

Research Article

“Knowledge Regarding Human Milk Banking Among Postnatal Mothers”

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ABSTRACT

Background and Objective

Human milk banking is a vital component of infant healthcare, providing a safe and nutritious source of breast milk for vulnerable infants. Human milk banking is a lifesaving intervention that provides a safe and nutritious source of breast milk for these vulnerable infant. Human milk banking involves the collection, screening, processing, and distribution of donated breast milk to infants in need. This practice has been shown to reduce morbidity and mortality rates among preterm and low-birth-weight infants, as well as those with compromised immune systems.

Despite the numerous benefits of human milk banking, many mothers in India, including those in Kolhapur, remain unaware of this resource. Lack of knowledge and awareness about human milk banking can lead to delayed or inadequate access to this lifesaving intervention, compromising the health and well-being of vulnerable infants. This study aims to assess the knowledge of human milk banking among postnatal mothers in D.Y.Patil Medical College, Hospital and Research Institute, Kolhapur, identifying the gaps and misconceptions that exist. The findings of this study will inform the development of targeted interventions to promote human milk banking and improve infant health and nutrition in the region of health and nutrition.

Objectives of the Study

1. To assess the knowledge regarding human milk banking among postnatal mothers at selected hospitals in Kolhapur.
2. To find the association between knowledge scores regarding human milk banking among postnatal mothers and selected demographic variables.

Methods

The research approach adopted for the study was quantitative evaluative survey approach. A descriptive research design is used. Ethical clearance was obtained from the institution. Formal administration permission was obtained from the medical officer of D.Y.Patil Medical College, Hospital and Research Institute, Kolhapur. Then 120 postnatal mothers were selected by using non probability purposive sampling technique. An informed consent was obtained from the participants. In order to obtain free and true response, the purpose and importance of the study was explained to selected samples. The main study was conducted at D.Y.Patil Medical College, Hospital and Research Centre, Kolhapur from the postnatal mothers on 21/3/2025 to 27/3/2025. Data collection was done as per the timings provided by medical officer. Researchers introduced themselves to the samples. Explained the purposes and objectives of the study. Samples were taken into confidence and assured of confidentiality of their data identity and their responses. Average time was given for solve the questionnaire that is 30 min approximately.

Results

Indicates that majority of sample 52(84%) belongs to the age group of 25-27 and minimum 4(3.3%) belongs to age group 18-21 and above. Majority of sample 54(45%) belongs to second pregnancy and minimum 15(12.5%) belongs to third pregnancy and below. Majority sample belongs to 54(45%) to joint family and minimum 19(15%) belongs to expanded family and below. Majority of sample belongs to 61(50.8%) urban area and minimum 49(49.8%) belongs to rural area. Majority of sample 78(65%) have no pre-knowledge about the study and 42(35%) have some knowledge about the study. The maximum number of postnatal mothers 62(52.3%) have good knowledge, while some postnatal mothers 53(43.6%) have average knowledge whereas 5(5%) postnatal mothers have poor knowledge. The calculated Chi-square value was higher than tabulated value. The calculated Chi-square value

for type education was greater than tabular value at $p < 0.05$ level of significance. Hence H1 was accepted.

Interpretation and Conclusion

The present study revealed that a majority 62(52.3%) have good knowledge indicating strong understanding, while 53(43.6%) possess an average level of knowledge reflecting moderate understanding. The remaining 5(5%) postnatal mothers have poor knowledge.

Keywords: Knowledge, Human Milk Banking, Postnatal Mothers.

INTRODUCTION

Human milk banking is a vital component of infant healthcare, providing a safe and nutritious source of breast milk for vulnerable infants. Human milk banking is a lifesaving intervention that provides a safe and nutritious source of breast milk for these vulnerable infant. Human milk banking involves the collection, screening, processing, and distribution of donated breast milk to infants in need. This practice has been shown to reduce morbidity and mortality rates among preterm and low-birth-weight infants, as well as those with compromised immune systems.

