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### RESEARCH ARTICLE

#### “A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE AND ATTITUDE REGARDING USE OF MENSTRUAL CUP”

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#### Abstract

A menstrual cup is a menstrual device which helps to maintain hygiene during menstrual cycle and it is inserted into the vagina during menstruation. The menstrual cup is a silicon product used for menstruation hygiene. Even though it is safe, environmentally friendly, affordable, and durable, its unacceptability may be related to larger adoption issues. The study is focused to assess the knowledge and Attitude regarding menstrual cups among selected female nursing students. Descriptive research methodology was adopted in this study and 150 female nursing students of Sharda University was selected in the present study. Convenience technique of sampling was adopted for the data collection. The information was gathered via knowledge Questionnaire along with 5-point Likert attitude scale used to assess the knowledge and attitude regarding use of menstrual cup. The results revealed that majority (84) of the participants (56%) average knowledge regarding menstrual cup, 53 (35%) participants had good knowledge, while 13 (8.7%) had poor knowledge amongst 150 nursing students. Whereas 0 (0%) had unfavorable attitude, 49 (32.7%) participants had neutral attitude and 101 (67.3%) participants had favorable attitude regarding the use of menstrual cup as a menstrual hygiene product. The uses of a menstrual cup for monthly hygiene management among chosen Sharda University college girls looks that it is acceptable and feasible, as it offers realistic, pocket friendly, and good for nature and environment. Young People, who tend to be more willing to embrace the idea of ecologically friendly items, should be addressed to encourage menstrual cup acceptance.

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#### Introduction:-

##### “Mensuration Cup-the sustainable and eco-friendly partner”

Menstrual cups are used to collect the menstrual fluid by inserting them into the vagina.<sup>1</sup> These cups are typically made of silicone which is very flexible and medical-grade certified and it has a hand bell shape with a long stem that helps to insert and removal very easily.<sup>2</sup> Once in place, the cup creates a seal at the vaginal walls just beneath

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the cervix, effectively collecting menstrual flow.<sup>3</sup> As per the volume of the blood loss, the menstrual cup must be withdrawn, cleared, washed and again reinserted very easily if they do in a right way (often every 6–12 hours). It can hold blood up to 10 – 38 ml of blood.<sup>4</sup>

Sanitary pads/Tampons are made using 90% of plastic and Chemical Waste Products. These Chemicals may cause Ovarian cancer, Immune System Damage, Inflammation, allergy, Rashes and Toxic Shock Syndrome. Their decomposition time ranges between 500 and 800 years. A woman, on the other hand, can use one menstrual cup for ten years. A research article published in the Indian state Mangalore, result found that while 300 which is 82% of females were aware of menstrual cup, but out of them very lesser number which is 2.6% were used them. Menstrual cups are Ecofriendly and Create Zero Waste. Menstrual cups are made of silicon and hence are safe for disposal. Menstrual cup do not expose vaginal Skin to Chemicals.<sup>5</sup>

Menstrual cups may enhance women's well-being and better in menstrual phase life, especially for working women and athletes, by increasing menstrual protection times, avoiding leaks, being suitable with work and activity, it also help to reducing the risk of TSS (toxic shock syndrome), all while safeguarding the planet through lowering the total amount of sanitary tampons and pads that must be discarded. Health during Menstruation is directly focused to sustainable development Goal (SDG) target number 6.2, which aims to achieve "adequate and equitable sanitation and hygiene for all, with special attention to the needs of women and girls." To achieve our goal, we must use reusable materials such as menstrual cups.<sup>6</sup>

The SBM-G Guidelines (Swachh Bharat Mission) include Menstrual Hygiene Management (MHM). To assist all adolescent girls and women, in December 2015 Guideline published by the Ministry of Drinking Water and Sanitation and Menstrual Hygiene Management (MHM). According to the 2019 Survey done by State of India's Environment, the MHAI (Menstrual Hygiene Alliance of India) estimates that around 336 million women in India having menstruation, only 36 percent of them using disposable sanitary napkins (121 million women in total).<sup>7</sup> According to a poll, 12% of women use sanitary napkins, while the remaining 88% employ home-based startling alternatives. According to a recent systematic review and meta-analysis on the use, acceptance, safety, and availability of menstrual cups, they are a safe choice during menstruation.<sup>8</sup>

Due to a lack of direction, most girls feel confusion, humiliation, and agony as they attempt to adjust to their monthly menstruation. It is a conventional option to alternate with pads, cloths and tampons because there are so many benefits reported as in better management of menstrual hygiene.<sup>9</sup>

In India efforts towards appropriate menstrual hygiene management are hindered by customs and taboos.<sup>10</sup> Researcher found lack of knowledge about menstrual cup among students. Hence, in this present study, the knowledge, attitudes of students were evaluated regarding menstrual cups and provided the awareness for the same.

