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Evaluating the Impact of Structured Teaching Programme on Antenatal Mothers Knowledge about Early Initiation of Breast Feeding in South India

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Abstract: ***This study investigates the effectiveness of structured teaching programs in enhancing the knowledge of antenatal mothers about the early initiation of breastfeeding in a tertiary care hospital in South India. The research employs a pre-experimental design and uses structured questionnaires to collect data from 50 mothers. The results indicate a significant increase in the mother's knowledge post-intervention, highlighting the effectiveness of the structured teaching program. The study also finds a significant association between demographic variables and the pre-test knowledge score of the mothers.***

Keywords: Antenatal Mothers, Early Initiation of Breastfeeding, Structured Teaching Program, Knowledge Enhancement, South India

1. Introduction

"Breast feeding is not a choice is a responsibility"

Colostrum is the primary milk which is the most essential nourishment as it is rich in immunoglobins. It has a vital role in providing a strong barrier to fight against infections. Multiple articles and studies have concluded that newborns who received colostrums and adequate breastfeeding had better immunity to fight against infections of different kinds. They also suggest that babies who did not receive colostrum were more prone to infections, stunted growth, inadequate weight gain and infant death syndrome.[1]

UNICEF and WHO recommend initiation of breastfeeding within the first hour of life. Exclusive breastfeeding until six months of life promotes sensory and cognitive development protects infants from infectious and continual sicknesses, however mothers cannot be solely relied to do it by themselves. Early and exclusive breastfeeding needs to be promoted and supported by hospitals, birthing centers, healthcare workers, government policies and family members.[2]

Inadequate breast milk, exhaustion after delivery, extended recovery time from anesthesia (late wearing of anesthetic effect), uncomfortable breastfeeding positions after cesarean section and delay in episiotomy suturing, baby was in NICU observation after delivery, increase time for the transfer of baby from NICU after observation to ward or transfer of mother from operation theater to ward delayed the breast feeding initiation.5Cesarean section adversely affects the initiation of breast feeding

Studies suggest that initiation of breast feed within first hour is poorly practiced in African countries like Ethiopia due to lack of supporting aids, lack of antenatal education and postnatal routine practices.[3]Where as in developing nations, mother who received supporting aids like family support, routine breast feeding initiation from first hour of life from their birthing centers reduced neonatal mortality rate.

Cesarean delivery, unplanned pregnancy, and being primiparous, have affected initiation of breastfeeding. Girls between the ages of 20–34 years had a reduced tendency to initiate breastfeeding within the first hour of birthing, therefore it's far essential that health practitioners educate mothers, from early antenatal period, especially mothers who plan to go through cesarean section by emphasizing the importance of early initiation of breastfeeding.

Providing counseling regarding the approach and importance of early initiation of breast feeding is vital for the mothers and her newborn. As early initiation of breastfeeding is associated with a success extraordinary breastfeeding for six months, this research is an important step to growing feeding practices associated with lactation for maternal and infant fitness.5

2. Objectives

- To assess the knowledge of antenatal mothers regarding early initiation of breast feeding before structured teaching programme.
- To assess the knowledge of antenatal mothers regarding early initiation of breast feeding after structured teaching programme.
- To find the effectiveness of structured teaching programmeon early initiation of breast feeding among antenatal mothers.
- To determine the association between demographic variable and knowledge regarding early initiation of breast feeding among antenatal mothers.

3. Hypothesis

Null Hypothesis

- Ho1: There will be no significant increase in the knowledge of the antenatal mothers after the structured teaching program

- Ho2: There will be no significant relationship between the pre test knowledge of the antenatal mothers with the selected demographic variable

Research Hypothesis

H1: There will be significant difference between pre and post test knowledge of antenatal mothers after receiving structured teaching programme.

H2: There will be significant relationship between pretest knowledge score of antenatal mothers regarding early initiation of breast feeding and selected demographic variables.

4. Methodology

Research Approach
Quantitative research approach

Research Design
The research design used for the study is pre-experimental design or one group pre-test and post-test design.

Research Variables

Dependent Variable
Knowledge of antenatal mothers regarding initiation of breast feeding.

Independent Variable
Structured teaching programme.

Demographic Variable
1) Age
2) Working status
3) No of children
4) Previous knowledge

Setting of Study
Apollo Adlux hospital karukutty, Angamaly.

