



A Study to Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding Exclusive Breast Feeding, Among Antenatal Mothers in a Selected Hospital at Agartala, West Tripura.

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ABSTRACT

The moment a child is born, the mother is also born. The woman existed but the mother never. A mother is absolutely new. The transformation indeed the fruit of physical, social and psychological changes that occur in the women that makes her the most wonderful person in the world- the mother.¹ Breast feeding is the best natural feeding for infant survival and maternal health. This study sought to evaluate the effectiveness of structured teaching programme regarding exclusive breast feeding among antenatal mothers. Total 30 antenatal mothers were selected and a pre experimental approach and one group pretest post test design was used. For data analysis descriptive and inferential statistics were used. Result shows that the mean post test knowledge score (12.7) was higher than the mean pre test knowledge score (6.3). Chi square revealed significant association between pre-test knowledge score with selected socio- demographic variables at level 0.05 significance such as education, occupation, monthly income, any living child. To conclude there is very much lack of knowledge regarding exclusive breast feeding among ante natal mothers, so that there is a need to strengthen lactational education to promote exclusive breast feeding.

Breast feeding is the best natural feeding for infant survival and maternal health. It meets the nutritional as well as emotional and psychological needs of the infant. Exclusive breast feeding is referred as an infant consumption of human milk only with no supplementation of any type up to six months. Breast milk is free from contamination, safe, readily available to the needs of the infants because of its anti infective properties. The breast exclusive feed babies have low incidence of diarrhoea and acute respiratory infection. There is reduced risk of allergy. Breast feeding also has protective effect against child hood obesity & other cardiac risk factors. Breast feeding can help strengthen the emotional bond between mother and their children.² Exclusive breast milk provides the best health benefits when breast feeding started immediately after an infant's birth because neonate can get the colostrum, is the milk secreted during the initial 3-4 days following delivery, which is very rich and higher concentration of antibodies, calorie, protein, immune component cells and vitamins A,D,E.K and continued exclusively for the first six months.²

OBJECTIVES

1. To assess the pre-test knowledge score regarding exclusive breast feeding among antenatal mothers in selected hospital.
2. To find out the effectiveness of structured teaching programme regarding exclusive breast feeding among antenatal mothers in selected hospital.
3. To find out the association between pre-test knowledge score of antenatal mothers with their selected demographic variables.

HYPOTHESES

All hypotheses were tested at 0.05 level of significance.

1. H₁: There is significant gain in post-test knowledge score regarding exclusive breast feeding among antenatal mothers.
2. H₂: There is significant association between pre-test knowledge score with selected socio-demographic variables among ante natal mothers regarding exclusive breast feeding.

ASSUMPTION:

1. Ante- natal mothers may have inadequate knowledge regarding exclusive breast feeding.
2. Mothers may not provide exclusive breast feeding to their baby.

CONCEPTUAL FRAME WORK:

Conceptual frame-work or model is the building block of a research study. The conceptual frame work is based on the nursing theory which serves as the theoretical foundation for conceptualizing and guiding research work, nursing practice and educational programme.

The conceptual framework used for this study is based on Imogene King's goal attainment theory (1990s).

DELIMITATION

1. The study is delimited to antenatal primi and multi gravida mothers with 2nd & 3rd trimester .
2. The study is delimited to Mother & Child Health Centre of hospital

REVIEW LITERATURE

1. Jennifer Callen, *et.al* (2009) a descriptive study was conducted on incidence and duration of exclusive breastfeeding for term infants in terms of knowledge, in Canada, United States, Europe, and Australia with (200 sample from each country) 800 sample through the year from 2003 to 2009. Data were collected by stratified random sampling. Additional studies were located from reference lists of meta-analyses, systematic reviews, and previous articles. All studies that met study criteria were included in the review, regardless of the quality of methodology. Results show that although studies had methodological limitations that precluded conducting a formal systematic review or meta-analysis, this comparative review revealed consistent differences among countries. For example, Europe and Australia reported a higher initiation and duration of exclusive breastfeeding for infants compared with Canada and the United States. Studies had examined reasons for a higher incidence and duration of breastfeeding shows that women who initiate and continue to exclusive breastfeed have knowledge, better educated, older, married, , and have higher family incomes than women who do not breastfeed.

