



A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND PRACTICE REGARDING DIET DURING LACTATION AMONG LACTATING MOTHERS IN SELECTED HOSPITAL AT BANGALORE

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INTRODUCTION:

The term “maternal nutrition” focuses attention on women to the bearing and nurturing of children. At the same time women also play vital role in the families, communities and society. However the poor nutritional status of many women in the world compromises their capacity to meet the vigorous demands of their multiple roles as mothers and productive workers²

During this unique period, breast feeding mother need to take some extra care to assure that she produces and provides to her infant abundant high quality milk. When mothers are poorly nourished, the quantity of milk they produced may be reduced⁴

Increase your daily caloric intake to 2,500 calories to 2800 calories per day. The basic rule is to eat 1 gram of protein each day for every pound you weigh. Spread your caloric intake over five "meals," breakfast, lunch, after-noon snack, dinner, and an extra snack during the evening. Each snack time is also an opportunity to drink water, eat a low-fat dairy product, and a piece of fruit.⁵

Lactation represents a stage where health and nutritional status of infant is depending on the mother. Lack of sufficient food or deficiency of specific nutrition will push the women to the state of under nutrition. Thus, it is necessary to look at maternal nutrition in the broad context of women’s life circumstances⁶.

The maternal diet has significant importance during lactation the quality and quantity of milk secretion also depends on maternal diet. The quality of mother’s milk is maintained up to some extent by drawing the nutrient from her body reserves, indicating additional demand for different nutrients during lactation.⁷

Eating a healthy diet during breast feeding is important because what mothers eat determines the energy, protein, nutrient and vitamin content of breast milk. Zinc. Encouraging lactating mothers to follow dietary guidelines that promote a generous intake of nutrients.⁸

The present study is to assess the knowledge and practice of lactating mothers after conducting a teaching programme, which can serve as guideline to undertake measures to improve nutritional states of mothers can directly have an impact on the health and nutritional status of infants. The healthy practices she adopts while breast feeding will become the foundation for lifetime increased health consciousness.

NEED FOR THE STUDY:

Lactation period refers to the duration, when the mother breastfeeds her child. A diet containing adequate nutritious value is therefore particularly important and has to be different from a mother who has to feed child orally. Inadequate food intake may reduce the milk production and may even change the composition⁶

As the pregnant and lactating mother eats for two persons, the deficiencies in her diet directly affect the baby also. So the mother should be aware of the dietary habits she should adopt during the period of pregnancy and lactation⁷

There can be many misconceptions about diet that come into play about what is healthy and what is not. Sorting through information that may be coming from all different angles can be challenging, but it is important to know the facts to not only give the child what he needs, but to also enjoy the breastfeeding experience as a whole.⁹

It is observed that malnutrition and IDA are major health problems and therefore appropriate nutrition intervention package to improve the nutrition situation of mothers is recommended.¹⁰

The fact that many Indian mothers in the low income group have been observed to lose weight while lactating the baby which indicates that their calories and possibly their protein needs are not met. Thus there is a need to give special importance to the diet of lactating mothers especially in low socioeconomic groups who are the most neglected segment of our society.¹¹

Nutritional demands during lactation are high and can have a negative impact on both she and her baby, if they are not met. For the adequate daily diet her food selection and preparation should be appropriate.¹

The researcher during her clinical experience found that lactating mothers had poor knowledge and practice regarding diet during lactation period. Personal interview with the lactating mothers in various hospitals found that there was lack of knowledge and practice regarding diet during lactation period. So the investigator felt that, it is required to find out the knowledge and practice and is need to give sufficient health education regarding diet during lactation period among lactating mothers.

SAMPLING CRITERIA:

Inclusion criteria

- Mothers who are breast feeding their baby in postnatal ward.
- Mother who are willing to participate in this study.
- Mother who can understand either English or Kannada

Exclusion criteria

- Mother who are not willing to participate in this study
- Mother who are not available at the time of data collection.

