

# A Study to Assess the Effectiveness of Structured Teaching Programme regarding Effects of Breast Engorgement among Primigravidae Mothers at Outpatient Department in KIMS Hospital & RF, Amalapuram

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**Abstract:** *A quantitative study was conducted to “assess the effectiveness of structured teaching programme regarding effects of breast engorgement among primigravidae mothers at outpatient department in KIMS Hospital & RF, Amalapuram.” Objectives of the Study: 1) To assess the knowledge regarding effects of breast engorgement among primigravidae mothers at outpatient department, in KIMS Hospital & RF, Amalapuram. 2) To evaluate the effectiveness of structured teaching programme regarding effects of breast engorgement among primigravidae mothers at outpatient department, in KIMS Hospital & RF, Amalapuram. 3) To find out the association between post-test knowledge scores with their demographic variables at outpatient department, in KIMS Hospital & RF, Amalapuram. The reason approach used for this study was quantitative research approach and the design selected Pre Experimental study with one group pretest- posttest design was used to conduct the study with structured teaching programme as independent variable, and knowledge as dependent variable. The study was conducted at outpatient department in KIMS Hospital & RF, Amalapuram. A total of 50 primigravidae mothers were participated in the study. The structured knowledge questionnaire was prepared with the help of literature from text books, journals and experts guidance. The tools were given for content validity to the experts. The data was entered in the master sheet for analysis and interpretation. Descriptive and inferential statistical procedures such as frequencies, percentages, mean, standard deviation, paired t-test and chi square tests were used.*

**Keywords:** Degree of freedom, OPD, Out patient department, Standard deviation, STP, Structured teaching programme

## 1. Introduction

### 1.1 Background of the study

“Maternal health is nation’s wealth. There is chance for the welfare of the world only the condition of women improves.” There Human milk has no substitute and breast is nature's apparatus for feeding babies. Breast feeding is an art. In recognition of the immense importance of breast feeding, the Baby - friendly hospital Initiative was launched by UNICEF/WHO in 1991. Breast feeding results in decreased problems such as infections and other medical problems. Breast feeding is one of the first bonding experiences between mother and child (1). In philosophy, the woman symbolizes the mothers natural feminine characteristics in the universe. Women are the primary care takers, bearers, and nurturers of the next generation. They are also vulnerable group. Among the women population in our country, the women under the child bearing age constitutes 22%. The incidence of health problems is high among the women of reproductive age (2). Women's health is an issue which has been taken up by many feminists, especially where reproductive health is concerned. Breastfeeding is considered as one of the most natural and intimate of all human interactions. As a mother, one of the best things a woman can do for her infant is breastfeeding. Several common problems that may arise during the breastfeeding period, such as breast engorgement, retracted nipple, breast infection (mastitis) and insufficient milk supply, originate from conditions that lead the mother in

trouble or in problem during breast feeding There are circumstances under which breast feeding can be problematic (3). Common problems that arise during the breast feeding period are breast engorgement, plugged milk ducts, breast infection (mastitis), and sore or painful nipple. These problems can cause distress, mild discomfort or significant pain. Therefore, many women stop breast feeding few weeks after delivery (4). However, these problems can be treated effectively, allowing the woman to continue breastfeeding, which benefits her and her infants health (5). Several common problems that may arise during the breast feeding period, such as breast engorgement, plugged milk duct, breast infection and insufficient milk supply, originate from conditions that lead the mother to inadequately empty the breasts. Incorrect techniques infrequent breast feeding and breast feeding on scheduled times, pacifiers and food suppliers are important risk factors that can predispose to lactation problems (6). The adequate management of those conditions is fundamental, as if not treated they frequently lead to early weaning. These problems can be prevented if the mother empties her breast effectively. If they occur, they should be carefully and adequately approached, thus avoiding the early weaning resultant from painful and stressing situations the mother may face. Breast engorgement is an accumulation of increased amounts of blood and other body fluids, as well as milk. The engorged breast becomes very full, tender and lumpy (7). The common causes of engorged breasts are giving placental feeds, delayed initiation of breastfeeds, early removal of the baby from the breast, bottle feeding and any restriction on

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breast feeding. There are various problems associated with the breast feeding which have adverse effect on the health of mother and her new born; breast engorgement is one of them (8). Breast engorgement is due to exaggeration normal venous and lymphatic engorgement of breast which precedes lactation. This is in turn preventing escape of milk from the lacteal system. The primiparous patient and the patient with inelastic breasts are likely to be involved. Engorgement is an indication that the baby is not in step with the stage of lactation (9). Third day after delivery. If feeding is delayed or infrequent or the baby is not well positioned at the breast, the milk accumulates in the alveoli. As milk production increases the amount of milk in the breast exceeds the capacity of the alveoli to store in comfortably. Such a breast become swollen, hard, warm, and painful and is termed as an engorged breast (10).

