Evaluate The Effectiveness Of Self Instructional Module On Knowledge Regarding Application Of Breast Milk To Promote Healing Of Sore Nipple Among 3rd Year Gnm Students

[1]Khuraijam Menao Devi, [2] Snehal Vishwanath Jambhulkar

[1] Professor, Head of Department of obstetrics and gynecological Nursing, Godavari College of Nursing, Jalgaon, Maharashtra University of Health Sciences Nashik, Maharashtra, India
[2]Lecturer, Godavari College of Nursing, Jalgaon, Maharashtra University of Health Sciences Nashik , Maharashtra, India

ABSTRACT

Sore nipples are a common issue that can affect people of all ages and genders. This discomfort may occur due to a variety of causes, ranging from hormonal changes and breastfeeding to friction from clothing or certain skin conditions. While sore nipples are often a temporary issue, they can sometimes indicate an underlying health problem that requires attention. In this study a) To assess the existing knowledge regarding application of breast milk to promote healing of sore nipple among 3rd year GNM students at selected nursing schools b) To evaluate the effectiveness of self instructional module on knowledge regarding application of breast milk to promote healing of sore nipple among 3rd year GNM students at selected nursing schools c) To associate the knowledge score with the selected demographic variables . A quantitative approach and a quasi experimental design one group pretest and post test design was used for the structured questionnaire was used to collect the data including demographic variable of the study participate. 100 study participate were selected by using non probability convenient sampling technique. The pre test the mean of the knowledge score obtained by 3rd year GNM students was 8.08 and post test it raises to19.06. The knowledge score of the 3rd year GNM students shows marked improvement after giving self instructional module. It is evident that the calculated 't' value is (t=10.20) greater than the table value of 't' (1.98) at 0.05 level of significance. Hence it is statistically interpreted that the self instructional module on application of breast milk to promote healing of sore nipple among 3rd year GNM students at selected nursing schools is effective.

KEYWORDS: Effectiveness, Sore nipple, 3rd year GNM students

INTRODUCTION

Breastfeeding protects against weight loss due to diarrhea, and in some studies children exclusively breastfed were shown to be less likely to be stunted. Due to its large impact on reduction of infectious diseases, breastfeeding plays a role in reduction of stunting, as infectious diseases are important determinants of stunting. However, breastfed children will still become stunted if they do not receive. an adequate quantity and quality of complementary foods from the age of six months onwards. It is needed to develop effective interventions to

improve the rates of expressed breast feeding and thus reduce infant mortality rate that is the highest in the world. Data suggest that infant mortality in developing countries is 5-10 times higher among children who have not been breastfed or who have been breastfed for less than six months

Human breast milk (HBM) is perhaps the most important functional food known. It is a dynamic food with both nutritional and health benefits for neonates and infants. Human milk has powerful immunological properties, protecting infants from respiratory diseases, middle ear infections, and gastro-intestinal diseases. It is now appreciated that human breast milk has health impacts that are lifelong, with breastfeeding showing protective effects against diabetes mellitus, obesity, hyperlipidemia, hypertension, cardiovascular diseases, autoimmunity, and asthma

Five million deaths in children younger than five years were reported globally in 2015; almost half (46%) of these occurred in the neonatal period . An even a greater number of children are affected by prematurity, malnutrition, and septicaemia, which can result in serious physical and neurological sequelae. Interventions that can be implemented at scale, starting before birth and continuing throughout the postnatal period, are needed to reduce mortality and morbidity in children and young infants . Currently, only 50% of infants in the world are breastfed during the first hour of life, and 60% are exclusively breastfed. The World Health Organization (WHO) recommends that newborns initiate breastfeeding within one hour of birth, but this recommendation is not supported by an official WHO guideline. Additional evidence is needed to inform public health investment and to facilitate the implementation of breastfeeding promotion programs

OBJECTIVES

1. To assess the existing knowledge regarding application of breast milk to promote healing of sore nipple among 3rd year GNM students at selected nursing schools
2. To evaluate the effectiveness of self instructional module on knowledge regarding application of breast milk to promote healing of sore nipple among 3rd year GNM students at selected nursing schools
3. To associate the knowledge score with the selected demographic variables

SCOPE AND METHODOLOGY

SCOPE

1. These study findings will gain the knowledge regarding application of breast milk to promote healing of sore nipple
2. This study will motivate the students about application of breast milk to promote healing of sore nipple
3. This study will help the students to give information to community, hospital and relative about the application of breast milk to promote healing of sore nipple..
4. This study will give awareness about application of breast milk to promote healing of sore nipple

METHODOLOGY

Methodology is generally a guideline system for solving a problem, with specific components such as phases, tasks, methods, techniques and tools.

