



KNOWLEDGE AND ATTITUDE OF POST NATAL LACTATING MOTHERS REGARDING HUMAN MILK DONATION IN OUR HOSPITAL

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ABSTRACT

A human milk bank is a service established for collecting, screening, processing, storing and distributing donated human milk.

Objective:

- To assess the knowledge and attitude of post natal lactating mothers regarding human milk banking.
- To explore the prejudice and awareness surrounding in donating and accepting pasteurized breast milk through human milk banking

Methods: The study was a hospital based cross sectional questionnaire study among post natal lactating mothers at YMCH hospital in the post natal ward. 150 mothers who satisfied the inclusion criteria were included in the study. A pretested questionnaire was supplied among the lactating mothers regarding the human milk sharing and donating.

Results: Majority of the mothers including NICU babies' mothers were neither willing to donate their milk nor willing to accept breast milk as their cultural and religious practices do not encourage the same. Only 6.7% mothers had heard about human milk banks. Only 17.3% mothers and 3 mothers among the 15 NICU babies think that a human milk bank is required.

Conclusion Majority of mothers are unaware about the concept of human milk banking and are reluctant to neither donate nor accept donor breast milk. The major reason for this is the lack of knowledge about the importance of human milk and they think that the best top up feed next to direct breast milk is the formula milk.

KEYWORDS : human milk donation, knowledge, attitude

Introduction

Initiation of the best possible start in life is the right of every human being, which includes the best nutrition from the first day of life. The choice of feeding is direct at mother's breast, if not possible then enteral feeds using mother's own expressed breast milk, then comes the pasteurized donated fresh milk.

WHO and UNICEF, made a joint statement in 1980: "Where it is not possible for the biological mother to breast feed, the first alternative, if available, should be the use of human milk from other sources. Human milk banks should be made available in appropriate situations." [1,2]. Banked human milk is used for the treatment of many conditions (mainly in Neonatal Intensive Care Units: NICUs): prematurity, malabsorption, short-gut syndrome, intractable diarrhoea, feed intolerance with formula, failure to thrive, immune deficiencies (IgA) [3,4]. Studies have found that breast milk has a protective effect against necrotizing enterocolitis (NEC) [3,5,6]. A human milk bank in close proximity to NICU is acceptable as a lactation expert can supervise the mothers and it can increase the rates of exclusive breastfeeding rates in VLBW babies [7].

Methods

The study was a hospital based cross sectional questionnaire study among post natal lactating mothers at YMCH hospital in the post natal ward. 150 mothers who satisfied the inclusion criteria were included in the study after their consent. All mothers who delivered live babies in our hospital were included in our study and those mothers who were not willing to participate and had still births were excluded. The study was conducted after obtaining the ethical clearance from the Institutional ethical committee.

Pretested questionnaires were supplied among the lactating mothers regarding the human milk sharing and donating. The results were entered in a master chart. The data was analysed using the Chi-square test on SPSS version 21. T-test was used for analysis of two quantitative variables. Z-test was used to compare frequency of qualitative variables among the two groups. Comparison and correlations were considered significant when P values comes <0.05.

Results

Among the total 150 mothers, 74.7% mothers were falling in the age

group between 18 to 20 years. 62% were the mothers of male babies. 52.7% were multi gravida followed by primi mothers (38.7%). 75.3% mothers delivered normally.

Among the total mothers, 52% mothers had high school education followed by 24% mothers who had lower primary education. 5.3% mothers had a pre university degree and 2 mothers had their bachelor degrees. Among the total 150 babies, 10% were in NICU. Only 6.7% mothers had heard about donor human milk banks. Majority among them (3.3%) heard about the same through newspapers. 52.7% were not willing to donate their milk as their religious and cultural practices do not encourage the same. 40% mothers had no adequate breast milk and worried that their baby won't be getting sufficient milk to feed on.

94% mothers were not willing to accept milk from an unknown person for their babies. 82.7% mothers do not think that our hospital require a human milk bank. 85.3% mothers think that hepatitis and HIV do not spread through breast milk whereas 62% mothers think that genetic diseases do transmit through breast milk. 88% mothers do not know how to store expressed breast milk. None of the mother could name a single human milk bank present in our state and none of them ever shared their breast milk. 73.3% mothers opt formula feed if they have inadequate breast milk as the best top feed followed by donor human milk (17.3%).

When education qualification and knowledge about human milk banking was compared to each other, a significant association was observed (p value is 0.00). A significant association was also noted when the education qualification of the mothers was compared with the opinion in the requirement of a human milk bank in our NICU (P value-0.00). A significant p value of 0.00 was observed when education qualification was compared with the knowledge regarding storage of expressed milk. No significant association was observed between education and acceptance of donated milk from an unknown mother.

When mothers of NICU babies associated with the knowledge about milk banking, a significant p value of 0.00 was noted. Among the total 15 NICU babies' mothers, only 1 mother was willing to accept milk from an unknown mother. Among the 15 NICU mothers, only 3 mothers are ready to accept donor milk from the milk bank if their babies don't get adequate breast milk and opining that our hospital

requires a human milk bank.

