A study to assess the knowledge and attitude regarding donating milk to the human milk bank among postnatal mothers of selected hospitals

Sangeeta Ghuge, Jayabala Aghamkar and Rupali Salvi

Abstract

Introduction: Health is wealth. For the good health we need good nutrition. Nutrition for babies gets from mother’s milk. Breast Milk is the safest and best protective food for infants and also the best choice to feed premature and ill babies. Superiority of human milk is due to its superior nutritive and protective value. It provides total nutrient requirement for the first six months of life. It also prevents malnutrition and allows the child to develop fully. But when there is not enough mothers’ milk available due to some reasons like mother has insufficient milk glands, has had past breast surgery or is taking medication (e.g. chemotherapy for cancer) and has an infection that could spread to her baby through breast feeding. For these babies an alternative must be sought.

Methods research approach: Research approach: Descriptive approach is used in this study. A descriptive research approach was used to assess knowledge and attitude of postnatal mothers regarding donation of milk to human milk bank. The study was conducted in selected hospitals. The sample composed of 60 postnatal mothers of selected hospitals. The sampling technique used in this study was non probability convenience method of sampling. A structured knowledge questionnaire was used for data collection.

Research design: One group pretest posttest quasi experimental design used this study.

Result: Regarding association between the baseline variables with knowledge scores it was found that there was no significant association between the demographic variables. This result indicates that the postnatal mothers are having adequate knowledge. In order to achieve the objective analysis of overall comparison of knowledge and attitude describe the result that 78.33% of the samples had excellent level of knowledge score, 21.67% had good level of knowledge score.53.33% of the samples had good level of attitude score and 46.67% had excellent level of attitude score. Its shows that postnatal mothers were having adequate knowledge and positive attitude towards the donating milk to the Human Milk Bank.

Conclusion: Findings of the study show that postnatal mothers were having adequate knowledge and attitude towards the donation of milk to the human milk bank.

Keywords: Human milk bank, donating milk

Introduction

Health is wealth. For the good health one needs good nutrition. Nutrition for babies is from mother’s milk. Breast Milk is the safest and best protective food for infants and also the best choice to feed premature and ill babies. Superiority of human milk is due to its superior nutritive and protective value. It provides total nutrient requirement for the first six months of life. It also prevents malnutrition and allows the child to develop fully. But when there is not enough mothers’ milk available due to some reasons like mother has insufficient milk glands, has had past breast surgery or is taking medication (e.g. chemotherapy for cancer) and has an infection that could spread to her baby through breast feeding. For these babies an alternative must be sought.

In the past, the practice of Wet nursing provided an alternative to maternal breast feeding for those who could access it. When a wet nurse was not available, milk from goat, sheep and other mammals were also used as substitute nourishment for babies, often with fatal results. But in late 1950’s the concept of human milk banking started. In 1980’s at the World Health Assembly, the WHO and UNICEF jointly declared, 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.
Methodology
Research approach: Descriptive approach is used in this study.

Research design: One group pretest posttest quasi experimental design.

Variable under study
Independent variable: The independent variable in this study is donating milk to the Human Milk Bank.

Dependent variable
The dependent variables in this study were knowledge and attitude of postnatal mothers.

The sampling technique: Used in this study was non-probability convenience method of sampling

Research setting: This study is conducted in postnatal wards selected hospitals. To avoid the contamination of sample the reliability and pilot study was conducted in the selected hospitals

Population: In this study the population consisted of all the postnatal mothers admitted in selected hospitals

Sample
Criteria for Sample Selection
Inclusive criteria:
1. Postnatal mothers admitted in selected hospitals.
2. Postnatal mothers who were willing to participate in the Study.
3. Present during the period of data collection.
4. Able to read and write Marathi.

Exclusive criteria
1. Postnatal mothers who were critically ill.
2. Postnatal mothers who were not willing to participate research study.
3. Postnatal mothers who had participated in similar programmer.

Sample Size: 60

Development of tool: Development of tool was based on research study for the collection of data knowledge questionnaire and attitude scale was used in research study. A questionnaire was formulated after reviewing of literature. There are 20 questions in knowledge questionnaire

Description of the Tool
The structured knowledge questionnaire consists of 3 sections.