RESEARCH APPROACH: In this study Quantitative approach was used.

RESEARCH DESIGN: In this study pre experimental one group pre test and post test research design is used with the objective of assessing the knowledge regarding application of breast milk to promote healing of sore nipple among 3rd year GNM students.

VARIABLES:

According to Polit and Hungler , variable is an attribute of a person or an object that varies , that it takes an different values. Two types of variable are identified in the study they are dependent variables and independent variables

DEPENDENT VARIABLE:-

In this study, dependent variable is knowledge regarding application of breast milk to promote healing of sore nipple

INDEPENDENT VARIABLE

Independent variable in this study is self instructional module

POPULATION:

Population refers to the entire aggregation of cases of all the units in which research is interested

In this study the population is all 3rd year GNM students

TARGET POPULATION:

Polit and Hungler state that the target population is the entire aggregate generalization or which represent the entire group that meets the criteria for inclusion in the study.

In this study the target population includes all the 3rd year GNM students

ACCESSIBLE POPULATION:

Accessible population refers to the portion of target population which the researcher has reasonable access.

In the present study the accessible population includes the 3rd year GNM students in nursing schools at the city.

SAMPLE:

Pilot and Hungler define the term sample as the subset of a population selected to participate in a study.

In this study the sample consist of 100 3rd year GNM Students of selected nursing schools at the city

SAMPLING TECHNIQUE.

In this study non – probability convenient sampling technique was used in which a sample is choice of investigator with regard to the characteristic required under investigation.

SAMPLE SIZE:

Sample consists of 100 3rd year GNM students in selected nursing schools at the city

SAMPLE SELECTION CRITERIA:

The sample was selected with the following set criteria:

INCLUSION CRITERIA:

3rd year GNM students who are:
- Available at the time of data collection.
- Willing to participate in the study
- Studying in selected nursing schools at the city

EXCLUSION CRITERIA:
- Not willing to participate in the study.

- who are absent during the study
- Who has undergone the same program

TOOLS PREPARATION:-

- ### DEVELOPMENT OF TOOL:-

LITERATURE REVIEW: Previous research studies from books, journals and internet were referred

EXPERTS OPINION: It was discussed with 13 experts from various fields and their valuable suggestions were incorporated in tools

TECHNIQUE

Data collection technique are based on objectives and described systematically. Questionnaire technique was used as the research tool

- ### DESCRIPTION OF TOOLS:

The investigator developed the tool necessary for the study after updating the theoretical knowledge regarding application of breast milk to promote healing of sore nipple, guidance from the experts and along with the review of literature.

SECTION A: It consist of demographic variable of the adolescent girls

1. Age
2. Religion
3. Parents education
4. Residential area.
5. Marital status
6. Previous knowledge regarding premenstrual syndrome ,if yes
7. Source of information

SECTION B: It consists of questionnaire on knowledge regarding application of breast milk to promote healing of sore nipple

Each question carries 1 mark.

Total number of questions was 30.

Total score was out of 30

Grading for knowledge score:-

Poor   - 0-6

 Good   7-12

Average   - 13-18

Excellent   - 19-24

More Excellent -   25-30

Section C: Self instructional module regarding application of breast milk to promote healing of sore nipple

Self instructional module includes the interaction between investigator and the 3rd year GNM students regarding application of breast milk to promote healing of sore nipple. It was developed and obtained by expert opinion.

PREPARATION OF BLUE PRINT:-

A blue print was prepared prior to the construction of the questionnaire which showed the distribution of the items according to the content area as well as cognitive domains.

FEASIBILITY OF THE STUDY:-

It is a small scale test to determine the feasibility of the larger study. The investigator did not find much difficulty in getting the subjects because accessible population and sample size was 100 with respect to the inclusive criteria.

PILOT STUDY:

A pilot study referred to a small scale preliminary try out of the method to be used in an actually large study, which acquaints the researcher with problems that can be corrected in proportion for the large research study or is done to provide the researcher with an opportunity to try out the procedure methods, and tools of data collection.