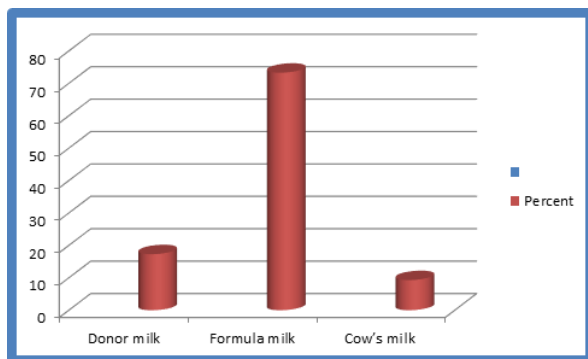
Table 1: DISTRIBUTION OF NO. OF MOTHERS WHO KNOW ABOUT DONOR MILK BANKING AND THEIR OPINIONS IN OUR STUDY

QUESTIONS		FIGURE	PERCENTAGE	
Knowledge about donor milk banking	NO	140	93.3	
	YES	10	6.7	
Will you accept milk from donor milk bank if you don't have adequate breast milk?	NO	FIGURE	PERCENTAGE	
	YES	141	94	
Do you think this hospital requires a milk bank?		9	6	
		FIGURE	PERCENTAGE	
	NO	124	82.7	
	YES	26	17.3	
Would you accept pasteurized milk of an unknown person?		FIGURE	PERCENTAGE	
	No-134(89.3%)	NO	134	89.3
	Yes-16(10.7%)	YES	16	10.7

TABLE 2: COMPARISON BETWEEN THE EDUCATION OF THE MOTHER WITH THE KNOWLEDGE ABOUT DONOR MILK BANKING AND WITH THE OPINION ABOUT THE REQUIREMENT OF A HUMAN MILK BANK IN OUR HOSPITAL.

Chi-Square Tests	p-value
Pearson Chi-Square	0.000
comparison between the education of the mother with the knowledge about donor milk banking	
comparison between the education of the mother with the opinion about the requirement of a human milk bank in our hospita	0.000

FIGURE 1: DISTRIBUTION OF THE BEST ALTERNATIVE FOR THE NUTRITION OF THOSE BABIES WHOSE MOTHERS HAVE NO ADEQUATE BREAST MILK.



Discussion

In our study, we tried to extract the preliminary knowledge of lactating mothers regarding donor human milk banking and to know the reason of their reluctance in terms of milk donation and acceptance. We also recommended the need of antenatal counseling sessions to all pregnant women regarding the importance of human milk banking. According to Tiwari et al, counseling and motivation sessions may be conducted by health care workers, lactation experts, trained nursing staffs and social workers. Potential donor also has to be counseled and should communicate with a video on the process of breast milk collection which is the most effective method of counseling .It can provide alleviation of anxiety and doubts among the mothers of both donor babies and recipient babies. Breast milk is being compared as a “liquid gold” and should be made easily available in the commercial market [8].

According to Bharadva et al, human milk banks should be situated

proximal to NICU as the high risk babies can easily make use of the same with equipment such as pasteurizer to carry out the heat treatment of donor milk and deep freezers to store the donor milk donor milk has to prioritized for preterm babies, sick babies, babies whose mothers have post-partum illnesses, and babies whose mothers have lactation failure [9].According to our study majority of mothers were unaware how to express and store breast milk and hence recommending the need of lactation experts to teach them the same.

According to the questionnaire based cross sectional study conducted by Chinnasami et al over 2 months on 200 lactating mothers, 47.5% had no knowledge whether early breastfeeding was good. Exclusive breastfeeding was given for six months by 72% of mothers. Cow’s milk was the most commonly used top milk (23.5%). Doctors were the preferred counselor (87.5%) regarding breast feeding [10].

According to Jahan et al, when compared between developed and developing countries, it was observed that the concept of donor milk bank, it’s popularity, awareness and acceptance were less among the mothers in developing countries. They concluded that before considering to establish human milk banks in developing countries, a standardized education is needed for health care providers to educate and encourage mothers to accept and donate human milk [11].In our study, we observed that only 6.7% mothers know about the concept of human milk banking and hence recommend the service of health care providers in terms of counseling in this regard.

It is an argument that accessibility to donor milk is an ethical issue. In the United States, the availability of donor milk is only by physician’s order. They concluded that donor breast milk should be a standard of care for sick and premature infants [12].

Conclusion

In our study we concluded that the majority of mothers were unaware about the concept of human milk banking and were reluctant to neither donate nor accept breast milk. The major reason for this is the lack of knowledge about the importance of human milk .The government, health experts including pediatricians, lactation experts and NICU nursing staffs along with social workers should join hand to propagate the concept of human milk bank during the antenatal period itself for the sake of future of thousands of high risk neonates born in our society.

DECLARATIONS

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