Duration of Study
3 Months

Data Collection Method
Data was collected using structured knowledge questionnaires through the Google form.
SECTION A: contains 4 demographic variables.
SECTION B: contains 30 questions to assess the Knowledge of antenatal mothers regarding early initiation of breast feeding

Targeted Population
In this study targeted population is the mothers.

Sample
Samples who are fulfilling the inclusion criteria.

Sample Size
50 mothers.

Sampling Method
Technique used for study is non probability convenient sampling method.

Inclusion Criteria
- Antenatal mothers who visited gynec OPD during the study.
- Antenatal mothers who were willing to participate.

Exclusion Criteria
- Antenatal mothers who are in procedure during data collection time.
- Antenatal mothers who are not willing to participate.
- Antenatal mothers who had been diagnosed with psychiatric disorder.

Ethical Consideration
Permission taken from DMS and DGM.
Consent from sample.

5. Plan for Data Analysis

Descriptive and inferential statistics.

Tool
Structured questionnaire was used to assess the knowledge of antenatal mothers regarding early initiation of breast feeding. The tool consists of section A – variables and section –B questions regarding early initiation of breast feeding. Ethical clearance letter from Director of Medical Services and DGM – Nursing was taken. Consent was taken from 50 samples too.

6. Result

The collected data was organized and analyzed based on the objectives of the study by using descriptive statistics that is percentage, mean and standard deviation. Inferential statistics such as chi square and t test was used in the study. The paired t test was used to find the difference in the knowledge between pre and post test and chi square test was used to test the association between demographic variables in the pre test knowledge score. The findings of the study were presented as tables and graphs below in result.

Section 1: Description of the samples based on demographic variables.

Frequency and percentage distribution based on demographic data.

Demographic variable Frequency Percentage
Age
- 20-25 11 22%
- 25-30 17 34%
- 30-35 15 30%
- Above 35 7 14%

Working status
- Yes 35 70%
- No 15 30%

How many children you have

- 0 11 22%
- 1 19 38%
- 2 18 36%
- 3 or above 2 4%

Have you ever attended breast feeding class

- Yes 28 56%
- No 22 44%

Table 1: Percentage and frequency distribution of the demographic variables

According to the data; most of the prenatal mothers belongs to the age of 25-30are 17 (34%) and only 7 (14%) are >35 years. Among 50 prenatal mothers 35 (70%) are working mothers and 15 (30%) are nonworking mothers. Most of the mothers have only one child 19 (38%), 22% of the females were primigravida, 36% of mothers had 2 children and only 2 (4%) have >3 children. In this study, we can understand that prenatal mothers had previous knowledge regarding initiation of breast feeding 28 (56%) and 22 (44%) didn't had knowledge regarding initiation of breast feeding.

Section 2: To assess the knowledge of antenatal mothers regarding early initiation of breast feeding before and after structured teaching program.

Grade of knowledge	Range	Pre test knowledge		Post test knowledge	
		F	%	F	%
Excellent	25-30	5	10%	23	46%
Good	19-24	9	18%	15	30%
Average	13-18	11	22%	10	20%
Below average	7-12	21	42%	2	4%
Poor	1-6	4	8%	0	0%

