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Knowledge and Attitude Regarding Human Milk Banking among Postnatal Mother in Selected Hospitals of Una Himachal Pradesh

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Abstract

Introduction: A human milk bank, breast milk bank or lactarium is a service which collects, screens, processes, and dispenses by prescription human milk donated by nursing mothers who are not biologically related to the recipient infant. The optimum nutrition for newborn infants is breastfeeding, if possible, for the first year.

The main of study is to assess the knowledge and attitude on human breast milk banking among post-natal mothers.

Methodology: The study design was descriptive non-experimental design. The objectives of the study were to assess the knowledge and attitude of postnatal mothers on human milk banking & to find the association between level of knowledge, attitude on human milk banking and socio demographic variables. 100 post natal mothers was selected for the study by using Non-probability purposive sampling technique.

Result: The major finding showed that the majority of 48(48%) having poor knowledge regarding human milk banking, 35(35%) postnatal mother having average knowledge on human milk banking and 17(17%) of postnatal mothers having poor knowledge on human milk banking. majority of 40% postnatal mothers are showed unfavourable Attitude There is a significant association between demographic variables (age and religion of postnatal mothers) and level of knowledge on human milk banking. But there was no significant association between educations, occupation, type of family, previous information with level of knowledge on human milk banking. there is a significant association between demographic variables (education, and attitude of postnatal mothers on human milk banking). But there was no significant association between age, religion, occupation and type of family with the attitude of postnatal mothers on human milk banking.

Conclusion: This indicates that majority of the postnatal mothers had poor knowledge and attitude towards human milk banking. Therefore it is necessary for health professionals especially nurses to encourage mothers to continue breast feeding and also to create awareness about human milk banking.

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

Introduction

A human milk bank, breast milk bank or lactarium is a service which collects, screens, processes, and dispenses by prescription human milk donated by nursing mothers who are not biologically related to the recipient infant. The optimum nutrition for newborn infants is breastfeeding, if possible, for the first year ^[1].

Human milk banks offer a solution to the mothers that cannot supply their own breast milk to their child, for reasons such as a baby being at risk of getting diseases and infections from a mother with certain diseases, or when a child is hospitalized at birth due to very low birth weight (and thus at risk for conditions such as necrotizing enterocolitis), and the mother cannot provide her own milk during the extended stay for reasons such as living far from the hospital ^[2].

Human milk banks had an increase in the amount of milk collected in 2012 compared to 2007; in addition, the amount of milk donated by each donor had also increased. In September 2021, a new facility was opened in Brisbane, Australia – A merger between Australian Red Cross Lifeblood and Queensland Milk Bank – As a foundation to meet future demand for donated breast milk, which is expected to rise by 1,000 litres annually ^[3]. Mothers' Milk Bank (MMB) says, this service provides mothers with an alternative to infant formula and allows the mother to give their new-born the nutrition it needs for healthy growth.

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The International Milk Banking Initiative (IMBI), was founded at the International HMBANA Congress in 2005. It lists 33 countries with milk bank programs [4]. The World Health Organization (WHO) states that the first alternative to a biological mother not being able to breast feed is the use of human milk from other sources [5].

The main function of milk banks is to serve as repositories of donated milk so it is available when needed. Milk banks receive milk from donors, process it, and store it until used. Most commonly milk from multiple donors is pooled, although some banks pool milk only of individual donors (single-donor banks). Usually, milk provided by milk banks has undergone pasteurization. Once pasteurized, milk is placed in small (100-150 mL) containers and is stored frozen for up to 1 year depending on local guidelines.

Breast milk is the normal to feed optimal exclusive first source of nutrition. The majority of mothers are encouraged to breastfeed their babies, however the problem with breastfeeding arise when the baby is sick or is admitted to the hospital, particularly in cases of pre-mature infants. Also, the mothers may be unable to provide a full volume of milk due to numerous physical and emotional barriers to breastfeeding [6]. These at-risk nutrients is benefits a lot form the breast milk nutrients and in case the mother is unable to provide the breast milk, then the pasteurized donor milk form a consideration for supplementation. Human milk is recognized for its numerous benefits including inducing tolerance to allergens, providing passive immunization, improving lipid profiles, and controlling blood pressure. The goal of the present report is to review the benefits of human breast milk in the pre-term population as well as benefits of human donor breast milk when the mothers own milk is inadequate. The benefits of breast milk for healthy term neonates have been extensively reviewed elsewhere [7].

