Research Article

Knowledge of Exclusive Breastfeeding among Mothers in Selected Hospital

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Abstract

Background: Exclusive breeding (exclusive breastfeeding [EBF]) is an important public health strategy to improve the health of children and mothers by reducing child morbidity and mortality and helping to control the cost of public health care. In India, not many national studies have examined EBF patterns over the past decade to inform national and international breastfeeding programs. Globally, India has the highest number of deaths under the age of 5. Therefore, the researcher wanted to do this research.

Aim: The main objective of the study was to find out the effectiveness of a structured teaching program for mothers only at Lister Hospital in Kanyakumari district.

Method: The study was designed to test information on breastfeeding only for mothers at Lister Hospital in Kanyakumari district. To achieve the objectives of the study, a pre-experimental one-group pre-test and post-test research design was adopted. For this study, the sample contains 50 mothers that meet the criteria for inclusion of the study. The non-probability sampling method was used in this study. Sociodemographic data and only breastfeeding questionnaires were used to collect data. The data collected were sorted according to different parameters and a complete analysis was performed with descriptive and inferential statistics.

Result: In the pre-test, only 5 (10%) samples had adequate knowledge, and in the post-test, 43 samples (86%) received adequate level of knowledge about EBF.

Conclusion: It shows that the formal teaching program worked well. Breastfeeding education contributes significantly to increasing mothers' knowledge about EBF.

Keywords: Exclusive breeding, mothers, knowledge

Introduction

Exclusive breastfeeding (EBF) is defined as giving breast milk only to the infant, without any additional food or drink, not even water in the first 6 months of life, with the exception of mineral supplements, vitamins, or medicines. The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) recommend the introduction of breastfeeding within the 1st h after birth; EBF for the first 6 months and continued breastfeeding for up to 2 years or more in addition to adequate complementary foods.[1]

The EBF is an important public health strategy to improve the health of children and mothers by reducing child morbidity and mortality and helping to control the cost of public health care.[2] In addition to the benefits of breastfeeding that provides a mother-child relationship, breastfeeding reduces the incidence of many childhood diseases, such as central infectious diseases, pneumonia, sudden infant death syndrome, diabetes, malocclusion, and diarrhea.[3] Furthermore, breastfeeding supports healthy brain growth and is associated with higher

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performance in intelligence testing among children and adolescents. For mothers, breastfeeding has been shown to reduce the frequency of bleeding, postpartum depression, breast cancer, cervical and endometrial cancer, and facilitate weight loss. How to breastfeed amenorrhea is an important decision in family planning after childbirth.[4]

Although the health benefits of breastfeeding are widely accepted, opinions and recommendations vary widely regarding the appropriate duration of breastfeeding. Since 2001, the WHO has recommended breastfeeding for only 6 months. Most of the recent debate in developed countries has focused on micronutrient adequacy, as well as the availability and magnitude of health benefits, of this practice.[5] Infant feeding is critical for child health and survival. Proportion of infants 0–5 months who are fed exclusively with breast milk is a common indicator used for monitoring and evaluating infant health.

Need for the study

Breastfeeding alone is defined as exclusively breastfeeding, either directly or indirectly, without drops or syrups containing vitamins, mineral supplements, or medicine. Breastfeeding alone is one of the most important steps in infant development and survival. However, the increase in breastfeeding alone in Ethiopia is estimated at 52.4% which is far below the recommendations of the WHO. In addition, there is a conflict between ratings in different regions of the country.[6]

Exclusive breeding (EBF) has significant benefits for both mother and baby. In India, no national study has examined EBF patterns over the past decade to inform national and international breastfeeding programs.[7] Feeding the baby and young child is important for the baby's health and well-being. Based on available evidence, the WHO and the UNICEF recommend that mothers put newborns to the breast within 1 h of birth, exclusively breastfeed for the first 6 months and continue breastfeeding 2 years and beyond, and adequate, safe, age-appropriate diet, solid, strong, solid, and soft foods that begin in the 6th month.[8]

