

# Effectiveness of Structured Teaching Programme on Knowledge Regarding Menstrual Hygiene among Nursing Students in Vivekananda College of Nursing, Lucknow

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## ABSTRACT

**Background:** In Indian society menstruation is considered as a physiological mechanism to all females and still it is considered to be something unhygienic and dirty. This concept is a phenomenon responsible for taboos and menstruation is considered as a natural process, it is linked with several perceptions and practices. Women have a better knowledge regarding menstrual hygiene as well as safe menstrual practices are less vulnerable to reproductive tract infections and its consequences. **Objectives:** 1. To assess the effectiveness of Structured Teaching Programme on knowledge regarding menstrual hygiene among nursing students, 2. To determine the effectiveness of Structured Teaching Programme on knowledge regarding menstrual hygiene among nursing students 3. To associate the pre-test knowledge scores with their selected socio-demographic variables. **Methodology:** A Quantitative research approach and Quasi experimental one group pre-test post-test design was used. Total Enumerative sampling technique was used to select 65 B.Sc. and GNM I year nursing students in Vivekananda College of Nursing, Lucknow. Data were analyzed by using descriptive & inferential statistics. **Results:** In pre-test majority 64.6% had inadequate knowledge, 27.7% had moderate knowledge and 7.7% had adequate knowledge regarding menstrual hygiene. In post-test majority of the nursing students 78.5% had adequate knowledge and 21.5% had moderate knowledge. Pre intervention mean knowledge score of study population was  $16.26 \pm 5.01$ . This after intervention was found to be  $23.08 \pm 3.52$ . A change of 6.82 in knowledge mean score was observed which was found to be statistically significant. The calculated “t” value 11.283 is significant level at  $p < 0.001$  level. **Conclusion:** The study concluded that Structured Teaching Programme regarding menstrual hygiene was effective.

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**KEYWORDS:** Menstrual hygiene, knowledge, infection

## 1. Background

Menstruations also known as a period or monthly regular discharge of blood and mucosal tissue in the uterus through the vagina. In the menstrual cycle, changes occur in the female reproductive system as well as other systems<sup>1</sup>. A woman's first menstruation is termed as menarche, and occurs typically around age 12-13. The ordinary age of menarche is about 12.5 years. But it is normal anywhere between ages 8 and 16. Factors such as heredity, diet and overall health can accelerate or delay menarche<sup>2</sup>. The complete cycle occurs 21 to 45 days average mostly

are 28 days. The bleeding lasts for 3 to 5 days<sup>3</sup>. The end of a woman's reproductive phase is called the menopause, which commonly occurs somewhere between the ages of 45 and 55<sup>2</sup>.

## 2. Statement of the Problem-

“Effectiveness of structured teaching programme on knowledge regarding menstrual hygiene among nursing students in Vivekananda College of Nursing, Lucknow”

### 3. OBJECTIVES:

1. To assess the existing level of knowledge regarding menstrual hygiene among nursing students.
2. To determine the effectiveness of Structured Teaching Programme on knowledge regarding menstrual hygiene among nursing students.
3. To associate the pre- test knowledge scores with their selected socio- demographic variables.

### 4. HYPOTHESIS:

**H<sub>1</sub>:** The mean post-test knowledge score is significantly higher than the mean pre-test knowledge score.

**H<sub>2</sub>:** There is a significant association between pre-test knowledge scores and their selected socio-demographic variables.

### 5. Methodology

**Research approach:** The Quantitative Research Approach has opted for the study

**Research design:** Quasi- experimental (one group pre-test post-test) research design was used for the present study.

**Setting of the study:** The present study was conducted in **Vivekananda College of Nursing, Lucknow.**

#### Research variables:

**Independent variable:** In this present study, the independent variable was “Structured Teaching Programme on Menstrual Hygiene”.

**Dependent Variables:** In this present study, the dependent variable was “Knowledge regarding Menstrual Hygiene” among Nursing Students.

#### Demographic variables: Socio demographic variables

Socio demographic variables included in this study were age, religion, type of family, area of residence, education status of mother, occupational status of mother, family income per month, source of information, nature of practice during menstruation, frequency of changing napkin per day and methods of disposal.

**Sample size:** Total sample size = **65**.

**Sampling Technique:** The sample was selected through “Total Enumerative Sampling”.

#### Criteria for Samples Selection:

**Inclusion criteria:** In this present study inclusion criteria were:-

- Nursing Students of B.Sc. Nursing I year and GNM I year in Vivekananda College of Nursing, Lucknow.

- Nursing Students who are willing to participate in this study

➤ **Exclusion criteria:** In this present study exclusion criteria were:-

- Nursing Students who are not present during the time of data collection
- Nursing Students of B.Sc. Nursing II, III, IV year and GNM II, III years.

