Knowledge and Attitude of Postnatal Mothers on Human Milk Banking

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ABSTRACT

The present study was aimed to assess the knowledge and attitude of postnatal mothers on human milk banking. 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. The study was conducted in Sri Krishna Sevashrama Hospital, Bengaluru with sample size of 100 postnatal mothers' selected using purposive sampling method. The conceptual framework of the study was based on Nola J Pender's Health Promotion Model. A qualitative non-experimental approach was chosen for the study. Level of knowledge and attitude of postnatal mothers regarding human milk banking was assessed using structured questionnaire. The result shows that 90% of the subjects had poor knowledge, 10% of subjects had average knowledge and none of the subjects have good knowledge regarding human milk banking. The result with regard to attitude revealed that 67% of postnatal mother had unfavorable attitude and 33% had favorable attitude towards human milk banking.

The Chi-square test revealed that the association between demographic variable and level of knowledge & attitude on human milk banking. It showed that there was a significant association between age and religion of postnatal mothers with the level of knowledge on human milk banking and demographic variables like education, parity, monthly income and sources of health education had significant association with the attitude of postnatal mothers.

Key words: Human milk, Human Milk Banking, postnatal mothers, knowledge, attitude.

INTRODUCTION

Breastfeeding is the best method of infant feeding because human milk continues to be the only milk which is tailor-made and uniquely suited to the human infant. All mothers should be encouraged to breast-feed their infants. When a mother, for some reason, is unable to feed her infant directly, her breastmilk should be expressed and fed to the infant. If mother's own milk is unavailable or insufficient, the next best option is to use pasteurized donor human milk (PDHM). [1]

Breast milk is considered by numerous health and medical organizations to be healthiest option for feeding babies. The World Health Organization (WHO), American Academy of Pediatrics (AAP) and United Nations Children's Fund recommend that the best alternative to a mothers' own breast milk is milk from a healthy wet nurse or donor human milk (DHM) from a human milk bank (HMB).[2,3]

Though wet nursing had been in practice since mythological ages, modern human milk banking is in its infancy in India. Lack of awareness, leadership deficit, infrastructural and maintenance costs, and fewer neonatal setups are some reasons for the same. The first milk bank in Asia under the name of Sneha, founded by Dr. Armeda Fernandez, was started in Dharavi, Mumbai on November 27, 1989. From 2005 to 2015, only 22 human milk banks were established, but in the past 2 years, this number has more than doubled. There are currently about 50 milk banks in India, which are still inadequate to meet the massive demand for

donor human milk.[4] The growth of human milk banks has been very slow as compared to the growth of neonatal intensive care units. Hence it is important to educate the postnatal mothers regarding human milk banking, its benefits, etc. in order to reduce the infant mortality and morbidity.

MATERIALS & METHODS

Qualitative non-experimental approach is used to identify the knowledge of postnatal mothers on human milk banking. The study design was descriptive qualitative non-experimental design. The study was conducted in Sri Krishna Sevashrama hospital, Bengaluru. 100 postnatal mothers admitted in postnatal ward were considered as sample for the study. Purposive sampling technique was found to be appropriate to select postnatal mothers admitted in postnatal ward in Sri Krishna Sevashrama hospital, Bengaluru. The sample size for this study was 100 postnatal who fulfilled the inclusion criteria.

The tool used for this study was Socio demographic data of the postnatal mothers, containing information related to mothers such as age, religion, type of family, place of residence, educational status, occupation and monthly income of the family & Structured questionnaire to assess the knowledge on human milk banking and attitude scale to assess the attitude of postnatal mothers towards human milk banking. The tool consisted of 15 questions to assess the knowledge of postnatal mothers regarding human milk banking and 10 items to assess attitude of postnatal mothers. The tool, was validated by 5 experts in the field of nursing. The recommendations and suggestions of the experts were considered to modify the tool and the tool was finalized. Internal consistency of structured knowledge questionnaire was calculated by using split half method. After obtaining permission from the concerned authority a pilot study was to determine the feasibility, validity, reliability of the design methodology and tool. The pilot study was conducted on 10 mothers at Shri Krishna Sevashrama hospital. The tool was found to be feasible and practicable after getting the approval of the institutional ethical committee, the data was collected. The informed consent was taken from the mother and the data was collected on socio demographic factors, knowledge and attitude using the tool. It took 30 minutes to collect the data from the each mother. Data analysis was done on the basis of descriptive and inferential statistics.

