RESEARCH ARTICLE

A STUDY TO ASSESS THE EFFECTIVENESS OF TEACHING CUM DEMONSTRATION ON KNOWLEDGE REGARDING BREAST FEEDING AND ITS TECHNIQUES AMONG POST-NATAL MOTHERS AT SELECTED HOSPITAL, LUCKNOW

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Introduction
Breastfeeding is the normal way of providing young infants with the nutrients they need for healthy growth and development. Virtually all mothers can breastfeed, provided they have accurate information and the support of their family, the health care system and society at large. Colostrum, the yellowish, sticky breast milk produced at the end of pregnancy, is recommended by WHO as the perfect food for the newborn, and feeding should be initiated within the first hour after birth. Exclusive breastfeeding is recommended up to 6 months of age, with continued breastfeeding along with appropriate complementary foods up to two years of age or beyond.

Objectives
1- Assess the existence knowledge on breast feeding and its techniques among postnatal mothers. 2- Evaluate the effectiveness of structured teaching programme on knowledge regarding breast feeding and its techniques among post natal mothers. 3- Association between level of knowledge score with selected demographic variable among post natal mothers.

Research Hypothesis
H1- A significant difference will be found between pre-test and post-test level of knowledge regarding breast feeding & its techniques among postnatal mothers. • H2-There will be significant association between knowledge score and selected demographic variable among post natal mothers.

Research Methodology: Quantitative study was conducted using to assess the effectiveness of teaching cum demonstration on knowledge regarding breast feeding & its techniques among Postnatal Mothers where non-probability convenient sampling was used to collect data from 30 Postnatal Mothers at Krishna Medical Centre, Lucknow. Structured questionnaires on knowledge regarding breastfeeding were used to assess the level of knowledge of Primigravida Mothers, analysed by using inferential statistics. The average time i.e. 10-15 minutes was taken by the samples to fill the answers of the questionnaires used to assess the knowledge of postnatal mothers regarding breast feeding and its techniques. Result- The present study revealed that there was proper identification of level of knowledge
regarding breast feeding & its techniques among postnatal mothers. Researcher also observed that the level of knowledge of postnatal mothers regarding breast feeding & its techniques enhanced after structured teaching programme was found to be effective in increasing the knowledge of postnatal mothers admitted in Krishna Medical Centre, Lucknow.

Introduction:-
Breast feeding is the most natural way of infant feeding to satisfy nutritional, metabolic and psychological needs of the baby. Breast milk is the perfect food for a normal neonate. It is the best gift a mother can give her baby. It contains all the nutrients for normal growth & development of a baby from the time of birth to the six month of life. A child who is breast fed has greater chances of survival than a child artificially fed. Breast feeding significantly reduces the risk of death especially from diarrhoea and pneumonia in infants compared to formula fed babies. It also protects the infant from early malnutrition and some infections. Breast feeding has shown to ensure quality survival, the risk of adult onset of disease like diabetes, allergic disorders like asthma, CAD, hypertension, celiac diseases, lymphoma and cataract is substantially reduced in later life. Breast feeding has advantage to both the baby and the mother.¹

The advantages of the breast milk to the infants, WHO in 1993 took efforts to improve infant and young child nutrition by promoting breast feeding. WHO and UNICEF created and promoted Baby Friendly Hospital Initiative (BFHI) in 1991, is to ensure that all maternity services whether free standing or in a hospital, becomes centres of breastfeeding support. According to breast feeding promotion network of India only 10% of hospitals and maternity facilities in India had BFHI status in 2005. This reflects the fact that more effort is needed to make all existing hospitals “Baby Friendly”.

Heath organizations, including the world health organization WHO recommended breastfeeding exclusively for six months. This means that no other foods or drinks other than possibly vitamin D are typically given. After the introduction of food six months of age, recommendations include continued breastfeeding until one to two years of age or more. Globally about 38% of infants are only breastfed during their first six month of life.²

“The perfect mother can do everything. She can breastfeed while holding down a fulltime professional job, earning truckloads of money, can manage a household, drives the perfect car, has great skin every day, lovely shiny hair, and goes to the gym, eats the perfect diet, and does all this and can still be having a good sex life, and be a gourmet chef [laugh]. It’s just expectation that we build up in ourselves to do with breastfeeding, natural birth, perfect career, and the perfect marriage. I don’t know why we do it to ourselves, because we’re constantly disappointed.”³

The breastfeeding is the “Gold standard” for infant feeding. There are several areas of biological superiority of breastfeeding and breast milk over artificial milk. Breast milk is a readily available food to the newborn at body temperature and without any cost.