### **Problem Statement:**

“A descriptive study to assess the knowledge and attitude regarding use of menstrual cup among selected female Nursing students of Sharda university, Greater Noida, UP”.

### **Objectives:-**

1. To assess the knowledge regarding menstrual cups among selected female nursing students of Sharda university, Greater Noida, UP.
2. To find out the attitude regarding menstrual cups among selected female.

### **Hypothesis Of The Study**

1. **H1:** There will be a significant association between knowledge score and selected demographic variable.
2. **H2:** There will be a significant association between attitude score and selected demographic variables.

### **Variables**

Two types of Variables were identified in the study which are:

#### **Study variable:**

Attitude and Knowledge regarding use of menstrual cup among selected female students of Sharda University, Greater Noida.

**Demographic variables:**

Demographic details of the selected female students are - age in years, programme of study, Year of study, religion, family type, marital status, area of residence, socio-economic status, education of mother of family, previous knowledge.

**Delimitations of Study:**

1. The present research was limited to B.Sc., GNM and Post Basic Bachelors of Science nursing students who are studying at Sharda School of Nursing Science and Research, Sharda University Greater Noida, Uttar Pradesh.
2. The sample size was limited to 150.

**Methods:-**

1. **Study design:** Non-experimental descriptive design was selected for this study.
2. **Setting:** Setting of the study was Sharda School of Nursing Science and research, Sharda University.
3. **Selection of participants:** Students of B.Sc. nursing students, GNM students and Post Basic Bachelors of Science students who are studying at SSNSR Sharda University Greater Noida, Uttar Pradesh and convenience sampling technique was used.
4. **Sample size:** There were total 150 female nursing students as sample size in this study of Sharda University, Greater Noida.

**Data Collection Tools And Techniques:**

The data collection tool consists of three sections:

**SECTION A (DEMOGRAPHIC PERFORMA):**

This section consists of age in years, programme of study, Year of study, religion, family type, marital status, area of residence, socio-economic status, education of mother of family, previous knowledge.

**SECTION B (SELF-STRUCTURED QUESTIONNAIRE):**

The self-structured knowledge-based questionnaire was constructed by the researcher. The knowledge questionnaire comprised of 12 items.

It consists of various questions regarding introduction about menstrual cup, its purpose, sterilization, duration, procedure, storage, price etc. Each item was given 1 point for the right answer and 0 points for the wrong answer. Study Participants were asked to respond to the questionnaire by providing an answer. The highest score was 12 and the lowest score was 0. The knowledge score was randomly labelled as:

1.	9-12	Good
2.	5-8	Average
3.	0-4	Poor

**Validity and Reliability-**

The tool was developed by researcher by seeing the extensive literature review and expert advice with subject matter experts. Tool Validation was done by 7 experts.

**Data Analysis Procedure-**

Data Collected by researcher is Analyzed using descriptive statistics and summarized in terms of percentage.

**Ethical Consideration**

Ethical permission required for the study obtained from the concerned authority of Sharda university, Greater Noida. Purpose was explained and both verbal and written Informed consent taken from the subject. Confidentiality was maintained. The subjects were empowered with the full autonomy to participate in the research.