Need of the study

World health organization and United Nations children's fund in 1980 has started that if the baby does not get his/her own milk, the best food for that baby is human breast milk from another lactating mother. Donor milk has a broad range of therapeutic uses common reasons for prescribing donor milk are pre-maturity, allergies, feeding formula intolerance; immunologic deficiencies etc.

Breast milk is not recommended for mothers who have certain health problems. In the absences of the infant's own mother milk, donor milk offer the benefits of human milk for the infant including optimal nutrition, easy digestibility and immunological protection against many organisms human milk also contains growth factors that can protect immature tissue, promote maturation particularly in the gastrointestinal tract, and protect healing of tissue damaged by infection [8].

The objective of breast milk banks are to ensure that every baby born or admitted to the hospital receives mother's milk, to avoid bottle, animal and formula milk, to heighten breastfeeding awareness, to give ancillary support to breastfeeding practice and to promote baby friendly hospital care.

Breast milk donation is endorsed and recommended as first alternative when it is not possible for the mother to breastfeed their hospitalized babies or if their mothers do not have sufficient milk production and any other condition where mothers may not be able to feed their babies.

India's first Human Milk Bank was established in 1989 at

Sion Hospital. Nearly 3000 to 5000 babies benefit from the services of this milk bank every year. Nearly 800 to 1200 liters of human milk each year is received and feed to sick and vulnerable babies in the Neonatal Intensive Care Unit [9].

Sion hospital sees nearly 10,000 deliveries a year. Of these, nearly 12% to 14% are pre-term babies. There are also babies who are separated from their mothers for various other reasons and cannot be breastfed. "The milk we get now is just about enough for babies in our hospital. But there are so many babies in need at the other peripheral hospitals. who believes that more awareness is required to add more donors to the supply chain. Dr. Swati Manerkar, who heads the neonatology department at the hospital, said awareness of the importance of breastfeeding is still lacking. She said, "We see so many mothers who still believe in myths such as babies should not be fed breast milk for the first two days.

With handholding from Sion hospital, the civic-run KEM and Nair hospitals have also started their own milk banks. However, a recent study, Landscape analysis of human milk banks in India, has concluded that there are gaps in the system. The gaps include suboptimal financial support from the government, shortage of key human resources, processes and data, and demand-supply mismatch. "If the volume of milk increases, banks can supply to babies in multiple hospitals.

At the Comprehensive Lactation Management Center (Human Milk Bank), new mothers are provided support to breastfeed their babies, to express milk, and donate excess milk for other sick babies in the hospital [10].

P. Karthika, *et al.* (2018) was conducted study on Paediatric Staff Nurses Knowledge regarding human milk banking working in Kashiben Gordhandas Patel Children Hospital, Baroda, Gujarat. The data were collected from 30 Paediatric staff nurses related to human milk banking by convenient sampling method with the use of dichotomous structured questionnaire method. Result: 52% paediatric Staff nurses having adequate knowledge regarding human milk banking, moderate knowledge 39% and inadequate knowledge 9% regarding human milk banking, and there is a significant association between knowledge score and demographic variables. Conclusion: The major conclusion drawn from this study was that highest percentage 52% paediatric staff nurses had adequate knowledge regarding human milk banking [11].

Objective of the study: To assess the knowledge regarding Human Milk banking.

- To assess the attitude regarding Human milk banking.
- To assess the association between demographic variable and knowledge regarding Human Milk banking
- To assess the association between demographic variables and attitude regarding Human Milk banking.

Material and Method

In present study, researcher adopted Non-Experimental descriptive design using structured questionnaire and Attitude scale. The population consists of postnatal mothers. Sample size consist of 100 postnatal mothers. Non-probability purposive sampling technique was used. Even after prior appointments, if subjects were found busy in their emergency work, care was taken not to interrupt them in their work and again suitable time was taken. Study tool was

filled personally by interviewing the subjects. The sample characteristics were described using frequency and percentage. The content validity and reliability of the tool was done, which suggested that the tool was reliable. The pilot study was done on 10 samples and found that the study was feasible for the final study.