Breastfeed is widely acknowledged to be the most complete form of nutrition for infants. The range of benefit includes health, growth, immunity and development. Breast milk is the single best food for infants from birth to 6 month of age it provides good nutrition and protects against infection. If breastfeeding is not possible or not desired, iron enriched formula should be used during the first 12 moth of life.⁴

Objectives Of The Study:-
1- Assess the existence knowledge on breast feeding and its techniques among postnatal mothers.
2- Evaluate the effectiveness of structured teaching programme on knowledge regarding breast feeding and its techniques among post natal mothers.
3- Association between level of knowledge score with selected demographic variable among post natal mothers.

Hypothesis-
• H1- A significant difference will be found between pre-test and post-test level of knowledge regarding breast feeding & its techniques among postnatal mothers.
• H2—There will be a significant association between knowledge score and selected demographic variable among postnatal mothers at P<0.05 level of significance.

Variable Under Study:
1. **Independent variable**—Teaching cum demonstration
2. **Dependent variable**—Knowledge on breast feeding and its techniques.
3. **Socio-demographic variable**—Age, parity, educational qualification, occupation, previous knowledge, mode of delivery, type of family.

The samples were selected with the following pre-determined criteria. The study includes:

**Inclusion Criteria**—
The present study includes:
1- Postnatal mothers who were admitted in Krishna Medical Centre, Lucknow.
2- Those who are willing to participate in the study.
3- Postnatal mothers who delivered a live baby.

**Exclusion Criteria**—
The present study excludes.
1- Those who are not present during the time of study.
2- Whose baby is in N.I.C.U.
3- Mother having serious medical illness.

**Delimitations**—
1- Postnatal mothers who admitted in Krishna Medical Centre, Lucknow.
2- Postnatal mother who delivered a live baby through normal vaginal delivery with or without episiotomy or caesarean section.

**Methodology**—
1. Research approach—**Quantitative research approach**
2. Research design—**Pre-experimental (one group pre-test post-test) research design**
3. Research setting—The present study was conducted at postnatal ward in Krishna Medical Centre, Lucknow.

**Research Variables**—
**Independent variable**—Teaching cum demonstration on knowledge regarding breast feeding and its techniques.
**Dependent variable**—knowledge of Post-natal mothers regarding breast feeding and its techniques.
**Demographic variables**—Age, educational qualification, occupation, parity, type of family, mode of delivery, previous knowledge regarding breast feeding & its techniques.

Target population—The target population of present study is Post-natal mothers in the Krishna Medical Centre, Lucknow.
Sample—Postnatal mothers who are present at that time in the Krishna Medical Centre, Lucknow.
Sample size—It consists of total 30 postnatal mothers.
Sampling technique—Convenience sampling techniques.

**Criteria for Sample Selection**—
**Inclusion criteria**
1. Postnatal mother who deliver live baby.
2. Those who are willing to participate in the study.
3. Who are available during the time of data collection.
4. Admitted in Krishna medical centre, Lucknow.

**Exclusion criteria**
1. Those who are not willing to participate in the study.
2. Those who are not present during the study.
Tools- Development/ selection of tools
As the study is to assess the effectiveness of teaching cum demonstration on knowledge regarding breast feeding and its techniques among post-natal mothers at Krishna Medical Center, Lucknow. A structured teaching programme was used to collect the data.

It consist of 30 multiple choice questions with 4 options each and among them only one will be the correct answer. It has a score ranging from 0 to 1. Each correct answer will carry “1 score” and “zero” for incorrect response. The total score is 30.

