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Postpartum mothers' knowledge and attitudes about human milk banking in a few hospitals in Indore, Madhya Pradesh

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Abstract

Introduction

A human milk bank, also known as a breast milk bank or lactarium, is a service that gathers, examines, prepares, and prescribes human milk provided by nursing moms who are not biologically related to the receiving child. For the first year of life, nursing is the best nutrition for newborns. The primary goal of the study is to evaluate postpartum moms' attitudes and knowledge regarding human breast milk banking.

Methodology: A descriptive, non-experimental study design was used. The study's goals were to evaluate postpartum mothers' knowledge and attitudes regarding human milk banking and to determine the relationship between these factors and sociodemographic characteristics.Using a non-probability purposive sample technique, 100 postpartum moms were chosen for the study.

Result: The main conclusion revealed that 48 (48%) postpartum moms had inadequate awareness of human milk banking, 35 (35%) had average knowledge, and 17 (17%) had bad information. The majority of 40% of new mothers exhibit negative Attitude The degree of information about human milk banking is significantly correlated with demographic factors (postnatal mothers' age and religion). However, there was no discernible correlation between the degree of knowledge of human milk banking and education, occupation, family type, or prior information. Demographic factors (education and postpartum moms' attitudes toward human milk banking) are significantly correlated. However, postpartum moms' attitudes toward human milk banking did not significantly correlate with age, religion, occupation, or family type.

Conclusion: This suggests that the majority of postpartum women had inadequate understanding and attitudes regarding human milk banking. Therefore, it is imperative that health professionals, particularly nurses, raise awareness of human milk banking and urge moms to continue breastfeeding.

Keywords: assess, knowledge, attitude, human milk banking, post-natal mothers

1. Introduction

A human milk bank, also known as a breast milk bank or lactarium, is a service that gathers, examines, prepares, and prescribes human milk provided by nursing moms who are not related to the receiving child. For the first year of life, nursing provides the best nourishment for newborns [1].

When a baby is hospitalized at birth due to extremely low birth weight (and thus at risk for conditions like necrotizing enterocolitis) and the mother is unable to provide her own milk during the extended stay due to factors like living far from the hospital, human milk banks provide a solution for mothers who are unable to provide their own breast milk to their child [2].

In comparison to 2007, human milk banks gathered more milk in 2012; each donor also contributed more milk. The Australian Red Cross Lifeblood and Queensland Milk Bank merged to launch a new facility in Brisbane, Australia, in September 2021. This facility serves as a foundation for meeting the anticipated 1,000-liter annual increase in demand for donated breast milk [3]. According to moms' Milk Bank (MMB), this service enables moms to provide their newborn the nutrition it need for optimal growth and gives them an alternative to infant formula.

At the 2005 International HMBANA Congress, the International Milk Banking Initiative (IMBI) was established. 33 nations with milk bank programs are listed [4]. According to the World Health Organization (WHO), using human milk from other sources is the first option if a biological mother is unable to breastfeed [5].

Milk banks' primary purpose is to store donated milk so that it is accessible when required. Donor milk is received by milk banks, which then process and store it until it is needed.

Although some banks solely pool milk from individual donors (single-donor banks), milk from numerous donors is typically shared. Pasteurization is typically applied to milk supplied by milk banks. After pasteurization, milk is held frozen for up to a year, depending on local regulations, in small (100–150 mL) containers.

The ideal, exclusive initial source of sustenance is breast milk. Most mothers are advised to breastfeed their newborns; however, breastfeeding becomes problematic when the infant becomes ill or is admitted to the hospital, especially if the kid is premature.

Additionally, a variety of mental and physical obstacles to nursing may prevent the moms from producing a complete volume of milk [6].These at-risk nutrients greatly benefit from the nutrients included in breast milk, and if the mother is unable to produce breast milk, pasteurized donor milk may be used as a supplement. Human milk is known to have many advantages, such as lowering blood pressure, enhancing lipid profiles, establishing allergy tolerance, and offering passive vaccination. Reviewing the advantages of human breast milk for preterm infants and the advantages of human donor breast milk in situations where the mother's own milk is insufficient is the aim of this report. A thorough assessment of the advantages of breast milk for healthy term newborns can be found elsewhere [7].

