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Original Research Paper

Nursing

EFFECTIVENESS OF AN AWARENESS PROGRAM ON KNOWLEDGE AND ATTITUDE REGARDING HUMAN MILK BANK AMONG ANTENATAL MOTHERS: A STUDY PROTOCOL

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ABSTRACT

Background: Breast milk offers the ideal source of nutrition for the first 6 months after birth and may remain a part of an infant's diet. Many infants lack access to their mothers' own milk because of issues related to the mother's illness death, abandonment, or infant illness. This lack of access to breast milk leaves infant more vulnerable to disease, poor health, or death, especially when they are born preterm, have low birth weight or are severely malnourished. A human milk bank screens donated milk and distributed the milk to infants in need. **Objective:** To assess the effectiveness of an awareness program on knowledge and attitude regarding human milk bank among antenatal mothers in selected hospitals. **Methodology:** A pre-experimental one group pre-test post-test design will be used. 73 antenatal mothers will be selected by non-probability convenience sampling. The tool will consist self-structured knowledge questionaries and attitude scale based on human milk bank. After pre-test and administering intervention on awareness program on human milk bank, post-test will be conducted on 7th day. Content validity of questionnaire will be carried out by the experts of concerned field. Reliability of tool will be assessed by Cronbach's alpha value. The collected data will be analysed by using descriptive and inferential statistics. Expected results: There may be significant difference between pre-test and post-test knowledge and attitude score regarding human milk bank among antenatal mothers. **Limitation:** This study will be delimited to selected geographical areas. **Conclusion:** An awareness programme will be effective in improving knowledge and enhancing favourable attitude regarding human milk bank among antenatal mothers and thus able to combat with the myths and misconception regarding human milk donation and its acceptance.

KEYWORDS : Antenatal Mothers, Human Milk bank, Awareness programme.

INTRODUCTION

Sushruta, ancient Indian surgeon has beautifully described mothers' milk in his Samhita, "One just cannot compare even water of seven seas with mothers' milk, which is nothing but water ensuring optimum growth, nutrition, and healthy, life of hundred years." Breastfeeding is the most natural, inexpensive, environmental, friendly, and easily accessible method to provide all children's, rich or poor, with the healthiest start to life and ensures that all children survive and thrive. However, many infants lack access to their mother's own milk because of issues related to the mother's illness or death, abandonment, infant illness, inability to latch, or delay in milk production. This lack of access to breast milk leaves infant more vulnerable to disease, poor health or death, especially when they are born preterm, have low birth weight or are severely malnourished. As a part of integrated new-born care Human milk banks reduce death and illness as well as lower health care costs. Data exist, which support the health benefits of donor Human Milk especially for infants born prematurely, with birthweight less than 1500 gm and for infants born in resource-limited settings where a non-breastfed child's risk of death is 6 times that of a breastfed child's risk of death is 6 times that of a breastfed child. Providing donor Human milk to vulnerable neonates without access to mother's milk not only saves lives but also enhances awareness about breastfeeding and improves breastfeeding rates, this increase in breastfeeding rates is important because it has the potential to prevent under 5, deaths of which 87% are infants younger than 6 months of age. Improving breastfeeding rates worldwide is a fundamental driver to achieve sustainable development Goals by 2030.[1]

MS Roshani Paresh Kumar Naik, Mrs. Pravina Mahadalkar, 2020, Pune, regarding Human milk Frequency and percentage were analysis which shows majority 66%, postnatal mothers had average knowledge, 26% postnatal mothers had poor knowledge & 8% had good knowledge, related to level of knowledge & attitude score of the postnatal mothers regarding Human milk donation majority 36% postnatal mothers are having highly favourable attitude & 34% postnatal mothers are having moderately favourable attitude & 30% postnatal mothers having unfavourable attitude.[2]

Lindsay Ellsworth, Julie Sturza, Michigan, USA in July 2020 conducted a cross-sectional prospective survey study This study shows the majority of participants previously had minimal experience using donor human milk and limited knowledge regarding donor human milk and milk banks.[3] Sheela J, Shashikala in Dec 2020 conducted the study on postnatal mothers regarding human milk banking the study result showed that need to improve knowledge and attitude.[4] MS Rana kamar 2021, a study conducted on, human milk banking among final year Nursing students in selected Nursing College of Moradabad," A non-experimental descriptive study design was adopted This study shows ,64% students had average Knowledge, 33% had good knowledge and 3% had poor knowledge. Regarding the attitude, majority of students had positive attitudes 88.2% and 11.8% had neutral attitude.[5]

As per the recommendations of above studies, providing knowledge to antenatal mothers on human milk banking serve as an investment for the future. During the clinical experience, Investigator found that mothers having myths regarding Human milk bank and low acceptance of human milk banking, so awareness program strategies help to enhance their knowledge regarding Human milk bank and help to change their attitude regarding Human banking. Hence the investigator felt need to do the study on antenatal mothers using awareness program regarding Human milk bank so that it will help to create the awareness to a very personal and sensitive issue of Human milk bank.

