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EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING HUMAN MILK BANKING AMONG LACTATING MOTHERS AT RAJARAJESWARI MEDICAL COLLEGE AND HOSPITAL, BANGALORE

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ABSTRACT

Introduction: - Breast is the best natural feeding. It is the healthiest form of milk for babies. WHO recommended exclusive breast feeding for 6 months , supplemented breast feeding is recommended until at least 2 years and then as long as the mother and child wishes. Human milk preferred from of nutrition for all infants. It provides the infant with micronutrients, immunologic properties and several enzymes that enhance digestion and absorption of nutrient. **Objectives**: - 1. To assess the pre-test knowledge regarding human milk banking among lactating mothers of RRMCH, Bengaluru. 2. To assess the post-test knowledge regarding human milk banking among lactating mothers at RRMCH, Bengaluru. 3. To assess effectiveness of structured teaching programme on knowledge regarding human milk banking among lactating mothers at RRMCH, Bengaluru. 4. To find association between post-test knowledge score of lactating mothers and selected demographic variables. **Design:** - Evaluative research approach was used for the study. Forty lactating mothers were recruited by non-probability purposive sampling method. Necessary administrative permission was obtained from concerned authority. Written informed consent was obtained from all subjects. Then the investigator collected the data pertaining to the demographic variables by using structured interview schedule. Ethical clearance was obtained from Institutional ethical committee. Content validity of the tool was established by split of method. The obtained score was 0.90 & it was found to reliable. Pre-testing of the tools was done. **Setting:** - The study was conducted in RajaRajeswari Medical College &hospital, Bangalore, Karnataka. Result: - The result of the study showed that the mean level of knowledge regarding human milk banking on pre-test was 10.50 and post-test was 20 respectively. The standard deviation for the study was 1.46 and 3.35respectively. The calculated "t" value was 24.26. This shows that there is an effectiveness of structured teaching programme on knowledge regarding human milk banking among lactating mothers at RRMCH, Bangalore. **Conclusion:** - The study revealed that the objective for assessing knowledge towards the human milk banking among lactating mothers has achieved and structured teaching programme was effective in improving the knowledge of lactating mothers.

INTRODUCTION

Infancy is defined as the period from birth to 12 months of age. Growth and development are in inter-related ongoing process in infancy and childhood. Growth is rapid and changes in body composition take place at this age but the infant's tolerance to food is limited. Protein intake requirement of healthy infants was found to be 2gms/ kg of body weight.600 mm of breast milk supplies about 7.2gms of protein to the baby. Fat content of breast milk is 3.8 % about 24.8grms of fat is supplied by breast milk. Fat in the breast milk supplies 50-60% energy. Vitamins are essential for the rapid development of the infant. Breast milk supplies 140gms of vitamin A for the first 6 month.

Scientific studies have shown that the watery human milk is what the human infant needs. The first milk to be produced by the breast is termed as colostrum. It is produced for the first 2-4 days after birth. It is thin, watery yellowish fluid that is easy to digest, as it is high in protein and low in sugar and fat. Colostrum is completing nutritional which is needed by the new born for the first 2-4 days of the life. This is very nutritious and good for the baby from various diseases.

Advantages of breast milk as an infant's are many. No substitute has been developed that matches the numerous advantages of this specific baby food. It contains various elements in the correct proportion required and it is very economical. No time is required for its preparation and chances of contamination are nil. Colostrum is specific first diet of mammalian neonates and is rich in immunoglobulin, antimicrobial properties and growth factors. Recent studies suggest that colostrums fractions or individual peptides present in it might be useful for the treatment of a wide variety of gastrointestinal conditions including inflammatory bowel diseases, nonsteroidal and inflammatory drug induced gut injury and chemotherapy induced mucositis.

A human milk bank is a service established for collecting, screening, processing. storing and distributing donated milk. Banked human milk is regarded as the next best after the biological mother's milk. It is used for the treatment of many conditions (mainly in intensive care units): prematurity, malabsorption, short gut syndrome, intractable diarrhea, nephrotic syndrome, formula tolerance, etc.

OBJECTIVES

1. To assess the pre-test knowledge regarding human milk banking among lactating mothers of RRMCH, Bengaluru.
2. To assess the post-test knowledge regarding human milk banking among lactating mothers at RRMCH, Bengaluru.
3. To assess effectiveness of structured teaching programme on knowledge regarding human milk banking among lactating mothers at RRMCH, Bengaluru.
4. To find association between post-test knowledge score of lactating mothers and selected demographic variables.

HYPOTHESIS: -

H_1– There's a significant difference in a pre-test and post-test level of knowledge regarding human milk banking among lactating mothers of RRMCH, Bengaluru.