RESULTS

The results of the study are presented under following headings.

Section1: Demographic data of postnatal mothers.

Section 2: Knowledge of postnatal mothers on human milk banking

Section 3: Attitude of postnatal mothers on human milk banking

Section 4: Relationship between selected demographic variables and knowledge on human milk banking.

Section 5: Relationship between selected demographic variables and attitude towards human milk banking.

Section 1: Demographic data of postnatal mothers.

Table 1: Distribution of postnatal mothers according to age N = 100

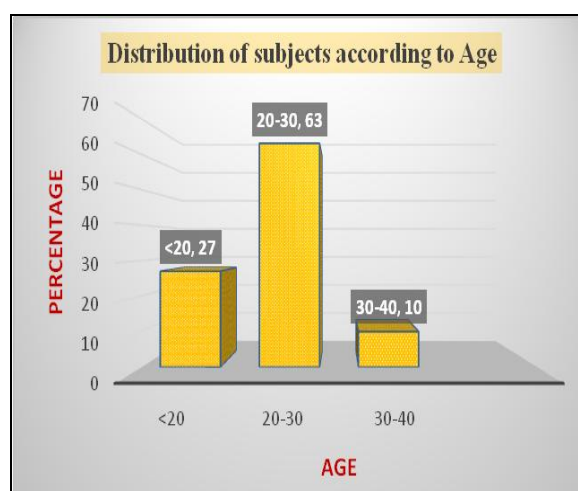| Age	Frequency	Percentage
<20 years	27	27
20-30 years	63	63
30-40 years	10	10

Table 1 shows that 27% were in the age group <20 years, 66% were in the age

group of 20-20 years and 10% were in the age group 30-40 years.

Table 2: Distribution of postnatal mothers according to religion   N = 100

Religion	Frequency	Percentage
Hindu	83	83%
Muslim	17	17%
Christian	0	
Others	0	

Table 2 shows that 83% of postnatal mother were in Hindu, 17% were Muslim and none were Christians or of other religion.
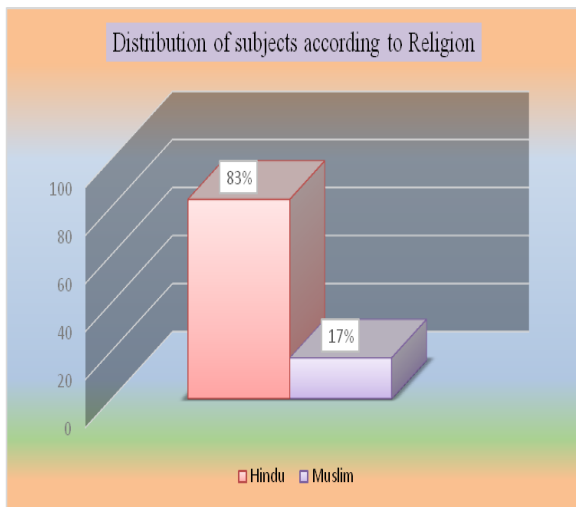