Need of the study

In 1980, the World Health Organization and the United Nations Children's Fund established that human breast milk from another nursing mother is the finest nourishment for a baby who does not receive his or her own milk. There are many therapeutic applications for donor milk, including immunologic deficits, preterm birth, allergies, and feeding formula intolerance.

Mothers with specific health issues shouldn't breastfeed their children. Donor milk provides the newborn with the advantages of human milk in the absence of their own mother's milk, such as good nutrition, easy digestion, and immune protection against a variety of pathogens.

Additionally, growth factors included in human milk can preserve immature tissue, encourage maturation, especially in the gastrointestinal tract, and aid in the recovery of tissue injured by infection [8].

Breast milk banks aim to increase breastfeeding awareness, prevent bottle, animal, and formula milk, ensure that every baby born or admitted to the hospital receives mother's milk, provide ancillary support to breastfeeding practice, and encourage baby-friendly medical care.

Breast milk donation is encouraged and advised as a first option in situations where hospitalized women are unable to breastfeed their infants, have insufficient milk production, or suffer from any other condition that could prevent them from doing so.

In 1989, the first Human Milk Bank in India was founded at Sion Hospital. Every year, this milk bank helps between 3000 and 5000 infants. The Neonatal Intensive Care Unit receives between 800 and 1200 liters of human milk annually to feed sick and vulnerable infants [9].

Every year, Sion Hospital sees close to 10,000 births. Preterm newborns make up between 12% and 14% of them. Additionally, some babies are unable to be nursed because they are separated from their moms for a variety of different reasons. "The milk we currently receive is barely sufficient for infants in our hospital. However, there are a lot of infants in need in the other outlying hospitals. who feels that in order to increase the number of donors in the supply chain, more awareness is needed. According to Dr. Swati Manerkar, who oversees the hospital's neonatology division, there is still a lack of understanding on the significance of breastfeeding.

"We see so many mothers who still believe in myths like babies shouldn't be fed breast milk for the first two days," she stated.

With assistance from Sion Hospital, the publicly owned KEM Additionally, Nair hospitals have established their own milk banks. But a recent study called "Landscape analysis of human milk" Indian banks have determined that there are deficiencies in the system. Among the shortcomings are inadequate funding from the government, a lack of essential human resources, and procedures and data, as well as a mismatch between supply and demand. When milk prices rise, banks can provide babies with many medical facilities.

New mothers receive assistance at the Comprehensive Lactation Management Center (Human Milk Bank) to express their milk, breastfeed their infants, and give extra milk to other hospitalized infants who are ill [10].

A study on pediatric staff nurses' knowledge of human milk banking was carried out by P. Karthika et al. (2018) at Kashiben Gordhandas Patel Children Hospital in Baroda, Gujarat. Thirty pediatric staff nurses provided information on human milk banking using a practical sampling technique and a dichotomous structured questionnaire. The findings show that 52% of pediatric staff nurses have adequate knowledge of human milk banking, 39% have intermediate knowledge, and 9% have inadequate knowledge. Additionally, there is a strong correlation between knowledge score and demographic characteristics. The study's main finding was that the majority of pediatric staff nurses—52%—had sufficient knowledge on human milk banking [11].

Objective of the study:

to evaluate people's understanding of human milk banking.

- To gauge public opinion on human milk banking.
- To evaluate the relationship between knowledge of human milk banking and demographic variables
- To evaluate the relationship between attitudes toward human milk banking and demographic factors.

Material and Method

The researcher used a structured questionnaire and an attitude scale in the current study's non-experimental descriptive design. Postpartum mothers make up the population.

One hundred postpartum women make up the sample size. The method of nonprobability purposive sampling was applied. If participants were discovered to be preoccupied with their emergency work, even after previous appointments, care was made to avoid interfering with their job, and again, appropriate time was allotted. Interviews with the subjects were used to fill out the study tool. Frequency and percentage were used to characterize the characteristics of the sample. The results of the tool's reliability and content validity tests indicated that it was dependable. Ten samples were used in the pilot study, which determined the study's viability for the full investigation.

Descriptive and inferential statistics were used to analyze the data in relation to the study's goal. Under the good guidance of professionals in the fields of statistics and nursing, the data analysis plan was created.

