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Research Article

A Study to Evaluate the Impact of a Structured Teaching Programme on Improving Knowledge About Breast Feeding Among Postnatal Mothers Having Babies at Apollo Hospitals Bilaspur (C.G)

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Abstract

Background: *Breastfeeding is essential for the optimal growth and development of infants. It provides vital nutrients and antibodies that help protect against infections and chronic diseases. Despite the proven benefits, many postnatal mothers face challenges such as latching problems, nipple pain, inadequate milk supply, and a lack of knowledge, often leading to early cessation of breastfeeding. Educational support during the postnatal period is crucial in overcoming these challenges structured teaching programmes can empower mothers with necessary knowledge and skills to manage common breastfeeding issues effectively, promoting better health outcomes for both mother and baby. In almost all countries, more than 80% of newborns receive human milk, but only about half initiate nursing during the first hour of life, and rates of exclusive breastfeeding are far below 50% in the majority of the nations.*

Materials and methods: *A quantitative research approach with pretest post-test research design. the study was conducted at apollo hospitals, Bilaspur (C.G), in the postnatal ward. A total of 50 postnatal mothers were selected using purposive sampling technique. A structured knowledge questionnaire was developed to assess the breastfeeding knowledge of mothers before and after the teaching programme. A structured teaching programme was administered to the mothers covering essential topics related to breastfeeding, such as benefits, techniques, common problems, and their management. Pré-test data were collected followed by the structured teaching session. after a period of 1-2 days, a post-test was conducted using the same questionnaire. Data were analysed using descriptive and inferential statistics. Paired t-test were used to compare pre-and post-test scores.*

Result: *The pretest total mean percentage was 39.26% and the posttest total mean percentage was 52.93%. So, the percentage of knowledge gain was 13.67%. Therefore, it shows effectiveness of structured teaching programme. The study findings indicated a significant improvement in the knowledge scores of postnatal mothers after the intervention. The mean posttest knowledge score was higher than pre-test knowledge score was indication the effectiveness of the structured teaching programme.*

Conclusion: *The structured teaching programme was effective in enhancing the knowledge of postnatal mothers regarding breastfeeding. Educating mothers postnatally can play a significant role in improving breastfeeding practices and addressing common challenges, thereby promoting better maternal and child health outcomes.*

Keywords: *postnatal mothers, structured teaching programme, breastfeeding, knowledge questionnaire.*

1. Introduction:

Breastfeeding is a cornerstone of infant nutrition, providing essential nutrients and immune protection while fostering bonding between mother and child. Despite its numerous benefits, many postnatal mothers face challenges such as latching difficulties, nipple pain, and concerns about milk supply, which can lead to early cessation of breastfeeding[1]. Knowledge and awareness play a crucial role in addressing these challenges. Studies have shown that empowering mothers with accurate information and practical skills can significantly improve breastfeeding practices and outcomes[2]. However, a gap often exists in postnatal education regarding common breastfeeding challenges and their management. This study aims to evaluate the impact of an educational intervention on improving breastfeeding knowledge and practices among postnatal mothers facing challenges[3]. By addressing these barriers, the study seeks to contribute to increased breastfeeding success rates and long-term benefits for both mother and child. India has the highest rate of infant mortality in the world and is responsible for 20% of the 5.9 million child fatalities worldwide[4]. According to United Nations Children's Fund (UNICEF) India Statistics 2015, India's infant and under-five mortality rates are 48 and 38 per 1,000 live births, respectively, and nearly 50% of these deaths are caused by malnutrition[5]. As per UNICEF India figures from 2015, only 65% of infants who are six months old are exclusively breastfed, and only 45% of infants undergo timely initiation of breastfeeding. These numbers are significantly below the suggested norms.

2.Materials and Methods:

Objectives:

1. To determine the knowledge of the postnatal mother regarding breastfeeding before and after the structure teaching programme.
2. To assess the effectiveness of structure teaching programme.

Variables:

Dependent Variable knowledge about breast feeding among postnatal mothers having babies.

Independent Variable: structured teaching programme**.**

Hypothesis:

H1: There will be a Significant Improvement in the knowledge of the mothers after structured teaching programme.
$H1_0$: There will be no significant Improvement in the knowledge the mothers after the structured teaching programme.
H2: The structured teaching programme will be effective in improving the knowledge of the breast-feeding mothers.
$H2_0$: The structured teaching programme will not be effective in improving the knowledge of the mothers.

