"A Study To Assess The Effectiveness Of Structured Teaching Programme On Knowledge Regarding Use Of Menstrual Cup Among 1st Year Bsc Nursing Students

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ABSTRACT:
Introduction: Menstrual hygiene has a long, twisted history in India. lack of bathroom and sanitary napkin is one of the primary reasons for developing various disease. A menstrual cup can be a good solution for menstrual hygiene management is economically challenged setting as a part of real study we assessed uptake and maintenance of cup use among college girls in Nootan nursing college, visnagar.Menstrual cup is reusable, bell-shaped device made of medical grade silicone rubber, have emerged as a sustainable alternative to traditional menstrual product like tampons and pads.

Objectives:
1.to asses the knowledge regarding the use of menstrual cup among 1st year BSc nursing students of nootan college of nursing, visnagar, Gujrat by pre -test knowledge score.
2.to prepare the structured teaching programme.
3.To assess the knowledge regarding the use of menstrual cup among 1st year BSc nursing students of nootan college of nursing, visnagar, Gujarat by post -test knowledge score.
4.To assess the significance of association relationship between pre-test knowledge score and post-test knowledge score .
Methods: A pre-experimental research design was used for the study and data was collected for 60 girls by non-probability convenient sampling method, through knowledge questionnaire. Data was analysed by using descriptive and inferential statistics such as mean, standard deviation and chi square test.

Results:After the given of structured teaching programme majority of 75% of the adequate knowledge, 25% of the moderate adequate knowledge. In data analysis the mean of pre-test score was 4.95 and mean of post-test score was 17.15. The mean difference was 12.2. Post-test mean was more than pre-test mean, which indicates the effectiveness of structured teaching programme regarding knowledge on menstrual cup among students girls. The standard deviation of pre-test knowledge score was 2.8248and post-test knowledge score was 2.0560.The calculated 't' value is 25.95, the DF value was 59 and p value was 1.67 and that is significant. Calculated chi square value was significant with age and nature of menstrual flow.

Conclusions: his study findings concluded that Structured teaching programme was effective in improving knowledge regarding menstrual cup among students girls.

1. Introduction

In many countries, the concept of a transitional period between childhood and adulthood is relatively new. During this period known as Adolescence, individuals move toward physical and psychological maturity and economic independence and acquire their adult identity. In the world 1.8 billion young people in the world; approximately half of them 900million are adolescent girl.
Adolescence in girls has been recognized as a special period in their life cycle that requires specific and special attention. WHO has defined Adolescence as the period between 10 – 19 years of life. India has one of the fastest-growing youth populations in the world, with an estimated 190 million adolescent girls below 19 years

of age comprise one-quarter of India's rapidly growing population. The onset of adolescence is usually associated with the commencement of puberty and the appearance of secondary sex characteristics. It is also a formative stage in terms of sexual and reproductive maturity, which influences one's reproductive health and wellbeing throughout life. During the whole period of adolescence, Menarche is the most important event in the life of an adolescent girls.

Menstruation is a normal biological process experienced by millions of women and girls around the world each month. Menarche signifies the start of female's reproductive years and often marks her transition to full adult female status within a society.

Personal Hygiene to be followed during menstruation is to use sterile pads during the early period of heavy flow, bath daily for comfort and feel fresh, keep perineal area clean from anterior to posterior, cotton undergarments preferred. Hygiene-related practices of women during menstruation are of considerable importance, as it has a long-lasting impact on health, and if it is a negative impact, then it can cause increased vulnerability to reproductive tract infections [RTI]. The interplay of socio-economic status, menstrual hygiene practices, and RTI are noticeable. A menstrual cup is a device that is inserted into the vagina during menstruation. It acts by collecting menstrual fluid. They are usually made of flexible medical grade silicone and shaped like a bell with a stem. The stem helps for easy insertion and removal. The bell shape of the cup helps it to get sealed against the vaginal walls below the cervix. The cup has to be removed, emptied, rinsed and reinserted depending on the amount of the flow (usually every 6-12 hours).

2. Objectives

1. to assess the knowledge regarding the use of menstrual cup among 1st year BSc nursing students of nootan college of nursing, visnagar, Gujrat by pre-test knowledge score.
2. to prepare the structured teaching programme.
3. To assess the knowledge regarding the use of menstrual cup among 1 st year BSc nursing students of nootan college of nursing, visnagar, Gujarat by post -test knowledge score.
4. To assess significance of association relationship between pre test knowledge score and post test knowledge score.

3. Methods

Research methodology indicates thegeneral pattern of organizing the procedure for gathering valid and reliable data for an investigation. The content of this chapter includes research approach and its rationale, description of setting and population, sampling techniques, sample population, description of sample, tool selection, construction, description and rationale of the tool, procedure of data collection, data analysis and statistically method used

METHODOLOGY

3.1. SELECTION OF RESEARCH APPROACH

The research approach refers to the way in which the researcher plans the research process. According to the polit and Hungler (1985) research approach refers to the researcher's overall plan for obtaining answer to the question and for testing the research hypothesis.

The nature of the problem selected and objectives to be accomplished an evaluative approach was considered appropriate for the present study. This study aimed at the assess the effectiveness of structured teaching programme on knowledge regarding use of menstrual cup among women of quantitative research approach will be used in this study. Experimental method was the approach used for the study. It was considered to be the most suitable method here. Because it involved the collection of data from the representative of sample population. In the present study, phase- I includes assessing the pre-test level of knowledge of the use of menstrual cup. Phase II of the study includes administration of structured teaching programme.

3.2 RESEARCH DESIGN:

Research Design selected for the present study is pre–Experimental Design. The investigator has developed Structured Knowledge Questionnaire for evaluation of Test. The research design which was adopted for the study was diagrammed as:

"Research design is a broad framework that states the total pattern of conducting research project. It specifies objective, data collection and analysis methods, time, costs, responsibility, probable, outcomes, and action."