## 2. Methodology

### 2.1 Research Approach

The research approach was Quantitative Research approach and to assess in nature, According to Polit and Beck (2010). The present study is aimed at evaluate the effectiveness of structured teaching programme regarding effects of breast engorgement among primigravidae mother.

### 2.2 Research Design

It is a conceptual structure which research should be conducted it provides as a back bone of study. In this study pre-experimental one group pre- test and post- test design selected for the study. This study is to assess the effectiveness of structured teaching programme regarding effects of breast engorgement among Primigravidae mothers at outpatient department, in KIMS Hospital & RF, Amalapuram.

O1=Pre test to assess the knowledge of breast engorgement.  
X = structured teaching programme regarding breast engorgement  
O2 = Post test to Assess the knowledge regarding breast engorgement

### 2.3 Research Setting

The study will be conducted at out patient department in KIMS hospital & RF, Amalapuram.

### 2.4 Research Population

The target population of the study was females who are under primigravidae mothers at outpatient department in KIMS hospital & RF, Amalapuram.

### 2.5 Sample

It refers to the subject of the population that is selected for a study. In this study the sample will be primigravidae mothers.

### 2.6 Sample Size

The number of subjects are consist of 50 primigravidae mothers.

### 2.7 Sampling Technique

The simple random sampling technique was used in this study.

### 2.8 Criteria for Sample Selection

This study involves primigravidae mothers, those who are in outpatient department in KIMS Hospital & RF Amalapuram.

#### Inclusion criteria:

The study includes

- Primigravidae mothers who are willing to participate in the study.
- Primigravidaemothers who can read and write Telugu.

#### Exclusion criteria:

The study excludes who are

- Those who are reluctant to participate.
- Those who are not available during the day of data collection.
- High risk mothers.

### 2.9 Selection of Variables

It refers to characteristics of persons, things or situations that measured or manipulated in research.

**Independent variable:** Structured teaching programme regarding breast engorgement will be the independent variable in this study.

**Dependent variable:** Knowledge of breast engorgement among primigravidae mothers will be the dependent variable in this study.

**Demographic variables:** In this study demographic variables are age, education, religion, occupation, income, type of family, place of living, immunization, contraceptive history, source of information, regarding breast engorgement problems.

### 2.10 Development and description of the tool

Data collection tools are the procedure (or) the instruments used by the researchers to collect the data from the subjects. the protocol was developed for structured teaching programme regarding effects of breast engorgement among Primigravidae mothers.

Part A – Demographic variables such as Age, religion, basic education, work experience, source of information, type of family, previous knowledge on breast engorgement.

Part B – it consist of 25 questions assessing the knowledge regarding effects of breast engorgement

### Scoring Key

The knowledge regarding effects of breast engorgement was measured in knowledge scores. Each correct answer was given a score of one and a wrong answer given a score of zero. The total score was 25

### Data Interpretation:

Data will be based on knowledge scores in terms of percentage and scores will be interpreted into 3 criteria. 37 • Inadequate knowledge 75%

### 2.11 Development of structured teaching programme

The structured teaching programme was developed based on the objectives of knowledge variables. The first draft of structured teaching program was developed after an in-depth review of literature from various text books, journals and given to experts along with objectives and checks list. Based on their suggestion Structured teaching programme was prepared.

### 2.12 Content Validity

When an instrument measures what it is supposed to be measuring it is valid. Content validity refers to the degree to which the items in an instrument adequately represent the universe of content. To evaluate the content validity the tool will be given to the experts in related field of nursing who has specialization in obstetrics and gynaecology for establishing the content validity.

### 2.13 Reliability

The reliability of the measuring instrument is the major criteria for assessing the quality and adequacy. Test retest method was done with in the time gap by using spearman brown's prophecy formula, the karlpearson coefficient correlation was established by deviation method.

### 2.14 Pilot Study

Pilot study was conducted at out patient department in KIMS Hospital & RF, Amalapuram, for a period of one week from 2-8-2021 to 7-8-2021 Permission was obtained from the Medical superintendent. One group Pre-test and Post-test design was adapted to assess knowledge on primigravidae mothers. The pilot study was conducted with 10% of the total population was selected. 50 Participants who met the eligibility criteria were selected by simple random sampling technique. The purpose of the study was explained and oral consent was obtained from each patient. Study was assessed by using structured interview questionnaire. The duration of data collection for each participant was 30 minutes. No problem faced during pilot study

### 2.15 Data Collection Procedure

Written permission was obtained from the Medical superintendent, at KIMS Hospital & RF, Amalapuram, Primigravidae Mothers who fulfilled the inclusion criteria were selected by using simple random sampling method.