OBJECTIVES

1. To assess the knowledge and attitude regarding human milk bank among antenatal mothers in selected hospitals.
2. To assess the effectiveness of an awareness program on

knowledge and attitude regarding human milk bank among antenatal mothers in selected hospital.
3. To correlate the study findings with selected demographic variables.

Hypothesis

H_0 -There is no significant difference between pre-test and post-test knowledge and attitude score regarding human milk bank among antenatal mothers.

H_1 -There is significant difference between pre-test and post-test knowledge score regarding human milk bank among antenatal mothers.

H_2 -There is significant difference between pre-test and post-test attitude score regarding human milk bank among antenatal mothers.

MATERIAL AND METHODS

Study Design: Pre-experimental one group pre-test post-test design

Study Setting: Selected Hospitals of Nagpur district, Maharashtra, India.

Study Population: Antenatal mothers

Sample: Antenatal mothers of selected hospitals

Sampling Technique: Non-probability convenience sampling technique

Estimated Sample Size

$$N = \frac{\left(Z_{(\alpha/2)} + Z_{\beta}\right)^2 (P_1(1-P_1) + (P_2(1-P_2))}{(P2-P1)^2}$$

$Z_{\alpha/2}$=at 95%(CI)=1.96 Depicts the desired level of statistical significance.

Z_{β}=1.28:Depicts the desired power = 1.28 for 90 %

N=Minimum sample size required.

Proportion of Knowledge P1 (Before) = 58% =0.58 (As per reference article)

Proportion of Improved Knowledge P2 (After)=78% =0.78 (Expected)

Considering 20% Clinically relevant margin of difference,

Minimum sample size required.

N= (1.96 + 1.28) ^ 2 *((0.58) (1-0.58) +0.78(1-0.78)/(0.20) ^ 2

Sample Size (N) = 66.

(10 % Drop out) Sample size N=73.

Total sample size =73

Sampling Technique: Non-probability convenience sampling technique

Inclusion Criteria

1. Antenatal mothers who will give consent to participate in the study.
2. Antenatal mothers who can read, write, understand Marathi & Hindi

Exclusion Criteria

1. Antenatal mothers who are critically ill.
2. Who have undergone any training or information programme on human milk bank.

Data Collection Tools

Section A: It includes demographic variables like age, education, type of family, area of residence, occupation, marital status and parity.

Section B: It consists of self -structured questionnaire on knowledge regarding human milk bank.

Section C: It consists of Likert scale for attitude assessment.

Knowledge Assessment

Antenatal mothers' knowledge will be assessed by pre and post-test using self-structured multiple-choice questions. Validity and reliability of tool and awareness programme will be assessed by appropriate statistical measures. Validity over the questionnaire will be established for build up through both the construct & content manner to seek for the results what has intended purposely for the inferences & conclusion to measure. knowledge assessment will consider poor if the score is 0-25%, average if it is 26%-50%, and good if it is 51%-75%, and very good if it is 76%-100%.

Attitude Assessment

Antenatal mothers' attitude will be assessed during pre and post-test using Likert scale. Validity and reliability of tool and awareness programme will be assessed by appropriate statistical measures. Attitude assessment will be considering positive attitude ≥ 50% and negative attitude < 50%.

Description Of Intervention.

The intervention is an awareness programme designed to improve the knowledge and attitude of antenatal mothers regarding human milk bank. Total 23 knowledge questionnaires will be tailored based on human milk bank which consist of sections: B I -Introduction of human milk bank, B II -counselling to mothers for milk donation, B III -storage of human milk bank. Total 10 attitude questionnaire in Likert scale will be tailored based on human milk bank. Content validity of the knowledge and attitude questionnaire will be conducted with panel of experts which will consist of obstetrician and gynaecologist, experts of OBGY dept from nursing field & medical statistician. The panel will select the best item for clarity of question, accuracy of the knowledge and interpretability. This panel also identifying in judging the content validity in terms of relevance, coverage and representativeness of the items initially selected for inclusion in the questionnaires. The original draft of the questionnaire will be developed in English and translated to Marathi and Hindi language for easy administration to antenatal mothers, as per the standard translation guidelines. Construct validity of the tool will be assessed by exploratory factor analysis (EFA). In order to establish reliability of tool, the technique called split half method will be used, Cronbach's alpha will be calculated. The pre-test and post-test will be conducted to assess the level of knowledge and attitude among antenatal mothers using self-structured multiple-choice questions.