The data obtained was analysed in terms of the objective of the study using descriptive and inferential statistics. The plan of data analysis was developed under the excellent direction of experts in the field nursing and statistics.

Major finding of study

Demographic variable

Description of the postnatal mothers according to their demographic characteristics

It shows that 48% post-natal mothers were from age group of 20 to 30 of years. 43% mothers had secondary and higher

secondary education. Area of residence distributed as 55% are belong to urban areas and 45% belongs to rural area. Majority of the mother, 69% were housewife and 31% were service women, 45% of postnatal mothers living in join family. 50% of postnatal mothers are Hindu. 60% post-natal mothers are not having any previous knowledge about Human breast milk banking.

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%

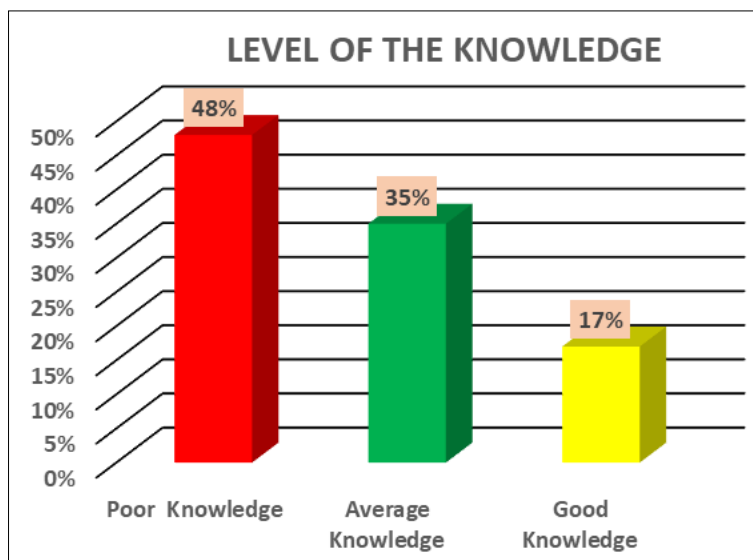


Fig 1: level of knowledge score of the post-natal mothers regarding human milk banking.

Above data showed level of knowledge score of the post-natal mothers regarding human milk banking. In that majority of postnatal mother's 48(48%) having poor knowledge regarding human milk banking, 35(35%) postnatal mother having average knowledge on human milk banking and 17(17%) of postnatal mothers having poor knowledge on human milk banking.

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%

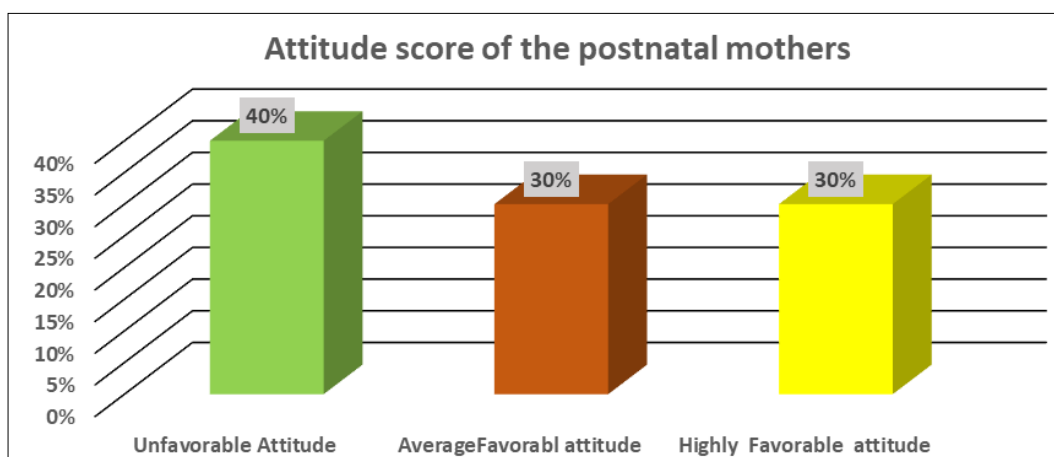


Fig 2: attitude score of the post-natal mothers regarding human milk banking.

Above data showed that attitude score of the post-natal mothers regarding Human milk banking majority 40% postnatal mothers are having unfavorable Attitude, 30% are having average favorable attitude and 30% are having high favorable Attitude.

