



A STUDY TO EVALUATE THE EFFECTIVENESS OF PLANNED TEACHING PROGRAM ON KNOWLEDGE AND PRACTICE REGARDING EXPRESSED BREAST MILK FEEDING AMONG POSTNATAL MOTHERS OF PRE-TERM BABIES IN SELECTED HOSPITAL IN DELHI/ NCR

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ABSTRACT

Expressing breast milk refers to the process by which a woman expels milk from her breast. The breast milk can then be stored and fed to her baby at a later point in time. Milk may be expelled manually using the hands. The aim of this study was to assess the effectiveness of planned teaching program on knowledge and practice regarding expressed breast milk feeding among postnatal mothers of preterm babies in selected hospital in Delhi/ NCR". Pre- experimental research design was adopted and Non- Probability Purposive sampling technique was used to collect 30 Postnatal mothers of Hindu Rao Hospital, Delhi. 25 structured knowledge questionnaire and 20 items of observational practice checklist were used to assess their knowledge and practice. Data obtained were analysed and interpreted based on objectives using both descriptive and inferential statistics. Results shown that knowledge score of postnatal mothers of pre- term babies in pre- test were 10(34%) had average knowledge, 20(66%) had poor knowledge whereas in post- test 28(94%) had good knowledge, 2(6%) had average knowledge. The practice score of postnatal mothers of pre- term babies in pre- test were that none of them had good practice, 7(24%) had average practice, 23(76%) had poor practice whereas in post- test 29(96%) had good practice, 1(4%) had average practice. The knowledge score of t-value was 22.8 which was greater than table value (2.05) for df (9) at 0.05 level of significance. The practice score of t- value was 23.8 which was greater than table value (2.05) for df (9) at 0.05 level of significance. Thus planned teaching program was effective in improving the knowledge and practice of postnatal mothers of pre- term babies. The study concluded that 30 samples of postnatal mothers of pre- term babies were voluntarily maintain hygiene, expressed, store, feed their breast milk to their babies and to continue the same practice even after the discharge from Hospital which showed that they had improved knowledge and practice on expressed breast milk feeding through planned teaching program.

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INTRODUCTION

Breast milk is unquestionably the best source of nutrition for neonates or infants by the virtue of uniqueness of its biological composition.¹

One of the ancient physicians from India in his SAMHITA while describing the importance of qualities of breast milk said "One just cannot compare even water of seven seas, with mother's milk which is nothing but water ensuring optimum growth, nutrition and healthy life of hundred years."¹

From the immemorial time breast feeding has been the only method of feeding in our country. It is accepted by all Indian mothers and also mothers of tropical countries.¹

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Breastfeeding has been accepted as the most vital intervention for reducing infant mortality and ensuring optimum growth and development of children. More than 15% of child deaths could be averted in India by optimal breast feeding practices. Breast milk fosters the bond between mother and infant as well as providing the best source of nutrients.²

The WHO definition of EBF is that an infant receive only breast milk from its mother or expressed breast milk and no other liquid or solids with the exception of drops of syrups consisting of vitamins, mineral supplements or medicines. The practice of EBF for six months is essential to the baby as well to the mother to promote maternal and child bonding.³

Though it's a natural process, breastfeeding success has many hurdles like Breast engorgement, mastitis, inadequate milk supply, working mothers, NICU admissions of neonates etc. Mothers are thus encouraged to express breast milk and store it

in containers. If the nutritional value of the milk is to be conserved and infections prevented, it has to be stored within appropriate temperature range.⁴

Breast milk expression has proven to be helpful in establishing and continuing the breast feeding. Milk expression, by hand or with a pump device, may help mothers to overcome some obstacles to successful breastfeeding and, therefore, increase breastfeeding duration.⁴

MATERIAL AND METHODOLOGY

This chapter deals with the methodology selected by the investigator to study the effectiveness of planned teaching program on knowledge and practice regarding expressed breast milk feeding among postnatal mothers of preterm babies in selected hospital in Delhi/ NCR.

