

A Study to Assess the Effectiveness of the Planned Teaching Program On Knowledge Regarding Maternal Diet During Lactation Among Primi Lactating Mothers in Selected Community Area at Kanpur, Uttar Pradesh

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Abstract

Introduction: A crucial time in a woman's life, lactation is marked by elevated dietary and physiological needs. A nursing mother's nutritional needs significantly rise in order to satisfy the energy and micronutrient demands of producing milk.

Materials and Methods: A Quasi-experimental one-group pre-test post-test design was utilized to evaluate the effectiveness of the educational intervention. The present study was conducted to Assess the Effectiveness of Planned Teaching Program on Knowledge Regarding Maternal Diet During Lactation Among Primi Lactating Mothers in Selected Community Area at Kanpur, UP. The data collected and analysed was based on descriptive and inferential statistics. 60 samples were collected by using Non-probability purposive sampling technique. The validity and reliability of tools was established. The data was collected by using self-structured knowledge questionnaire.

Results: The result of the study showed that in pre-test 23(38.3%) primi mother had poor knowledge, 26(43.3%) primi mother had average knowledge, 11(18.4%) primi mother had good knowledge and in the post-test knowledge score 12(20%) primi mother had good knowledge, 24(40%) primi mother had good and excellent knowledge. The post-test mean score (14.87) was high when compare to the pre-test mean score (10.47). And the obtained "t" value 8.34 was greater than the value of df 59 which was $p < 0.05$ level (2.00) of significance hence the formulated research hypothesis H_1 was accepted, and the null hypothesis H_0 rejected.

Conclusion: The test revealed that there was no significant association of knowledge with selected socio-demographic variables such as age, religion, mode of delivery, dietary preference, occupation, income, type of family, previous knowledge and source of information while there was significant association with level of education were found significant at < 0.005 level of significance. Hence the research hypothesis H_2 was accepted, and H_{02} was rejected.

Keywords: Lactation; Planned Teaching Program; Primi Lactating Women; Maternal Diet; Effectiveness

Introduction

An infant's physical, mental, and immune development depends on the production of breast milk, which is supported by increased nutritional intake during lactation, a critical physiological stage in a woman's life. To sustain milk synthesis and her own health, a nursing woman needs at least 71 grams of protein and an extra 500 kcal each day. Micronutrients like calcium, iron, zinc, vitamin D, and omega-3 fatty acids are vital for both the growth of the baby and the recuperation of the mother. The food of the mother has a direct impact on the composition of breast milk, which includes proteins, lipids, carbohydrates (mostly lactose), and immune-protective components including immunoglobulins and lactoferrin. Iron, vitamin D, or DHA deficiencies in mothers can lead to less than ideal newborn growth, as well as heightened susceptibility to infections or developmental delays.

For the best lactation and to avoid maternal health problems like exhaustion or constipation, a mother must eat a balanced diet and drink at least three liters of water each day. Regretfully, a lot of primi lactating mothers—mothers who are nursing for the first time—frequently don't know enough about what they need to eat during this time. Dietary taboos and misconceptions are often fostered by hurdles such as socioeconomic limitations, cultural beliefs, and disinformation. For example, some cultures ban postpartum consumption of citrus fruits, leafy greens, or pulses because they think these foods may harm lactation or the health of the newborn.

Objectives of The Study

1. To assess the pre-test knowledge of primi lactating mothers regarding maternal diet during lactation.
2. To evaluate the effectiveness of the planned teaching program regarding maternal diet during lactation by comparing pre-test and post-test knowledge scores.
3. To determine the association between pre-test knowledge scores of primi lactating mother regarding maternal diet during lactation with their selected demographic variables.

Hypothesis

“A hypothesis is a tentative prediction or explanation of the relationship between the variable.”

- H_{01} - There is no significant difference between

pre-test and post-test knowledge score regarding maternal diet during lactation among primi lactating mothers.

- H_{02} - There is no significant association between pre-test level of knowledge on maternal diet during lactation with their selected socio demographic variables.
- H_1 – There is a significant difference between the pre-test and post-test knowledge scores of primi lactating mothers after the implementation of the planned teaching program on maternal diet during lactation.
- H_2 - There is a significant association between the pre-test knowledge scores of primi lactating mothers regarding maternal diet during lactation with their selected demographic variables.

Materials and Methods

Research Approach-

The research approach used for the present study was **Quantitative evaluative research approach.**

Research Design-The research design used in this study was Quasi-experimental, one group pre-test post-test research design.

Variables-

Independent Variable: In this study the independent variables was planned teaching program on knowledge regarding maternal diet during the lactating period.

Dependent Variable: In this study the dependent variables was knowledge scores of the participants concerning the maternal diet during lactation.