2. Lulie R.O, *et. al* (2008) a true experimental study was conducted on parental breastfeeding knowledge increase breastfeeding rates, in December 2008 at the Hospital de Clínicas de Porto Alegre, Brazil. The purpose of this study was to assess the knowledge of primi mothers about breastfeeding before and after receiving postpartum advice and its relationship to the frequency of breastfeeding. 404 mothers were randomly selected. Advice supplied by means of a video film discussing basic topics of breastfeeding, an explanatory leaflet, and open discussion after viewing the video. The first 208 couples comprised the control group, the next 197 comprised experimental group 1, and the remaining 196 comprised experimental group 2. Results showed that pre and Postpartum advice increased the breastfeeding knowledge of mothers. The mothers with the highest level of knowledge had a 6.5 times higher chance of exclusively breastfeeding at the end of the third month, and 1.97 times higher chance of continuing breastfeeding to the end of the sixth month compared with other mothers. A simple, inexpensive strategy can increase the level of breastfeeding knowledge of mothers and fathers and, consequently, have a positive impact on the frequency of breastfeeding.

RESEARCH METHODOLOGY

The design adopted for the study was **one group pretest posttest design**

The schematic representation of the study design is follows:-

O1 X O2
O1- Pretest X- Intervention O2- Posttest

population	Day-1 O1	Day-1 x	Day-8 O2
Antenatal mothers	Administration of tools Tool-I Demographic proforma Tool-II Structured knowledge questionnaire regarding exclusive breast feeding	Administration of structured teaching programme regarding exclusive breast feeding	Administration of Tool-II – Same structured knowledge questionnaire regarding exclusive breast feeding.

The present study was conducted in Indira Gandhi Memorial Hospital, Agartala, West Tripura. The target population consisted of antenatal mothers who attended the MCH of Indira Gandhi Memorial Hospital, Agartala, West Tripura. The sample was drawn by purposive sampling technique and sample size is 30 antenatal primi & multi gravida mothers with 2nd & 3rd trimester .

RELIABILITY OF THE TOOL:

The reliability co-efficient was .83 as calculated by the using karl Pearson split half technique followed by Spearman Brown prophecy formula. Hence the structured knowledge questionnaire was found reliable.

PILOT STUDY:

The result showed that mean post test knowledge score (15.5) was higher than the mean pre test knowledge score (8.8) and calculated 't' value = 3.99 ('t'=2.26 p<0.05) was significant. Though Chi square value between pre test knowledge score and demographic variables were not significant. Hence structured teaching programme was effective, feasible and applicable.

RESULT

Section- I: Description Of Demographic Proforma: Part I:-Personal Information

Table-1

	Characteristics	Frequency	Percentage	
1	Age in years	a) < 20 years	02	08
		b) 20-25 years	23	76
		c) 26-30 years	05	16
		d) 31-35 years	00	00
		e) > 35 years	00	00
2	Educational qualification	a) Primary	06	20
		b) Secondary	21	66
		c) Higher secondary	03	14
		d) Graduate or more	00	00
3	Occupation	a) House wife	21	70
		b) Govt. employee	03	10
		c) Private employee	03	10
		d) Self employee	03	10
4	Monthly income	a) 5000-10,000	10	33
		b) 10,001 to 15,000	16	53
		c) 15,001 to 20,000	02	07
		d) > 20,000	02	07
5	Religion	a) Hindu	19	64
		b) Muslim	06	20
		c) Christian	05	16
		d) Other	00	00
6	Type of family	a) Nuclear family	20	66
		b) Joint family	08	26
		c) Extended family	02	08
7	Place of residence	a) Village	23	73
		b) Taluk	00	00
		c) City /town	07	27
8	Any living child	a) Yes	05	17
		b) No	25	83
9	If the answer is yes then, how many?	a) 1	05	100
		b) 2	00	00
		c) 3	00	00

Part II: Health related information

Table-

Sl. No	Characteristics	Frequency	Percentage	
10	Current gestational age	a) 13-24weeks	05	16
		b) 25- 36 weeks	06	21
		c) >36 weeks	19	63
11	Any previous knowledge regarding exclusive breast feeding	a) Yes	03	10
		b) No	27	90
12	If the answer is yes, then the information regarding exclusive breast feeding received from where?	a) Friend	10	33
		b) Relative	17	57
		c) Mass media	03	10
		d) Health personnel	00	00