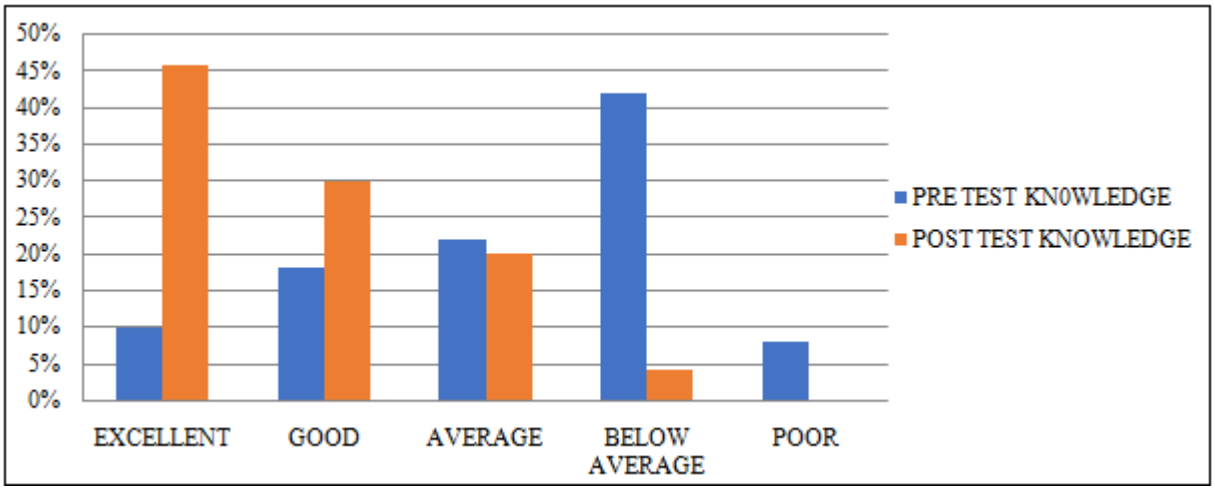

Figure 1

On pre test, it was revealed that 8% mothers had poor knowledge, 42% mothers had below average knowledge, 22% mothers have average knowledge, 18% mothers had good knowledge and 10% mothers had excellent knowledge regarding early initiation of breastfeeding. On post test 46% had excellent knowledge, 30% had good knowledge, 20% had average knowledge, 4% had below average and no one had poor knowledge regarding early initiation of breastfeeding after structured teaching programme.

Section 2: To find out the effectiveness of structured teaching programme on early initiation of breast feeding among antenatal mothers.

Knowledge Score	Mean	Standard Deviation	t Value	Inference
Pretest	14.38	6.67	12.7379	Significant
Post Test	22.28	4.92		

T49 = 1.62 P < 0.05 Significant

Table 2. Indicate the computed value 12.7379 is greater than t value 1.62 and it is significant at 0.05 level. So, the hypothesis 1 is accepted. The structured teaching programme is effective to improve the knowledge of antenatal mothers regarding early initiation of breastfeeding. Paired t test was calculated to analyze the difference in pretest and posttest knowledge scores of antenatal mothers regarding early initiation of breastfeeding shows the highly significant difference between the pre-test and post-test knowledge score in all areas.

Section 3: To determine the association between knowledge regarding early initiation of breast feeding and selected demographic variables such as age, number of children, working status, previous knowledge regarding early initiation of breast feeding.

Demographic variables	Chi-square value	DF	Chi-square table value	Significant status
Age	30.83	12	21.026	Significant
Working status	11.343	4	9.487	Significant
No. of children	21.50	12	21.026	Significant
Previous knowledge	17.943	4	9.487	Significant

Table 3: Reveals that there is significant association between all the demographic variables such as age, working status, number of children, previous knowledge and pretest knowledge score of the antenatal mothers as the calculated chi square values are more than the table values at 0.05 level of significance.

7. Discussion

There is significant difference found between the pretest and posttest knowledge score ($p<0.05$) the computed value is 12.7379 is greater than the t value 1.62 and it is significant at 0.05 level. So the hypothesis1 is accepted. The structured teaching programme is effective to improve the knowledge of antenatal mothers regarding early initiation of breastfeeding. The study shows that the all demographic variables (age, working status, number of children and previous knowledge) had a significant association between pre test score of the antenatal mothers regarding early initiation of breastfeeding. The mean knowledge score in pretest is14.38 and mean knowledge of post test is 22.28. The study result shows that the structured teaching programme was effective in improving the knowledge of antenatal mothers. In our study overall mean knowledge score is 22.28 obtained by the subject in post test was higher than mean pretest score is 14.38.

8. Conclusion

Early initiation of breastfeeding is important to new child survival and to set up breastfeeding practice over the long term. While breastfeeding is delayed after start, the results can be lifestyles-threatening and the longer newborns are in extra risk. but the WHO suggested that about seventy-eight million infants, or 3 in 5, are not breastfed within the first hour of lifestyles, placing them at higher risk of death or ailment and making them much less in all likelihood to retain breastfeeding. It allows emotional bonding of mother and the baby and has a positive impact during the period of breastfeeding. While a mother initiates breastfeeding within one hour after delivery, the level of prolactin in the blood increases and stimulates production of milk by the alveoli.4

A latest systematic assessment and meta-analysis of evidence regarding breastfeeding initiation time and toddler effects confirmed that babies who were breastfed with in 24 hour of beginning had a 33% greater danger of neonatal mortality as compared to babies who initiated breastfeeding within 1 hour of beginning.

The study concludes that structured teaching programs significantly improve the knowledge of antenatal mothers regarding the early initiation of breastfeeding. The findings underscore the importance of such educational interventions in promoting healthy breastfeeding practices, thereby contributing to the well-being of newborns. The study also emphasizes the need for healthcare practitioners to consider demographic variables when designing and implementing such programs.

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