There has been growing evidence of a major impact on early breastfeeding, preferably within the 1st h after birth, in reducing infant mortality.[9] For the first 6 months of life, breast milk alone is a balanced diet, providing all the nutrients, including vitamins and minerals, needed by the baby, meaning no other fluids or nutrients.[10]

In addition, breast milk carries antibodies from mothers that help fight infections, protect babies from diarrhea and dangerous respiratory infections.[11] Breastfeeding also stimulates the baby's immune system and immune response and, according to some research, also provides psychological benefits. Continuing breastfeeding after 6 months coupled with a sufficient amount of nutritious, safe and nutritious, strong, solid, and soft foods, also helps to ensure good nutritional status and protection against disease. It is estimated that proper breastfeeding for children under the age of two has the potential to prevent the deaths of children under five in developing countries every year.[12]

Unfortunately, early termination of breastfeeding instead of commercial milk substitution, the introduction of liquids such as water and juices, unnecessary intake and inappropriate timely delivery of solid, unstable, and soft foods, which are often low, are very common. Although progress has been made since the 1990s, previous revisions to global trends highlight modest improvements in breastfeeding closure only among children under 6 months of age.[13] Globally, India has the highest number of deaths under 5 years (0–9 million deaths in 2016),[14] due to a range of factors such as poverty, poor water and sanitation, lack of access to health care, and non-EBF. Between 2005 and 2016, previous national studies from India reported an improvement in EBF frequency of 9.0% (from 46.2 to 55.1%).[15]

The survey results show that approximately 96.2% of mothers have ever heard of EBF, 84.4% know about EBF, and 49.2% know that the EBF period is only 6 months. In addition, 42.1% of mothers disagree and 24.0% strongly disagree that breastfeeding early, and mid-hour is important, while 47.9% do not agree that it is important to discard colostrum. However, 42.0% of mothers prefer to exclusively breastfeed their babies for the first 6 months. In contrast, 55.9% of them had only been breastfed for at least 6 months.[16]

From the above study statements, the researcher knows that it is important to provide education during pregnancy and after childbirth and periodic breastfeeding counseling, to improve the mother's knowledge about EBF.

Statement

A study was to assess the effectiveness of structured teaching program on knowledge regarding EBF among mothers of selected hospital at Kanyakumari district.

Objectives

The objectives of the study were as follows:

1) Assess the pre-test knowledge regarding EBF.
2) Provide the structured teaching program.
3) Assess the post-test knowledge regarding EBF.
4) Find the effectiveness of structured teaching program on EBF.
5) Find the significant association between knowledge levels and the selected sociodemographic variables.

Hypothesis

H_1: There will be a significant difference between pre-test and post-test knowledge scores.

H_2: There will be a significant association between knowledge levels and the selected sociodemographic variables.

Assumption

1. Most of the mothers have less knowledge on exclusive breastfeeding.
2. The structured teaching program will help the mother to gain knowledge on EBF.

Delimitation

1. Only the mothers from selected hospital at Kanyakumari district.
2. The data collection is based on the prepared knowledge questionnaire on EBF.

Criteria for selection of the study

Inclusion criteria

The following criteria were included in the study:

1. The mother who is all interested to participate.
2. The mother who can understand the research study.
3. The mother who knows English and Tamil for reading and writing.

Exclusion criteria

The following criteria were excluded from the study:

1. The mother who are not feeling well at the time of data collection.
2. The mother who is attended the same type of study earlier.

Methodology

The conceptual framework was done based on conceptual framework based on modified Nora J Pender's health promotion model (2006). This study was done to assess the knowledge regarding exclusive breastfeeding among mothers from Lister Hospital at Kanyakumari district. The study was conducted in between January 1, 2022, and January 20, 2022. To accomplish the objectives of the study, pre-experimental one-group pre-test and post-test research design was adopted. In this study, the sample consists of 50 mothers who fulfilled the inclusion criteria for the study. The non-probability purposive sampling technique was used for this study. The sociodemographic data and knowledge questionnaire on exclusive breastfeeding were used to collect data. The collected data were tabulated according to various parameters and the complete analysis was done with descriptive and inferential statistics.