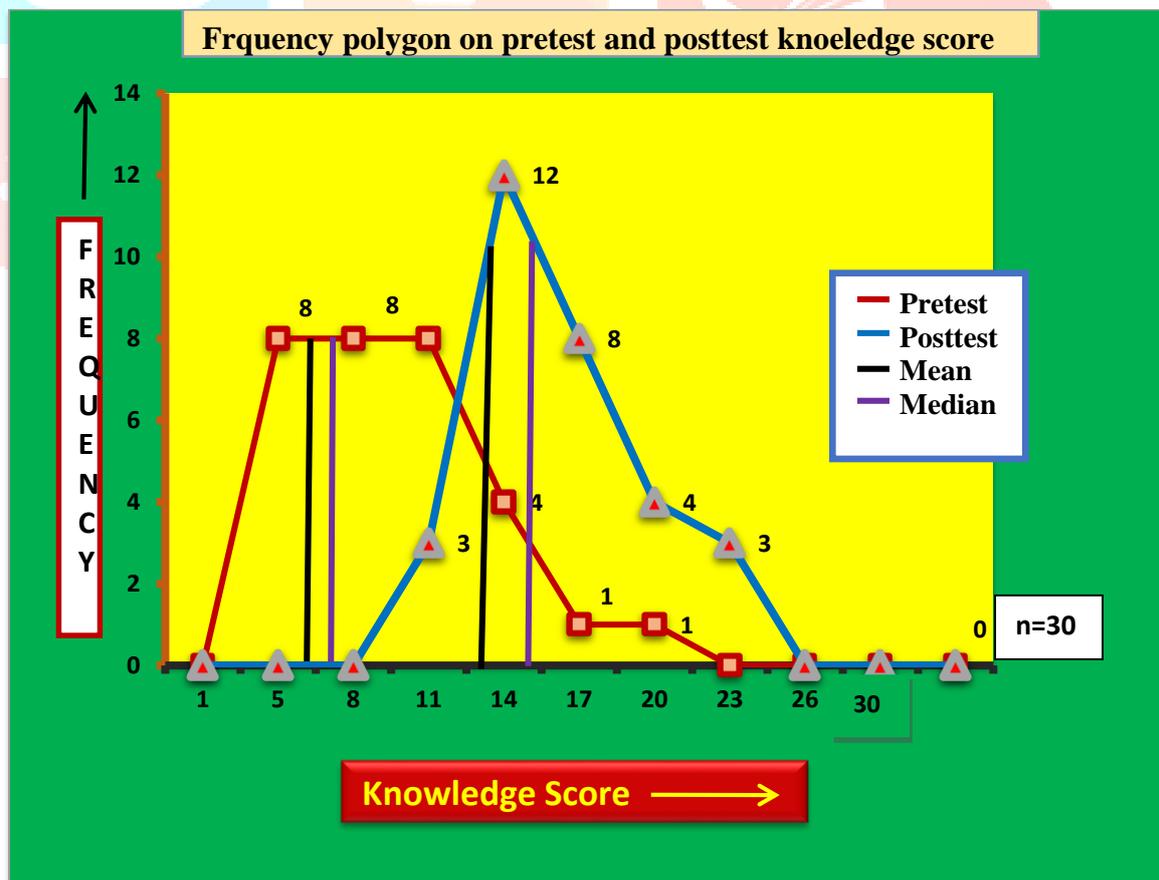


Fig.13: Frequency polygon on pre- test and post- test knowledge score

Table-3

Comparison of range, mean, median, standard deviation of pre test and post test knowledge score

Knowledge	Range	Mean	Median	Standard Deviation
Pre-test	1-15	6.3	6.62	3.35
Post-test	10-21	12.7	13.2	3.13

n=30

Table-4

Mean, mean difference, and 't' value of pre test and post test knowledge scores

Knowledge score	Mean	Mean difference	' t ' value
Pre-test	6.3	6.4	13.6*
Post-test	12.7		

n=30

* Significant at 5% ('t' ₍₂₉₎ = 2.05 p < 0.05)

Overall result revealed that The the range of post test knowledge score (10-21) was apparently higher than pre test knowledge score (1-15). The mean post test knowledge score (12.7) was higher than the mean pre test knowledge score (6.3). The table also revealed that the median of the post test knowledge score (13.3) was higher than the median of the pre test knowledge score (6.62) and the Standard Deviation of the post test knowledge score (3.13) was lesser dispersed than the Standard Deviation of the pre test knowledge score (3.35). So the post test knowledge score is higher than the pre test knowledge score.