Table 3: Distribution of postnatal mothers according to type of family   N = 100

Type of family	Frequency	Percentage
Nuclear family	73	73
Joint family	27	27

Table 3 shows that 73% of postnatal mother belonged to nuclear and 27% belonged to joint family
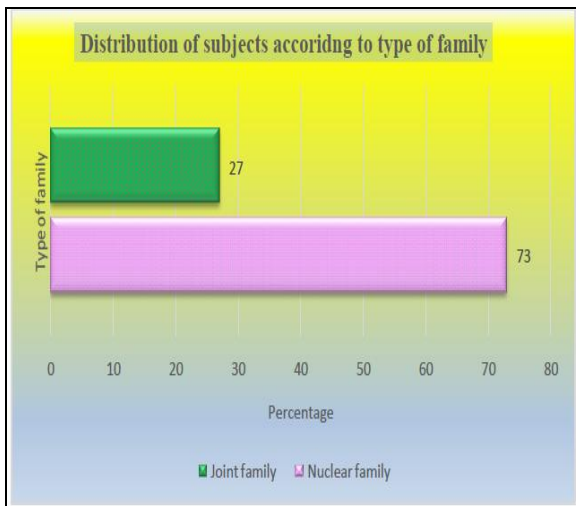

Table 4: Distribution of postnatal mothers according to parity   N = 100

Type of family	Frequency	Percentage
Primipara	57	57
Multipara	43	43

Table 4 shows that 57% of postnatal mother were primipara and 43% were multipara
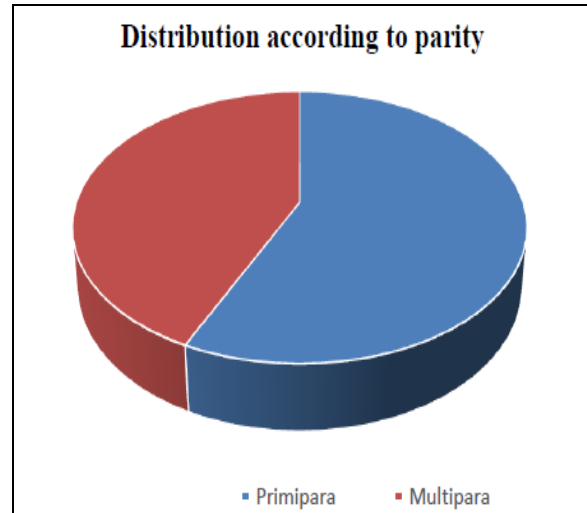
Table 5: Distribution of postnatal mothers according to family income   N = 100

Family Income	Frequency	Percentage
<10,000	40	40
10,000-20,000	40	40
20,000-30,000	20	20
>30,000	0	0

Table 5 shows that 40% of postnatal mother had a family income less than Rs.10,000/-, 40% had a family income Rs.10,000-Rs.20,000/- and 20% had a family income of Rs.20,000-Rs.30,000/-
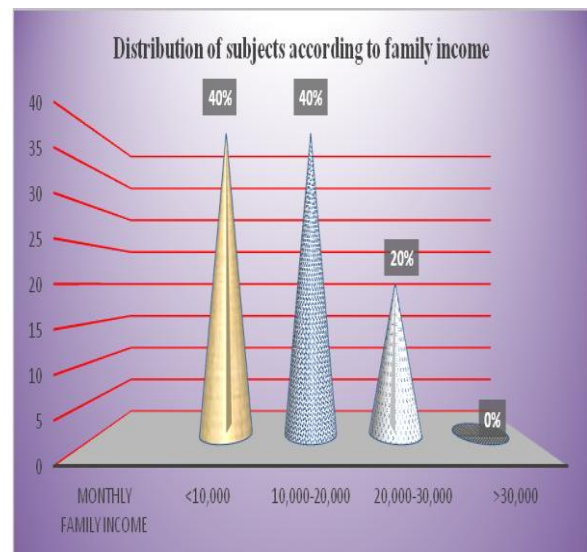
Table 5: Distribution of postnatal mothers according to sources of health information   N = 100