Table 1: Frequency and percentage distribution based on sociodemographic variables, *n*=50

S. No.	Variables	Frequency	Percentage
1	Age in years		
	a) 21–25	11	22
	b) 26–30	19	38
	c) 31–35	15	30
	d) 36–40	5	10
2	Religion		
	a) Hindus	17	34
	b) Muslims	16	32
	c) Christians	12	24
	d) Others	5	10
3	Family type		
	a) Nuclear family	20	40
	b) Joint family	22	44
	c) Extended family	8	16
4	Family income per month		
	a) <10,000	16	32
	b) 10,001–20,000	13	26
	c) 20,001–30,000	11	22
	d) Above 30,000	10	20
5	Area of residency		
	a) Rural	13	26
	b) Urban	16	32
	c) Semi-urban	21	42
6	Number of children		
	a) One	15	30
	b) Two	21	42
	c) Three	9	18
	d) More than 3	5	10
7	Source of information regarding exclusive breastfeeding		
	a) Mass media	16	32
	b) Family members	8	16
	c) Friends	6	12
	d) Health professionals	20	40

Table 2: Knowledge level scores of mothers regarding exclusive breastfeeding in pre-test and post-test, *n*=50

Knowledge level	Pre-test		Post-test	
	Frequency	Percentage	Frequency	Percentage
Inadequate	25	50.0	4	8.0
Moderate	20	40.0	3	6.0
Adequate	5	10.0	43	86.0

Results

Table 1 implies that maximum 19 (38%) samples' age in years was 26–30, maximum 17 (34%) samples' religion was Hindu, maximum 22 (44%) samples' family type was joint family, maximum 16 (32%) samples' family income per month was <10,000, maximum 21 (42%) samples' area of residency was semi-urban, maximum 21 (42%) samples' number of children was two, and maximum 20 (40%) samples' source of information regarding exclusive breastfeeding was health professionals.

Table 2 shows that in the pre-test, only 5 (10%) samples were having adequate knowledge, whereas in post-test, 43 (86%) samples got adequate knowledge level regarding EBF. It shows that the structured teaching program was effective.

Table 3 shows that there was a significant difference between pre-test and post-test symptoms scores as the *t*-value is higher than the tabulated value at 0.05 level of significance. It shows that there is a significant effectiveness on the administration of structured teaching program. Therefore, H_1 was accepted.

Table 4 explains that there was a significant association between sociodemographic variables such as "number of children" as the Chi-square value is higher than the tabulated value at 0.05 level of significance ($P < 0.05$). Therefore, the H_2 is accepted.

Discussion

Maximum 19(38%) samples' age in years was 26–30, maximum 17 (34%) samples' religion was Hindu, maximum 22 (44%) samples' family type was joint family, maximum 16 (32%) samples' family income per month was <10000, maximum 21 (42%) samples' area of residency was semi-

urban, maximum 21 (42%) samples' number of children was two, and maximum 20 (40%) samples' source of information regarding exclusive breastfeeding was health professionals.

In the pre-test, only 5 (10%) samples were having adequate knowledge, whereas in post-test, 43 (86%) samples got adequate knowledge level regarding EBF. It shows that the structured teaching program was effective. A similar result was found in another study done by Masud *et al*., 2020. The aim of the study was to determine the knowledge of the mother regarding exclusive breastfeeding. This study was found poor knowledge on EBF. This study suggested that education- and EBF-related intervention could play an important role to increase good knowledge.[17]

Table 3: Effectiveness of structured teaching program regarding exclusive breastfeeding, *n*=50

Aspects	Mean	SD	Standard error mean	df	Student's paired *t*-test
Anatomy and physiology	2.260	2.346	0.332	49	0.000; *P*<0.05; S
Initiation of breastfeeding	3.440	2.612	0.369	49	0.000; *P*<0.05; S
Advantages of breastfeeding	4.240	2.600	0.368	49	0.000; *P*<0.05; S
Management of breastfeeding	2.580	2.666	0.377	49	0.000; *P*<0.05; S
Overall	12.520	8.802	1.245	49	0.000; *P*<0.05; S