The study utilized pre-experimental – one group pretest posttest design to evaluate the effectiveness of

knowledge regarding menstrual cup.

Table 1 O1-X-O2

GROUP	PRE -TEST	INTERVENTION	POST-TEST
experimental	01	x	02

Pre experimental One group pre-test post-test)
In this study a one group pre-test and post-test design was used. One group pre-test post-test pre-experimental design judge the effect of the treatment by the difference between the pre-test and post-test scores.

STUDY GROUP	PRE -TEST	INTERVENTION	POST-TEST
60	Assess the level of knowledge before intervention	Structured teaching programme.	Assess the level of knowledge after intervention
	01	x	02

O1- Assess the level of knowledge before intervention X- Structure teaching programme
O2- Assess the level of knowledge after intervention

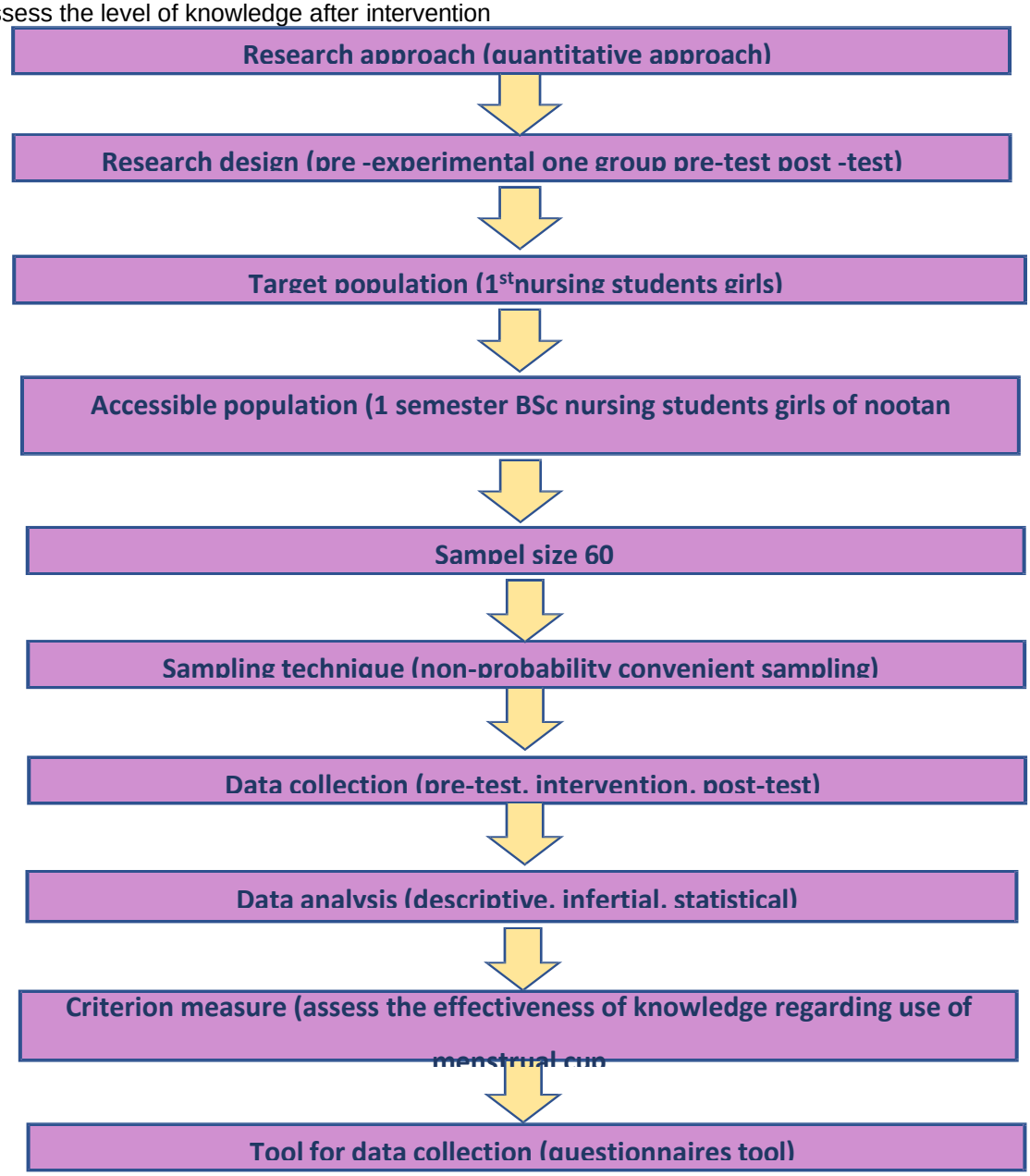

Figure: 1 Systematic arrangement of methodology

3.3 SYSTEMATIC AGGREMENT OF METHODOLOGY

The study design shows that, on the first day before Structured teaching programme pre-test was given to assess the existing level of knowledge. After the administration Structured teaching programme, the post test was conducted on the seventh day.

3.4. RESEARCH SETTING

"Setting refers to the areas where the study is conducted."
The study was conducted in selected at nootan college of nursing, Visnagar.

3.5. POPULATION

A population the totally of all subjects that conform to a set of specification, comprising the entire group of student's girls that is of interest to the researcher to whom the research result can be generalized (Polit and Hunger).
In this study the population selected for the present study comprised 60 students' girls who are studying in 2 semester BSc nursing in nootan college of nursing, Visnagar.

3.6. TARGET POPULATION

"A target population consists of the total number of people or object which is meeting the designated set of criteria.
In this study, the target population consisted of all the students' girls those studying in nootan college of nursing in Visnagar.