Pilot study was conducted from **02/12/2024 to 08/12/2024** for a period of 7 days. Samples of 10 3rd year GNM students were selected from a selected nursing school in the city. The investigator approached the sample individually, discuss the objective of study and obtain consent for participation in study.

Knowledge of 3rd year GNM students regarding application of breast milk to promote healing of sore nipple was assessed by administering the questionnaire. Self instructional module was given following the pre test. After giving the self instructional module, on seventh day, the knowledge was reassessed by post test on the same subjects. The collected data was coded, tabulated and analyzed by using descriptive statistics (mean, mean percentage, standard deviation) correlation coefficient and to find out the association between the demographic variables and knowledge scores. The data was represented in the form of tables and graphs. The data regarding knowledge of adolescent girls was analyzed statistically by using paired 't'-test. It was found to be significant at 0.05 level

RELIABILITY:-

Reliability is the degree of consistency and accuracy with which an instrument measures the attribute for which it designed to measure.

In this study, the reliability of the tool was determined by administering the questionnaire to six samples. Karl Pearson correlation coefficient formula was used for reliability. The questionnaire was said to be reliable if the correlation coefficient was more than 0.8.

The correlation coefficient 'r' of the questionnaire was 0.874, which is more than 0.8. Hence the questionnaire was found to be reliable.

VALIDITY:-

Validity refers to an instrument or test actually testing what it suppose to be testing. The tool was sent for validation to 20experts of fields of various specialty which include obstetrics and gynecology nursing, medical surgical nursing, clinical psychology, statistician, gynecology doctor. Out of which I received 13 tools after validation. The valuable suggestions of all the experts were considered and the necessary changes were made.

DATA COLLECTION METHOD:-
PROCEDURE FOR DATA COLLECTION:-
1. Permission was obtained from the principal of the school
2. Before giving the questionnaire self introduction was done by the investigator and the purpose of the study was mentioned.
3. Consent of the samples was taken.
4. Pre test was conducted by Self structured questionnaire

5. Self instructional module on knowledge regarding application of breast milk to promote healing of sore nipple
6. On the seventh day post test was taken for knowledge with the help of same self structured questionnaire.

PLAN FOR DATA ANALYSIS:-

The data analysis was planned to include descriptive and inferential Statistics. The following plan of analysis was developed with opinion of experts. The analysis was to be done based on the objectives and hypothesis to be tested. The demographic data was to be analyzed in terms of descriptive statistics.

The investigator planned to analyze the data in the following manner.

A) Demographic data to be analyzed using frequency and percentage, unpaired't' and fishers exact 'F' test presented in the form of tables and graphs.

B) Data from the questionnaire before and after the administration of self instructional module to be analyzed using frequency, percentage and paired 't'-test.

LITERATURE REVIEW

Review of the published and unpublished research and non research literature is an integral component of any scientific research. It involves a systematic identification of location, scrutiny and summary of written material that contain information regarding a research problem. It broadens the understanding and gives an insight necessary for development of a broad conceptual context into which the problem fits

The review of literature for the present study is organized under the following headings

1. Literature related to breast feeding
2. Literature related to application of breast milk to promote healing of sore nipple
3. Literature related to effectiveness of self instructional module

1. Literature related to breast feeding

Erin J Henshaw 2023 A review on Postpartum depression (PPD) and breastfeeding are important, interrelated health factors. It is established that women who breastfeed exclusively have lowered likelihood of developing significant PPD. Yet, many questions remain around what factors are involved. The purpose of this review is to provide updated information about the relationship between PPD and breastfeeding. Both psychological and physiological factors have emerged as important moderators and mechanisms of the relationship between postpartum depression and breastfeeding. Breastfeeding self-efficacy, self-compassion, and engagement with the infant during feeding all modify or mediate the relationship, and a complex dynamic relationship among cortisol, oxytocin, progesterone, and estrogen is involved. Importantly, recent intervention studies suggest psychosocial interventions may impact both breastfeeding and mood. Providers and researchers should recognize the interrelationship between the breastfeeding and PPD and apply this understanding to patient care through integrated education and care for both mood and breastfeeding enhancement