Despite its importance, human milk banking remains a relatively under utilized resource in many parts of the world, including India. In Kolhapur, a district in the state of Maharashtra, there is a need to assess the knowledge and awareness of human milk banking among mothers of infants. This study aims to bridge the knowledge gap by exploring the level of knowledge and awareness about human milk banking among postnatal mothers at D.Y.Patil Medical College, Hospital and Research Institute, Kolhapur. The findings of this study will inform the development of strategies to promote human milk banking and improve infant breast milk is widely recognized as the optimal form of nutrition for infants, providing essential nutrients, antibodies, and immune factors that promote healthy growth and development. However, not all infants have access to their mother's breast milk, due to various reasons such as low milk supply, maternal illness, or premature birth.

This study aims to assess the knowledge and awareness of human milk banking among mothers of infants in selected hospital of Kolhapur, identifying the gaps and misconceptions that exist. The findings of this study will inform the development of targeted interventions to promote human milk banking and improve infant health and nutrition in the region of health and nutrition.¹

Human milk banking is a critical component of infant healthcare, particularly for vulnerable populations such as preterm and low-birth-

weight infants. Despite its importance, human milk banking remains underutilized in many parts of India, including Kolhapur. There is a significant knowledge gap among mothers regarding human milk banking, including its benefits, procedures, and availability. This lack of awareness can lead to delayed or inadequate access to this lifesaving intervention, compromising the health and well-being of vulnerable infants. While there is a growing body of research on human milk banking globally, there is a dearth of studies examining the knowledge and awareness of human milk banking among mothers in India, particularly in some areas like Kolhapur. This study aims to address the knowledge gap and limited research in this area, providing valuable insights into the knowledge and awareness of human milk banking among mothers in Kolhapur. The findings of this study will inform the development of targeted interventions to promote human milk banking and improve infant health and nutrition in the region.³

METHODS

A quantitative descriptive approach was used, with a non-experimental descriptive research design. A sample of 120 postnatal mothers was selected using non-probability purposive sampling technique. The reliability of the tool was established and the socio demographic data, structured knowledge questionnaire was used to collect the data on level of knowledge scores of the postnatal mothers regarding Human milk banking with their selected socio-demographic variables.

Results

Part I: Description of Demographic Variables

Frequency and percentage distribution of samples according to selected socio demographic variables. In this section researchers analyzed and categorized the samples of the study to various group based on the selected socio demographic variables.

Table 1: Frequency and percentage distribution of sample according to demographic characteristics
n = 120

AGE						
			Frequency	Percentage	Valid Percentage	Cumulative Percentage
	Valid	a	4	3.3	3.3	3.3
		b	45	37.5	37.5	40.8
		c	52	43.3	43.3	84.2
		d	19	15.8	15.8	100
		Total	120	100	100	
PREGNANCY						
	Valid	a	51	42.5	42.5	42.5
		b	54	45	45	87.5
		c	15	12.5	12.5	100
		Total	120	100	100	
FAMILY						
	Valid	a	47	39.2	39.2	39.2
		b	54	45	45	84.2
		c	19	15.8	15.8	100
		Total	120	100	100	
AREA						
	Valid	a	61	50.8	50.8	50.8
		b	59	49.2	49.2	100
		Total	120	100	100	
PREKNOWLEDGE						
	Valid	a	42	35	35	35
		b	78	65	65	100
		Total	120	100	100	

TABLE NO. 1 indicates that Majority of sample 52(84%) belongs to the age group of 25-27 and minimum 4(3.3%) belongs to age group 18-21 and above
Majority of sample 54(45%) belongs to second pregnancy and minimum 15(12.5%) belongs to third pregnancy and below. Majority sample belongs to 54(45%) to join family and minimum 19(15%) belongs to expanded family and below. Majority of sample belongs to

61(50.8%) urban area and minimum 49(49.8%) belongs to rural area. Majority of sample belongs to 78(65%) have no pre-knowledge about the study and 42(35%) have some knowledge about the study

SECTION 2: Finding related to knowledge regarding breast milk banking among postnatalmothers

Table 2: Frequency and Percentage (%) Distribution of Knowledge Regarding Human milk Banking among Postnatal Mothers.

N = 120

Knowledge	Frequency	Percentage(%)
Good (21-30)	62	52.3%
Average (11-20)	53	43.6%
Poor (1-9)	5	5%

Table 2: indicates that the maximum number of postnatal mothers 62 had good knowledge(52.3), while some postnatal

mothers 53 had average knowledge (43.6) whereas 5 postnatal mothers have poor knowledge (5%).