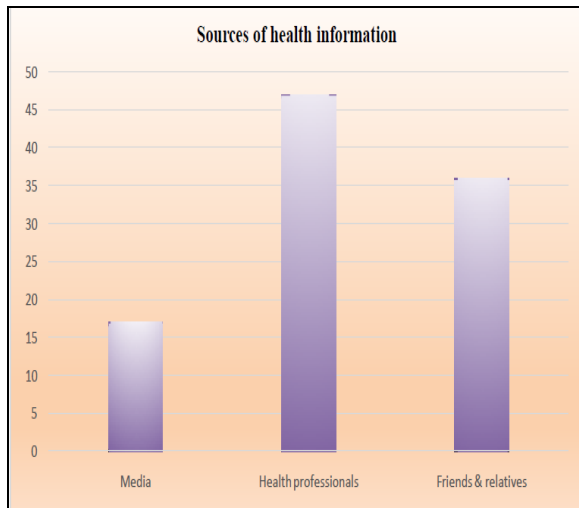| Sources of health information	Frequency	Percentage
Media	17	17
Health professionals	47	47
Friends and relatives	36	36

Table 5 shows that 17% of postnatal mother got health information from media, 47% from health professionals and 36% from friends and relatives.

Table 5: Distribution of postnatal mothers according to educational status   N = 100

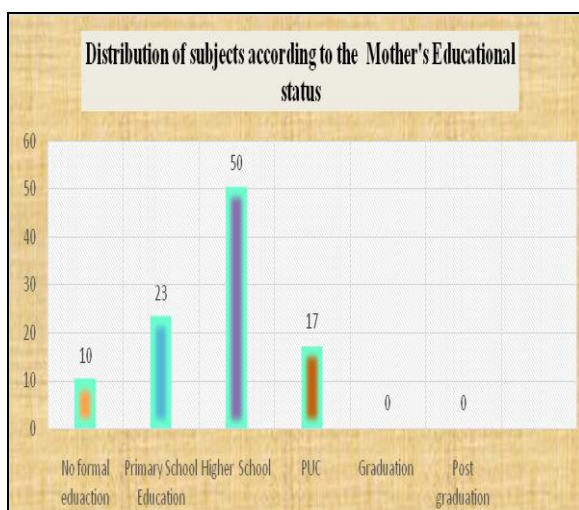| Educational status	Frequency	Percentage
No formal education	10	10
Primary Education	23	23
Secondary Education	50	50
Pre university education	17	17
Graduation	0	0
Post graduation	0	0

Table 5 shows that 10% of postnatal mother had no formal education, 23% had primary education, 50% had secondary

education, 17% had Pre university education.

Table 6: Distribution of postnatal mothers according to occupational status   N = 100

Occupational Status	Frequency	Percentage
Home maker	77	77
Government employee	7	7
Private employee	3	3
Self employed	13	13

Table 6 shows that 77% of postnatal mother were homemakers, 7% are government employees, 3% are private employees and 13 % were self employed
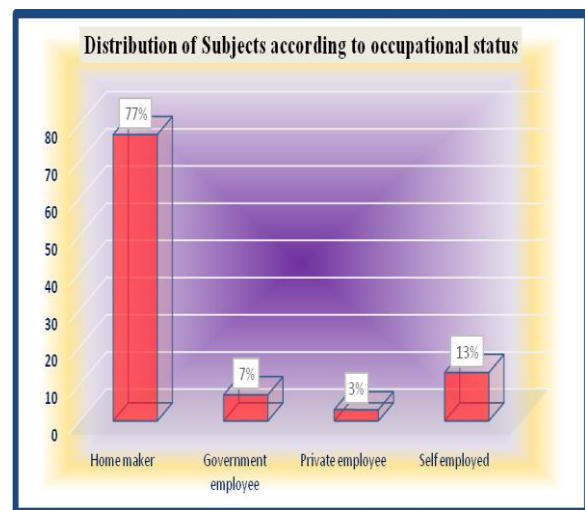
Section 2: Knowledge of postnatal mothers on human milk banking