3.7. ACCESSIBLE POPULATION

"It is the aggregated of cases that conform to designated criteria and are accessible as subject for a study."
18-24 age group of nursing students of nootan college of nursing at visnagar taluka.

3.8. SAMPLING

"Sampling is the process of selecting a representative segment of the population under study."
The participant of present study was selected by non-probability sampling technique. It is convenience sampling technique. In which involves a selection process in which each element in the population has an equal and independent chance of being selected.

3.9 SAMPLE AND SAMPLE SIZE

Sample as a representative unit of a target population, which is to be worked upon by researchers during their study The sample size consists of 60 students of 1 semester BSc nursing were selected for pre-experimental group.

3.10. SAMPLING CRITERIA INCLUSIVE CRITERIA:

Students those who are studying in 1 semester BSc nursing in nootan college of nursing.
Students those who are willing to participate in the study. Students who are present during the time of data collection.

EXCLUSIVE CRITERIA:

Students who are not available during data collection. Students who not know Gujarati and English language.

3.11. VARAIBLE OF STUDY:

Variables are concepts at different level of abstraction that are concisely defined to promote their measurements or manipulation within study."
- Chinn and Kramer.

3.11.1INDEPENDENT VARIABLE:

"It is a stimulus or activity that is manipulated or varied by the researcher to create the effect on the dependent variable."
In this study independent variable is, structured teaching programme about use of menstrual cup.

3.11.2 DEPENDENT VARIABLE:

"The response behavior or outcome that is predicted or explained in research; changes in the dependent

variable are presumed to be caused by the independent variable"
In this study, the dependent variable is 1st year BSc nursing girls studying in Nootan college of nursing.

3.11.3 DEMOGRAPHIC VARIABLES:

The Demographic variables in my study are younger age, religion, educational qualification, monthly family income in rupees, source of information regarding menstrual cup, occupational status.

3.12. DEVELOPMENT OF THE TOOL:

A structured knowledge questionnaire was prepared to assess knowledge in students regarding use of menstrual cup.
The investigator own knowledge, own experience, theoretical knowledge and guidance from expert along with their view of literature helped in development tool for the necessary for the study. The steps carried out in preparing the tools are:
Literature review Preparation of blue print
Establishment of validity and reliability.

1. Review of Literature

Review of literature from books, journals, published and unpublished research studies were reviewed and used to develop the tool.

2. Description of The Tool

Section I: A demographic variables
Section II: knowledge questionnaire regarding use of menstrual cup.

3.13. DEVELOPMENT OF KNOWLEDGE QUESTIONNAIRE:

Structured Knowledge Questioner focused on Knowledge on use of menstrual cup. The main areas are further divided into such as Introduction, Health effects and Control and Prevention. assessing knowledge of samples by the Structured Knowledge Questionnaire paper pencil technique is going to be used.

3.14. DESCRIPITION OF THE TOOL:

The investigator reviewed related literature to describe the tool to assess the knowledge of samples of knowledge on menstrual cup.
1. Structured Knowledge Questionnaire It consists of two sections.
Section I

Deals with Demographic data of the Samples. It consists the age, religion, education status, type of the family, monthly family income in rupees, source of information and parents' occupation, marital status, place of residence, nature of menstrual flow.
Section II

Structured Knowledge Questionnaire consists of total 20 items and each item carry one mark. Maximum score of the questionnaire is 20. Every correct answer will be given a score of one and wrong answer will be given 0 score. Blue print for Structured Knowledge Questionnaire is prepared. There are total items in the content area related to knowledge regarding menstrual cup are 20 by Investigator.
Scoring and interpretation

0-7– In adequate Knowledge 8-14– Moderate Knowledge
15-20– Adequate Knowledge

3.15. VALIDITY OF THE TOOLS

The content validation of the tool was done by experts. Experts were M.Sc. Nursing in Nursing Professionals. The experts were selected on basis of their Clinical teaching experience and interest, in the problem being studied. They were requested to give their opinions and suggestions of the items of the tool.

3.16. RELIABILITY:

"Reliability is the degree of consistency and accuracy with which an instrument measures the attribute for which it is designed to measures".
The tool, after validation was subjected to test for its reliability.
Reliability analysis was done by using test re-test method to determine the significance of difference between mean pre-test knowledge score and mean post- test knowledge score. The reliability r= 0.1 which indicate that

tool was reliable.

3.17. PILOT STUDY:

"Pilot study is miniature trail run of the methodology planned for the major research study, which facilitates to improve the methodology of the study, can assess the feasibility of the study and identify the problems that may be faced by the researcher in actual large research project"

The pilot study was conducted in Nootan global school, District of Visnagar. As per laid down criteria 6 samples were selected by non-probability simple random technique, based on inclusive criteria. On the first day of the study pre-test was conducted to assess the knowledge on menstrual cup among students girls. A structured questionnaire was administered to each sample. After the knowledge regarding menstrual cup among students' girls was administered. The post-test was administered with the same questionnaire after 7 days. The finding of the pilot study was analyzed. Calculated 't' value of The pilot study helped the investigator to visualize practical problems that could be encountered while conducting the main study.

3.18. DATA COLLECTION METHOD:

A formal permission was obtained from the Nootan nursing college at Visnagar. The final study was conducted from Nootan college of nursing, visnagar. Actual data collection was done on 60 girls' students. The investigator introduced self and informed the sample about the nature of the study so as to ensure better co-operation during data collection.

The investigator approached the students' girls of met the inclusive criteria. Then the researcher approached the participants and explains the purpose of the study and how will be beneficial for them. The researcher required their willingness to participate in the study and obtain their written co-sample participate in the un sent. Further, the researcher gave questionnaire for pre-test to the study accompanied with necessary instruction regarding answering 7th day. After data gathering process, the researcher thanked all participants as well as the authorities for their co-operation.

