

A STUDY ABOUT KNOWLEDGE, AWARENESS AND PRACTICE ABOUT MENSTRUAL CUP AMONGST THE REPRODUCTIVE AGED FEMALE STAFF OF A TERTIARY CARE HOSPITAL

Shivani Kaushik¹, Paridhi Garg², Himanshu Agrawal³

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Corresponding Author:

Dr. Shivani Kaushik,
Email: drkaushikshivani@gmail.com.

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¹Post Graduate Resident, Department of Obstetrics & Gynecology, Rama Medical College, Hospital & Research Centre, Hapur, Uttar Pradesh, India.

²Associate Professor, Department of Obstetrics & Gynecology, Rama Medical College, Hospital & Research Centre, Hapur, Uttar Pradesh, India.

³Assistant Professor, Department of Pharmacology, GS Medical College, Hapur, Uttar Pradesh, India.

Abstract

Background: Menstruation is a normal biological process experienced by millions of women and girls around the world each month. Among most of the menstrual hygiene management products available, disposal is a common problem faced globally. Instead of using sanitary pads, we can encourage females to use menstrual cup, which have been available for decades, but still their use is limited. **Materials and Methods:** This study was a descriptive cross-sectional study conducted at Rama Medical College, Hospital and Research Centre, Hapur. The data was collected from the selected eligible participants using a pre-structured questionnaire. **Results:** A total 185 females were included in this study. The maximum of the participants was in the age group of 21-30 years (77.8%). Among them, 96.8% of the study participants were aware of the menstrual cup. When asked about sanitary protection they are using, 85.9% reported that they are still using sanitary pad, while 11.4% of the study population is using menstrual cup and 0.3% using tampons. 33.5% of the study participants were willing to use menstrual cup if made available. **Conclusion:** Despite the limitations of this study due to the small sample size, the knowledge, attitude and acceptance for the use of menstrual cups among the educated groups was well appreciated. When a comparison is done between willingness to use menstrual cup and its actual use, a huge gap is seen.

INTRODUCTION

Menstruation is a normal biological process experienced by millions of women and girls around the world each month.^[1-4] Women in India consider the topic of menstrual hygiene as taboo and hesitate to discuss about their experiences. The average period lasts 3-7 days per month, 6.25 years (2280 days) over a lifetime in women aged 13-51 years who menstruate. During that time, over 10,000 tampons and pads are used once and are disposed in open, which is not eco-friendly. Menstruation is often taken for granted in many countries, therefore it is more challenging to manage the menstrual hygiene. Menstrual Hygiene Management has been defined by the United Nations as “women and adolescent girls using a clean menstrual management material to collect or absorb blood that can be changed in private during the period of menstruation whenever needed, using

soap and water for washing the body as required, and having access to facilities to dispose off used menstrual management waste materials.^[5] Women and girls face substantial barriers in achieving adequate menstrual management especially in developing and underdeveloped countries. The education of girls and women holds a prominent position in both the United Nation’s Millennium Development Goals and in the recently adopted Sustainable Development Goals.^[6] The management of menstrual hygiene is therefore an increasingly important but unrecognized issue that is markedly intertwined with girls education, empowerment, and social development.

Among most of the menstrual hygiene management products available, disposal is a common problem faced globally. Instead of using sanitary pads, we can encourage females to use menstrual cup, which have been available for decades, still their use is limited.^[9-12] Despite the safety, affordability,

durability and eco-friendliness, there is lack of knowledge about menstrual cup and also, they have not been promoted to the desired level, especially in a country like India, because India is still an unreasonably conservative country. People have fear of losing virginity as menstrual cup is inserted into the vagina, while a menstrual pad isn't.

Menstrual cup is made of high grade medical grade silicone, rubber, latex or elastomer, are bell shaped. It collects blood when inserted into the vaginal canal and can be emptied and reinserted after 4-8hrs. For sterilization, one needs to boil the cup only at the end of a cycle. Cups have the advantage of reuse, and can last up to 10 years. First introduced in the 1930's, there are now ~ 100 brands available worldwide marketed as an eco-friendly and cost-saving approach to menstrual care.^[13] Menstrual cups have been found to be safe and the risk of infection has not been seen among European and North American women.^[10-14] A systematic review of MHM (menstrual hygiene management) products recommended more rigorous ascertainment of cup use before large scale trials are conducted to determine cost-effectiveness.^[16]

This study has been conducted to assess the awareness and also knowledge, attitude and practices regarding menstrual cup amongst the women of reproductive age group.