Major finding of study

Demoraphic variable

Description of the postnatal mothers according to their demographic characteristics:

It reveals that 48% of postpartum mothers were between the ages of 20 and 30.Mothers had secondary and higher education in 43%. The information above demonstrated the postpartum mothers' degree of understanding about human milk banking.48 postpartum moms (48%) had low knowledge of human milk banking, 35 postpartum mothers (35%) had average knowledge, and 17 postpartum mothers (17%) had bad knowledge.

Fig 1:

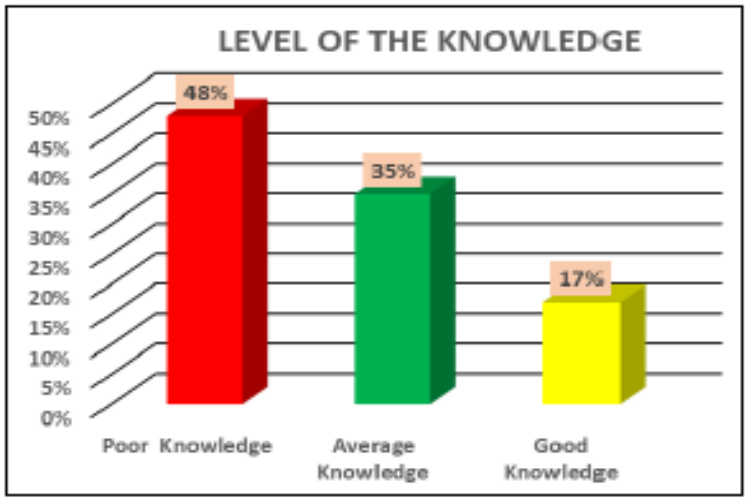

Fig 1: level of knowledge score of the post-natal mothers regarding human milk banking.

secondary schooling. 45% of people live in rural areas and 55% of people live in urban areas. 45% of postpartum mothers lived in joint families, with 69% of mothers being housewives and 31% being service women.Hindu mothers make up half of all postpartum mothers.60% of new mothers had never heard of human breast milk banking.

Section II:

Section II: Level of knowledge score of the post-natal mothers regarding human milk banking.

Table 1: Knowledge and Frequency

Knowledge	Frequency	Percentage
Poor Knowledge	48	48%
Average Knowledge	35	35%
Good Knowledge	17	17%

Section III:

Section III: Attitude of postnatal mothers on human milk banking.

Table 2: Distribution of postnatal mothers according to attitude

Attitude	Frequency	Parentages
Unfavorable Attitude (0-50%)	40	40%
Average Favorable attitude (51-75%)	30	30%
Highly Favorable attitude (75-100%)	30	30%

Fig 2:

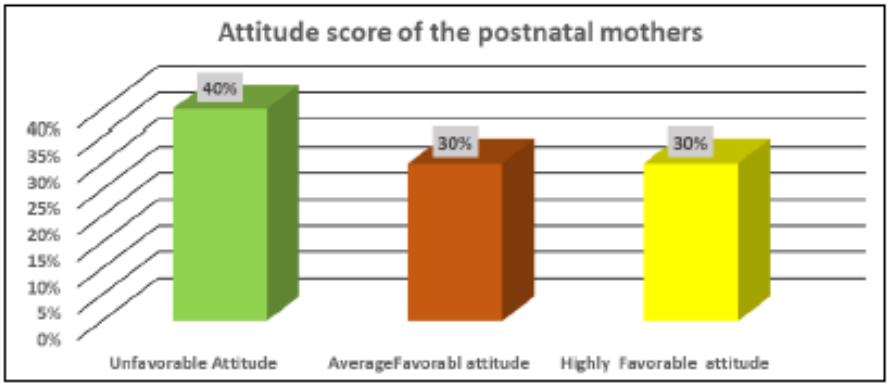

Fig 2: attitude score of the post-natal mothers regarding human milk banking.

According to the data above, 40% of postpartum moms had an unfavorable opinion about human milk banking, 30% had an average favorable attitude, and 30% had a high favorable attitude.