**Results:-**

**Section-A:** Description of Socio demographic characteristics.

**Table 1:-** Socio-demographic characteristics' frequency and percentage distribution(n=150).

S.no.	Background variables	Frequency (n)	Percentage (%)
1	Age		

	18-20 years	84	56.0%
	21-22 years	48	32.0%
	23-24 years	11	7.3%
	25 and above	7	4.7%
<b>2</b>	<b>Program of Study</b>		
	Bachelors of Science –Nursing	62	41.3%
	Post Basic Bachelors of Science –Nursing	8	5.3%
	General Nursing and Midwifery	80	53.3%
<b>3</b>	<b>Study year</b>		
	First year	61	40.7%
	Second year	38	25.3%
	Third Year	40	26.7%
	Fourth year	11	7.3%
<b>4</b>	<b>Religion</b>		
	Hindu	111	74.0%
	Christian	20	13.3%
	Muslim	12	8.0%
	Others	7	4.7%
<b>5</b>	<b>Family Type</b>		
	Nuclear Family	103	68.7%
	Joint family	47	31.3%
<b>6</b>	<b>MARITAL STATUS</b>		
	Single	146	97.3%
	Married	4	2.7%
<b>S.no</b>	<b>Background variables</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
<b>7</b>	<b>RESIDENCE</b>		
	Rural	35	23.3%
	Urban	92	61.3%
	Semi-Rural	13	8.7%
	Semi-Urban	10	6.7%
<b>8</b>	<b>SOCIO-ECONOMIC STATUS</b>		
	<20000/month	38	25.3%
	20000-50000/month	71	47.3%
	>50000/month	41	27.3%
<b>9</b>	<b>EDU. OF MOTHER</b>		
	Graduate	73	48.7%
	Senior Secondary	43	28.7%
	Uneducated	34	22.7%
<b>10</b>	<b>PREV. KNOWLEDGE</b>		
	Yes	132	88%
	No	18	12%

#### Sociodemographic Characteristics of the Respondents-

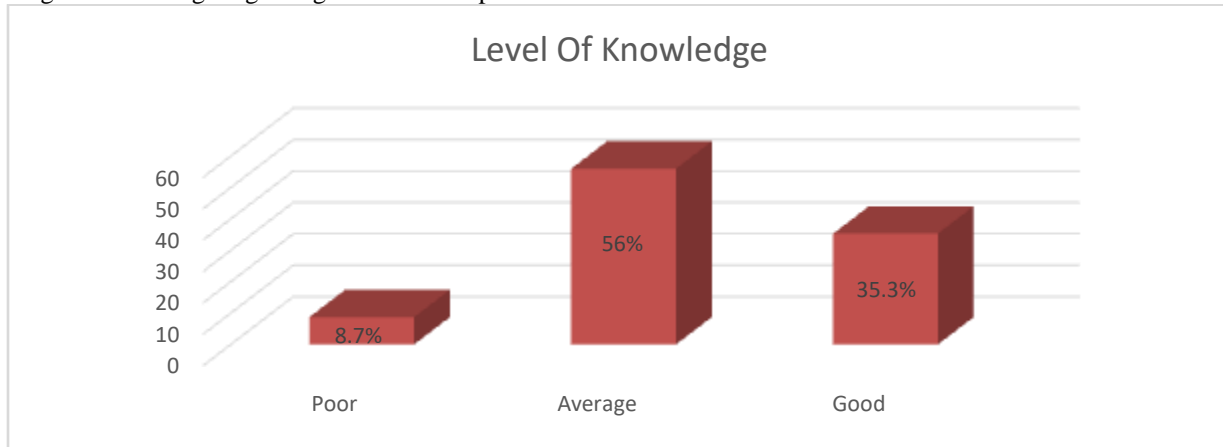
Table 1 shows that out of 150 participant's maximum samples 84 (56%) were in the age between 18-20. Majority of respondent were first year B.Sc. Nursing students 61 (40%). The data revealed that maximum participant's family type was nuclear 103 (68.7%). Only 4 (2.7%) out of 150 samples were married. Maximum participants were from urban residential area 92 (61.3%). Majority participants, education of mother was graduate 73 (48.7%). 132 (88%) participants had some previous knowledge about menstrual cup. 53 (35%) participants had good knowledge about menstrual cup, 84 (56%) had average knowledge and 13 (8.7%) had poor knowledge about menstrual cup.

**Section-B:** Analysis of knowledge regarding use of menstrual cups among female nursing students.

**Table 2:-** Assessment of knowledge level regarding menstrual cup among nursing students.

Level of knowledge	Range of Score	Frequency (n=150)	Percentage (%)
Poor	0-4	13	8.7%
Average	5-8	84	56.0%
Good	9-12	53	35.3%

**Table 2:** Projected the knowledge regarding Menstrual Cups among nursing students 8.7% (13) of the samples had poor knowledge regarding the Menstrual Cup, 56% (84) samples had average knowledge and 35.3% (53) samples had good knowledge regarding Menstrual Cups.