MATERIALS AND METHODS

This study was a descriptive cross-sectional study conducted at Rama Medical College, Hospital and Research Centre, Hapur. The data was collected from the selected eligible participants using a pre-structured questionnaire. The statistical parameters studied were: knowledge, attitude and practice regarding menstrual cup among reproductive age group. Age, education, occupation was considered as key explanatory variables. The eligible study participants were selected from the female staff of a medical college. After the data was obtained they were entered in excel and descriptive analysis was done by calculating the percentage.

Inclusion Criteria

- Women of reproductive age group (15 to 45 years age group)

Exclusion Criteria

- Adolescent girls, who have not attained menarche
- Women who have attained menopause
- Women with STI/ cervical lesions.

RESULTS

A total 185 females were included in this study. The maximum of the participants was in the age group of 21-30 years (77.9%). The education level of the participants was mostly medical students (78.4%), and 17.3% were paramedical staff [Table 1].

Among them, 96.7% of the study participants were aware of the menstrual cup. Most of the participants (59.4%) got information from the media, 18.9% from friends. 68.5% of the participants correctly knew that menstrual cup is made up of silicone. 91.8% of the population knew the exact mechanism of action of menstrual cup is collection. 48.4% knew that the cup should be emptied in 4-8 hrs. 62.9% said that only boiling with water is required for sterilization of the cup, while 21.2% said that washing with water only is enough. 69.1% reported main concern regarding the side effect of cup is discomfort, while 15.7% said leaking and allergies could be the possible side effects. 70.7% of the participants were ready to pay 200-500 INR for the menstrual cup [Table 2].

When asked about sanitary protection they are using, 87% reported that they are still using sanitary pad, while 11.4% of the study population is using menstrual cup and 1.6% using tampons. Though 44 patients had used menstrual cup in the past, only 21(11.4%) are using it currently. When asked about rating the insertion and removal of the cup, 14% find it easy, 43.3% find it just convenient. Softness and design of the cup was found good by 60% of the population, 12.4% said it's excellent. 23.2% of the population reported storage and sterilization of the cup easy, 47.5% reported just convenient [Table 3]. 33.5% of the study participants were willing to use menstrual cup if made available. 87.6% reported that they think menstrual cup is a safe device. However, 43.5% of the population find usage of menstrual cup is difficult, 31% said that it's easy while 25.5% had no idea about it. In the last, when asked if they would recommend using the menstrual cups to others, 51.8% said they will do [Table 4].

Table 1: Demographic Details

Age (Years)	15-20 Years	21-30 Years	31-40 Years	41-45 Years
	29(15.7%)	144(77.9%)	11(5.9%)	1(0.5%)
Education	Medico 145(78.4%)	Non medico 32(17.3%)	Nursing staff 05(2.7%)	Paramedical staff 03(1.6%)

Table 2: Knowledge

Heard about menstrual cup	Yes	No	I don't know		
	179(96.7%)	6(3.3%)	0		
Source of information	Family 13(7%)	Friends 35(18.9%)	Media 110(59.4%)	Medicos 25(13.5%)	Others 2(1.2%)
Menstrual cup is made	Silicone	Rubber	Latex	I don't know	

up of	125(68.7%)	20(11%)	16(8.8%)	24(15.1%)	
How does menstrual cup work	Collection	Absorption	I don't know		
	170(91.8%)	10(5.4%)	5(2.8%)		
Emptying time of cup	2-4 Hours	4-8 Hours	8-12 Hours	I don't know	
	28(15.2%)	89(48.4%)	43(23.4%)	24(13.0%)	
Sterilization of cup is done by	Boiling	Washing with water	I don't know		
	39(21.1%)	128(69.1%)	18(9.8%)		
Side effects of menstrual cups	Leakage	Discomfort	Allergies	Itching	I don't know
	29(15.7%)	115(62.2%)	29(15.7%)	8(4.3%)	4(2.1%)
Cost of a menstrual cup	INR >500	INR 200-500	<INR 200		
	20(10.8%)	130(70.7%)	35(18.5%)		