Section IV

A. Association of level of knowledge score with selected personal demographic variables.

The degree of knowledge of human milk banking is significantly correlated with demographic factors, such as postpartum moms' age and religion. However, there was no discernible correlation between the degree of knowledge of human milk banking and education, occupation, family type, or prior information.

B. Association of attitude score with selected personal demographic variables

There is a substantial correlation between demographic characteristics (education and postpartum moms' attitudes on human milk banking) because the p values are less than the 0.05 level of significance. However, postpartum moms' attitudes toward human milk banking did not significantly correlate with age, religion, occupation, or family type.

Discussion

The purpose of the study was to evaluate postpartum moms' attitudes and knowledge regarding human breast milk banking. One hundred postpartum women from a particular hospital participated in a non-experimental descriptive design study. The method of non-probability purposive sampling was applied. If participants were discovered to be preoccupied with their emergency work, even after previous appointments, care was made to avoid interfering with their job, and again, appropriate time was allotted. Interviews with the subjects were used to fill out the study tool.

According to the study's findings, 48% of postpartum women were in the 20–30 age range.Mothers with secondary and higher secondary education made up 43% of the population. 55% of the population lives in urban areas, while 45% lives in rural areas. 69% of mothers were housewives, 31% were employed, and 45% of postpartum mothers lived with their families.Fifty percent of new mothers are Hindu. 60% of new mothers are acking any prior understanding of the human breastbanking for milk. degree of expertise of the postpartum mothers about the banking of human milk. In that most of 48 (48%) postpartum mothers have inadequate knowledge discussing human milk banking, 35(35%) postnatal mother having average understanding on human milk banking and 17 (17%) of new mothers are not well-informed about banking of human milk. attitude rating of the postpartum 40% of mothers are concerned about human milk banking. Thirty percent of postpartum women had negative attitudes. 30% have a high positive attitude, while the average positive attitude. There is a strong correlation

between demographic factors (faith and age of postpartum mothers) and degree of understanding on human milk banking.

However, there is a strong correlation between demographic characteristics (education, and attitude of postnatal mothers on human milk banking), but there was no significant correlation between education, occupation, family type, or prior information and level of knowledge on human milk banking. However, postpartum moms' attitudes toward human milk banking did not significantly correlate with age, religion, occupation, or family type.

The current study, "Assessment of Knowledge regarding Human Breast Milk Bank among the Nursing Officers at JIPMER Puducherry," is supported by Safeena Beevi SS (2021). -

The purpose of this cross-sectional study was to evaluate nursing officers' knowledge of human breast milk banks and to determine service-related variables linked to nursing officers' awareness of these banks.

A total of 176 individuals who met the study's inclusion criteria were chosen for the research. The nursing officers' level of knowledge was evaluated using a predefined questionnaire. In this investigation, both descriptive and inferential statistics were employed. 176 nursing officers in all were examined. The results showed that the majority of nursing officers (93.18%) lacked sufficient information about the human breast milk bank. The majority of nursing officers don't know enough about the breast milk bank. In order for the institute to arrange for in-service education programs to refresh the staff's knowledge, the study also exposes the clinical experience; the area of posting has a substantial correlation in the knowledge level of the participants.

Conclusion

Infants can get the right diet for their growth and development thanks to the benefits of breast milk donation and breast milk banks. The majority of postpartum moms had inadequate information and attitudes regarding human milk banking, according to the current study. Therefore, it is imperative that health professionals, particularly nurses, raise awareness of human milk banking and urge moms to continue breastfeeding. Human milk banking is a community-based initiative in which a nursing woman provides extra milk to the HMB after nursing her own child. Before approving the mother's milk, the bank checks her for illnesses. In the Neonatal Unit, the milk from the donor mother is subsequently pasteurized to make it safe for the preterm infant to consume. Before being shipped, this milk is further examined for pathogens. Only preterm and low birth weight patients hospitalized to the neonatal wards receive this donor milk since it is extremely valuable, much like liquid gold. The human breast milk bank safely supplies breast milk to newborns whose natural breast milk is unavailable for medical or other reasons in order to provide them with high-quality care. Therefore, regular inservice programs and staff rotation in each department are necessary to keep health care workers' knowledge up to date, particularly that of nurses.

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