CONCEPTUAL FRAMEWORK BASED ON HEALTH PROMOTION MODEL:

Theories are linked to the real world through definition that specifies how concepts will be known, experienced, observed and measured. Theories guide decision making by providing the supporting conceptualization for the study such as significance of the problem, background and problem definition or statement of the problem. Thus theory is an abstract generalization that presents a systematic explanation about the relationships among phenomena.¹⁸

Concept is defined as a complex mental formulation of an object properly event that is derived from individual perception and experience.¹⁸

Conceptual frame work is interrelated concepts or abstractions that are assembled together in some rational scheme by virtue of their relevance to common and sometimes referred to as conceptual scheme.¹⁸

The conceptual framework selected for this study is modified conceptual framework based on revised Pender's (2002) and otava charter (1986) health promotion model.

The health promotion model proposed by Pender defines health as a positive, dynamics state not merely the absence of disease. The health promotion model was designed to be a "complimentary counterpart to models of health protection" health promotion is directed at increasing a client's level of well being.

The health promotion model describes the multi dimensional nature of persons as they interact within their environment to peruse health. The model focuses on the three functions of a client's cognitive perceptual factors (individual perceptions), individual characteristics and experience and behavioural outcome.

According to this model, activity related to cognition and affect is individual's response to knowledge and practices questionnaire.

The individual characteristics are age, religion, education, occupation, monthly income, type of family, total family members and food habits. According to modern people move back and forth in a reciprocal fashion between knowledge and practices regarding diet during lactation.

The outcome shows the knowledge and practices whether it is inadequate, moderate or adequate and positive or negative respectively. Health promotion model is to bring out the awareness on adequate knowledge and practices of postnatal mothers regarding diet during lactation through the administration of structured teaching programme.

OBJECTIVE OF THE STUDY:

- To assess the existing knowledge of lactating mothers regarding diet during lactation.
- To identity the practice of lactating mothers regarding diet during lactation.
- To evaluate the effectiveness of structured teaching programme on the knowledge and practice regarding diet during lactation among lactating mothers.
- To associate the knowledge of lactating mothers regarding diet during lactation with selected demographic variables.
- To associate the practice of lactating mothers regarding diet during lactation with selected demographic variables.

METHODOLOGY:

Research methodology aims at helping the researcher to answer the research questions effectively, accurately and economically, studying how research is done scientifically.⁴⁶

This chapter deals with the description of methodology and the different steps undertaken for gathering and organizing data for investigation. It includes the researcher approach, research design, study setting, population, sample and sampling technique, data collection method, development and description of tool, validity, reliability, data collection procedure and plan for data analysis and assessing the effectiveness of STP on the knowledge and practice based on the statement and objectives of the study.

RESEARCH APPROACH:

This chapter deals with type of research approach used in the setting of the study. According to Polit and Hungler the classical approach for the conduct of evaluation research consists of four broad phases

- ✓ Determining the objective of the programme
- ✓ Developing a means for measuring the attainment of these objectives
- ✓ Data collection and interpreting data in terms of the objective

✓ In the analysis of data the difference of initial and terminal measurements represent the effect of the independent variable

In view of the nature of the problem selected for the study and objective to be accomplished, an evaluation research was considered an appropriate research approach for the present study.

RESEARCH DESIGN:

The purpose of a design is to achieve a greater control and thus improve validity of the study in examining the research problem. Design has been developed by researchers to meet unique research needs as they emerged.

The present study attempts a study to assess the effectiveness of Structured teaching programme on Knowledge and Practice regarding diet during lactation among lactating mothers in selected Hospital at Bangalore Hence in the view of the nature of the problem selected for the present study, pre-experimental one group pre test and post test design was considered as an appropriate one.

The study was conducted in selected hospital at Bangalore. This setting was chosen on the basis of investigator's feasibility, in terms of availability and accessibility of postnatal mothers.

POPULATION:

Population is defined as the entire aggregation of cases that meet a designated set of criteria (Polit and Hungler, 1999). All the lactating mothers in selected Hospital under the study area of Bangalore constitute the target population for the study.

SAMPLING:

Sampling technique: According to Polit and Hungler, sample is subset of a population selected to appropriate in a research study. The process of selecting a portion of the population to represent the entire population of the study compress of 60 lactating mothers in selected Hospital at Bangalore. The Convenient sampling technique was used.⁴⁶

Sample Size: The study originated with a sample of 60 lactating mothers as a sample size for explicating the to assess the effectiveness of structured teaching programme on Knowledge and Practice regarding diet during lactation among lactating mothers in selected Hospital at Bangalore.