Section I
Demographic data
It includes the demographic data such as Age, Education, Occupation, Monthly Income Number of parity, Family type and previous knowledge.

Section II
Knowledge Questionnaire
There are multiple choice questions to assess the knowledge of postnatal mothers regarding donating milk to the Human Milk Bank. Total 15 items were selected for the questionnaire. A blue print was prepared.

Scoring
Score 1 was given to every correct answer.
Score 0 was given to every wrong answer. Based on the percentage of scores, level of knowledge was graded as follows.
The total knowledge score were categorized into

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>Below 25 %</td>
<td>00 – 04</td>
</tr>
<tr>
<td>Average</td>
<td>26 – 50 %</td>
<td>05 – 10</td>
</tr>
<tr>
<td>Good</td>
<td>51 – 75 %</td>
<td>11 – 15</td>
</tr>
<tr>
<td>Excellent</td>
<td>Above 76 %</td>
<td>16 – 20</td>
</tr>
</tbody>
</table>

Validity: The content Validity of the tool was established in consultation with guide and seven experts from the field of obstetrics and gynecological Nursing. Suggestions of the experts were considered and changes were made accordingly.

Ethical consideration
The research problem and objectives were approved by the research committee and follows by procedure mentioned below.
1. Due permission from authorities was sought and obtained.
2. Consent from participants was taken.
3. Anonymity of the participants was ensured.
4. Freedom to withdraw from the study any time was assured.

Reliability: In this study, the reliability of the tool was determined by administering the questionnaire to six samples. Split half method was used for reliability. The reliability co-efficient was calculated. The Questionnaires is said to be reliable if the co-efficient is more than 0.8

Plan of data collection
Pilot study: The pilot study was conducted from 31st August 2016 for a period of five days. Study was conducted in Bhosari hospital PCMC. A sample of 6 postnatal mothers was selected from selected hospitals. The Investigator approached each sample individually discussed the objective of study and obtained consent for participation in study. Knowledge and attitude of postnatal mothers regarding donating milk to the Human Milk Bank was assessed by administering the Questionnaire and Attitude Scale. The collected data was coded tabulated and analyzed by using descriptive statistics (mean, percentage, standard deviation) and coefficient correlation to find out the association between the demographic variables and knowledge and attitude score.

Result
The participants included in the study were between 60 postnatal mothers these were assessed with regard to age assessed and tabulated in table.65% of the samples were in the age group of 20-30 years and 35% belonged to 31-40 years of age. Majority 56.7% of the samples were having secondary education. Majority 36.7% of the samples were having daily wages.31.7% of the samples were house wives. Majority 58.0% of the samples belonged to Rs.5000/-to Rs.10000/-income group. Highest percentage 50% of
samples were having joint family and 46.7% of samples were having nuclear family. The mean knowledge score calculated was 13.45 and standard deviation was 1.25 whereas mean attitude score was 37.18 and standard deviation was 4.32. This result indicates that the postnatal mothers are having adequate knowledge. In order to achieve the objective analysis of overall comparison of knowledge and attitude describe the result that 78.33% of the samples had excellent level of knowledge score, 21.67% had good level of knowledge score, 53.33% of the samples had good level of attitude score and 46.67% had excellent level of attitude score. It shows that postnatal mothers were having adequate knowledge and positive attitude towards the donating milk to the Human Milk Bank. Regarding association between the baseline variables with knowledge scores it was found that there was no significant association between the demographic variables.

![Distribution of general assessment regarding postnatal mothers](image)

**Fig 1**

**Interpretation and conclusion**
Findings of the study show that postnatal mothers were having adequate knowledge and attitude towards the donation of milk to the human milk bank.

**Conclusion**
This chapter discusses the findings of the study to assess the knowledge and attitude of postnatal mothers on donating milk to the Human Milk Bank in selected Hospital. In order to achieve the objectives of the study, a descriptive research approach was adopted. Non probability convincing sampling technique was used to select the sample. The data was collected from postnatal mothers admitted in selected hospital.