3.19. DATA ANALYSIS PROCESS:

"The process of systematically applying statistical and logical techniques to describe, summarizes, and compares data"

Plan of data analysis:

The data obtained was analyzed in terms of achieving the objectives of the study using descriptive and inferential statistics.

Descriptive statistics: -

Frequency and percentage distribution was used to analyze the demographic variables and to assess the level of knowledge.

Mean and standard deviation was used to assess the effectiveness of structured teaching programme on the level of knowledge regarding menstrual cup.

Inferential statistics:

Paired' test was used to compare the pre and post test level of knowledge in the experimental group.

Chi-square test was used to find out the association of the post test level of knowledge in experimental group with their selected demographic variables.

CHAPTER IV
ANALYSIS AND INTERPRETATION

The main purpose of this chapter is to organize and summarize the datafor easy interpretation. This chapter deals with analysis and interpretation of the data collected during the study from sixty samples. For collecting the data, the Investigator has used Structured Knowledge Questionnaire for the assessment of knowledge Score.

Descriptive and inferential statistics were used for analysis. The data collected was analysed on the basis of objectives of the study.

Polit and Hungler (1999) described analysis as "a process of organizing and synthesizing data such a way that research question can be answered and hypotheses tested".

4.1THE OBJECTIVES OF THE STUDY WERE:

1. To assess the knowledge regarding the use of menstrual cup among 1st year B.Sc. nursing students of

nootan college of nursing, visnagar, Gujrat by pre-test knowledge score.

2. To assess the knowledge regarding the use of menstrual cup among 1st year B.Sc. nursing students of nootan college of nursing, visnagar, Gujrat by post- test knowledge score.
3. To find out the association between the post level of knowledge among 1st year B.Sc. nursing students with their selected demographic variables.
4. To assess the significance of association relationship between pre test and post test knowledge score.

4.2PLAN FOR DATA ANALYSIS

Major findings of the study are presented under following sections and heading: The obtained data are organized and presented in the following sections:

SECTION A: Analysis and Interpretation of the demographic Variables of the samples such as age, religion, program of study, study year, family type, marital status, educational qualification, type of family, monthly family income in rupees, source of information regarding cervical use of menstrual cup in terms of frequency and percentage.

SECTION B: Analysis and Interpretation of the data related to the Knowledge of the Samples on menstrual cup.

SECTION C: Analysis and Interpretation of the data related to association between knowledge scores with selected demographic variables of the samples.

SECTION D: Association between the post-test level of knowledge among 1st year B.Sc. nursing students with their selected demographic variables.

SECTION A

Description of the demographic variables of the students girls.

Table 1: frequency and percentage wise distribution of sample based on demographic variables of the sample.[N=60]

SR NO	CHARACTERISTIC S	CATEGORIE S	FREQUENC Y (F)	PERCENTAG E (%)
1	**Age :(in years)**	A) less than 19 B)19-21 year C)22-24 D)more than 24 years	45 12 03 00	75% 20% 5% 0%
2	**Religion**	A) Hindu B) Muslim C)Christian D)any other	55 05 00 00	91.67% 13.33% 0% 0%
3	**Educational status**	A) high school B) higher secondary C) under graduate D)post graduate	00 00 58 02	0% 0% 96.67% 3.33%
4	**Family type**	A) nuclear family B) joint family	44 16	73.33% 26.67%
5	**Marital status**	A) married B) unmarried	02 58	3.33% 96.67%
6	**Parents occupation**	A) medical field B) non-medical field C)unemployed	15 25 20	25% 41.67% 33.33%
7	**Place of residence**	A) urban B) rural	40 20	66.67% 33.33%

8	**Monthly family income**	A) less than 5000 B)5000-10000 C)10000-15000 D)above 15000	05 12 13 30	8.33% 20% 21.67% 50%
9	**Source of information regarding menstrual cup**	A) friends B) relatives C)health personnel D)mass media	05 03 40 12	8.33% 5% 66.67% 20%
10	**Nature of menstrual flow**	A) Heavy B) moderate C)scanty	30 25 05	50% 41.67% 8.34%

Table 2: distribution of the sample according to their age

CHARACT ERISTIC	CATEGOR Y	FREQU ENCY	PERCENT AGE
Age in year	A) less than 19 B) 19-21 year C)22-24 D)more than 24 years	45 12 03 00	75% 20% 5% 0%

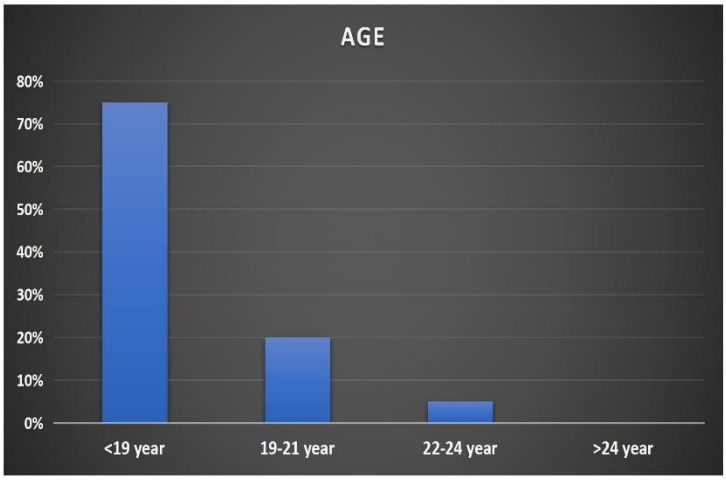

Figure 1: column shape diagram depicting percentage distribution of the sample according to their age.

The column shape diagram shows that majority (75%) of students were less than 19 years of age, (20%) of students were 19-21 years, (5%) of students were 22-24 years. (0%) were more than 24 years.

TABLE3:distribution of the sample according to their religion.