The researcher introduced herself to the Primigravidae mothers and developed good rapport with them for their co-operation. The researcher assured the participants for the confidentiality of their responses. The purpose of the study was explained to every sample, so as to get their full cooperation. Adequate privacy was provided. Pre-test has been done with the help of structured teaching programme. A class has been taken as a Intervention with the help of power point. After that finally Post-test has been done, by using the same structured knowledge questionnaire.

### 2.16 Plan for the Data Analysis

In the present study the data collected were grouped and analyzed. The level of significance was 0.05 level. . The data were analyzed in the terms of objectives of the study using descriptive and inferential statistics. Results will be presented in the form of tables, graphs and diagrams

Descriptive statistics: Frequency, percentage, mean and standard deviation will be used for analysis of demographic variable, and analysis knowledge of effects of breast engorgement.

Inferential statistics: This Test will be used to find the effect of structured teaching programme on effects of breast engorgement among primigravidae mothers. The statistical method will be used for the study of paired "t" test and Karl Pearson's coefficient of correlation. Paired "t" test will be used to find the effect of structured teaching programme in promotion of knowledge regarding Breast engorgement. Chi-square test will be used to assess the association of knowledge regarding importance Breast engorgement among Primigravidae mothers with demographic variables

### 2.17 Epilogue

This chapter dealt with the description of research approach, research design, setting, variables, population, sample and sampling technique, pilot study, ethical issues, procedure for data collection and plan for data analysis.

**Presentation of Data:** Data was presented in following headings:

Section A: Frequency and percentage distribution of primigravidae mothers according to their selected demographic variables.

Section B: Frequency and percentage of knowledge scores of primigravidae mothers regarding effects of breast engorgement according to the level of knowledge scores in pre test and post test.

Section C: Paired t test of significance for knowledge scores of primigravidae, mothers regarding effects of breast engorgement in pre test and post test and comparing pre test and post test knowledge scores.

Section D: Association between pretest knowledge of primigravidae, mothers regarding effects of breast engorgement in accordance with selected demographic variables.

### Section A

Demographic data of the sample includes age, religion, education of mother, education of father, occupation of

mother, occupation of father, type of family, previous knowledge on breast engorgement and source of information. The data collected with the help of planned questionnaire and presented in the following tables:

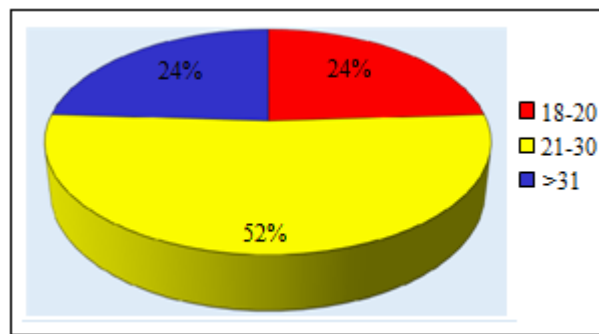
**Section A**

Frequency and percentage distribution of primigravidae mothers according to their selected demographic variable. (N=50)

S. No.	Demographic Characteristics	Frequency (f)	Percentages (%)
1.	Age	18-20	24
		21-30	52
		>30	24
2.	Religion	Hindu	40
		Muslim	10
		Christian	40
		Others	10
3.	Type of Family	Nuclear	66
		Joint	28
		Extended	06
4.	Education	Noformaleducation	12
		Primary	32
		Secondary	26
		College	30
5.	DietaryHabits	Vegetarian	20
		Non-vegetarian	80
6.	Source of Information	HealthProfessionals	20
		MassMedia	12
		Syllabus	06
		None	62