Research Approach

The approach used for this study was quantitative research approach aimed at finding out the effectiveness of planned teaching program to increase knowledge and practice regarding expressed breast milk feeding among the postnatal mothers of pre-term babies. This approach will help to a great extent in evaluating the program.

Research Design

In this study pre- experimental research design, one group pre-test and post- test design was selected to assess the effectiveness of planned teaching program on expressed breast milk feeding among postnatal mothers of pre- term babies.

Symbolic Representation of the study

$K_1, P_1 \quad X \quad K_2, P_2$

K₁: Is the pre- test knowledge on expressed breast milk feeding before administration of planned teaching program among postnatal mothers of pre- term babies.

P₁: Is the pre- test practice on expressed breast milk feeding before administration of planned teaching program among postnatal mothers of pre- term babies.

X: Is administration of planned teaching program regarding expressed breast milk feeding among postnatal mothers of pre- term babies.

K₂: Is the post- test knowledge on expressed breast milk feeding after administration of planned teaching program among postnatal mothers of pre- term babies.

P₂: Is the post- test practice on expressed breast milk feeding after administration of planned teaching program among postnatal mothers of pre- term babies.

Sample Size

30 postnatal mothers of pre- term babies.

Sampling Technique

In this study, Non probability purposive sampling technique was adopted to select a sample of postnatal mothers of pre-term babies.

Selection and Development of Tools

Structured knowledge questionnaire and observational practice checklist was an appropriate and effective method to evaluate the knowledge and practice of the postnatal mothers. The main strengths behind the development of the tool are review of

research and non- research materials on relevant topic regarding expressed breast milk feeding.

The Following steps were Undertaken for the Preparation of the final tool

Data collection tool consist of three aspects with following items:

Part I: It includes the items of selected demographic variables of postnatal mothers of pre- term babies comprising of age, religion, educational qualification, occupation, type of family, area of living, family living, number of children and source of knowledge regarding expressed breast milk feeding.

Part II: This section consists of 25 multiple choice questions. The scoring for each item is like ‘0’ for wrong answer and ‘1’ for right answer. The maximum score was 25.

To Interpret the level of Knowledge the Scores were Distributed as Follows:

Table 1

S.NO.	Level of knowledge	Score
1.	Good knowledge	18-25
2.	Average knowledge	9-17
3.	Poor knowledge	1-8

Part III: This section consists of 20 questions. The scoring for each item is like ‘0’ for wrong answer and ‘1’ for right answer. The maximum score was 20.

To Interpret the level of Practice the Scores were Distributed as Follows:

Table 2

S.no.	Criteria	Score
1.	Good	14-20
2.	Average	7-13
3.	Poor	1-6

RESULT

The findings of the study are discussed in the terms of objectives and hypothesis of the study:

Sample Characteristics

In age distribution, Majority of mothers 24(80%) belong to age 21- 25 years and 6(20%) belong to age 26- 30 years.

In Religion distribution, majority of mothers 25(84%) were belong to religion Hindu, 5(16%) mothers were belong to Muslim.

In Education status, majority of mothers 28(94%) had primary education, and very few mothers have secondary education.

In Occupation distribution, majority of mothers 30(100%) were housewife.

In Type of family distribution, majority of mothers 18(60%) were from joint family, while 12(40%) belong to nuclear family.

In family income status, majority of mothers 13(43%) had family income of ₹5,001- ₹10,000, 10(33%) had family income less than ₹5000, and 7(24%) had family income of ₹10,001- ₹15,000.

In living area distribution, majority of mothers 13(44%) were living in slum area, 9(30%) mothers were living in rural area while, 8(26%) were living in urban area.

In number of children status, majority of mothers 17(56%) mothers had one child while, 13(44%) had two child.

In source of information regarding expressed breast milk feeding, majority of mothers 26(86%) had received information through health professionals, 4(14%) mothers had got information through mass media.