#### Description of Tool

**Section A: Socio Demographic variable and health related variable:** it is a self-structured tool developed by the researcher under the expert guidance, which consists of total 08 items related to socio demographic data of the participants (age, religion, type of family, area of residence, education status of mother, occupational status of mother, family income per month, source of information) and 3 items related to health related data (nature of practice during menstruation, frequency of changing napkin per day and methods of disposal).

#### Section B: Self-structured knowledge questionnaire regarding menstrual hygiene:

It is a self-structured knowledge questioner developed by the researcher under the expert guidance, which consists of total 30 items related to the knowledge regarding menstrual hygiene. Questions provided were of Multiple Choice Questions and had four options and out of which only one was correct.

**Reliability:** The tool was tested for reliability by administering the self-structured knowledge questionnaire among 10 students of GNM 1<sup>st</sup> year of Krishna Nursing and Paramedical Institute, Lucknow. Split half technique was established by using the reliability of the tool. The reliability of the tool was found 0.7, which indicated that the tool was reliable.

**Data collection procedure:** After obtaining ethical approval from IEC and formal administrative permission from Vivekananda College of Nursing, Lucknow, the data was collected. The study was conducted on 65 students of B.Sc. Nursing 1<sup>st</sup> year and GNM 1<sup>st</sup> year of Vivekananda College of Nursing, Lucknow. The samples were chosen by total Enumerative sampling technique. On the 1<sup>st</sup> day pre-test was carried i.e. on 01/03/2021 to assess the knowledge of nursing students regarding menstrual hygiene by using self-structured knowledge questionnaire. A structured teaching program was given as intervention on the same day by using PPT, white board, handouts, charts, pamphlets and flash cards etc. On the 7th day i.e. 08/03/2021 a post-test was conducted using the same self-structured knowledge questionnaires to evaluate the

effectiveness of structured teaching programme on knowledge of nursing students regarding menstrual hygiene.

**Plan for data analysis:** The collected data was coded and entered into a master sheet which was tabulated using computer software. Statistical analysis was done by using the Statistical Package for the Social Science (SPSS, version 16) according to the objectives of the study. Data analysis was done by using both descriptive and inferential statistics.

**Ethical consideration:** Ethical clearance was taken from Research Committee of Vivekananda College of

## Result

Nursing, Institutional Ethical Committee of VPIMS, Lucknow and K.G.M.U University, Lucknow. Reference number: ICE/VPIMS/21/003. Written permission was obtained from the Principal, Vivekananda College of Nursing, Lucknow, where the study was conducted. The purpose of the study was explained to the concerned authorities and participants. Informed consent was obtained from the participants who enrolled to the study after explaining the purpose of the study. Confidentiality and anonymity of the participants was maintained.

Socio- Demographic Variables		Pre test						$\chi^2$ value	Df	p-value
		Inadequate		Moderate		Adequate				
		N	%	N	%	N	%			
Age in year	< 18 years	10	15.38%	2	3.07%	1	1.53%	5.903	4	0.206
	19 - 21 years	24	36.92%	15	23.07%	2	3.07%			
	>22 years	8	12.30%	1	1.53%	2	3.07%			
Religion	Hindu	42	64.61%	18	27.69%	5	7.69%	NA	-	NA
Type of Family	Nuclear family	19	29.23%	8	12.30%	3	4.61%	0.944	4	0.918
	Joint Family	22	33.84%	9	13.84%	2	3.07%			
	Extended family	1	1.53%	1	1.53%	0	0%			
Area of Residence	Urban	21	32.30%	12	18.46%	0	0%	6.986	2	0.030*
	Rural	21	32.30%	6	9.23%	5	7.69%			
Educational Status of Mother	Illiterate	5	7.69%	0	0%	0	0%	8.003	8	0.433
	Primary School	11	16.92%	3	4.61%	1	1.53%			
	High School	8	12.30%	5	7.69%	1	1.53%			
	Higher Secondary School	8	12.30%	2	3.07%	0	0%			
	Graduate	10	15.38%	8	12.30%	3	4.61%			
Occupational status of Mother	House Wife	36	55.38%	12	18.46%	2	3.07%	18.078	6	0.006*
	Private Job	0	0%	0	.0%	1	1.53%			
	Self-employed	1	1.53%	0	.0%	0	0%			
	Government Job	5	7.69%	6	9.23%	2	3.07%			
Family Income per month	<Rs. 5,000	6	9.23%	1	1.53%	0	0%	6.197	6	0.402
	Rs. 5,001- Rs. 10,000	10	15.38%	2	3.07%	0	.0%			
	Rs. 10,001 – Rs.15, 000	10	15.38%	4	6.15%	1	1.53%			
	Rs 15,001 and Above	16	24.61%	11	16.92%	4	6.15%			
Source of Information	Mother	26	40.0%	13	20.0%	2	4.61%	3.030	6	0.805
	Relatives	2	3.07%	1	1.53%	0	0%			
	Friends or Teachers	11	16.92%	3	4.61%	2	3.07%			
	Mass media	3	4.61%	1	1.53%	1	1.53%			
Nature of Practice during Menstruation	Cloth	1	1.53%	0	0%	0	0%	1.722	4	0.787
	Sanitary napkin	39	60.0%	18	27.69%	5	7.69%			
	Others	2	3.07%	0	0%	0	0%			