Description Of Lesson Plan For Awareness Programme

Investigators will prepare a lesson plan for awareness programme regarding human milk bank. It will consist of concept of human milk bank, counselling about human milk bank, benefits of human milk Bank, Indication & contraindications of human milk bank, techniques of manual expression of breast milk. Awareness program of 60 minutes will be conducted by using flash cards and pamphlets. Content of lesson plan will be validated by 12 experts of concerned field.

Study Procedure And Data Collection

The study shall be conducted only after the approval of IEC. Investigators will visit the research area and will obtain the necessary permission from the concerned authorities. Antenatal mothers who fulfil inclusion criteria shall be assigned to the study. Investigator will explain the purpose of study. Written informed consent shall be taken from the participants. Each participant will receive a code number and self-structured questionnaires. Baseline knowledge and attitude will be assessed using self-structured questionnaire. Thereafter, Investigator will deliver awareness programme on human milk bank for the participants on the same day. After seven days post-test will be conducted.

Statistical Analysis

All results will be calculated using SPSS version 26. Overall results for the outcome variables will be listed in tables and graphs for both descriptive i.e., Mean, mean percentage, Standard deviation & inferential statistics i.e., Paired t - test will be used to find the significance difference between two groups i.e., before and after. Association results will be

analysed using chi square test.

EXPECTED RESULT

There may be significant difference between pre-test and post-test knowledge and attitude score regarding human milk bank among antenatal mothers.

DISCUSSION

Present study findings will be supported by the result of study conducted by Philomena Fernandes, Sabina Nayak, in September 2020, in Mangalore, on knowledge of Antenatal Mothers Regarding Human Milk Banking. This study findings revealed that 52% of mothers had good knowledge and remaining mothers had an average knowledge.[6] Findings of present study will have supported by previous studies where awareness programmes have been shown significant increase in antenatal mothers' knowledge and attitude over baseline in human milk banks. The present study findings will be consistent with those of other studies, especially regarding the significant increase in knowledge and favourable attitude.

CONCLUSION

Providing knowledge to antenatal mothers on human milk banking serve as an investment for the future. During the clinical experience, Investigators found that mothers having myths regarding human milk bank and low acceptance of human milk banking, so awareness program strategies will help to enhance their knowledge regarding human milk bank and help to change their attitude regarding human milk banking. Hence the investigators felt need to do the study on antenatal mothers using awareness programme regarding human milk bank so that it will help to create an awareness to a very personal and sensitive issue of human milk bank.

Consent And Ethical Approval

Study protocol is approved by Institutional Ethical Committee (IEC GMC Nagpur no.1662/5-8-2022). Prior permission will be obtained from concerned authority to conduct study. Informed written consent will be obtained from study subjects. Confidentiality and anonymity of subjects will be maintained. Subjects will be protected from all type of harms. Freedom to withdraw from the study at any point of time will be assured.

Conflict of Interest

The authors declare no conflict of interest.

REFERENCES

1. Sushma Nangia, MD, DM(Neonatology), Ruchika Chugh Sachdeva (Nutrition), Vandana Sabharwal MS PhD Nutrition," Human Milk Banking, An Experience. 2018:19(4)e208- 210
2. MS Roshni Paresh Kumar Naik, Prof, Mrs Raveena Mahadalkar, "A Study to Assess the Knowledge and Attitude Regarding Human Milk Donation Among Post Natal Mother in Selected Hospital of Pune City, 2020.7(11)6165-6176.
3. Lindsay Ellsworth, MD, Juliesturza MPH, "An Alternative to Mother's Own Milk Maternal Awareness of Doner Human Milk and Milk Banks.2020 37(1) 62-70.
4. Sheela J., Shashikala V., "Knowledge and Attitude of Post Natal Mother on Human Milk Banking"2020;5(4):135-141.
5. Ms. Rana Kamar, A Study to Assess the Knowledge and Attitude Regarding Human Milk Banking Among Final Year Nursing Students In Selected Nursing College Of Moradabad; Jetir2021; 8(8)A35-A42.
6. Philomena Fernandes, Sabitha Nayak," knowledge of Antenatal Mothers Regarding Human Milk Banking. kamrhmb. 2020:20(3) 305-312.