Section IV

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

There is a significant association between demographic variables (age and religion of postnatal mothers) and level of knowledge on human milk banking. But there was no significant association between educations, occupation, type of family, previous information with level of knowledge on human milk banking.

B. Association of attitude score with selected personal demographic variables

As the p values is less than 0.05 level of significance, there is a significant association between demographic variables (education, and attitude of postnatal mothers on human milk banking). But there was no significant association between age, religion, occupation and type of family with the attitude of postnatal mothers on human milk banking.

Discussion

The study aimed at determining the study was to assess the knowledge and attitude on human breast milk banking among post- natal mothers. Non-Experimental descriptive design study was conducted among 100 post natal mothers from selected hospital of the..... Non-probability purposive sampling technique was used. Even after prior appointments, if subjects were found busy in their emergency work, care was taken not to interrupt them in their work and again suitable time was taken. Study tool was filled personally by interviewing the subjects. The study result was showed that demographic characteristics of study 48% post-natal mothers were from age group of 20 to 30 of years. 43% mothers had secondary and higher secondary education. Area of residence distributed as 55% are belong to urban areas and 45% belongs to rural area. Majority of the mother, 69% were housewife and 31% were service women, 45% of postnatal mothers living in join family. 50% of postnatal mothers are Hindu. 60% Post-natal mothers are not having any previous knowledge about Human breast milk banking. level of knowledge score of the post-natal mothers regarding human milk banking. in that majority of postnatal mother's 48(48%) having poor knowledge regarding human milk banking, 35(35%) postnatal mother having average knowledge on human milk banking and 17(17%) of postnatal mothers having poor knowledge on human milk banking. attitude score of the post-natal mothers regarding Human milk banking majority 40% postnatal mothers are having unfavorable Attitude, 30% are having average favorable attitude and 30% are having high favorable Attitude. There is a significant association between demographic variables (age and religion of postnatal mothers) and level of knowledge on human milk banking. But there was no significant association between educations, occupation, type of family, previous information with level of knowledge on human milk banking., there is a significant association between demographic variables (education, and attitude of postnatal mothers on human milk banking). But there was no significant association between

age, religion, occupation and type of family with the attitude of postnatal mothers on human milk banking.

The present study supported by Safeena Beevi SS (2021) on Assessment of Knowledge regarding Human Breast Milk Bank among the Nursing Officers in JIPMER Puducherry. - This cross-sectional study aimed to assess the level of knowledge of nursing officers regarding the human breast milk banks and to identify service-related factors associated with the level of knowledge on human breast milk banks among nursing officers. One hundred seventy-six participants were selected for the studies who fulfil the inclusion criteria of the study. A structured questionnaire was used to assess the knowledge level among the nursing officers. Both inferential statistics and descriptive statistics were used in this study. A total of 176 nursing officers were analyzed. Findings revealed that most nursing officers had inadequate knowledge (93.18%) regarding the human breast milk bank. Most of the nursing officers are having inadequate knowledge regarding the breast milk bank. The study also reveals the clinical experience; the area of posting has a significant correlation in the knowledge level of the participants so that the institute can plan for in-service education programs to update the staff's knowledge.

Conclusion

With the advantages of breast milk donation and breast milk banks, infants can receive the ideal food for their growth and development. The current study showed that majority of the postnatal mothers had poor knowledge and attitude towards human milk banking. Therefore it is necessary for health professionals especially nurses to encourage mothers to continue breast feeding and also to create awareness about human milk banking. Human milk banking is a society-based programme where a lactating mother, after feeding her own baby donates the excess amount of milk, to the HMB. The mother is screened for infections by the bank before accepting her milk. The donor mother's milk is then pasteurised, to make it safe for consumption by the preterm baby, in the Neonatal Unit. This milk is further screened for infections before dispatch. As this donor milk is very precious like liquid gold, this milk is given only to the preterm/low birth weight who are admitted in the Neonatal units. In order to provide quality care to neonates whose natural breast milk is unavailable due to medical or other reasons, the human breast milk bank provides the breast milk safely. Hence the knowledge of health care workers, especially nurses, needs to be updated through regular in-service programs and periodic rotation of staff in each department.

Conflict of Interest: The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

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