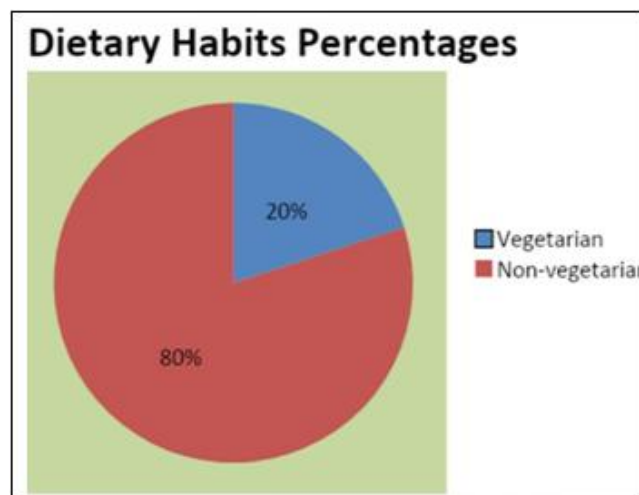
**Table 1:** shows that out of 50 primigravidae mothers 52% were in the age group of 21-30 years, 24% were in the age group of 18-20 years, and 24% were in the age group of >30 years. Regarding religion, majority 20 (40%) were Hindus, 5 (10%) were muslims, 20 (40%) were Christians, 5 (10%) were other religions. Related to Type of family of primigravidae mothers, 66% were from nuclear family, 28% were from joint family and 6% were from extended family. Regarding to educational status of primigravidae mothers, majority 6 (12%) were with no formal education, 16(32%) were with primary education, 13(26%) were with secondary education, 15 (30%) were with college. In view of dietary habits of primigravidae mothers, 20% are vegetarian, and 40% are non vegetarian. Pertaining to Source of information among primigravidae mothers, 20% had information from

health professionals, 12% had information mass media and 06% had information from syllabus, and 62% not had any information on effects of breast engorgement.



**Graph 1**

**Figure 3:** Percentage distribution of primigravidae mothers according age.



**Graph 2**

**Figure 7:** Percentage distribution of primigravidae mothers according to dietary habits

**Section B**

Frequency and percentage of knowledge scores of primigravidae mothers regarding effects of breast engorgement according to the level of knowledge scores in pretest and post test.

**Table 2:** Knowledge scores in Pre and Post test

S. No.	Knowledge on Categorization	PreTest		Posttest	
		Frequency (f)	Percentages (%)	Frequency (f)	Percentages (%)
1.	Inadequate (<35%)	07	14	00	00
2.	Moderate (36- 74%)	43	86	09	18
3.	Adequate (>75%)	00	00	41	82

The table no.2 shows that frequency and percentage based on knowledge scores of the primigravidae mothers about effects of breast engorgement. Inadequate (0-34%) indicates the scores in between 0 to 10, moderate (36-74%) indicates the score between 11-20 and adequate (75-100%) indicates the scores between 21-25.

Table no. 2, 07(14%) were under inadequate knowledge

level in pre test whereas in post test were found nil, 43(86%) were under moderate knowledge level in pre test, whereas 09 (18%) were moderate knowledge level in post test, adequate knowledge level in pre test were found nil whereas 41(82%) were adequate knowledge level in post test. These differences indicate that structured teaching programme was highly effected the primigravidae mothers.

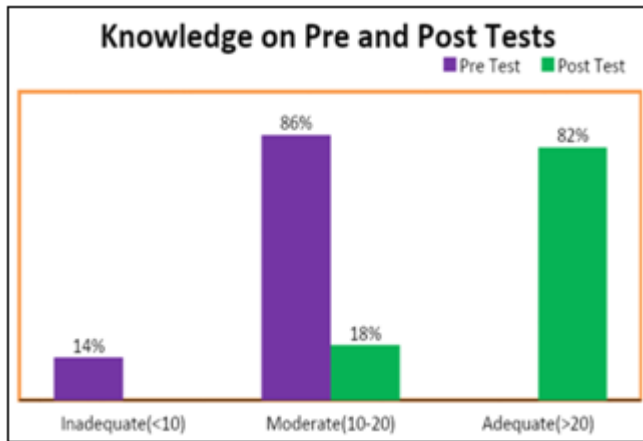


Figure 3

### Section C

Paired t-test of significance for significance for knowledge scores of primigravida mothers regarding effects of breast engorgement in pre test and post test and comparing pre test and post test knowledge scores.

**Table 3:** Knowledge on Pre and Post tests mean and S.D and t-testsignificance

Knowledge Scores	Pre Test	Post Test	Paired t-test
Mean	10.86	22.88	37.71
Standard Deviation	1.6164	2.0167	

\*\*49DF; Tablet-value=2.01;  $p < 0.001$

The table no; 3 shows that the pretest mean was 10.86 with 1.6164 standard deviation and that of post test was 20.88 with 2.0167 standard deviation. The calculated 't' value was 37.71, which is higher than the table 't' value 2.01 at 49df with 0.001 level of significance. It shows that there is significant difference ( $p < 0.001$ ) in pretest and post test knowledge scores.

Hence it concluded after Structured teaching programme on effects of breast engorgement the knowledge scores of the **primigravidae mothers** have been increased. The positive result gives a clear indication of effectiveness of Structured teaching programme on **effects of breast engorgement**. Hence H1 was accepted.

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