Score interpretation:
There is 30 structured questionnaires used in this study. Each correct answer carries 1 mark
Table:1

| LEVEL OF KNOWLEDGE    | SCORE | SCORE WEIGHTAGE |
|-----------------------|-------|-----------------|
| Inadequate            | 0-10  | 0-33%           |
| Moderately adequate   | 11-20 | 34-67%          |
| Adequate              | 21-30 | 68-100%         |

1. Maximum score: 30
2. Minimum score: 0

Part-I: Distribution of demographic characteristics of postnatal mothers.
Table No 2: Frequency and percentage distribution of Postnatal Mothers according to their demographic variables

| Variables                  | Opts                   | Percentage | Frequency |
|----------------------------|------------------------|------------|-----------|
| Age                        | 19 years- 21 years     | 10.0%      | 3         |
|                            | 22 years -26 years     | 33.3%      | 10        |
|                            | 27 years - 30 years    | 46.7%      | 14        |
|                            | 30 years and above     | 10.0%      | 3         |
| Parity of Mother           | Primiparous            | 66.7%      | 20        |
|                            | Multiparous            | 33.3%      | 10        |
| Educational Qualification  | Illiterate             | 16.7%      | 5         |
|                            | Primary                | 36.7%      | 11        |
|                            | Secondary and senior secondary | 36.7% | 11 |
|                            | Graduation and above   | 10.0%      | 3         |
| Occupation                 | House wife             | 63.3%      | 19        |
|                            | Private Job            | 23.3%      | 7         |
|                            | Government Job         | 13.3%      | 4         |
|                            | Business               | 0.0%       | 0         |
| Previous knowledge regarding Breast Feeding | Yes | 56.7% | 17 |
|                            | No                     | 43.3%      | 13        |
| Mode of Delivery           | Normal vaginal delivery | 43.3% | 13 |
|                            | Instrumental delivery  | 10.0%      | 3         |
|                            | Caesarean section      | 46.7%      | 14        |
| Type of Family             | Nuclear Family         | 40.0%      | 12        |
|                            | Joint Family           | 53.3%      | 16        |
|                            | Extended Family        | 6.7%       | 2         |

PART II: Assessment of level of knowledge scores of post natal mothers on breast feeding & its techniques.

Table No:3Table shows Assessment of pre-test knowledge of the post natal mothers on breast feeding & its techniques.

| CRITERIA MEASURE OF PRETEST KNOWLEDGE SCORE | PRETEST (F%) |
|--------------------------------------------|--------------|
| Score Level (n= 30)                        |              |
| INADEQUATE. (0-10)                         | 19(63.3%)    |
| MODERATELY ADEQUATE. (11-20)               | 11(36.7%)    |
| ADEQUATE. (21-30)                          | 0(0%)        |
The above table shows the assessment of the level of knowledge of post natal mother. Out of the 30 samples, 11(36.7%) had moderate knowledge, 19(63.3%) had inadequate knowledge and no one had adequate knowledge.

Section B: Assessment of post-test level of knowledge score of postnatal mothers on breast feeding & its techniques.

Table No 4:- Table showing Assessment of post-test level of knowledge of the post natal mothers on breast feeding & its techniques.

| CRITERIA MEASURE OF POSTTEST KNOWLEDGE SCORE | POSTTEST (F%) |
|-----------------------------------------------|---------------|
| Score Level (N= 30)                            |               |
| INADEQUATE.(0-10)                             | 0(0%)         |
| MODERATELY ADEQUATE.(11-20)                   | 10(33.3%)     |
| ADEQUATE.(21-30)                              | 20(66.7%)     |
| Maximum Score=30 Minimum Score=0              |               |

The above table shows the assessment of post-test level of knowledge of post natal mothers. Out of the 30 samples, 10(33%) had moderately adequate knowledge, no one had inadequate knowledge and 20 (67%) had adequate knowledge.

Table No 5:- Table Showing Assessment of Level of knowledge of pre-test & post natal score.

| CRITERIA MEASURE OF KNOWLEDGE SCORE | PRE-TEST (F%) | POSTTEST (F%) |
|-------------------------------------|---------------|---------------|
| Score Level (N= 30)                 |               |               |
| INADEQUATE.(0-10)                   | 19(63.3%)     | 0(0%)         |
| MODERATELY ADEQUATE.(11-20)        | 11(36.7%)     | 10(33.3%)     |
| ADEQUATE.(21-30)                    | 0(0%)         | 20(66.7%)     |
| Maximum Score=30 Minimum Score=0    |               |               |

The above table shows the assessment of the level of knowledge of pre-test and post-test score of post natal mothers.

In pre-test out of the 30 samples, 11(36.7%) had moderate knowledge, 19(63.3%) had inadequate knowledge and no one had adequate knowledge.

In post-test out of the 30 samples, 10(33%) had moderately adequate knowledge, no one had inadequate knowledge and 20 (67%) had adequate knowledge.