Extraneous Variable: In this study, extraneous variables were age (in year), religion, mode of delivery, dietary preferences, education, occupation, income, family type, previous knowledge and source of information.

Population-The population of present study consist of all primi lactating mothers.

Target Population-The target population of present study consist of all primi lactating mothers living selected community areas in Kanpur.

Accessible Population-All primi lactating mothers residing in the neighbourhoods of Bagdudi Bagar Mandhana in Kanpur.

Sample-The sample comprised a group of primi lactating mothers who were currently lactating, each of

whom met the established inclusion criteria and voluntarily provided their informed consent to participate in the study.

Sample Size-A total of 60 primi lactating mothers participated in the study, forming a diverse sample that reflects various backgrounds and experiences in breastfeeding.

Sampling Technique-In this study non-probability purposive sampling technique was used to select the sample.

Inclusion Criteria-

Primi lactating mother;

1. Residing in the selected community areas.
2. Who can understand and speak Hindi and English.
3. Willing to participate and available during data collection.

Exclusion Criteria-

Primi lactating mother;

1. Multi-parous mothers.
2. Mothers who attended the teaching program on maternal diet during lactation within six months of duration.

Methods of Data Collection:

1. A structured questionnaire was used to assess the knowledge of primi lactating mother regarding maternal diet during lactation in Kanpur, UP.

Development and Description of Tools Used in The Study

The tool to assess the knowledge regarding maternal diet during lactation among primi lactating mothers developed through self-structured questionnaires.

The tool consists of two sections: -

Section-A: Socio-demographic variables.

Section-B: self-structured questionnaire related to maternal diet during lactation among primi lactating mothers.

Results and Findings:

Section-I: Frequency and percentage wise distribution of demographic variables.

- Most primi mothers (41.67%) were aged 23–26 years, indicating dominantly young maternal population.
- The majority of the respondents (100%) fall within the same religion group, indicating a Hindu maternal population.
- Among all respondents (63.3%) gave birth through vaginal delivery.
- The majority of the respondents 100% had the same dietary preferences that is vegetarian diet.
- The majority of respondents (21.6%) had no formal education, emphasizing the need for literacy-independent learning tools.
- The major primi lactating mothers (40%) were housewife
- The income data showed 28.4% earned ₹20,001–₹30,000 per month.
- The major respondents (33.4%) are living in extending family.
- Some respondents (78.3%) have some previous knowledge.
- The majority of primi lactating mothers (55.3%) get information from TV/ radio/ internet.

Section-II: Table 01: Distribution of primi lactating mothers according to the pre-test and post-test level of knowledge on maternal diet during lactation.

n=60

S.No.	Level of knowledge	Pre-test		Post-test	
		F	%	F	%
1	Poor	23	38.3%	0	0
2	Average	26	43.3%	12	20%
3	Good	11	18.4%	24	40%
4	Excellent	0	0	24	40%

Section-III: Table 02: Comparison of pre-test and post-test level of knowledge regarding maternal diet during lactation among primi lactating mothers.

Test type	Mean score	Standard deviation	Mean difference	t-value	df	p-value	Result
Pre-test	10.47	4.09	4.4	8.34	59	2.00	Significant (S*)
Post-test	14.87	4.8				At the 0.05 level of significance	

The mean score before and after providing planned teaching program has shown significant difference. The mean value of pre-test was 10.47 which has been increased to 14.87 in the post test. The paired t-test value was 8.34 and it was significant at $p < 0.05$ level.

From the above inference, it is made clear that the planned teaching program had a positive impact on enhancing knowledge among primi lactating mothers regarding maternal diet during lactation. Hence H_1 was accepted and H_{01} was rejected.

Section-IV: Table 03: Association between Pre-test knowledge and selected demographic variables.

Demographic variables	Chi-square χ^2	p-value	Significance
Age	6.73	16.919	NS
Religion	0	1	NS
Mode of delivery	3.77	12.592	NS
Dietary preference	0	1	NS
Education level	20.28	16.919	S*
Occupation of mother	15.59	16.919	NS
Monthly income	4.89	16.919	NS
Type of family	5.4509	12.592	NS
Previous knowledge	5.2726	7.815	NS
Source of information	2.2949	16.919	NS

Table shows that there were no significant association with age, religion, mode of delivery, dietary preference, occupation of mother, monthly income, type of family, previous knowledge and source of information. But there was a significant association with education level of primi lactating mothers. Hence, formulated research hypothesis H_2 was accepted and null hypothesis H_{02} was rejected.

Conclusion:

Based on the findings of the study the following conclusions were drawn that the existing knowledge of mothers regarding diet during lactation were poor and average. The existing dietary practice of mothers regarding diet during lactation were inadequate and moderately adequate. The planned teaching programme had significantly increased the knowledge ('t' value 8.34) among mothers regarding diet during lactation.

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