The Comparison of Pre- test and Post- test level of Knowledge Scores Regarding Expressed Breast Milk Feeding among the Postnatal Mothers of Pre- term Babies

The knowledge score of postnatal mothers of pre- term babies in pre- test was assessed which revealed that none of them had good knowledge, 10(34%) had average knowledge, 20(66%) had poor knowledge. The knowledge score of postnatal mothers of pre- term babies in post- test was assessed and table shows that 28(94%) had good knowledge, 2(6%) had average knowledge and none of them had poor knowledge.

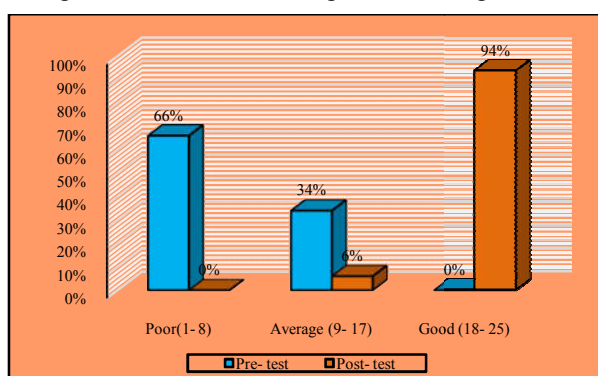


Figure 1 Bar diagram showing percentage distribution of pre- test and post- test knowledge score of postnatal mothers of preterm babies

Findings related to Mean, mean difference, median, standard deviation and paired t test value of knowledge scores regarding expressed breast milk feeding among postnatal mothers of pre- term babies.

Table 3

N= 30

Knowledge score	Mean	Median	Mean difference	Standard deviation	Paired t- test value
Pre- test	7.03	8		1.98	
Post- test	22.06	23	15.03	3.02	22.8*

*df (29) = 2.05 at 0.05 level of significance

The data represented in table shows that the mean pre- test knowledge score of postnatal mothers of pre- term babies was 7.03 with standard deviation 1.98. The mean post- test knowledge score was 22.06 with standard deviation 3.02. The mean difference was found to be 15.03. The obtained mean difference was found to be statistically significant as evident from t value of 22.8 which was greater than table value (2.05) for df (9) at 0.05 level of significance. Hence the null hypothesis (H_{01}) was rejected and research hypothesis (H_1) was accepted. Thus it was evident that planned teaching program was effective in improving the knowledge of postnatal mothers of pre- term babies.

The Comparison of Pre- test and Post- test level of Practice Scores Regarding Expressed Breast Milk Feeding among the Postnatal Mothers of Pre- term Babies

The practice score of postnatal mothers of pre- term babies in pre- test was assessed which revealed that none of them had

good practice, 7(24%) had average practice, 23(76%) had poor practice. The practice score of postnatal mothers of pre- term babies in post- test was assessed and table shows that 29(96%) had good practice, 1(4%) had average practice and none of them had poor practice.

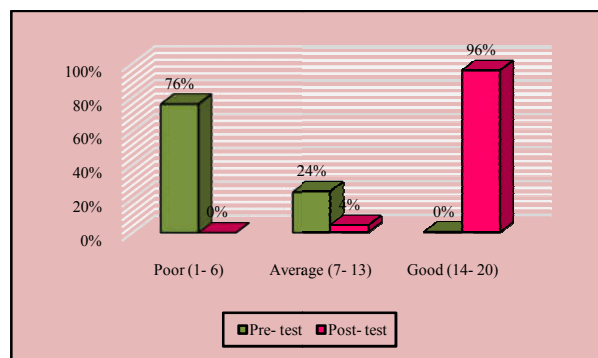


Figure 2 Bar diagram showing percentage distribution of pre- test and post- test practice score of postnatal mothers of preterm babies

Findings related to Mean, mean difference, median, standard deviation and paired t test value of knowledge scores regarding expressed breast milk feeding among postnatal mothers of pre- term babies.

