

## Original Research Article

# Effectiveness of structured teaching programme regarding knowledge about uses of menstrual cup among nursing students

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## ABSTRACT

**Background:** Menstruation is a normal biological process experienced by millions of women around the world each month. Good menstrual hygiene practices can prevent infections among women. During menstruation women are using different sanitary products like reusable cloth pads, commercial sanitary pads, tampons, pads made from wool, reusable tampons, and menstrual cups. The menstrual cup was developed as an alternative of sanitary napkins and eco-friendly sanitary product but due to lack of awareness in India it's uses are very limited.

**Methods:** Quasi experimental one group pre-test and post-test research design was used in this research study. A total 201 nursing students of were selected by using purposive sampling technique. After the pretest structured teaching programme regarding knowledge of menstrual cap uses was implemented among nursing students and on 10<sup>th</sup> day of STP post-test was done by using the same tools.

**Results:** During the pre-test researcher found that majority (81.59%) of nursing students had inadequate knowledge regarding menstrual cups uses. The mean knowledge score was significantly ( $p < 0.05$ ) increases from pre-test ( $7 \pm 3.06$ ) to post-test ( $15 \pm 2.36$ ) where mean difference was 8.

**Conclusions:** The study results highlighted that the STP was highly effective in increase the knowledge among nursing students. Educational intervention programs must give importance in Professional Institutions, which will motivate female's students to start practice of menstrual cups during menstruation. This is eco-friendly initiative.

**Keywords:** Knowledge, Menstrual cups, Nursing students

## INTRODUCTION

Menstruation is a normal physiological process which begins at 11 to 15 years of age.<sup>1</sup> Women are using reusable cloth pads, commercial sanitary pads, tampons, and menstrual cups during menstruation. Sanitary pads and tampons are expensive, non-reusable and not environmentally friendly. Pads and tampons are mostly made of synthetic material like rayon, it's effects have on the human body are much more severe than just superficial irritation and allergy.<sup>2,3</sup>

Socio-culturally based research study find different myths and misconceptions related to menstruation.<sup>4</sup> In lower and middle-income countries, because of social issues and lack of guidance maximum of the girls experience fear, confusion, shame, and discomfort while they try to be habitual to their monthly period.<sup>5</sup> Research study highlight that in India, 62% of the young women in the age group of 15-24 years still using clothes for their menstrual protection. Approximately, 43% to 88% of the women still wash their cotton cloths and reuse them instead of using disposable pads.<sup>6</sup> Sanitary pads and

napkins are the most common practices, but they require hygienic practices; otherwise, they may cause the highest risk of reproductive tract infections among girls. The girl's stigma related to menstruation is quite worrying but by providing proper menstrual hygiene knowledge stigma will gradually reduce.<sup>7</sup>

Menstrual hygiene management play an important role in the health of young women and girl's that can prevent infection and help to stay comfortable during period.<sup>8</sup> The research study result shows that incidence of reproductive tract infection can be reduce by good menstrual hygiene like use of sanitary absorbents devices.<sup>9</sup> There are different method for menstrual hygiene management but menstrual cup is new technology which is a bell-shaped device made of high-grade medical silicon rubber. This is reusable and environmentally friendly.<sup>10</sup> Menstrual cups uses were limited in India because of lack of awareness and popularity of sanitary pads. National Family Health Survey data highlight in India only 0.3% women aged 15-24 use menstrual cups and 64.4% using sanitary napkins.<sup>11</sup>

The aim of the study was to assess the pre-test knowledge regarding menstrual cup uses among nursing students, to assess the post-test knowledge regarding menstrual cup uses among nursing students and to compare the mean pre-test and post-test knowledge scores regarding menstrual cup usage among nursing students.

## METHODS

A quantitative research approach with pre experimental (one group pre-test and post-test) design was done at Adichunchanagiri college of Nursing, Mandya District, Karnataka. Total 201 B.Sc. Nursing students were selected by purposive sampling technique. Research data was collected from June 2023 to July 2023 by structured multiple choice questions. Researcher obtained written permission from the Principal, Adichunchanagiri College of Nursing. A written informed consent was taken separately from each nursing student. The data analysed was done by using descriptive (frequency and percentage) as well as inferential statistics (paired 't' test & chi-square test).

### Inclusion criteria

B.Sc. Nursing students who studied at Adichunchanagiri College of Nursing were included.

### Exclusion criteria

B.Sc. nursing students who were not willing to participate in research study were excluded.