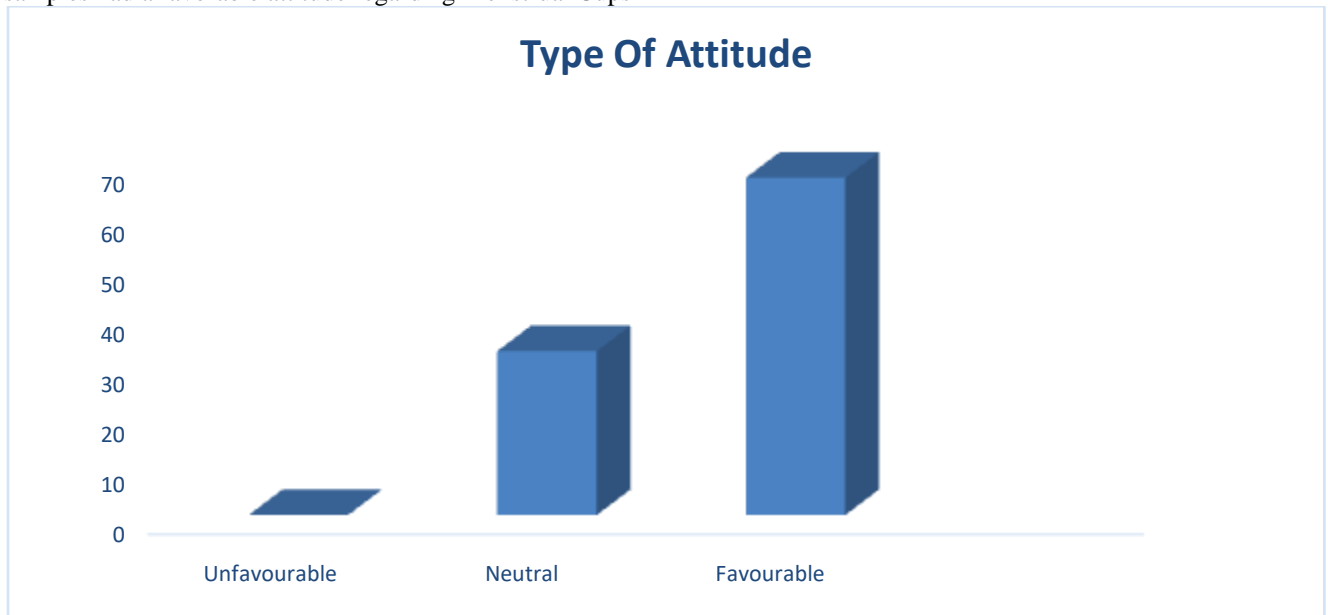
**Fig 1:-** A bar graph showing level of knowledge of sample regarding Menstrual Cups.

**Section-C:** Analysis of attitude regarding use of menstrual cups among female nursing students.

**Table 3:-** Assessment of attitude regarding menstrual cup among nursing students.

Type of attitude	Range of score	Frequency (n=150)	Percentage (%)
Unfavorable	0-15	0	0.0%
Neutral	16-30	49	32.7%
Favorable	31-45	101	67.3%

**Table 3:** Projected the knowledge regarding Menstrual Cups among nursing students 0% (0) of the samples had unfavorable attitude regarding the Menstrual Cup, 32.7% (49) samples had a neutral attitude and 67.3% (101) samples had a favorable attitude regarding Menstrual Cups



**Fig 2:-** A bar graph showing level of attitude of sample regarding Menstrual Cups.

**Discussion:-**

In the current study out of 150 participants 53 (35.5%) had good knowledge, 84 (56%) had average knowledge, 13 (8.7%) had poor knowledge regarding menstrual cup. 49 (32.7%) participants had neutral attitude and 101 (67.3%) had favorable attitude regarding menstrual cup. The study also revealed that 132 (88%) samples had previous knowledge regarding menstrual cup, while 18 (12%) participants had no previous knowledge.

**Conclusion:-**

Menstrual cups are ecofriendly, reusable and disposable. Menstrual cup is cost effective. A single purchase is valid for 6-10 years. Menstrual cup is comfortable to wear. It is leak proof and rash free. A menstrual cup can hold more blood than tampons and pads and can be worn for longer duration.

**Conflict Of Interest:**

Nil.

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