**PRE-INTERVENTION AND POST-INTERVENTION SCORE:-**

Frequency of changing napkin per day	Once	5	7.69%	0	0%	0	0%	3.939	4
	Twice	15	23.07%	9	13.84%	3	4.61%		
	Thrice and above	22	33.84.4%	9	13.84%	2	3.07%		
Methods of disposal	Directly burn	2	3.07%	1	1.53%	0	0%	1.165	4
	Throw outside	13	20.0%	7	10.76%	1	1.53%		
	Dumped	27	41.53%	10	15.38%	4	6.15%		

	Inadequate		Moderate		Adequate		Mean±SD	Mean Difference	“t” Value	“p” value
	N	%	N	%	N	%				
Pre- intervention	42	64.6	18	27.7	5	7.7	16.26±5.01	6.82	11.283	<0.001
Post- intervention	0	0	14	21.5	51	78.5	23.08±3.52			

Paired ‘t’ test: ‘t’= 11.283 and p<0.05

The major findings of the study are discusses as follows according to the objectives of the study and hypothesis:

**Section-I:** Frequency and percentage distribution among Nursing Students with their selected demographic variables.

**Section-II:** Assessing the existing level of knowledge (Pre-intervention) regarding Menstrual Hygiene among Nursing Students.

**Section-III:** Evaluate the effectiveness of Structured Teaching Programme regarding Menstrual Hygiene among Nursing Students.

**Section-IV:** Association between the pre-test knowledge score with their selected socio demographic variables.

**Section-I: Frequency and percentage distribution among Nursing Students with their selected demographic variable.**

Out of 65 the nursing students 63.1% were in the age group of 19-21 years, 20.0% were in the age group of < 18 year and 16.9% were in the age group of > 22 year. All the nursing students, 100% were in the Hindu religion. Most of the nursing students 50.8 % were in Joint Family, 46.2% were in Nuclear family and 3.1% were in Extended family. Majority of the nursing students 50.8% were residents of urban area and 49.2% were residents of rural area. Majority of the nursing student’s mother’s educational status 32.3% were graduate, 23.1% did primary school, 21.5% did high school,15.4% did higher secondary school and 7.7% were illiterate. Majority of the nursing student’s mother’s 76.9% were house wife, 20.0% were doing government job, 1.5% were doing private job and 1.5% was self-employed. Most of the nursing student’s family income 47.7% were >15,001 and above, 23.1% were Rs.10,001-Rs.15,000, 18.5% were Rs.5,001-Rs.10,000 and 10.8% were < Rs.5,000. Majority of the nursing student’s 63.1% were source of information is mother, 24.6% were source of information is friends or teachers, 7.7%

were source of information is mass media and 4.6% were source of information is relatives. Out of 65 nursing students, 95.4% were using Sanitary napkin, 3.1% were using others and 1.5% were using clothe. Majority of the nursing students, 50.8% were changing napkin thrice and above per day, 41.5% were changing napkin twice a day and 7.7% were changing napkin once a day. Majority of the nursing students, 63.1% were using dumped method, 32.3% were throwing outside and 4.6% were directly burn.

The above findings of the study were supported by **Nair A R. et.al (2019)** on a study to assess the knowledge regarding practices of menstrual hygiene and reproductive tract infections among school going adolescent girls. 200 adolescent school going girl students of Government Hamidia Girls School, Bhopal was selected by simple random sampling technique. Finding of the study was 78% of the girls age group between 14-16 years, 64% belonging to Hindu religion and 57.7% participant said their source of information was their mother. The result of the study showed that only 38% of the girls were aware of menstruation before menarche. 76% of the girls used sanitary pads during menstruation, only 40.5% girls were taking bath daily during menstruation and 15.50% girls were washing genital area with plain water. Thus the study concluded that the knowledge on menstruation is poor and the hygiene practiced is often suboptimal<sup>24</sup>. This finding is consistent with the others study.

**Section-II: Assessing the existing level of knowledge (Pre-intervention) regarding Menstrual Hygiene among Nursing Students.**

In this present study researcher observed that majority of the nursing students had inadequate knowledge (42) 64.6%, (18) 27.7% had moderate knowledge and (05) 7.7% had adequate knowledge regarding menstrual hygiene.