- **Research approach**: Quantitative research approach with pretest posttest research design.
- **Research design**: Quasi experimental Research design one group pre-test and posttest.
- **Settings of the study**: Apollo Hospitals Bilaspur, CG
- **Duration of the study**: April 2025 to June 2025
- **Sample size**: 50 Patients
- **Sampling method**: purposive Sampling.
- **Target population**: 50 Postnatal mothers with babies.

Inclusion Criteria:

- Postnatal mothers with infants less than 3 month.
- Facing breastfeeding challenges.
- Mothers who are registered in apollo hospitals Bilaspur.
- Participants must be able to read and understand Hindi and English.

Exclusion Criteria:

- Mothers with medical contraindication to breastfeeding.
- Mothers who are not willing to participate.

Data collection method:

- **Section A** – Demographic Variables
- **Section B** – Self-designed knowledge Questionnaire.

Procedure Methodology:

Prior to data collection, written informed consent was obtained from the Ethical committee in Apollo Hospitals, Bilaspur. The Ethical committee number is EC/NEW/INST/2019/424. Verbal consent taken from the participants after explaining the purpose, procedure, and confidentiality of the study, data were collected using a structured self-administered questionnaire. The questionnaire consisted of two sections. Section A included socio-demographic variables such as age,

education, family type, occupation, area of residence, gravida, previous knowledge, and source of information. Section B consisted of a self-designed knowledge questionnaire with 20 multiple-choice questions. Each correct answer was 1 mark, with a total score ranging from 0 to 20 scoring was categorized as follows: 1-6 marks poor knowledge, 7-14 marks average knowledge, and 15-20 marks good knowledge. A pretest was conducted to assess the baseline knowledge of the participants. After the pretest, a structured teaching program was implemented. A post test was conducted using the same questionnaire to evaluate the effectiveness of the teaching program.

Results:

Interpretation was done as per the objectives of the study and the hypothesis formulated. Descriptive and inferential statistics were used for the analysis of the data.

Table -1: Demographic profile

S. NO.	DEMOGRAPHIC DATA		NO. OF PATIENTS	PERCENTAGE
1	Age	a. 18-26	22	44%
		b.27-35	28	56%
2	Education	a. No formal education	1	2%
		b. primary	8	16%
		c. higher secondary	10	20%
		d. Graduate	22	44%
		e. post graduate	9	18%
3	Family type	a. Nuclear	22	44%
		b. Joint	28	56%
4	Occupation	Home maker	21	42%
		b. Government employee	14	28%
		c. private job	15	30%
		d. laborers.	0	0%
5	Area of residence	a. Rural.	28	56%
		b. Urban	22	44%
6	Gravida	a. Primi gravida.	38	76%
		b. Multi gravida	12	24%
7	Previous exposure to any information Regarding Breast feeding techniques.	a. Yes	14	28%
		b. No	36	72%
8	Sources of previous knowledge	a. Newspaper	10	20%
		b. Television	18	36%
		c. Internet	22	44%

Table – 1: shows the demographic information among postnatal mother having baby. Distribution of study according to socio demographic variable with frequency and percentage.

CRIETRION MEASURES FOR KNOWLEDGE QUESTIONNAIRE

To assess the knowledge score it is classified in 3 levels of knowledge/ range percentage/ correct answer contains 1mark and incorrect answer contain 0 marks.

S. No	Grade	Marks	Percentage
1.	Poor Knowledge Score	1-6	5-30%
2.	Average Knowledge Score	7-14	35 – 70%
3.	Good Knowledge Score	15– 20	75-100%

Table-2

According to criteria Analysis of pre-test and posttest knowledge score of structured teaching programme.

N=50

Knowledge	Pre-Test		Post –Test	
	Frequency	Percentage	Frequency	Percentage
Poor	18	36%	1	2%
Average	32	64%	35	70%
Good	0	0	14	28%
Total	50	100%	50	100%

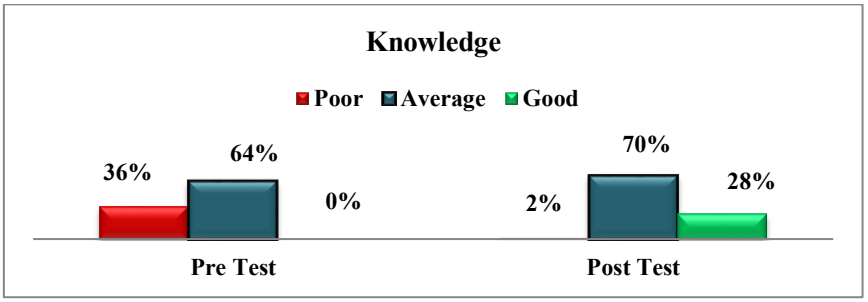

Table-2: Bar diagram showing analysis of pre-test and post-test knowledge score of structured teaching programme according to criteria.