The pre test and post test frequency polygon presented in fig.1 showed that the post test frequency polygon lie at the right side of the pre test frequency polygon indicating a higher score range during post test compared to pre test. In both pre test and post test frequency polygon mean and median lie close to each other mean lie at the left side of the median, indicating that the scores were negatively skewed. The skewness of pre test frequency polygon was (-0.286) and the skewness of the post test frequency polygon was (-0.479). So it is indicated that there was significant gain in post test knowledge scores after administration of structured teaching programme regarding exclusive breast feeding among antenatal mothers. The data presented in the table 6 shows that the mean difference between pre test and post test knowledge score was **6.4** and calculated 't' value (**13.6**) is found significant ('t' ₍₂₉₎ = 2.05 p < 0.05). Hence null hypotheses are rejected and research hypotheses was accepted. Thus structured teaching programme was effective to gain knowledge regarding exclusive breast feeding.

CHI SQUARE

chi square values calculated between pre test knowledge score with selected demographic variables. Result showed that variables (educational qualification, occupation, monthly income, any living child) are significantly associated with pre test knowledge score among antenatal mothers regarding exclusive breast feeding. Thus the null hypothesis is rejected and research hypothesis is accepted.

DISCUSSION

The meaning of research in a simple language is to explore or discover new things and concepts. The findings of the study discussed in this chapter were based on the objectives and hypotheses of the study. The statistical findings of this study revealed that the mean pre test knowledge score was 6.3, median score was 6.62, and standard deviation was 3.35 in the range from 1-18. According to conceptual frame work based on King's theory of Goal attainment, where the researcher identified the existing knowledge regarding exclusive breast feeding of the antenatal mothers through structured knowledge questionnaire.

In the present study the hypothesis was stated that there is significant gain in post-test knowledge score regarding exclusive breast feeding among antenatal mothers.

The mean post test knowledge score of antenatal mothers regarding exclusive breast feeding is significantly higher than the mean pre test knowledge score. This statistical findings of the present study revealed that there was a significant increase in mean post test knowledge score (12.7) than the pre test knowledge score (6.3). The paired 't' test value was (13.6) found statistically significant ('t'₍₂₉₎ = 2.05 p < 0.05) at 0.05 level of significance. So the null hypothesis was rejected and research hypothesis was accepted.

These findings supported by the present conceptual framework which has been based on King's theory of Goal attainment , where researcher find the effectiveness of administered structured teaching programme regarding exclusive breast feeding among antenatal mothers, through administering same structured knowledge questionnaire in the post test, followed by comparison of knowledge scores between the pre test and post test. Hence it can be concluded that structured teaching programme regarding exclusive breast feeding among antenatal mothers was effective in terms of gaining knowledge score was 18.40 with the standard deviation of 3.203. The overall pretest and posttest mean difference was 14.180 , S.DD= 3.668, S.ED=0.519 with the paired 't' test value 22.406. Hence, statistically there is significant difference in posttest knowledge score from pretest .There was a significant association was no found between the knowledge of the post natal mothers and the socio demographic variables. All statistical analysis indicate that the structured teaching programme regarding exclusive breastfeeding was effective. Result showed that there was significant association between pre-test knowledge score with selected socio- demographic variables at level 0.05 significance such as education, occupation, monthly income, any living child. Thus null hypothesis was rejected research hypothesis was accepted. Hence it was inferred that knowledge levels of antenatal mothers were associated with selected demographic variables.

IMPLICATIONS

The concept of health has been changed. Today's children are future's citizen. A holistic development of a child begins from the birth and breastfeeding is the best natural feeding for infant survival, good health and maternal health also. The findings of the study could apply in various areas of nursing education, nursing practice, nursing administration and nursing research.

NURSING EDUCATION

Education is a key component in improving the knowledge of an individual. The curriculum may be responsible for the nursing personnel knowledge and the nurse educators have the responsibility to update these knowledge. Nurse educator can use self learning module of lesson plan in teaching advanced skill to senior students and newly trained staff in all areas of specialized skills. The lesson plan can be used as a ready learning tool by the nursing personnel and nursing students in the class room, antenatal units, post natal units and MCH centres to enhance mothers' knowledge regarding importance and practice of exclusive breast feeding.