This was supported by a study conducted to assess the knowledge and practice regarding menstrual hygiene

among adolescent girls by **Mahajan A, et.al (2020)**. The study was conducted among from class 9<sup>th</sup> to 12<sup>th</sup> of Govt. Girls School in Shimla, Himachal Pradesh. The sample size was 100 adolescent girls, and the sampling technique adopted was Convenience sampling technique. The results of the study showed that 29% had adequate knowledge about menstrual hygiene and 71% had inadequate knowledge about menstrual hygiene<sup>19</sup>.

### **Section-III: Evaluate the effectiveness of Structured Teaching Programme regarding Menstrual Hygiene among Nursing Students.**

The effectiveness of Structured Teaching Programme is that, in pre-test majority 64.6% had inadequate knowledge, 27.7% had moderate knowledge and 7.7% had adequate knowledge regarding menstrual hygiene. In post-test majority of the nursing students 78.5% had adequate knowledge had 21.5% had moderate knowledge. A statistically significant change in mean knowledge score of nursing students was observed after intervention of Structured Teaching Programme. Pre intervention mean knowledge score of study population was  $16.26 \pm 5.01$ . This after intervention was found to be  $23.08 \pm 3.52$ . A change of 6.82 in knowledge mean score was observed which was found to be statistically significant. The calculated "t" value 11.283 is significant level at  $p < 0.001$  level. So it is concluded that Structured Teaching Programme regarding menstrual hygiene was effective. So the  $H_1$  is accepted.

Similar study findings observed in other study conducted by **Gaikwad JK (2018)** with the objective to assess the effectiveness of planned teaching programme on menstrual hygiene among adolescent. A total of 100 adolescents girls were selected by using simple random sampling technique. The result of the study showed that the majority of adolescents girls 72. % had inadequate knowledge, 28% had moderate level of knowledge and 0% had adequate level of knowledge regarding menstrual hygiene in pre- test, where 38% had moderate level of knowledge and 62 % had adequate level of knowledge in post- test. The result showed the enhancement of 11.07 in mean, 0.7 in standard deviation with the 'z' value of 27.55 at 0.05 level of significance. It was inferred that there was significant enhancement in knowledge score after planned teaching program<sup>41</sup>.

### **Section-IV: Association between the pre-test knowledge score with their selected socio demographic variables.**

Based on statistical analysis using Chi-square test for significant association was found only between

knowledge score with **Area of residence and Occupational status of the mother**. Whereas other socio- demographic variables like age in years, Religion, Type of family, educational status of mother, family income per month, source of information, nature of practice during menstruation, frequency of changing napkin per day and methods of disposal was found not significant.

Similar study findings observed in other study conducted by **Kaur K. et.al (2014)** on Effectiveness of Planned Teaching Programme on Knowledge Regarding Menstrual Hygiene among Adolescent Girls. 60 adolescent girls age between 10-19 years were selected by using purposive sampling technique. The result of the study showed that the subjects were having low (50%) and average (48.3%) level of knowledge during pre-test. But, after planned teaching programme session most of the subjects were having good (50%) and excellent (48.3%) level of knowledge in post-test. There was an association of knowledge level of the subjects with educational status of their mother and teacher as a source of information<sup>48</sup>. This finding is consistent with the others study.

### **Conclusion**

Menstruation is a phenomenon unique to all females. In Indian society menstruation is considered as physiological mechanism to all females and still it is considered to be something unhygienic and dirty. This concept is phenomenon is responsible for taboos and menstruation is considered as a natural process, it is linked with several perceptions and practices. The main aim of the study was to assess the effectiveness of structured teaching Programme on Knowledge regarding Menstrual Hygiene among Nursing Students.

A Quasi-experimental (one group pre-test post-test) research design design was adopted and 65 Nursing Students were selected by using Total Enumerative sampling technique that was fulfilling the inclusion and exclusion criteria. Data collection and analysis were carried out based on the objectives of the study.

The effectiveness of Structured Teaching Programme is that, in pre-test majority 64.6% had inadequate knowledge, 27.7% had moderate knowledge and 7.7% had adequate knowledge regarding menstrual hygiene. In post-test majority of the nursing students 78.5% had adequate knowledge had 21.5% had moderate knowledge. A statistically significant change in mean knowledge score of nursing students was observed after intervention of Structured Teaching Programme. Pre intervention mean knowledge score of study population was  $16.26 \pm 5.01$ . This after intervention was found to be

23.08±3.52. A change of 6.82 in knowledge mean score was observed which was found to be statistically significant. The calculated “t” value 11.283 is significant level at  $p < 0.001$  level.

Thus, it was concluded that the Structured Teaching Programme was effective in enhancing knowledge regarding menstrual hygiene among nursing students. Therefore, the study reinforces the need to organize teaching programmes which sensitize the nursing students to enhance the knowledge regarding menstrual hygiene.

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