CHARACT ERISTIC	CATEGOR Y	FREQU ENCY	PERCEN TAGE
Religion	A) Hindu B) Muslim C)Christian D)anyother	55 05 00 00	91.67% 13.33% 0% 0%

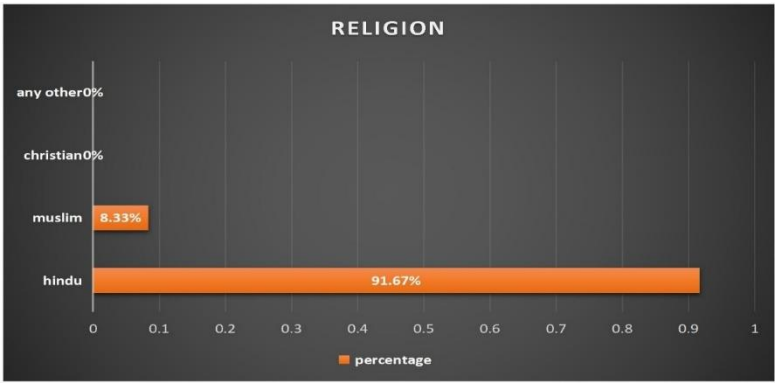

Figure2: bar shape diagram depicting percentage distribution of samples according to their religion.
Bar shape diagram shows that (91.67%) of were Hindu, (8.33%) of were Muslim, (0%) of were Christian and any other.

TABLE 4: distribution of the sample according to their education status.

CHARACTE RISTIC	CATEGOR Y	FREQU ENCY	PERCENT AGE
Educational status	A) high school B) higher secondary C) under graduate D)post graduate	00 00 58 02	0% 0% 96.67% 3.33%

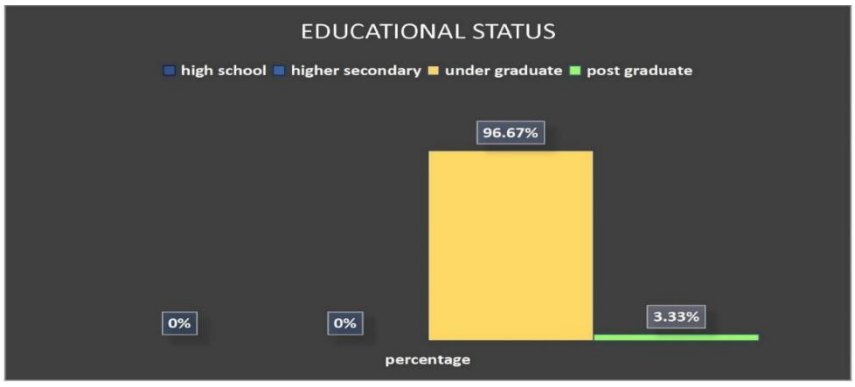

Figure 3: clustered Column shape diagram depicting percentage distribution of samples according to their educational status.
Clustered columns show that (96.67%) were under graduate, (3.33%) were post graduate. (0%) were high school and higher secondary student.

TABLE 5: distribution of the sample according to the family type.

CHARACT ERISTIC	CATEGOR Y	FREQU ENCY	PERCEN TAGE
Family type	A) nuclear family B) joint family	44 16	73.33% 26.66%

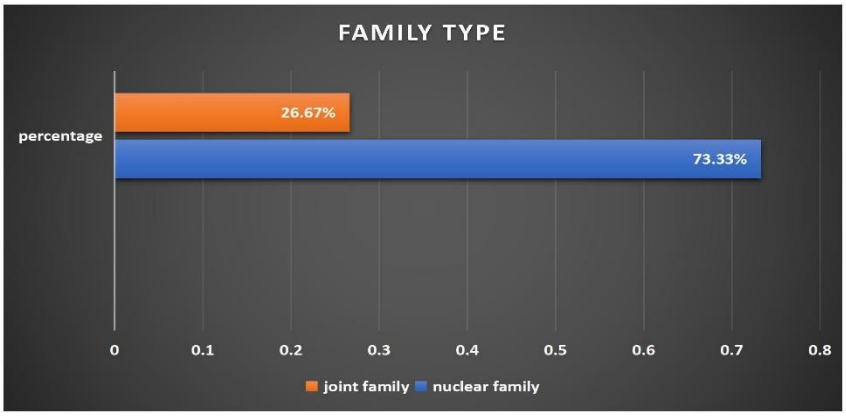

Figure 4: bar shape diagram depicting percentage distribution of samples according to their family type.

Clustered bar diagram shows that (26.67%) was joint family and (73.33%) were from nuclear family.

TABLE6: distribution of the sample according to marital status.

CHARACT ERISTIC	CATEGOR Y	FREQU ENCY	PERCEN TAGE
Marital status	A) married B) unmarried	02 58	3.33% 96.67%

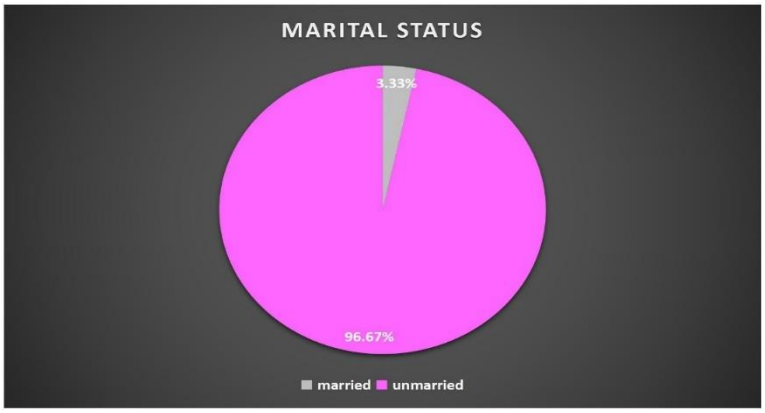

Figure 5: pie shape diagram depicting percentage distribution of samples according to their marital status.