DATA COLLECTION TECHNIQUE:

Methods of data collection include development of tool, testing of validity and reliability and data collection procedure. The instrument selected in research should be as far as possible the vehicle that would best obtain data for drawing conclusions, which are pertinent for the study.

A structured questionnaire was selected as appropriate method of data collection for the study. This method is applicable for lactating mothers and a good deal of information could be obtained by administering structured questionnaire to the mothers.

DEVELOPMENT OF THE TOOL:

The investigator developed the questionnaire tool used in nursing research: principle and methods, corrections were made by experts. The instrument used for data collection was structured questionnaire to assess the effectiveness of structured teaching programme on knowledge and practice regarding diet during lactation.

The structured questionnaire consisted of two parts:

Part I: This part deals with demographic characteristics of the postnatal mothers such as age, religion, food habit, total family members, education of mothers, occupation of mothers, education of husband, occupation of husband, monthly family income etc and this was not scored but used for descriptive analysis.

Part II: It consists of 30 structured questionnaires to assess the knowledge and practice of lactating mothers regarding diet during lactation. Each correct answer was given a score of one and the wrong answer was given a score of zero.

Score interpretation:

The instrument consists of 30 multiple choice questions regarding diet during lactation. The maximum score was 30 and the minimum score was 0. Based on the scoring the % of knowledge was calculated using the formula

Obtained score/ total score X 100

The scores were interpreted as follows

<50- Inadequate

51 to 75- Moderately adequate

>75- Adequate

Organization of the content of the STP:

Objectives were distributed under following learning area. The components included in the STP are.

- Introduction
- Definition.
- Diet for the breast feeding mothers
- A Healthy Breastfeeding Diet, Common Concerns
- How to get daily nutrient requirements?
- Foods to avoid during lactation.
- Five main food groups.
- Conclusion.

Development of criteria checklist:

Criteria checklist was prepared to develop STP based on the literature review and the opinion of experts. The criteria checklist consisted of statements under the board headings.

- Objectives.
- Content selection.
- Organization of content.
- Language.
- Visual images used.
- Feasibility and practicability.
- The draft of criteria checks list and STP was given to experts for validation.

RESULTS:

This chapter deals with the quantitative results of the study attempted to assess the knowledge and practice among a sample of 60 lactating mothers regarding the diet during lactation. The collected data were organized, tabulated, analyzed and interpreted by means of tables and graphs under following sections.

The data themselves do not provide us with answer to our research questions. Ordinarily, the amount of data collected in a study is too expensive to be reliably described. In order to meaningfully answer the research questions, the data must be processed and analyzed systematically.

The term analysis refers to a number of closely related operations, which are performed with the purpose of summarizing the collected data and organizing the data in such a manner that they answer the research questions.

This chapter deals with the quantitative results of the study attempted to assess the knowledge and practice regarding diet during lactation. The collected data were organized, tabulated, analyzed and interpreted by means of tables and graphs under following sections.

Section A Frequencies and Percentage Analysis

In this section the description of socio-demographic variables of the subjects are portrayed.

Section B Descriptive Analysis

In this section the descriptive statistics of knowledge and practice score of the lactating mothers before and after STP as well as the mean and SD are calculated to assess the knowledge and practice of lactating mothers regarding diet during lactation. The mean and standard deviation are calculated to assess the knowledge and practice among a sample of 60 lactating mothers.

Section C Inferential Analysis

In this section chi-square is used to find the association of selected socio demographic variables with knowledge and practice regarding diet during lactation.

Section-A Description of socio Demographic variable of lactating mothers

Distribution of the lactating mothers according to their age depicts that the higher percentage of mothers (48.33%) are the age group between 18-25 years and lowest percentage (21.67 %) are of the age group 31-35 years.

deviation of 1.89 and regarding the practice score before STP mother had a mean score of 3.87 and standard deviation of 1.24 and during post test mother had a mean score of 12.78 and standard deviation of 0.69.