S=Significant; SD=Standard deviation

There was a significant difference between the pre-test and post-test scores as the value of "t" exceeds the value set in the table at the 0.05 value level. It shows that there is a significant success in the implementation of structured teaching program. Therefore, H_1 was accepted. A similar study was conducted by Widita *et al*. (2019) and aimed to analyze the effect of breastfeeding education on the knowledge of EBF. This study uses a quasi-experimental research design with a one-group pre-test design strategy. A total of 30 samples were taken in the form of target samples. Data analysis using standard homogeneity tests obtained a p-value of 0.000 information. Breastfeeding education has a great impact on increasing awareness of the basics of EBF.[18]

There was a significant association between sociodemographic variables such as "number of children" as the Chi-square value is higher than the tabulated value at 0.05 level of significance ($P < 0.05$). Therefore, the H_2 is accepted. A related study was found. It was conducted by Roberta *et al*., 2021. The aims of the study were to evaluate breastfeeding status and the main maternal factors associated with EBF for 6 months

Table 4: Significant association between sociodemographic variables and knowledge levels regarding exclusive breastfeeding, *n*=50

	Sociodemographic variables	<Median	≥Median	Total	Df	Chi-square value	Table value	Inference
1	Age in years							
	a) 21–25	7	4	11	3	2.015	7.815	*P*>0.05
	b) 26–30	11	8	19				NS
	c) 31–35	6	9	15				
	d) 36–40	2	3	5				
2	Religion					Fisher's exact test value 0.346		
	a) Hindus	7	10	17				*P*>0.05
	b) Muslims	11	5	16				NS
	c) Christians	5	7	12				
	d) Others	3	2	5				
3	Family type							
	a) Nuclear family	11	9	20	2	0.803	5.991	*P*>0.05
	b) Joint family	10	12	22				NS
	c) Extended family	5	3	8				
4	Family income per month							
	a) <10,000	10	6	16	3	3.676	7.815	*P*>0.05
	b) 10,001–20,000	7	6	13				NS
	c) 20,001–30,000	3	8	11				
	d) Above 30,000	6	4	10				
5	Area of residency							
	a) Rural	10	3	13	2	4.375	5.991	*P*>0.05
	b) Urban	7	9	16				NS
	c) Semi-urban	9	12	21				
6	Number of children					Fisher's exact test value 0.01		
	a) One	12	3	15				*P*<0.05
	b) Two	8	13	21				S
	c) Three	2	7	9				
	d) More than 3	4	1	5				
7	Source of information regarding exclusive breastfeeding					Fisher's exact test value 0.293		
	a) Mass media	8	8	16				*P*>0.05
	b) Family members	5	3	8				NS
	c) Friends	5	1	6				
	d) Health professionals	8	12	20				

S=Significant; NS=Not significant

among women. They used data from 220 women (median age = 37 years) enrolled in the "Mamma and Bambino" cohort during prenatal obstetric counseling. Self-reported breastfeeding status was collected during the follow-up interviews at 1 and 2 years, referring to breastfeeding status (i.e., yes or no) and type of breastfeeding (i.e., exclusive or predominant).[19] This study also given the same result as our study implies regarding the association between sociodemographic variable "number of children" and the knowledge regarding exclusive breastfeeding.

Conclusion and Summary

In the pre-test, only 5 (10%) samples were having adequate knowledge, whereas in post-test, 43 (86%) samples got adequate knowledge level regarding EBF. It shows that the structured teaching program was effective. Breastfeeding education (structured teaching program) has a significant effect on increasing the mothers' knowledge on EBF. Breastfeeding education is recommended to increases the mother's knowledge on exclusive breastfeeding, thereby the mother can help the child on health of the baby.

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Funds and Conflicts of Interest

None.

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