NURSING PRACTICE

Nurses are committed to work in the hospitals as well as in the community for care and health promotion development. All nurses including student nurses can utilize this lesson plan in imparting knowledge to the parents and family members regarding importance of exclusive breast feeding and encouraging to promote breast feeding in the community. In the post natal, neonatal and children units this lesson plan will help nurses as well as student nurse to promote and initiation of exclusive breast feeding with proper techniques.

NURSING ADMINISTRATION

Now a days NHM and IMNCI giving their total concentration towards child and mothers. Nurses have become nurse administrators and supervisors in different speciality areas. To reduce mortality and morbidity rate of infant and mothers nurse administrators and nurse leaders have great role to enhancing, promoting and implementing exclusive breast feeding. Nurse administrator can take initiative role to conduct a teaching programme in the community and antenatal, children units of various hospital level on importance of exclusive breast feeding to reduce infant mortality and morbidity rate.

NURSING RESEARCH

Nursing research is always effective in care as well as teaching areas. One of the aim of nursing research is to expand and broaden the scope of nursing. The nursing person and students can use this lesson plan and study for their further research.

DELIMITATION

1. The study is delimited to antenatal primi and multi gravida mothers with 2nd & 3rd trimester .
2. The study is delimited to Mother & Child Health Centre of hospital .

RECOMMENDATION

Based on experience gained during this study and the result, the following recommendation was made:-

- The similar study may be conducted with large sample
- The study can be conducted with post natal mothers as study sample.
- A follow up study can be conducted to evaluate the lesson plan of structured teaching programme on exclusive breast feeding.

CONCLUSION

The nurses need to play an important role to proper practice of exclusive breast feeding. Though mother giving breast feeding, but due to lack of exclusive breast-feeding babies getting various Gastrointestinal as well as other diseases. Suffering from poor nutrition. Promotion of exclusive breast feeding has become one of the major responsibility of nurses to serve the better nation.

REFERENCES

1. Saunders. Manual of Pediatric Practice. 2nd ed. London; ELSEVIER; 2012. p11.
2. Ghai OP. Essential Pediatrics. 8th ed. New Delhi: CBS; 2009. p147-51.
3. Melo F. a prospective study on quality of breastfeeding preparation in the antenatal courses and to identify the other sources of breastfeeding information. pediatrics [serial on line]. 2001 October; 108(4):p67. Available from: www.pediatrics.aappublications.org/content/108/4/e67/short.
4. Dutta P. Pediatric nursing. 3rd ed. New Delhi: Jaypee Brothers; 2014. P113-34.
5. Fewtrell M et al. Optimal duration of exclusive breastfeeding: what is the evidence to support current recommendations. American journal of clinical nutrition [serial on line]. 2016 January; 103(4):p 85-88. Available from: <http://ajcn.nutrition.org/content/85/2/635s.full>.
6. Carry L, Millin D. Incidence pediatric. International Breast Feeding Journal [serial on line]. June 2001; 23(9):p121. Available from: <http://www.internationalbreastfeedingjournal.com/content/3/1/50.1>.
7. Black R, Antelman G. Exclusive Breastfeeding Reduces Acute Respiratory Infection and Diarrhea Deaths Among Infants in slum areas of Dhaka in Bangladesh. American academy of Pediatrics [serial on line]. 2010 October; 108(4):p67. Available from: paediatrics.wppublications.org/content/108/4/e67/short
8. Pushpa A, Chadurvedi D, Nand Kumar N, Banait P. assessment of knowledge and attitude regarding exclusive breast feeding. Pubmed [serial on line]. 2013 November; 422(433):p235. Available from: [http:// Online library.wiley.com/d.i/10.1111/j.1512-6909.2000](http://Online.library.wiley.com/d.i/10.1111/j.1512-6909.2000).
9. Jeewon R. importance and barriers of exclusive breastfeeding and barriers of among infants. Nursing Journal of India [serial on line]. 2014; 2(2):p23. Available from: www.foodnutritionjournal.org.
10. Callen J, Pinelli J. Incidence and Duration of exclusive breast feeding upto 6 months for term and preterm infants. Birth. [serial on line]. 2007 December; 31(4):p285-92. Available from: <http://onlinelibrary.wiley.com/d.i/10.1111/j.0730-7659.00321.x/9>.