Table 3: Practice

What sanitary protection do you currently use?	Sanitary pads	Tampons	Menstrual cups	
	161(87.7%)	3(1.6%)	21(11.4%)	
Have you ever used menstrual cups	Yes	No		
	44(23.7%)	141(76.3%)		
How would you rate insertion and removal of cup	Easy	Just Convenient	Difficult	I don't know
	22(14%)	68(43.3%)	67(42.7%)	28(15.1%)
How would you rate softness and design of the cup	Good	Excellent	Poor	I don't know
	111(60%)	23(12.4%)	14(7.5%)	37(20%)
How would you rate storage and sterilization of cup	Easy	Just Convenient	Difficult	I don't know
	43(23.2%)	88(47.5%)	22(11.8%)	32(17.2%)

Table 4: Attitude

If a menstrual cup is made available, will you use it	Yes	No	May be
	62(33.5%)	45(24.3%)	78(42.2%)
A menstrual cup is a safe device	Yes	No	I don't know
	162(87.6%)	3(1.6%)	20(10.8%)
How do you think about usage of menstrual cups	Easy	Difficult	I don't know
	57(31%)	80(43.5%)	48(25.5%)
Will you recommend the usage of menstrual cups to others	Yes	No	I don't know
	96(51.8%)	24(12.9%)	65(35.3%)

DISCUSSION

In this study majority of participants belonged to 21-30 years of age with nearly half of them presenting with under-graduation level of education and most belonging to the medical fraternity. Various studies assessing the menstrual hygiene have been conducted on participants belonging to adolescent school aged group who have attained their menarche. However, in the present study, all the women who are in reproductive group are included. Various studies have shown sanitary napkins to be used among majority of school going girls and adults which is similar to our study.^[19-21] The reason could be the lack of awareness and popularity of menstrual cup over sanitary pads and cloth among these age groups.

Sweatha and Amritha,^[5] conducted a study in South India reported that though 82% of the participants have good knowledge about the menstrual cup, only 6% has used it. This finding is similar to our study, 64.75% of the study group had good knowledge about menstrual cups, but only 11.4% have used it and majority had not used it even once. In a metanalysis, 70% of adults together from 13 studies showed willingness to continue the use of menstrual cup,^[22] comparing to my study where only 33.5% are willing to use menstrual cup. The reason for this could be less receptiveness to a newer product. Among the study groups 68.7% knew that menstrual cup is made up of silicone. 87.6% reported that they

think menstrual cup is a safe device. Besides, 63.5% of the present study participants reported that they fear menstrual cup will cause discomfort. A study in Gujarat showed the use of menstrual cup among adults 20 to 50 years of age to be more preferred, it was easier to insert and remove, with good comfort, dryness and less odor and least side effects like rashes, dryness or infection.^[23] Similarly, in our study 43.3% of the study participants find the insertion and removal just convenient and 14% finds it easy. A study was conducted in Kenya among school girls aged 14-16 years, who were examined for safety of menstrual cups against sanitary napkins and pads, they found menstrual cups to be more effective as the established users showed less E-coli growth and no evidence of health issues.^[17] Although, from the studies it is learnt that menstrual cups were more convenient, portable and easy to store with extended wear time and greater freedom of movement.^[24] Further, reuse of these cups is of economic advantage and reduces disposal of waste as compared to sanitary napkins.^[25] Due to the advantages of menstrual cups, many women prefer them during their menstruating days. Quick adoption of cup use in 60% of them in 6 months was seen in Kaklani CR et al,^[19] study and the acceptability among them also recorded. Higher acceptance rate was found in Kaklani CR et al,^[19] compared to our study due to prior counselling of subjects. The acceptance to use cups in our study was low, which could be as most study group were unmarried (virginity issues) or might be due to

affordability to other aids of sanitary hygiene and also due to the fear of side effects, discomfort, leakage. Although my study group were aware of the practices and hygiene of cups.

CONCLUSION

Despite the limitations of this study due to the small sample size, the knowledge, attitude and acceptance for the use of menstrual cups among the educated groups was well appreciated. When a comparison is done between willingness to use menstrual cup and its actual use, a huge gap is seen. The use of menstrual cup should be promoted among Indians especially in rural parts where the basic resources for menstrual hygiene are not available as they are cost effective, reusable and also require less water to clean and will help to improve their hygiene as well. To increase the usage of menstrual cups, youth should be targeted, who are more open to the idea of environment friendly products. Further in longer run these programs can have impact on larger population of women who are unaware of it. Health education programs must be taken up at local and national levels to promote the use of menstrual cups.

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