Table 1: Distribution of descriptive statistics of knowledge score of the lactating mothers before and after STP

Knowledge score	Max. score	Mean	SD	Mean %
Pre-test	15	4.33	1.32	28.89
Post-test	15	11.83	1.89	78.89

In the present study during the pre-test, the mothers had a maximum mean of 4.33 with a standard deviation of 1.32 and mean percentage of 28.89 % regarding knowledge on diet during lactation. While in the post test, the lactating mother had maximum score of 11.83 with a standard deviation of 1.89 and mean percentage is 78.89%.

Table 2: Distribution of descriptive statistics of Practice score of the lactating mothers before and after STP

Knowledge score	Max. score	Mean	SD	Mean %
Pre-test	15	4.33	1.32	28.89
Post-test	15	11.83	1.89	78.89

In the present study during the pre-test, the mothers had a maximum mean of 3.87 with a standard deviation of 1.24 and mean percentage of 25.78 % regarding practice on diet during lactation. While in the post test, the lactating mother had maximum mean score of 12.78 with a standard deviation of 0.69 and mean percentage is 85.22%.

Table 3: Distribution of descriptive statistics of knowledge and practice score of the lactating mothers before and after STP

	Range	Median	Mean	SD
Pre-test knowledge score	2-7	5	4.33	1.32
Post-test knowledge score	10-15	11	11.83	1.89
Pre-test practice score	0-7	4	3.87	1.24
Post-test practice score	11-14	13	12.78	0.69

In the present study during the pre-test, the mothers had a mean of 4.33 with a standard deviation of 1.32 regarding knowledge on diet during lactation. While in the post test, the lactating mother had mean score of 11.83 with a

standard deviation of 1.89. and regarding the practice score before STP mother had a mean score of 3.87 and standard deviation of 1.24 and during post test mother had a mean score of 12.78 and standard deviation of 0.69.

Table 4: Comparison between pre and post- test results of the lactating mother's knowledge and practice regarding diet during lactation.

Score	Pre-test		Post-test		t-value	P-value	Inference
	Mean	SD	Mean	SD			
Knowledge	4.33	1.32	11.83	1.89	24.753	<0.001	HS
Practice	3.87	1.24	12.78	0.69	46.786	<0.001	HS

Score	Max. score	Pre-test		Post-test		Percentage increase
		Mean	SD	Mean	SD	
Knowledge	15	4.33	1.32	11.83	1.89	173.08
Practice	15	3.87	1.24	12.78	0.69	230.60

It is observed from the present study that the mean as well as the standard deviation of the knowledge on diet during lactation during the pretest is 4.33 and 1.32 and during the posttest it is 11.83 and 1.89. The difference in the mean knowledge score on diet during lactation is statistically highly significant (<0.001)

It is further observed that the mean as well as the standard deviation of the practices during the pretest is 3.87 and 1.24 and during posttest is 12.78 and 0.69. The difference in the mean pre and posttest knowledge is found to be highly significant (<0.001)

Main findings of the study:

Findings related to knowledge of lactating mothers

The lactating mothers were having inadequate knowledge (98.3%) on diet during lactation.

Findings related to association between knowledge and selected socio demographic variables.

It is evident from the present study that the Fisher's exact probabilities value computed for the age, religion, type of family, educational status of mother and husband, occupation of lactating mothers and husband, monthly income and total family members. With the level of knowledge is statistically not significant which indicates that there is no association between the knowledge score and the demographic variables in relation to the knowledge.

Findings related to association between practice and selected socio demographic variables

It is evident from the present study that the Chi- Square value computed for the age, type of family and husband occupation and fishers exact probabilities value computed for religion, food habits, total family members, educational status, income, type of family and occupation with the level of knowledge is statistically not significant which indicates that there is no association between the practice score and the demographic variables.

CONCLUSION

The following conclusions were drawn on the basis of the present study to assess the effectiveness of Structured teaching programme on Knowledge and Practice regarding diet during lactation among lactating mothers in selected Hospital at Bangalore. This section brings about the limitations of the study into practice. The findings of the study have several implications on nursing practice, nursing administration, nursing education and nursing research.

The study shows that the lactating mothers are having inadequate knowledge (98.3%) on diet during lactation.

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