Pie chart diagram shows that (96.67%%) were unmarried and (3.33%) were married.

TABLE 6: distribution of the sample according to parents' occupation.

CHARACT ERISTIC	CATEGOR Y	FREQU ENCY	PERCEN TAGE
Parents occupation	A) medical field B) non-medical field C)unemployed	15 25 20	25% 41.67% 33.33%

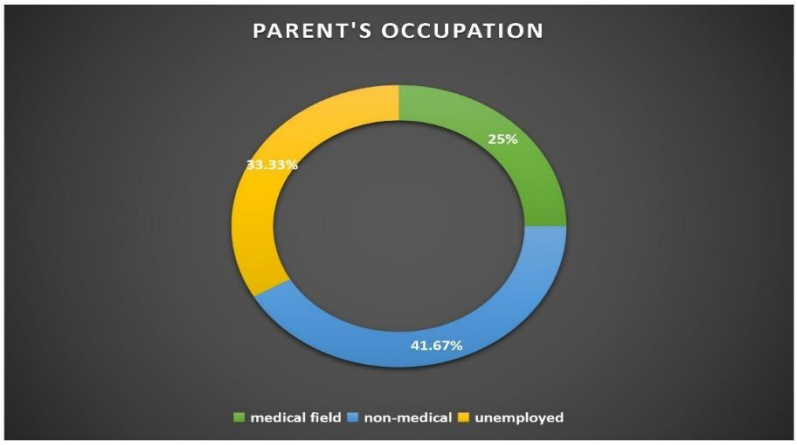

Figure 6: doughnut shape diagram depicting percentage distribution of samples according to their parents' occupation.

Doughnut shape diagram shows that (41.67%) were non-medical field, (33.33%) were unemployed (25%) were from medical field.

TABLE 7: distribution of the sample according to place of residence.

CHARACT ERISTIC	CATEGOR Y	FREQU ENCY	PERCEN TAGE
Place of residence	A) urban B) rural	40 20	66.67% 33.33%

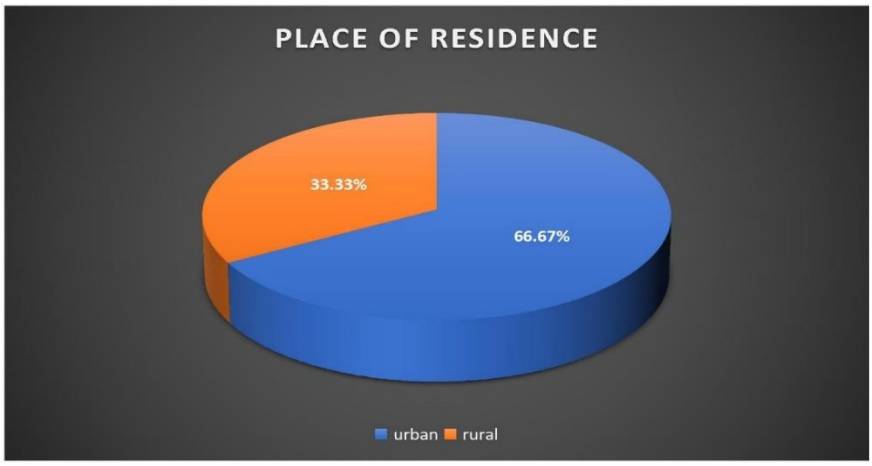

Figure 7: pie diagram depicting percentage distribution of samples according to their place of residence.

Pie shape diagram shows that (33.33%) were from rural area, (66.67%) were from urban area.

TABLE 8: distribution of the sample according to the monthly family income.

CHARACT ERISTIC	CATEGOR Y	FREQU ENCY	PERCEN TAGE
Monthly family income	A)5000rs B)5000-10000rs C) 10000-15000rs D) above 15000rs	05 12 13 30	8.33% 20% 21.67% 50%

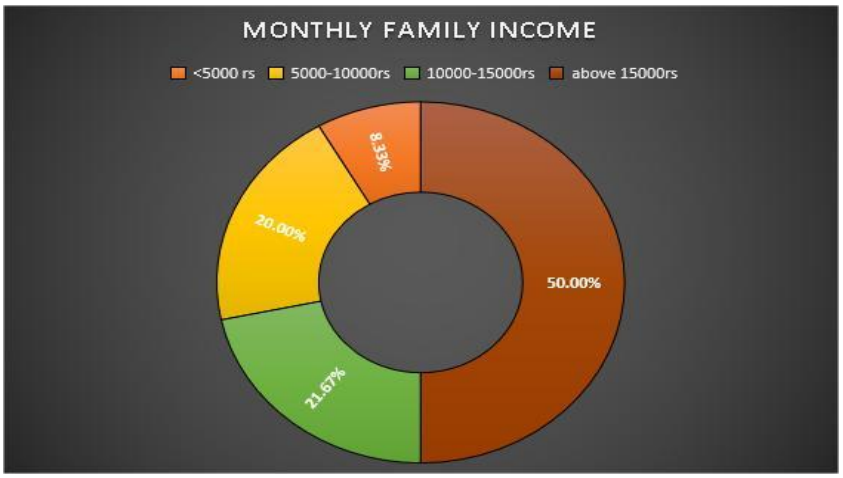

Figure 8: pie diagram depicting percentage distribution of samples according to their monthly family income.

Sunburst shape diagram shows that (50.00%) were above 15000rs, (21.67%) were between 10000-15000rs, (20.00%) were 5000-10000rs, (8.33%) were less than 5000rs.

TABLE 9: distribution of the sample according to the source of information regarding menstrual cup.