Table 7: Distribution of postnatal mothers on knowledge score N = 100

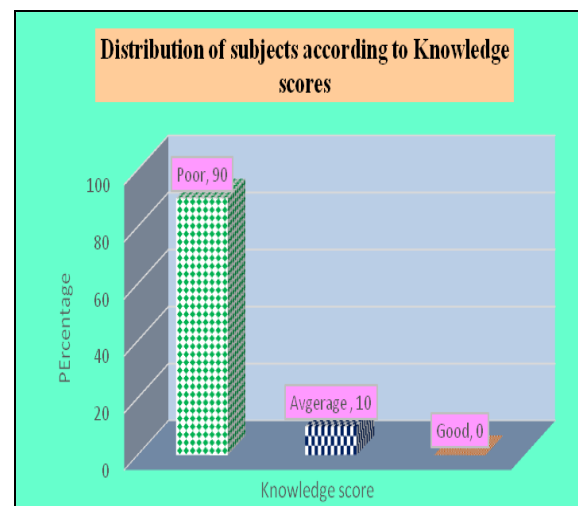| Knowledge score		Percentage
0-5	Poor	90
06-10	Average	10
11-15	Good	0

Table 7 shows that 90% of postnatal mother had poor knowledge, 10% had average knowledge and no one had good knowledge.

Section 3: Attitude of postnatal mothers on human milk banking

Table 8: Distribution of postnatal mothers according to attitude   N = 100

Attitude	Frequency	Percentage
Unfavourable	67	67
Favourable	33	33
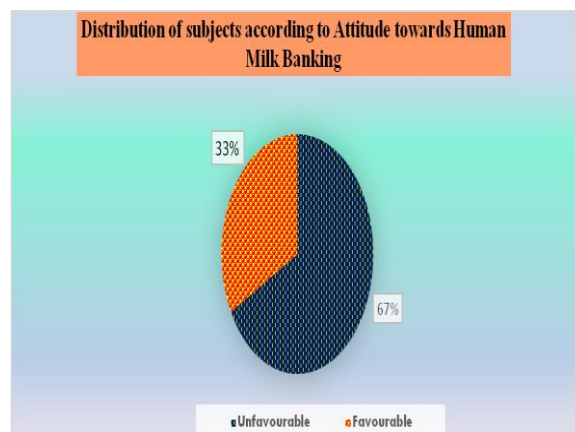
Table 8 shows that 67% of postnatal mother had unfavorable attitude and 33% had favorable attitude towards human milk banking.

Distribution of subjects according to Attitude towards Human Milk Banking

Section 4: Relationship between selected demographic variables and knowledge on human milk banking.

Table 9: Relationship between selected demographic variables and knowledge on human milk banking   N= 100

SL. No.	Variables	≥ Median	< Median	Total	χ^2	Level of significance
1.	**Age**					
	<20 years	21	6	27	6.526	Df =2
	20-30 years	59	4	63	P value=0.038	Significant
	30-40 years	10	0	10		
2.	**Religion**					
	Hindu	78	5	83	8.575	Df =1
	Muslim	12	5	17	P value= 0.0034	Significant
	Christian	0	0	0		
3.	**Education**					
	No formal education	10	0	10	4.834	Df =3
	Primary education	21	2	23	P value= 0.184	Non - Significant
	Secondary education	46	4	50		
	Higher secondary education	13	4	17		
	Graduation	0	0	0		
	Post graduation	0	0	0		
4.	**Occupation**					
	Home maker	69	8	77	0.566	Df=3
	Govt employee	6	1	7	P value= 0.904	Non - Significant
	Private employee	3	0	3		
	Self employed	90	10	100		
5.	**Type of family**					
	Nuclear family	65	8	73	0.276	Df= 1
	Joint family	25	2	27	P value= 0.599	Non-Significant
6.	**Parity**					
	Primipara	49	8	57	2.398	Df= 1
	Multipara	41	2	43	P value=0.129	Non-Significant
7.	**Monthly family income**					
	<10000	36	4	40	0.833	Df=2
	10000-20000	35	5	40	P value=0.659	Non-Significant
	20000-30000	19	1	20		
	>30,000	00	00	00		
8.	**Sources of health information**				0.191	Df= 2
	Media	15	2	17	P value=0.909	Non-Significant
	Health professionals	42	5	47		
	Friends and relatives	33	3	36		