S A van Dellen 2019 A quasi-experimental design was used to compare breastfeeding duration and exclusivity in the BSP group (N = 66) to breastfeeding duration and exclusivity in a control group (N = 72). Participants who followed the BSP were provided with 6 consults delivered by a lactation consultant. The consults started during pregnancy and continued up

until 10 weeks after delivery. Participants in the control group did not follow the BSP. Pretest and posttest questionnaires were administered through the internet. A Cox proportional hazards regression analysis was used to estimate adjusted hazard ratios (HR) and 95% confidence intervals (CI) for cessation of any and exclusive breastfeeding, while controlling for differences at baseline. The effect of the BSP on survival rates for any and exclusive breastfeeding were significant while controlling for differences between the two groups at baseline (respectively HR = 0.34, p < .001 [95% CI = 0.18-0.61] and HR = 0.46, p < .001 [95% CI = 0.29-0.72]). Among mothers in the BSP group there was on average 66% less risk of cessation of any breastfeeding and on average 54% less risk of cessation of exclusive breastfeeding at any point in time compared to those in the control group

2. Literature related to application of breast milk to promote healing of sore nipple

Maryam Firouzabadi 2020 a research study was a three-group clinical trial, and sampling was conducted at Sina breastfeeding counseling center from September 2016 to March 2018 in Sirjan, Iran, using a target-based method. The sample size consisted of 150 individuals who were randomly assigned into three groups as topical use of yarrow, the mountain honey, and breast milk after obtaining the written informed consent. The correct method of breastfeeding and using materials were instructed to these three groups on the 1st, 3rd, and 7th days, where the Storr scale was completed by the researcher. Use of honey, yarrow, and breast milk can be recommended to women in breastfeeding counseling and pharmaceutical companies can be advised to use honey and yarrow in the preparation of anti-fissure creams.

Karin Cadwell, 2004 The experimental trial described in this paper randomized 94 breastfeeding women with sore nipples into three treatment groups. Midwives practicing in hospitals in Latvia assessed the participants' breastfeeding practices, then gave the mothers individualized education and corrective interventions using a guided documentation form, the Lactation Assessment Tool (LAT™). In addition, two groups were instructed to use commercial products on their breasts and nipples: breast shells and lanolin cream for one group, and glycerin gel therapy for the other. Nipple pain during breastfeeding was rated by the mothers on a 5-point verbal descriptor scale at each visit, and pain at the start of treatment was compared to pain at the last visit. Analysis of variance (using Fisher's Exact Test) determined that no significant differences existed between the groups: F(2, 86) = 1.34, p > .05. Almost all of the mothers experienced nipple healing, as assessed by the midwife. Mothers in the glycerin gel group were more satisfied with their treatment method, but this finding was not statistically significant. The results of this study indicate that effective care and perinatal education for nursing mothers with sore nipples should include assessment of breastfeeding positioning and latch-on, as well as education and corrective interventions using a guidance tool, whether or not commercial preparations are used.

Azin Niazi 2021 Asystemic review on topical treatment for the prevention and relief of nipple fissure and pain in breastfeeding women. Twenty-two out of 520 found articles were selected for the review, including non-herbal medicines (nine) and herbal products (thirteen). We studied among clinical trials regarding the effects of herbal (olive oil, Aloe vera, Calendula officinalis, jujube oil, mint, frankincense, saqez, and Portulaca oleracea) and non-herbal (lanolin, hydrogels, breast milk, and collagenase) medications on nipple pain and fissure. In twelve studies that people used breast milk to treat and prevent fissure and nipple pain, the

results showed the effectiveness of breast milk in improving and preventing fissure and nipple pain.

3. **Literature related to effectiveness of self instructional module on knowledge of application of breast milk to promote of sore nipple**