CHARACT ERISTIC	CATEGOR Y	FREQU ENCY	PERCEN TAGE
Source of informatio n	A) friends B) relatives C) health personnel D) mass media	05 03 40 12	8.33% 5% 66.67% 20%

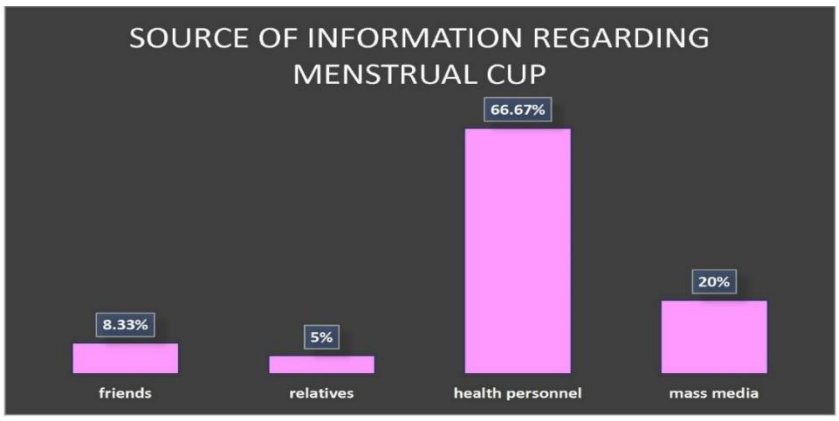

Figure 9: clustered column diagram depicting percentage distribution of samples according to their source of information.

Clustered Column diagram shows that (66.67%) were get information from health personnel, (20%) were get information from mass-media, (8.33%) were get information from friends, (5%) from relatives.

TABLE 10 :distribution of the sample according to the nature of menstrual flow.

CHARACT ERISTIC	CATEGOR Y	FREQU ENCY	PERCEN TAGE
Nature of menstrual flow	B) Heavy B) moderate C)scanty	30 25 05	50% 42% 8%

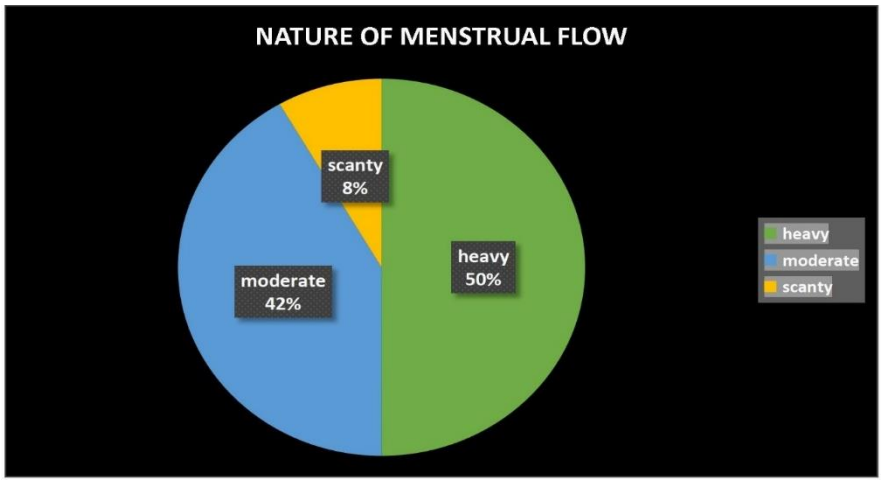

Figure 10: pie diagram depicting percentage distribution of samples according to their nature of menstrual flow.

Pie chart diagram shows that (50%) have heavy menstrual flow, (42%) were have moderate flow, (8%) have scanty.

SECTION B

Analysis &interpretation of data related to the knowledge of the sample on menstrual cup.

Table 11: frequency and percentage distribution of pre test and post test level of knowledge among students girls.

Level of knowledge	Pre test		Post test	
	F	%	F	%
Inadequate	42	70%	00	0%
Moderate	18	30%	15	25%
Adequate	00	0%	45	75%

Table 11 shows that prior to the administration of STP, in pre-test (70%) of all sample had inadequate knowledge & (30%) had moderate knowledge.In the post test was marked improvement in the level of the sample with (25%) moderate level of knowledge and (75%) adequate knowledge.

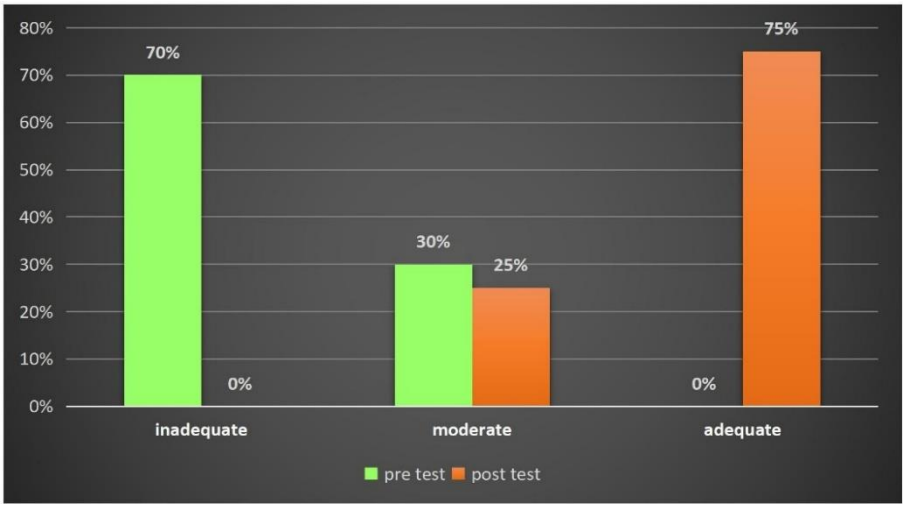

Figure 11: column shape depicting percentage of level of knowledge among selected girls.