Table 4

N= 30

Practice score	Mean	Median	Mean difference	Standard deviation	Paired t- test value
Pre- test	5.1	5		1.96	
Post- test	16.5	17	11.4	1.65	23.8*

*df (29) = 2.05 at 0.05 level of significance

The data represented in table shows that the mean pre- test practice score of postnatal mothers of pre- term babies was 5.1 with standard deviation 1.96. The mean post- test practice score was 16.5 with standard deviation 1.65. The mean difference was found to be 11.4. The obtained mean difference was found to be statistically significant as evident from t value of 23.8 which is greater than table value (2.05) for df (9) at 0.05 level of significance. Hence the null hypothesis (H_{02}) was rejected and research hypothesis (H_2) was accepted. Thus it was evident that planned teaching program was effective in improving the practice of postnatal mothers of pre- term babies.

DISCUSSION

The researcher in the study tested the effectiveness of knowledge, and practice regarding expressed breast milk feeding among postnatal mothers of pre- term babies who were admitted in the selected hospital of Delhi/ NCR.

The findings in the present study revealed that in pre- test the mean score of postnatal mothers of pre- term babies had poor knowledge (7.03), and poor practice (5.1). After intervention postnatal mothers of pre- term babies to planned teaching program, the mean score of postnatal mothers of pre- term babies had good knowledge (22.06), and had good practice (16.5) which were significantly higher than their pre- test knowledge score, and pre- test practice score. Thus, planned teaching program found to be effective in increasing the knowledge, and practice of postnatal mothers of pre- term babies.

A recent observational study was conducted to assess knowledge, attitude and practice of giving expressed breast milk in rural Kenyan mothers. This study was carried out amongst Fifty mothers with new-borns. The result of this study was that there was lack of knowledge about expressing and giving breastmilk, negative attitudes towards expressed breastmilk, and traditional customs for disposing of expressed breast milk. Most participants did not have any experience of giving expressed breastmilk to infants. They described practices of expressing and discarding milk when the mother or baby was ill, to relieve discomfort from engorgement or after the baby had died. The conclusion of this study was that More promotion and practical skills training in hand expression, safe breastmilk storage and feeding of expressed breastmilk by caretakers would help mothers to maintain their milk supply whilst continuing their education and work activities⁵

CONCLUSION

The present study assessed the effectiveness of planned teaching program on knowledge and practice regarding expressed breast milk feeding among postnatal mothers of pre-term babies in the selected hospital of Delhi/ NCR. The researcher found poor knowledge and poor practice existed among the postnatal mothers of pre- term babies admitted in selected hospital of Delhi/ NCR.

After giving planned teaching program the postnatal mothers of pre- term babies knowledge and practice become increase as evident from pre- test and post- test scores of postnatal mothers of pre- term babies. All 30 samples of postnatal mothers of pre- term babies were voluntarily maintain hygiene, expressed, store and feed their breast milk to their babies which shows improved knowledge and practice of the postnatal mothers of pre- term babies.

Reference

1. Waghmare Shital. Expressed Breast Milk and Its storage. Singhad e *Journal of Nursing Dec* 2013: Vol. 2. Issue 2 Available from: http://www.sinhgad.edu/SinhgadNursingCollege-eJournal/Vol_III_Issue_II/Author_6.pdf
2. B. Palanivelrajan. *et. al.* Awareness and Difficulties encountered by the postnatal mothers during breast feeding Dec 2016: Vol. 5. Issue 4 Available from: http://commedjournal.in/article/Vol.5Issue4Oct-Dec2016/fulltext/NJRCM_palani_Vol.%205.%20Issue%204.%20Oct-Dec16.pdf
3. WHO recommendations on postnatal care of the mother and newborn Feb 2019: Available from: https://www.who.int/elena/titles/exclusive_breastfeeding/en/
4. Davis Jean. Breastfeeding Beyond a year: exploring benefits, cultural influences, and more Oct 2007: Vol. 24. Page 196- 201. Available from: https://www.academia.edu/7612591/Breastfeeding_Beyond_a_Year_exploring_benefits_cultural_influences_and_more
5. Talbert. W Alison. *et. al.*, Knowledge of, and attitudes to giving expressed breastmilk to infants in rural coastal Kenya; focus group discussions of first time mothers and their advisers. Apr 2018: Available from: <https://internationalbreastfeedingjournal.biomedcentral.com/articles/10.1186/s13006-018-0158-9#Sec12>

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