Table 3: Calculated mean, median, mode, range, SD of knowledge score regarding human milk banking among post natal mothers.

n= 120

Mean	Median	Mode	Range	Standard deviation
20.52	21.0	22.00	13.00	2.43

Table 3: indicates that the data represented shows that after analysis of knowledge scores regarding human milk banking among postnatal mothers. Mean calculated was 20.52, median was 21.0, mode was 22.00, range was 13.00 and SD was 2.43

Table no 4: Chi – square test **Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	51.341 ^a	30	.009
Likelihood Ratio	39.331	30	.118
N of Valid Cases	120		

a. 38 cells (86.4%) have expected count less than 5. The minimum expected count is .07.

Table No 4: indicates that The person Chi-Square is .009 and likelihood ratio is .118 and number of valid cases are 120.

DISCUSSION

1. Demographic Characteristics

Findings related to distribution of demographic data indicates that Majority of sample 52(84%) belongs to the age group of 25-27 and minimum 4(3.3%) belongs to age group 18-21 and above

Majority of sample 54(45%) belongs to second pregnancy and minimum 15(12.5%) belongs to third pregnancy and below.

Majority sample belongs to 54(45%) to join family and minimum 19(15%) belongs to expanded family and below. Majority of sample belongs to 61(50.8%) urban area and minimum 49(49.8%) belongs to rural area. Majority of sample belongs to 78(65%) have no pre-knowledge about the study and 42(35%) have some knowledge about the study.

Majority of mothers(75) belonged to rural area whereas 50 belonged to urban area. Majority mothers(95) have no knowledge about human milk banking whereas 25 mothers have basic knowledge about human milk banking.

2. Assessment of knowledge regarding human milk banking among postnatal mothers

The maximum number of mothers 62 had good knowledge, while 53 mothers had

average knowledge. Whereas 5 Mothers had poor knowledge

3. Association between Human Milk Banking With Selected Demographic Variables among Postnatal Mothers

The maximum number of postnatal mothers 62 had good knowledge(52.3) while some postnatal mothers 53 had average knowledge (43.6) whereas 5 postnatal mothers have poor knowledge (5%).

The data represented shows that after analysis of knowledge scores regarding human milk banking among postnatal mothers. Mean calculated was 20.52, median was 21.0, mode was 22.00, range was 13.00 and SD was 2.43

CONCLUSION

It can be concluded that information regarding human milk banking among postnatal mothers in selected hospital is good.

Based on the findings of the study the following conclusions are drawn. Overall test of knowledge regarding human milk banking among postnatal mothers was good.

Nursing Implications

The findings of the present study have several implications which are discussed in the

Following Area

1. Nursing Education
2. Nursing Practice
3. Nursing Administration
4. Nursing Research

Nursing Education

Nursing education helps the student nurses with adequate knowledge, skills and Attitude to fulfil their duties and responsibilities in the nursing field. The findings of the Study can be used by nurse educator to educate the student nurses, which help them to provide an effective nursing care and knowledge regarding infertility and its management. The nurse educators have the responsibility to update the knowledge of staff nurse's .During clinical teaching and thereby improve their knowledge through various educational Programs.

Nursing Practice

Constant updating and growth are essential to keep abreast of scientific and Technological change within the nursing profession. In-service education programs are designed to upgrade the knowledge of employees. The findings of the study could be utilized as basis for orientation programs and in-service education of the nurses so that constant Awareness and clear understanding may be created regarding human milk banking and it's important. This will increase the knowledge of mother's about human milk banking and its importance in day to day life.

Nursing Administration

Nurses are challenged to play the role of efficient administrators as well as Practitioners. Administration in both private and government sectors should take initiative

Action to update the knowledge about human milk banking among postnatal mother's and society. Administrators must provide adequate supply of audio visual aids for conducting awareness programed. After training, the student nurses should be provided with adequate supervision to maintain the standards of knowledge regarding human milk banking.

Nursing Research

The importance of research in nursing is to build the body of knowledge. Today Nurses are actively generating, publishing and applying research in practice to improve client Care and enhance scientific knowledge base of nursing. The study throws light on the areas of nurse's knowledge regarding human milk banking. The findings of the present Study serve as the basis for the professionals and the students to conduct further studies.

LIMITATIONS

1. No broad generalizations could be made due to small sample size and limited area of Research setting

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