SECTION C

Analysis &interpretation of the data related to association between knowledge scores with selected demographic variables of samples.

Table 12:mean,SD,meandifference,t value of pre-test & post-test level of knowledge of score of effectiveness of STP.

Parameter	mean	Standard deviation	Mean difference	t value	Level of significance
Pre test	4.95	2.8248	0.7688	25.95	S
Post test	17.15	2.0560			

DF= n-1= (60-1)=59

Table:12 shows that the mean of the pest test& post test was (4.95) &(17.15) and standard deviation of the pre test &post test was (2.8248) &(2.0560) .the mean difference was (0.7688).the calculated t value (25.95) greater than the table t value at the 0.05 level of significance. This showed that there was a significant difference between pre test & post test level of knowledge among students girls. Thus, it was evident that STP was effective on improving level of knowledge among students girls.

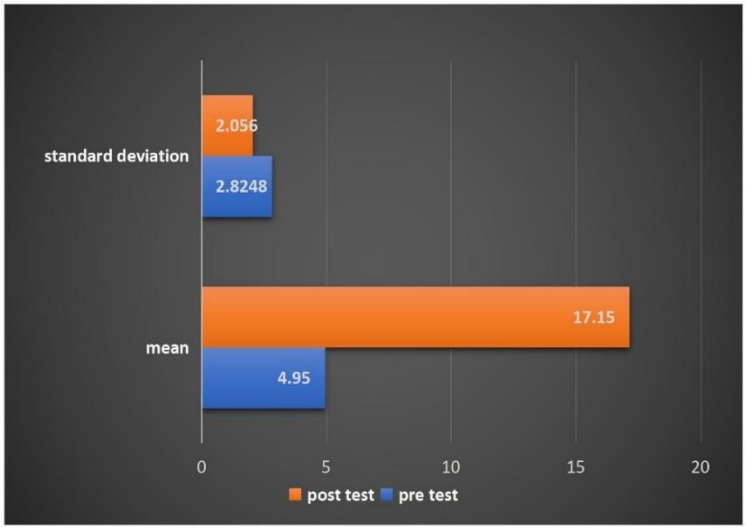

Figure 12 ;clustered diagram showing percentage distribution of the sample according to the pre test and post test level knowledge.

SECTION D

Association between the post test level of knowledge among students girls with their selected demographic variables.

Table 13: association of post test level of knowledge score among students girls with their selected demographic variables.

Variables	categorie s	frequenc y	Level of knowledge		d f	Tabl e valu e	Chi-squar e test	Significa nt
			mil d	adequat e				
Age in year	Less than 19 years	45	8	37	2	4.30	9.36	S
	19-21 year	12	7	5				
	22-24 year	03	0	3				
	Above 24 years	00	0	0				
religion	Hindu	55	13	42	1	3.84	0.65	NS
	Muslim	5	2	3				
	Christian	0	0	0				
	Any other	0	0	0				
Education al status	High school	0	0	0	1	3.84	0.68	NS
	Higher	0	0	0				

	secondar y							
	Under graduate	58	14	44				
	Post graduate	2	1	1				

Family type	Nuclear family	44	11	33	1	3.84	0	NS
	Joint family	16	4	12				
Marital status	Married	2	1	1	1	3.84	0.68	NS
	unmarried	58	14	44				
Parents occupation	Medical field	15	5	10	2	4.30	0.88	NS
	Non- medical	25	5	20				
	unemployed	20	5	15				
Place of residence	Urban	40	10	30	1	3.84	0	NS
	Rural	20	5	15				
Monthly family income	Below 5000rs	5	2	3	3	7.82	0.62	NS
	5000-10000rs	12	3	9				
	10000-15000rs	13	3	10				
	Above 15000rs	30	7	23				
Source of information regarding menstrual cup	Friends	5	0	5	3	7.82	2.22	NS
	Relatives	3	1	2				
	Health personnel	40	10	30				
	Mass media	12	4	8				
Nature of menstrual flow	Heavy	30	5	25	2	4.30	16.4	S
	moderate	25	5	20				
	Scanty	05	5	0				

NS= non-significant

TABLE 11: explain association between the post test level of knowledge among with their selected demographic variables. Chi-square analysis revealed that there was an association between the post test level of knowledge and age, nature of menstrual flow. Here, see the significant association between the post test level of knowledge among students girls with their selected demographic variables.so, accept Hypothesis 2(H2)

RESEARCH APPROACH:
This study aimed at the assess the effectiveness of structured teaching programme on knowledge regarding use of menstrual cup among women of quantitative research approach will be used in this study.

RESEARCH DESIGN:
Research Design selected for the present study is pre–Experimental Design.

RESEARCH SETTING:
The study was conducted in selected at nootan college of nursing, Visnagar.

POPULATION:
In this study the population selected for the present study comprised 60 students' girls who are studying in 1st year BSc nursing in nootan college of nursing, Visnagar.

4. Results

After the given of structured teaching programme majority of 75% of the adequate knowledge, 25% of the moderate adequate knowledge. In data analysis the mean of pre-test score was 4.95 and mean of post-test score was 17.15. The mean difference was 12.2 Post -test mean was more than pre-test mean, which indicates the effectiveness of structured teaching programme regarding knowledge on menstrual cup among students girls. The standard deviation of pre-test knowledge score was 2.8248and post-test knowledge score was 2.0560. The calculated 't' value is 25.95, the DF value was 59 and p value was 1.67 and that is significant.

Calculated chi square value was significant with age and nature of menstrual flow.

5. Discussion

From the result of the study, it was concluded that the level of knowledge is high among student girls those who are studying in Nootan college of nursing, visnagar. They require some interventions to increase the knowledge about use of Menstrual cup during menstrual cycle. Structured teaching programme is an effective intervention to increase the level of knowledge among students girls.

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