Table 06:- Shows that the association between the level of score and socio demographic variable.

| Association of Pre Test Knowledge Scores Of With Selected Socio-Demographic Variables. |
|-----------------------------------------------|---------------|----------------|---------------|
| Variables                                     | Odds          | ADEQUATE MO  | Chi Test      | P Value     | df  | Table Value | Result        |
| Age                                           | 19 years- 21 years | 0 3            | 5.167         | 0.160       | 3   | 7.815       | Not Significant |
|                                               | 22 years -26 years | 2 8            |               |             |     |             |               |
|                                               | 27 years - 20 years | 7 7            |               |             |     |             |               |
|                                               | 30 years and above | 2 1            |               |             |     |             |               |
| Parity of Mother                              | Primiparous   | 2 18           | 18.373        | 0.000       | 1   | 3.841       | Significant   |
|                                               | Multiparous   | 9 1            |               |             |     |             |               |
| Educational Qualification                     | Illiterate    | 0 5            | 4.424         | 0.219       | 3   | 7.815       | Not Significant |
|                                               | Primary       | 5 6            |               |             |     |             |               |
Table 06: Shows that the association between the level of score and socio demographic variable. Based on the objectives used to Chi-square test used to associate the level of knowledge and selected demographic variables. The Chi-square value shows that there is significance association between the score level and demographic variables (parity of mother). There is no significance association between the level of scores and other demographic variables (age, educational qualification, occupation, mode of delivery, type of family, previous knowledge) The calculated chi-square values were less than the table value at the 0.05 level of significance.

Post test Score-
Table No:7 Table Showing Association of post-test knowledge Scores of postnatal mothers with selected demographic Variables.
The chi-square test was used to determine the association between the score levels and selected demographic variables.

| Variables                      | Options                              | ADE | QUA | MO | DER | INA | DEQ | Chi Test | P Value | df | Table Value | Result   |
|-------------------------------|--------------------------------------|-----|-----|----|-----|-----|-----|----------|---------|----|-------------|----------|
| Age                           | 19 years-21 years                    | 0   | 3   |    |     |     |     | 6.943    | 0.074   | 3  | 7.815       | Not Significant |
|                               | 22 years-26 years                   | 7   | 3   |    |     |     |     |          |         |    |             |          |
|                               | 27 years-20 years                   | 11  | 3   |    |     |     |     |          |         |    |             |          |
|                               | 30 years and above                  | 2   | 1   |    |     |     |     |          |         |    |             |          |
| Parity of Mother              | Primiparous                         | 12  | 8   |    |     |     |     | 1.200    | 0.273   | 1  | 3.841       | Not Significant |
|                               | Multiparous                         | 8   | 2   |    |     |     |     |          |         |    |             |          |
| Educational Qualification     | Illiterate                          | 1   | 4   |    |     |     |     | 7.855    | 0.049   | 3  | 7.815       | Significant |
|                               | Primary                             | 10  | 1   |    |     |     |     |          |         |    |             |          |
|                               | Secondary and senior secondary      | 7   | 4   |    |     |     |     |          |         |    |             |          |
|                               | Graduation and above                | 2   | 1   |    |     |     |     |          |         |    |             |          |
| Occupation                    | House wife                          | 12  | 7   |    |     |     |     | 2.391    | 0.303   | 2  | 5.991       | Not Significant |
|                               | Private Job                         | 4   | 3   |    |     |     |     |          |         |    |             |          |
|                               | Government Job                      | 4   | 0   |    |     |     |     |          |         |    |             |          |
|                               | Business                            | 0   | 0   |    |     |     |     |          |         |    |             |          |
| Previous                      | Yes                                 | 14  | 3   |    |     |     |     | 4.344    | 0.037   | 1  | 3.841       | Significant |

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knowledge regarding Breast Feeding | No | 6 | 7 | 1.690 | 0.430 | 2 | 5.991 | Not Significant
---|---|---|---|---|---|---|---|---
Mode of Delivery | Normal vaginal delivery | 8 | 5 |  |  |  |  |  |
| Instrumental delivery | 3 | 0 |  |  |  |  |  |
| Caesarean section | 9 | 5 |  |  |  |  |  |
Type of Family | Nuclear Family | 11 | 1 | 8.156 | 0.017 | 2 | 5.991 | Significant
| Joint Family | 7 | 9 |  |  |  |  |  |
| Extended Family | 2 | 0 |  |  |  |  |  |

**Table 7** shows that the association between the level of score and socio demographic variable. Based on the objectives used to Chi-square test used to associate the level of knowledge and selected demographic variables. The Chi-square value shows that there is significance association between the score level and demographic variables (educational qualification and type of family). There is no significance association between the level of scores and other demographic variables (age, parity, occupation, type of family, mode of delivery, previous knowledge) The calculated chi-square values were less than the table value at the 0.05 level of significance.