## RESULTS

Table 1 highlight that 35.82% of students belongs to the age group of 21 years, 89.05% students belong to nuclear

family, 51.74% of student's mothers were higher secondary educated. 80% of student's mothers were housewife. More than half (57.7%) of students have basic information about menstrual cup but very less (9.4%) students were using menstrual caps.

**Table 1: Demographic characteristics of nursing students by frequency and percentages, n=201.**

Demographical variables	N	%
<b>Age in year</b>		
18	16	7.9
19	56	27.8
20	57	28.3
21	72	35.8
<b>Type of family</b>		
Joint	22	11
Nuclear	179	89
<b>Monthly family income (Rs)</b>		
5000/-	23	11.4
5001 to 10000	44	21.8
10001 to 20000	66	32.8
20001 and above	68	33.8
<b>Mothers education</b>		
Formal education	8	3.9
Primary/middle school	23	11.4
High school	66	32.8
PU and above	104	51.7
<b>Mothers occupation</b>		
Housewife	161	80
Government job	35	17.4
Private job	5	2.4
<b>You have information about menstrual cap</b>		
Yes	116	57.7
No	85	42.2
<b>Have you used menstrual cup?</b>		
Yes	19	9.4
No	182	90.5

**Table 2: Pre-test knowledge score of nursing students regarding menstrual caps, n=201.**

Level of knowledge	N	%
Inadequate (<50%)	164	81.59
Moderate (50-75%)	34	16.91
Adequate (>75%)	3	1.49

**Table 3: Knowledge score in post-test of nursing students regarding menstrual cup, n=201.**

Level of knowledge	N	%
Inadequate (<50%)	3	1.49
Moderate (50-75%)	71	35.32
Adequate (>75%)	127	63.18

Table 2 shows that in pre-test 81.59% students had inadequate knowledge only few students (1.49%) had adequate knowledge regarding menstrual cup usage before administrating of structure teaching programme.

Table 3 highlight that after administration of structure teaching programme students had upgrade knowledge

regarding usages of menstrual cup during menstruation period. In post test result 127 (63.18%) students had adequate knowledge and only 3 (1.49%) had inadequate.

Table 4 show total difference in the mean knowledge score was 8 at the level of  $p < 0.05$ . It means there was significant improvement in knowledge of students regarding menstrual cup usage.

**Table 4: Effectiveness of structured teaching programme regarding menstrual cup usage of nursing students, (n=201).**

Knowledge score	Mean±SD	Mean difference	Mean percentage	t value	P value
Pre-test	7±3.06	8	35	34.5	<0.05
Post-test	15±2.36		75		

## DISCUSSION

In demographic data of study it was found that maximum students were in 19 year to 21 years of age group, 57.7% of students had basic information about menstrual cup but very less (9.4%) students were using menstrual caps. The demographic data was supported by research study conducted by Ms. Meghana S and Ms. Gomathy E, they found that 48.3% of the study participants reported that they have average knowledge about the menstrual cup.<sup>12</sup>

Researcher find in pre-test students have low percentage (1.49%) of knowledge about uses of menstrual cup. This finding was supported by other study in which the study participants had very low percentage (5.8%) of good knowledge about the menstrual cup.<sup>12</sup> The finding of present study highlighted that mean post-test knowledge score was significantly higher (15±2.36) than pre-test knowledge score (7±3.06). These finding show that structured teaching programme was effective method for upgrading practice of menstrual cup among girls. Similar non-randomised cross-sectional study was conducted among medical professionals in Kerala regarding awareness among women on menstrual cups; researcher found that only (20.7%) women started using the menstrual cup.<sup>13</sup> The similar research conducted by Sweatha and Amritha in South India it was reported that though 82% of the medical and paramedical students have good knowledge about the menstrual cup, only 6% students had used it.<sup>10</sup>

## CONCLUSION

Menstrual hygiene is very important aspect for upgrading the standards of health among females. Menstrual cup is a new technology to manage and maintain menstrual hygiene among the females, which can replace the traditional methods of menstrual sanitation. Therefore, it is very important to provide correct information to the girls regarding menstrual cup and its effectiveness. Hence structured teaching program is the key intervention to improve the appropriate knowledge and practice of professional college students regarding menstrual cup.

## Recommendations

The study recommends future studies to be conducted on large number of professional girl's students for increasing correct knowledge regarding uses of menstrual cups which help more utilization of menstrual cups and prevent environmental pollutions.

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