**Discussion**
There are cases when both these hormones are not produced properly and thus, not only the moms have to face the problems, babies are also deprived of proper nutrition. Mother's milk has many additional nutrients that are not present in cattle-produced milk such as lactones (produced from glucose in blood) and proteins (produced from amino acids). In mother's milk, all the nutrients are present in balanced form, appropriate for baby's diet. With the advancing age of the child, the baby needs more nutrition and more nutrients that the baby can get only from the mother's milk and not from the cattle’s milk or infant formulas.

**Limitation:** Following were the limitations of the study, it includes
1. The study is limited to only postnatal mothers, who were admitted in the selected hospitals.
2. Data collection period was limited for 3 weeks.
3. The Sample size was limited to 60 subjects.
4. Sample was small therefore the result cannot be generalized.

**Recommendations**
The present study recommends the following.
1. A comparative study can be done in large sample between two different hospitals to evaluate the knowledge level of postnatal mothers regarding donating milk to the Human Milk Bank.
2. A similar study can be replicated with a control group and on a larger population.
3. A survey to assess the knowledge, belief and practices can be undertaken.
4. A study to find out the effect of nursing interventions.
5. A study to find out the effect of different teaching methods in improvement knowledge of nurses.

**Acknowledgement**
This effort in my academic pursuit would not have been a reality but for the constructive support, guidance and encouragement by a number of people, whose help, I specially recognize through this study.
With profound joy and deep sense of gratitude, I thank God Almighty for His able providence, throughout the course of this project. It is because of the Almighty that the Investigator has been able to drive all strength to complete this study.

No words can express my heartfelt gratitude to Thanks my (Dr.) Mrs. Khurshid Jamadar Principal Dr. DY. Patil College of Nursing and my research Guide (Mrs.) Jayabala Aghamkar Asso. Professor, Dr. D.Y. Patil College of Nursing and Research Co-Ordinator Mrs. Rupali Salvi, Associate Professor for her expert and supportive guidance. During my darkest, stressful moment, were like the rising sun casting brightness and bringing life to the gloomiest areas. Their humor, wisdom and experience in projecting the positive aspect of any situation was the propelling force which has culminated in this dissertation the crowning glory of all my endeavors. I am thankful to her, for her inspiration constant guidance, sustained patience, valuable suggestion and support and moreover encouragement right from the inception until the completion of this study.

I am deeply indebted to Ms. Manisha Gaikwad, Class Co-ordinator for her expert guidance, sustained patience and valuable suggestions.

I am grateful to, Dr. (Mrs.) Khurshid Jamadar, Principal, Dr. D.Y. Patil guidance and support for the study.

I take this opportunity to express my sincere gratitude towards the entire faculty of Dr. D.Y. Patil College of Nursing, Pimpri, Pune-18 as well as the administrative staff for their support and assistance throughout the study period. I would like to take this opportunity to thank all experts in the field of Pediatric preventive and social medicine as well as child health departments, community department for their valuable suggestions and validation of the data collection instrument and plan.

I would also like to convey my sincere thanks to statistician Mr. Babar who supported me to conduct this study as well as rendered his valuable time for my study.

My sincere thanks to Mrs. Archana Rathod, M.A. MPhil (English) for editing the manuscript. I would like to thank all the participants who made this study possible. Lastly, my sincere thanks to all my family, colleagues, friends and well-wishers for their good wishes for this study.

The proverb that one can never make alone could never be truer than in this situation.

References

4. Roman SV et al. setting up a neonatal unit. A Pediatric (Bare), 2009, 71(4).
8. J Haley W. journal Current research findings on decision role to play in the Women’s health infants. 2011; 8(9):45-47.
16. Dr Carolyn Nash, Dr Lisa Amir. For the Maternal and Child Health Sub-committee, Human Milk Banking.
17. Damien Larkins, Mothers’ milk bank aims to reduce infant diabetes risk, 2015.
29. Dwivedi SN, Banerjee N, Yadav OP. Malnutrition among Children in an Urban Slum and Its Association".
43. Ighogboja IS, Olarewaju. Mothers’ Attitudes towards Donated Breast milk. URL:http://jhl.sagepub. Com/content/11/2/93.