**Summary**
This chapter has deal with analysis and interpretation of the results of the study. Descriptive and inferential statistics were employed to analyse the data. Analysis was carried out on the basis of objectives and hypothesis of the study. Frequency and percentage was used to represent the sample characteristics and level of knowledge through mean, SD and mean percentage. The association of pre-test and post-test knowledge score with selected demographic variable were assessed by using Chi-Square.

**Discussion**
In the present study, on assessing the pre-test knowledge of post natal mothers on breast feeding & its techniques, out of the 30 samples, 11(36.7%) had moderate knowledge, 19(63.3%) had inadequate knowledge and no one had adequate knowledge.

This study was supported by a quantitative study conducted to assess the effectiveness of breast feeding & its techniques on knowledge among postnatal mothers. The study was done among 30 postnatal mothers. The result depicts that in the pre-test majority of the postnatal mothers 20(83.3%) were having poor knowledge on proper use of body breast feeding techniques. After getting intervention in post-test most of 22 (70%) pregnant women were having good knowledge on proper use of breastfeeding techniques.

**Summary**
In present study, the researcher investigated the effectiveness of structured teaching program on knowledge regarding breast feeding & its techniques among post natal mothers and the association of level of pre-test knowledge to the selected demographic variables. The researcher found that there was a significant improvement in knowledge of the postnatal mothers after teaching cum demonstration program and there was significant association between pre-test knowledge and demographic variables.

**Conclusion**
A quantitative study was conducted to assess the level of knowledge regarding breastfeeding & its techniques among post natal mothers. The finding of the study reveals that there is significant association between demographic variables and level of knowledge among Post natal Mothers. The mean score of knowledge level was 9.80 which revealed that Postnatal Mothers has inadequate and moderately adequate knowledge regarding breastfeeding & its techniques. Hence, there is need to conduct the educational programme regarding breastfeeding for awareness in the community area and health care settings. So mother should be educated and made aware about breastfeeding & its techniques.

**Nursing Implications**
The finding of the study has important implication for nursing education, nursing practice, nursing administration and nursing research.
Nursing Education:
1. Nursing student can provide education to mother about breastfeeding and breastfeeding techniques.
2. Nursing Supervisor and Clinical instructor can promote evidence based practice by incorporating the findings of the study in their clinical teaching.

Nursing Practice:
1. Nurses working in maternity ward play an important role in educating mothers regarding breastfeeding & its techniques.
2. The instruction strategies prepared in form of structured teaching program can be utilized by nurses in giving education to mothers.

Nursing Research:
1. One of the aims of the nursing research is to expand and broaden the scope of nursing.
2. Research can be conducted to assess the knowledge of postnatal mothers.
3. The findings of the study is indicated that the structured teaching program is effective in increasing knowledge of breastfeeding and its techniques as there is a lack of adequate knowledge about breastfeeding & its techniques among postnatal mothers.
4. This study can be baseline for further quantitative and qualitative research studies to build up.
5. This study also brings about the facts that more studies need to be done at different setting with better teaching strategies.

Nursing Administration:
1. Nursing Administration can incorporate in the finding of the study by organizing in-service education programme regarding breastfeeding & its techniques for the nursing in ward and motivate them to conduct in instructional teaching programme regarding breastfeeding & its techniques which will be beneficial for staff nurses as well as student nurses.
2. Nursing personnel are in the position to impact structured teaching, demonstration and guidance to the postnatal mothers regarding breastfeeding & its techniques.

Limitations-
1. The study is limited to the postnatal mothers admitted in the Krishna Medical Centre lucknow.
2. The study was restricted with limited sample size in the selected hospital which limits the generalization of findings.

Recommendations:-
1. The study can be conducted with the large sample to validate the findings and generalization can be made.
2. The study can be done to evaluate the knowledge, practice and attitude regarding breastfeeding & its techniques among postnatal mothers.
3. An Experimental study can be done to assess the effectiveness of structured teaching programme regarding breastfeeding & its techniques.

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