Amal F. Mohammed 2020 The study aimed to evaluate the instructional module's effectiveness on breast problems among post-cesarean section mothers. Quasi-experimental study (pre/post-test) design was used. A purposive sample of 100 women recruited in this study, which was conducted at the Postnatal Inpatient Maternity Unit & Breast-Feeding Clinic at Ain Shams University Maternity Hospital. The study utilizes six tools: A structured Arabic interview questionnaire, LATCH breastfeeding charting scale, mothers' self-care practice observational checklist, Visual Analogue Scale, Six-point breast engorgement scale, and the Nipple Trauma Score, in addition to developed supportive material (instructional module). A highly statistically significant improvement in all mothers' self-care practices in dealing with breast problems at the post and follow-up of intervention compared to pre-intervention ($P < 0.001$). The study also reveals a reduced degree of pain, breast engorgement, and nipple trauma score with highly statistically significant improvement on the total LATCH scale at the post and follow-up of intervention compared to pre-intervention ($P < 0.001$). The present study concluded that the implementation of the instructional module has improved the mothers' self-care practice and has a positive effect on alleviating breast problems among post-cesarean section mothers. The study recommended an educational program regarding breast problems and their related management should be included in routine care for post-cesarean women.

Apurva Sakharkar, 2023, The quantitative research approach with this pre - experimental study explores the effectiveness of a self - instructional booklet in enhancing antenatal mothers knowledge about postnatal breast problems and their prevention. Conducted with 80 participants in a selected hospital, the study used pre - test and post - test evaluations to measure knowledge improvement. The results indicated a significant increase in the knowledge level post - intervention, demonstrating the booklets effectiveness in maternal education. The data were collected by using Structured questionnaire and analysis were done by using SPSS 24 version 7. The comparison between the mean of pretest and post test for knowledge showed that the mean of differences was 12.32±3.63 Mean, standard deviation and mean difference values are compared and student's paired' test is applied at 5% level of significance. The tabulated value for n=80 - 1 i. e.79 degrees of freedom was 1.98. The calculated 't' value i. e.30.30 are much higher than the tabulated value at 5% level of significance for overall knowledge score of subjects which is statistically acceptable level of significance. Hence it is statistically interpreted that the self - instructional booklet on knowledge regarding postnatal breast problems and its preventive management was effective. Thus the H1 is accepted. The analysis of the study revealed that there was a significant improvement in the level of knowledge of the antenatal mother. The self instructional module proved to be effective in improving the knowledge and of antenatal mother in selected hospital

RESULTS, DISCUSSION AND FINDINGS
        SECTION I
PERCENTAGE WISE DISTRIBUTION OF 3rd YEAR GNM STUDENTS WITH REGARDS TO SELECTED DEMOGRAPHIC VARIABLES.

This section deals with distribution of 3rd year GNM students in selected schools at the city with regards to selected demographic variables. A convenient sample of 100 subjects was drawn from the study population. The data obtained to describe the sample characteristics included age, religion, parents education, Residential area, Marital status, , previous knowledge on "application of breast milk to promote healing of sore nipple" and source of information regarding application of breast milk to promote healing of sore nipple .

Table IV.1: Percentage wise distribution of 3rd year GNM students according to their demographic variables

n=100

Demographic Variables	Frequency	Percentage (%)
Age(yrs)		
18-20yrs	58	58
21-23yrs	37	37
24-26yrs	3	3
27 and above	2	3
Religion		
Hindu	65	65
Christian	3	3
Muslim	2	2
Buddhist	30	30
Others	0	0.00

Demographic variable	Frequency	Percentage (%)
Parent's Education		
Illiterate	5	5
Primary	31	31
Secondary	24	24
Higher Secondary	14	14
Graduate	26	26
PG	00	00
Residential Area		
Urban	38	38
Rural	62	62
Marital status		
Married	6	6
Unmarried	94	94
Divorced	00	00
Previous knowledge regarding premenstrual syndrome		
Yes	32	32
No	68	68
Source of information		

Mass Media	16	50
Friends	0	0
Relative and Family	6	18.7
Health Care Members	5	15.6
Others	5	15.6

- Distribution of 3rd year GNM students according to their age in years shows that maximum 58[58%] of them were in the age of18-20 years, 37[37%] in the range of 21-23 years of age, 3[3%] in the range of 24-26 years of age and 2[2%] of the samples were found in the age and 27and above

- Distribution of 3rd year GNM students according to their religion reveal that maximum 65[65%] of them were Hindu, 30[30%] were Buddhism.,3[3%] were Christian 2[2%] were Muslim. None of the samples were found in others

- Distribution of 3rd year GNM according to their parents educational status reveal that maximum 31[31%] were primary, 26[26%] were graduate, 24[24%] were secondary, 14[14%] were higher secondary, 5[5%] were illiterate. None of the samples were found in the PG