MATERIAL AND METHODS

Evaluative research approach was used for the study. Forty samples were recruited by non-probability purposive sampling method. Necessary administrative permission was obtained from concerned authority. Written informed consent was obtained from all subjects. Then the investigator collected the data pertaining to the demographic variables by using structured interview schedule. The instrument used for the data collection was structured knowledge questionnaire for assessing the knowledge score.

Phase I: Assess the pre-test knowledge regarding human milk banking among lactating mothers by using structured questionnaire.

Phase II: A STP was administered on knowledge regarding human milk banking among lactating mothers.

Phase II: Assess the post-test knowledge after a period of week within the group followed by same procedure.

Ethical clearance was obtained from Institutional ethical committee. Content validity of the tool was established by split of method. The obtained score was 0.90 & it was found to reliable. Pre-testing of the tools was done. The obtained data were analyzed based on the objectives and

- Hypothesis by using descriptive and inferential statistics.

Table 1 reveals that:

- Out of 40 lactating mothers 2(5%) belonged to the age group of 18-20 years, 15(37.5%) to the age group of 20-25, 19(47.5%) belonged to the age group of 25-30, 4(10%) belonged to the age group of 30 and above.
- With regard to the education, 5(12.5%) lactating mothers had graduation and above, 11(27.5%) had pre- university, 18(45%) had secondary education, 6(15%) had primary education.
- With regard to occupation, 26(65%) lactating mothers were homemakers, 8(20%) were daily wagers, 3(7.5%) were health professionals and 3(7.5%) were others professionals.
- Most of the lactating mothers 1(2.5%) had monthly income less than Rs.5000, 14(35%) had monthly income between Rs.5000-10000, 18(45%) earned

between Rs.10000 -20000, per month, 7(17.5%) of them earned Rs.20000 and above.

- Most of the lactating mothers, 22(55%) were Hindu, 6(15%) were Christian, 11(27.5%) Most of the lactating mothers, 2(5%) had no children, 21(52.5%) had one child, 15(37.5%) had two children, 2(5%) had 3 and above.
- Majority of the lactating mothers, 3(7.5%) of them had information from mass media, 11(27.5%) had information from health professionals, 4(10%) had information from family members and neighbours, 22(55%) were not having any information regarding human milk banking.

The above table 2 shows the distribution of lactating mothers according to the level of knowledge regarding human milk banking before and after structured teaching programme. It revealed that in pre-test, majority of the respondents 38 (95%) had inadequate knowledge, 2 (5%) had moderately adequate knowledge and none of them had adequate knowledge regarding human milk banking. And in post-test most of the respondents 32 (80%) had adequate knowledge and 8 (20%) had moderately adequate knowledge none of them had inadequate knowledge regarding human milk banking.

Table 4 shows that the calculated value for Chi-square was greater than the table value for the demographic variables such as number of children. Hence, the value is significant at $P<0.05$ level. However, there was no significant association between age, monthly family income, religion, education, occupation and previous source of information regarding human milk banking and knowledge.

IMPLICATION OF THE STUDY:-

The result of the study proceed that lactating mothers had inadequate knowledge regarding human milk banking. The findings of the study have scope in the following areas,

Nursing Practice:

1. Nurses working in the community field should have enough knowledge about human milk banking& able to find an opportunity to teach & improve knowledge regarding human milk banking.

2. Nursing professionals can play a key role in the enhancement of knowledge of lactating mothers regarding human milk banking, which could improve the knowledge of lactating mothers.

Nursing Education:

1. Nursing curriculum can be modified with increased emphasis on human milk banking.

Nursing Administration:

1. Administrators can organize the educational programs lactating mothers and community areas to provide knowledge regarding human milk banking.
2. The nurse administrator in the higher-level authority must hold discussions and meetings on human milk banking. Based on that, the knowledge of the lactating mothers can be assessed and the program can be planned and implemented in school & community at various levels.

Nursing Research:

Management & administration authorities give encouragement, motivation & also provide financial support to do research.

ASSUMPTIONS:-

- ✓ Lactating mothers will have some knowledge regarding selected aspects human milk banking.
- ✓ Structured teaching programme may enhance the knowledge of lactating mothers regarding selected aspects of human milk banking.

LIMITATIONS:-

- The study was conducted in selected hospital, Bangalore.
- Sample was selected only from one hospital hence generalization can only be made for the selected sample.
- The study did not use control group. The investigator had no control over the events that took place between pre-test and post-test.

