<0.05
a) Hindu	57	95	25	89.28	32	100		
b) Christian	1	1.6	1	3.57				
c) Muslim	2	3.3	2	7.14				
6. Family							$\chi^2 = 1.12$ d.f=1 NS	
e) Nuclear	28	46.6	11	39.28	17	53.12		
f) Joint	32	53.3	17	60.71	15	46.87		
7. Income							$\chi^2 = 1.89$ d.f=3 NS	P<0.05
a) less than 10,000	31	51.6	12	42.85	19	59.37		
b) 10,001- 15,000rs	15	25	9	32.14	6	18.75		
g) 15,001-20,000rs	8	13.3	4	14.28	4	12.5		
h) Above 20,000rs	6	10	3	10.71	3	9.37		
8. Diet							$\chi^2 = 0.32$ d.f=1	P<0.05
b) Vegetarian	9	15	5	17.85	4	12.5		

b) Non vegetarian	51	85	23	82.14	28	87.5	NS	
<b>9. Previous knowledge</b>								
c) Yes	32	53.3	13	46.42	19	59.37	$\chi^2 = 0.97$ d.f=1 NS	P<0.05
d) No	28	46.6	15	53.57	13	40.62		
<b>10. opinion of mothers</b>								
c) Yes	24	40	10	35.71	14	43.75	$\chi^2 = 0.38$ d.f=1 NS	P<0.05
d) No	36	60	18	64.28	18	56.25		

Demographic variable =2, calculated value  $\chi^2=5.82$ , Table value = 3.841 ,  
\*Significant

The results of Chi Square Analysis presented in table 2.5 indicated that there was significant association between attitude scores with area of residency. It was evidenced that the attitude regarding human milk donation and banking is associated with demographic characteristics of antenatal mothers . Hence research hypothesis was accepted, that H4- there will be significant association between the pre-test attitude regarding human milk donation and banking with their selected demographic variables.

#### 4. DISCUSSION

The majority of 11.66% the antenatal mothers had inadequate knowledge and 63.33% had moderate knowledge,25% had adequate knowledge in the pretest. After administration of the information booklets 42% of the subjects had adequate knowledge, 63.33% had moderate knowledge regarding human milk donation and banking in the post test.

The overall mean pretest knowledge score obtained by the antenatal mother was 14.73 (58.92%) with standard deviation12.72. The overall posttest mean knowledge score obtained by the antenatal mothers was 20.45(81.8%) with standard deviation 5.65.

Majority 10 (16.66%) are unfavorable opinion 30 (50%) of the antenatal mothers shows moderately favorable opinion, 20(33.33%) shows favorable opinion, in the pretest. After administration of the information booklets 5(8.33%) are unfavorable opinion, 20(33.33%) moderately favorable opinion 35(58.33%) antenatal mothers show favorable opinion, in the post test.

The overall mean pretest attitude score obtained by the antenatal mother was 41.93 (52.41%) with standard deviation11.58. The overall posttest attitude score obtained by the antenatal mothers was 51.35 (64.18%) with standard deviation13.35.

The overall mean pretest knowledge score obtained by the antenatal mother was 14.73 (58.92%) with standard deviation12.72. The overall posttest means knowledge obtained by the antenatal mothers was 20.45(81.8%) with standard deviation 5.65.

The total difference in the mean of overall knowledge score was 5.72 (22.8%) with the 't' value of 10.24 and found to be significant at the level of  $p<0.05$ . It means there is significant difference between pretest and posttest level of knowledge of Antenatal mothers regarding human milk donation and banking. Hence the hypothesis H1 is accepted.

The coefficient of correlation obtained between pre-test knowledge Vs attitude was 0.33, gives the information of moderately positive correlation but the P- value obtained is less than 0.05. Hence it was considered and there is a significant correlation between the pre-test knowledge Vs attitude. Hence research hypothesis H2 rejected, The coefficient of correlation obtained between posttest knowledge Vs attitude was 0.23, gives the information of moderately positive correlation but the P- value obtained is less than 0.05. Hence it was considered and there is a significant correlation between the posttest knowledge Vs attitude.

A study was conducted in South Australia. The study explored mothers' knowledge and attitude towards human milk banks, the development of human milk banking policies and the establishment of a milk bank in South Australia. They conducted a qualitative study with in-depth semi-structured interviews with 12 mothers who were breastfeeding and / or had premature


or preterm infants. In addition, 2 focus groups were conducted with breastfeeding mothers as potential donors ( $n = 5$ ) and another with breastfeeding mothers with preterm or high- risk infants ( $n = 4$ ). Mothers of premature or sick babies use a human milk bank if they are confident that the milk is safe and appropriate for their babies. The over all conclusion of this study is that study participants welcome access to a human milk bank for both milk donation and acceptance in South Australia.<sup>1</sup>

## 5. CONCLUSION


The study revealed that the information booklet was effective in improving knowledge and attitude regarding human milk donation and banking among antenatal mothers. The findings suggest that providing antenatal mothers with accurate and comprehensive information through a structured booklet can empower them to make informed decisions about human milk donation and banking. The study's results have implications for healthcare providers and policymakers, highlighting the need to integrate human milk donation and banking education into antenatal care. By doing so, we can promote a culture of breast milk donation and support the establishment of human milk banks, ultimately benefiting vulnerable infants and promoting optimal infant nutrition.

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### ETHICAL CLEARANCE CERTIFICATE








We are hereby granting permission to **Ms. Smitha N.** studying in 1<sup>st</sup> year Master of Science in nursing course, Child health nursing department at Adichunchanagiri College of Nursing, B.G. Nagara & has selected the following topic for her/his research project to be submitted to the Adichunchanagiri University for the partial fulfillment of Master of Nursing degree.


**Statement of research study: A study to evaluate the effectiveness of information booklet on knowledge & attitude regarding human milk donation and banking among antenatal mothers in outpatient department at AH & RC, B G Nagara, Nagamangala Tq, Mandya Dist.**

Further She/he is informed about the following:

1. She/he should not disturb the routine activities of study subjects/setting
2. She/he should not harm the study subjects during the course of study/data collection.
3. Informed consent should be obtained from the study subjects
4. She/he should maintain the confidentiality and anonymity of the subjects and information

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01	Prof. Chandrashekar H C	Principal, ACN	
02	Mrs. Aarathi T V	HOD, Dept. of Child health Nursing, Guide	
03	Mr. Hemanth C K	Asst. Prof. Dept. of Child health Nursing	
04	Mrs. Shilpa P M	Asst. Prof. Dept. of Child health Nursing	
05	Mr. P G N Swamy	Research coordinator, Assoc. Prof, Dept. of CHN	
06	Mrs. Veena N H	Lecturer, Biostatistician, Dept. of Community medicine, AIMS	
07	Mrs. Haseen Taj	Psychologist, Sociologist	

  
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