- Distribution of 3rd year GNM according to their residential area shows that maximum 62[62%] were rural and 38[38%] were from urban

- Distribution of 3rd year GNM according to their marital status shows that maximum 94[94%] were unmarried and 6[6%] were married. None of the samples were found in divorced

- Distribution of 3rd year GNM according to their previous knowledge of information maximum 68[68%] doesn't have information regarding application of breast milk for promote of healing of sore nipple and 32[32%] have the knowledge regarding application of breast milk to promote of healing of sore nipple

- Distribution of 3rd year GNM according to the source of information maximum 16[50%] were getting the information from mass media, 6[18.7%] were from relative and family, 5[15.6%] were from the health care member, 5[15.6%] were from others and non of them were from others.

SECTION II

    ASSESSMENT OF EXISTING KNOWLEDGE REGARDIING APPLICATION OF BREAST MILK TO PROMOTE OF HEALING OF SORE NIPPLE AMONG 3rd YEAR GNM STUDENTS IN SELECTED SCHOOLS AT THE CITY

This section deals with the assessment of existing knowledge regarding application of breast milk to promote of healing of sore nipple   among 3rd year GNM students in selected schools at the city. The level of knowledge is divided under following heading of poor, average, good, excellent and more excellent

PART A

Table IV 2: Assessment with existing knowledge score of samples   regarding application of breast milk to promote healing of sore nipple

n=100

Level of knowledge score	Score range	Pre Test		Mean score	SD
		Frequency	Percentage		
Poor	0-6	33	33	8.08	3.32
Average	7-12	59	59		
Good	13-18	7	7		
Excellent	19-24	1	1		
More Excellent	25-30	0	0		

in pre test 33(33%) of the 3rd year GNM were having poor level of knowledge, 59(59%) had average level of knowledge score, 7 (7%) had Good level knowledge and 1(1%) had excellent level of knowledge . The minimum score in pretest was 3 and the maximum score was 20, the mean score for the pretest was 8.08 with SD of 3.32

PART B
ASSESSMENT OF POST TEST KNOWLEDGE REGARDIING
   APPLICATION OF BREAST MILK TO PROMOTE OF HEALING OF SORE NIPPLE AMONG 3rd YEAR GNM STUDENTS IN SELECTED SCHOOLS AT THE CITY
   This part deals with the assessment of post test knowledge regarding application of breast milk to promote of healing of sore nipple among 3rd t year GNM students at selected schools of the city. The level of knowledge is divided under following heading of poor, average, good, excellent and more excellent

Table IV. 3: Post test knowledge regarding application of breast milk to promote of healing of sore nipple among 3rd year GNM students

n=100

Level of knowledge score	Score range	Post Test		Mean score	SD
		Frequency	Percentage		
Poor	0-6	0	0.00	19.06	3.92
Average	7-12	0	0.00		
Good	13-18	52	52		
Excellent	19-24	26	26		
More excellent	25-30	22	22		

The above table shows that in post test 22(22%) of the 3rd year GNM students were having very more excellent level of knowledge, 26 (26%) had excellent of knowledge. And 52(52%) had good knowledge. The minimum score in post test was 13 and the maximum score was 28, the mean score for the post test was 19.06 and SD 3.92

SECTION III

EVALUATE THE EFFECTIVENESS OF SELF INSTRUCTIONAL MODULE ON KNOWLEDGE REGARDING APPLICATION OF BREAST MILK TO PROMOTE OF HEALING OF SORE NIPPLE AMONG 3rd YEAR GNM STUDENTS IN SELECTED SCHOOLS AT THE CITY

This section deals with the effectiveness of self instructional module on knowledge regarding application of breast milk to promote of healing of sore nipple among 3rd year GNM students in selected schools at the city. The hypothesis is tested statistically with distribution of pretest and posttest mean and standard deviation and mean difference. The levels of knowledge during the pretest and post test are compared to prove the effectiveness of self instruction module. Significance of difference at 5% level of significance is tested with student paired 't' test and tabulated 't' value is compared with calculated 't' value. Also the calculated 'p' values are compared with acceptable 'p' value i.e. 0.05.