RECOMMENDATIONS:-

Based on the study findings the following recommendations have been made for further study:

- Similar study can be carried out on larger samples for broader generalization.
- A comparative study could be conducted in different settings to find out the effectiveness of structured teaching programme.
- An experimental study could be replicated with a control group.
- A comparative study could be undertaken to evaluate different teaching strategies, self-instructional module (SIM), peer evaluation and education by students

Table 1: Frequency, percentage and SD distribution of demographic variables of lactating mothers regarding human milk banking **n=40**

SI NO	DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE
1	**Age in years**		
	a) 18-20	2	5%
	b) 20-25	15	37.5%
	c) 25-30	19	47.5%
	d) 30 and above	4	10%
2	**Educational status**		
	a) Primary	6	15%
	b) Secondary	18	45%
	c) Pre-university	11	27.5%
	d) Graduation and above	5	12.5%
3	**Occupation**		
	a) Homemakers	26	65%
	b) Daily wages	8	20%
	c) Health care professionals	3	7.5%
	d) Other professionals	3	7.5%
4	**Monthly income family**		
	a) Lessthan5000	1	2.5%
	b) Rs.5000-10000	14	35%
	c) Rs.10000-20000	18	45%
	d) Rs.20000and above	7	17.5%
5	**Religion**		
	a) Hindu	22	55%
	b) Christian	6	15%
	c) Muslim	11	27.5%
	d) Others	1	2.5%
6	Number of children		
	a)None	2	5%
	b) One	21	52.5%
	c)Two	15	37.5%
	d)Three and above	2	5%
7	Previous source		
	a)Mass media	3	7.5%
	b)Health professionals	11	27.5%
	c)Family members, neighbours	4	10%
	d)No previous information	22	55%

Table 2: Frequency and percentage distribution of lactating mothers according to the level of knowledge regarding human milk banking before and after structured teaching programme **n=40**

Sl.No	Level of Knowledge	Respondents Knowledge			
		Pre-test		Post-test	
		Frequency	Percentage	Frequency	Percentage
1.	Inadequate (<50%)	38	95%	0	0%
2.	Moderate (50-75%)	2	5%	8	20%
3.	Adequate (>75%)	0	0%	32	80%
OVERALL		**40**	**100**	**40**	**100**

Table 3: Mean, Standard Deviation and paired't' test to determine the effectiveness of structured teaching programme regarding knowledge on human milk banking among lactating mothers n=40

Max score	Mean	SD	Mean difference	paired "t'test	Significance
Pre-Test	10.50	1.46	9.5	24.26	0.05*
Post-Test	20	3.35			

The data presented in a table-3 shows that the obtained [t] value was 24.26, which was found statistically significant at 0.05 levels.

Table 4: Chi square values for association between knowledge scores and selected demographic variables n=40

Demographic variables	Moderate	Adequate	Chi-square values		
			calculated		Table
Age in years			1.58	(df=3) **NS***	7.82
a.18-20	1	2			
b.20-25	2	11			
c.25-30	4	15			
d.30and above	0	5			
Educational status			3.35	(df=3) **NS***	7.82
a.Primary	2	8			
b. Secondary	5	12			
c.Pre-university	0	10			
d.Graduation and above	0	5			
Occupation			4.5	(df=3) **NS***	7.82
a. Home maker	5	20			
b.Daily wages	2	5			
c.Professionals	0	3			
d.Other professional	0	5			
Monthly family income			1.34	(df=3) **NS***	7.82
a.Lessthan5000	0	1			
b.5000 -10000	3	9			
c.10000-20000	3	17			
d.20000and above	1	6			
Religion			4.94	(df=3) **NS***	7.82
a.Hindu	4	21			
b. Christian	0	6			
c.Muslim	3	4			
d. Other	0	2			
Number of children			9.04	(df=3) **S****	7.82
a.None	1	1			
b. One	1	19			
c.Two	5	10			
d.Three and above	0	3			
Previous source of			8.18	(df=3) **S****	7.82
information					
a.Mass media	0	3			
b.Health professional	3	8			
c.Family	0	3			
/friends/neighbour	4	19			
d.No previous information					

DISCUSSION

Structured teaching programme was found to be an effective educative method for improving the knowledge of lactating mothers in the selected hospital regarding human milk banking. The findings were similar to other studies, which shown that lactating mothers having good knowledge human milk banking. In the present study results revealed that obtained [t] value was 24.26, which were found with statistically significant at 0.05 levels.

CONCLUSION

The study concluded that the structured teaching programme on knowledge regarding human milk banking among lactating mothers in selected hospital carried out was effective in improving the knowledge of lactating mothers as evidenced by the significant change between pre-test and post-test knowledge score.

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