Table 9 depicts the association between demographic variable and level of knowledge on human milk banking. The chi-square value for age of postnatal mothers is χ^2 = 6.526 and p value is 0.038, Chi square value for religion of postnatal mothers is χ^2 = 8.575 and p value is 0.0034. As the p values is less than 0.05 level of significance, 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 education, occupation, type of family, parity, income of family and sources of health information with level of knowledge on human milk banking.

Table 10 depicts the association between demographic variable and the attitude of postnatal mothers on human milk banking. The chi-square value for education of postnatal mothers is $\chi^2 = 9.091$ and p value is 0.028, parity of postnatal mothers is $\chi^2 = 0.762$ and p value is 0.383, monthly income of postnatal mothers is $\chi^2 = 1.515$ and p value is 0.469 and sources of health education is $\chi^2 = 1.796$ and p value is 0.407. As the p values is less than 0.05 level of significance, there is a significant association between demographic variables (education, parity, monthly income and sources of health 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.

Table 10: Relationship between selected demographic variables and attitude on human milk banking   N = 100

SL. No.	Variables	≥ Median	< Median	Total	χ^2	Level of significance
1.	**Age**					
	<20 years	27	0	27	0.593	Df =2
	20-30 years	62	1	63	P value=0.743	Non-Significant
	30-40 years	10	0	10		
2.	**Religion**					
	Hindu	82	1	83	0.207	Df =1
	Muslim	17	0	17	P value= 0.649	Non-Significant
	Christian	0	0	0		
3.	**Education**					
	No formal education	9	1	10	9.091	Df =3
	Primary education	23	0	23	P value= 0.028	Significant
	Secondary education	50	0	50		
	Higher secondary education	17	0	17		
	Graduation	0	0	0		
	Post graduation	0	0	0		
4.	**Occupation**					
	Home maker	76	1	77	0.302	Df=3
	Govt employee	7	0	7	P value= 0.960	Non-Significant
	Private employee	3	0	3		
	Self employed	13	0	13		
5.	**Type of family**					
	Nuclear family	72	1	73	0.374	Df= 1
	Joint family	27	0	27	P value= 0.541	Non-Significant
6.	**Parity**					
	Primipara	56	1	57	0.762	Df= 1
	Multipara	43	0	43	P value=0.383	Significant
7.	**Monthly family income**					
	<10000	39	1	40	1.515	Df=2
	10000-20000	40	0	40	P value=0.469	Significant
	20000-30000	20	0	20		
	>30,000	00	00	00		
8.	**Sources of health information**				1.796	DF= 2
	Media	17	00	17	P value=0.407	Significant
	Health professionals	47	00	47		
	Friends and relatives	35	01	36		

DISCUSSION

The present study showed that 90% of postnatal mother had poor knowledge, 10% had average knowledge and no one had good knowledge on human milk banking. It also revealed that 67% of postnatal mother had unfavorable attitude and 33% had favorable attitude towards human milk banking. The relationship between the demographic variables and the level of knowledge of postnatal mothers on human milk banking showed that there is significant association between age and religion with level of knowledge. But there was no significant association between education, occupation, type of family, parity, income of family and sources of health information with level of knowledge

on human milk banking. With regard to attitude there is significant association between demographic variables like education, parity, monthly income and sources of health education with attitude. 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

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.

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