Table IV.4:   Effectiveness Of self instructional module on knowledge regarding application of breast milk to promote of healing of sore nipple

n=100

Tests	Mean	SD	't'-value	Table value	df.	p-value	Significance
Pre Test	8.08	3.32	10.20	1.98	99	0.000	Highly Significant
Post Test	19.06	3.92					

This table shows that there is a significant difference between pretest and post test knowledge scores interpreting effectiveness of self instructional module on knowledge regarding application of breast milk to promote of healing of sore nipple among 3rd year GNM students in selected schools at the city. Mean and standard deviation values are compared and student paired 't' is applied at 5% level of significance. The tabulated t-value for n=100-1 i.e 99 degrees of freedom was1.98. The calculated 't' value are 10.20 much higher than the tabulated value at 5% level of significance for all the areas of knowledge score which is statistically acceptable level of significance. Hence it is statistically interpreted that the self instructional module on knowledge regarding application of breast milk to promote of healing of sore nipple among 3rd year GNM students was effective. Thus the H_1 is accepted.

Section IV: Association of knowledge score in relation to selected demographic variable

Table 4 Association of knowledge score in relation to selected demographic variable

n=100

Demographic variables	Chi square	P value	Degree of freedom	Level of significant
Age in years	0.108	0.74	1	Not significant
Religion	4.295	0.23	3	Not significant
Parents education	8.17	0.086	4	Not significant
Residential area	3.58	0.17	2	Not significant
Marital status	0.755	0.38	1	Not significant
Previous knowledge	6.645	0.010	1	**Significant**
Source of information	1.12	0.89	4	Not significant

ASSOCIATION OF KNOWLEDGE SCORE IN RELATION TO DEMOGRAPHIC VARIABLES – PRE TEST

The chi square test was used to see association between knowledge score regarding HPV vaccine on prevention of cervical cancer among 3rd year GNM students with their selected demographic variables. The test was conducted at 5% level of significance.

Significant Association:

For demographic variable previous knowledge regarding application of breast to promote of healing of sore nipple, p value of the association test with pre knowledge was less than 0.05. That means, the knowledge regarding application of breast to promote of healing of sore nipple among 3rd year GNM students was associated with previous knowledge.

Concludes that, there was significant association of previous knowledge regarding application of breast to promote of healing of sore nipple with the pretest knowledge.

No Significant Association:

For demographic variables, age, religion, parent's education etc., p value of the association test with pre knowledge was more than 0.05. That means, the knowledge regarding application of breast to promote of healing of sore nipple among 3rd year GNM students was not associated with these demographic variables.

Concludes that, there was no significant association of these demographic variables with the pretest knowledge.

LIMITATION AND RECOMMENDATION

LIMITATION

The study is limited to the
1) 3rd year GNM students who are willing to participate in the study
2) 3rd year GNM students who are present at the time of data collection
3) 3rd year GNM students who are not participate in same study.
4) Small sample size.

RECOMMENDATION

On the basis of the findings of the study, it is recommended that the following studies can be conducted

1. A similar study can be done on a large scale to generalize the findings
2. A comparative survey study can be done to assess the incidence of selected application of breast milk to promote healing of sore nipple among postnatal mothers in an urban and rural area
3. A similar study can be undertaken on a large scale including nurses in hospitals, mothers general population, in order to estimate the level of knowledge regarding application of breast milk to promote healing of sore nipple
4. A similar study can be conducted in community with non literate group using different mode of communication and audio visual aids
5. A survey study can be done including postnatal mothers assess the knowledge of mothers about application of breast milk to promote healing of sore nipple

CONCLUSION

After the detailed analysis, this study leads to the following conclusion

The 3rd year GNM do not have 100% knowledge regarding application of breast milk to promote the healing of sore nipple. There was significant increase in the knowledge of

subjects after the introduction of self instructional module. To find the effectiveness of self instructional module paired 't' test was applied and t value was calculated, post test score significantly higher at 0.05 level than that of pre test score. Thus it was concluded that self instructional module on application of breast milk to promote healing of sore nipple was found effective as a teaching strategy

The above study shows in post test mean score 19.06. of subjects were having good and very good

There is no association of knowledge score in age, religion, parents education and residential area and there is association in the previous knowledge regarding the premenstrual syndrome and the previous knowledge

Hence, based on the above findings, it was concluded that the written prepared material by the investigator in the form of self instructional module helped the 3rd year GNM students to improve their knowledge on application of breast milk to promote sore nipple

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