Figure-1, It represent that 18 (36%) were poor, 32 (64%) were average in pretest and posttest majority 1 (2%) were poor, 35 (70%) were average & 14 (28%) were good.

TABLE-3

Analysis of pretest and posttest knowledge score using mean, mean percentage, and standard deviation.

N=50

Structured teaching programme	Total knowledge score	Mean	Mean %	SD
Pre test	589	11.78	39.26	±3.37
Post test	794	15.88	52.93	±4.24

Table -3: Structured teaching programme pretest knowledge score was 589, mean was 11.78, mean percentage was 39.26 and SD was 3.37 where as in posttest knowledge score 794, mean was 15.88, mean percentage was 52.93 and SD was 4.24.

TABLE -4

Effectiveness of structured teaching program by using difference between pretest mean different percentage and posttest mean different percentage.

N=50

Group	Pretest total mean percentage	Post test total mean percentage	Knowledge gain
	39.26	52.93	13.67

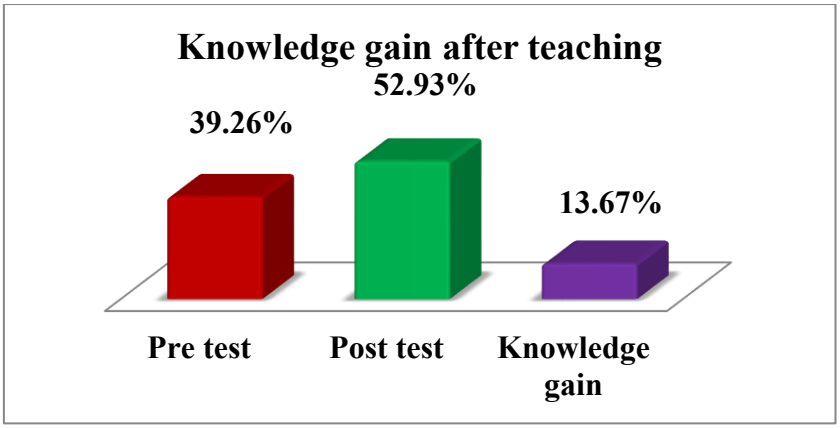

Table -4: Bar diagram showing the percentage of overall gain knowledge.

Figure-2, The pretest mean percentage was 39.26% and it increased to 52.93% in the posttest indicating a knowledge gain was 13.67%. yes, the structured teaching programme had a statistically significant positive effect.

Table -5
Effectiveness of structured teaching programme by using "t" test level of significance

Types of tests	Mean ±SD	df	Paired 't' value	Table value
Pre test	11.78±3.37	49	5.39	2.02
Post-test	15.88±4.24			

Table-4: It represents that there was highly significant difference between the pre-test and post-test knowledge score of structured teaching programme as calculated value 5.39;(df.49) was greater than table value 2.02 at 0.05 level of significance. This data significant that the structured teaching programme was very effective.

Discussion:

The present study aimed to evaluate the effectiveness of a structured teaching programme on breastfeeding knowledge among postnatal mothers at apollo hospitals, Bilaspur. The result showed a marked improvement in the post-test knowledge scores compared to the pretest score, confirming the effectiveness of the intervention. In the pretest a significant proportion of mothers (36%) had poor knowledge, and none demonstrated good knowledge. After the intervention, only 2% remained in the poor category, 70% had average knowledge, and 28% reached the good knowledge category. The mean knowledge score increased from 11.78 (+_3.37) in the pretest to 15.88 (+_4.24) in the post test. The paired t-test value of 5.39 was significantly higher than the table value of 2.02 at 0.05 significance level, indication a statistically significant improvement in knowledge.

These findings align with existing literature emphasizing the positive impact of educational interventions on maternal knowledge and breastfeeding practices. The results highlight the importance of incorporating structured education in postnatal care to equip mothers with the necessary skills and knowledge to address breastfeeding challenges.

Conclusion:

The study concluded that the structured teaching programme was highly effective in improving the knowledge of postnatal mothers regarding breastfeeding. A significant increase in post test score demonstrates that educational interventions can bridge the knowledge gap and empower mothers to adopt better breastfeeding practices. Therefore, implementing such teaching programmes as a routine part of postnatal care can enhance maternal confidence, support successful breastfeeding and ultimately improve maternal and infants' health outcomes.

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