

Menstrual Cups as A Menstrual Management Method: A Pilot Study

Sushma P Pampanavar¹, Padmasri R²

How to cite this article:

Sushma P Pampanavar, Padmasri R. Menstrual Cups as A Menstrual Management Method: A Pilot Study. Indian J Obstet Gynecol. 2019;7(4 Part-1):513-516.

¹Assistant Professor, ²Professor & Head, Department of Obstetrics and Gynaecology, Sapthagiri Institute of Medical Sciences & Research Centre, Chikkabanavara, Bengaluru, Karnataka 560090, India.

Corresponding Author: Padmasri R, Professor & Head, Department of Obstetrics and Gynaecology, Sapthagiri Institute of Medical Sciences & Research Centre, Chikkabanavara, Bengaluru, Karnataka 560090, India.

E-mail: drlohit16@gmail.com

Received on 07.08.2019; Accepted on 15.10.2019

Abstract

Background: The onset of menstruation is one of the most important changes occurring among girls during the adolescent years. A woman spends approximately 2100 days in menstruating that is almost 6 years of her life. A reusable device that can be worn throughout the day would hence be ideal. Menstrual cups have been in use since a long time but very few women are aware where in menstrual cups can be reused with safety for a period of 10 years.

Methods: This was a pilot study in which 60 women who have been experiencing monthly periods and had no intention of becoming pregnant within 1 year were identified by a community health worker in OBG department, Sapthagiri Medical College, Bangalore from March 2018 to Dec 2018 were taken for the study.

Results: The menstrual cups can replace the current methods of menstrual sanitation due to lower cost and improved hygiene. Increasing awareness and easy availability of this product can help in increasing the use. It could be concluded that menstrual cups could be an eco-friendly option in comparison to other used vaginal devices which have great disposal problems.

Keywords: Menstrual cups; Menstrual hygiene; Pelvic inflammatory disease.

Introduction

The onset of menstruation is one of the most important changes occurring among girls during the adolescent years. A woman spends approximately 2100 days in menstruating that is almost 6 years of her life. The knowledge and practices about menstrual hygiene among rural adolescent girls is very poor as shown by many studies done in India.¹⁻⁵ Menstruation has often been dealt with secrecy in many cultures and has been regarded as unclean. Such perceptions coupled with poor and inadequate sanitary facilities have added up to the misery and the consequence of this is that many women tend to have low self-esteem and disempowered from poor educational attainments. Most women are reluctant to discuss this topic and unhygienic menstrual practices may affect their health such as increased vulnerability to reproductive tract infections and pelvic inflammatory diseases which may result in infertility of the girls. Education plays an important role in creating awareness regarding the facts of menstruation, physiological implications, and proper hygienic practices with selection of disposable sanitary menstrual absorbent. A

reusable device that can be worn throughout the day would hence be ideal. Menstrual cups have been in use since a long time but very few women are aware, where in menstrual cups can be reused for a period of 10 years. Despite the prohibitive costs of sanitary wear, there are limited reusable menstrual care products available. Hence this study was carried out to assess the knowledge and the practices of menstrual hygiene and the impact of health education on sustainable menstruation.

Materials and Methods

Source of Data: This was a pilot study in which 60 women who have been experiencing monthly periods and had no intention of becoming pregnant within 1 year were purposively identified by a community health worker in OBG department, Sapthagiri Medical College, Bangalore from March 2018 to Dec 2018 were taken for the study.

Inclusion criteria

1. Women having regular menstrual cycle and had no intention of becoming pregnant within 1 year.
2. Women between 20 and 50 years.
3. Women using Sanitary Pads/Tampons/Cloth as menstrual sanitary protection.

Exclusion criteria

1. Women below 20 years or above 50 years of age.
2. Women having active vaginal/urogenital infections.

3. Women who refused consent.

Procedure: Women with monthly regular periods and had no intention of becoming pregnant within 1 year underwent routine clinical examinations following which information regarding the menstrual history, menses duration, dysmenorrheal symptoms and current menstrual hygiene product were taken. A training workshop was held to train the study participants about menstrual cups. Training emphasized hygienic handling such as hand washing and sterilization of the menstrual cups during and after a menstrual period. The participants were provided with the menstrual cup to be used for three consecutive menstrual cycles and report after completion of each menstrual cycle. At every visit participant was interviewed for the perceptions, experience, acceptability and attitude was assessed with the help of the questionnaire.

Statistical Analysis: The questionnaires were checked for completeness and scores were entered into Microsoft Excel. Frequency tables and graphs were produced for the data obtained.

Results

Out of 60 women enrolled into the study, maximum 26 (43.3%) were in the age group of 30–39 years followed by 25 (41.7%) from the age group 20–29 years. Most of the women were nulliparous 26 (43.3%) followed by primipara 22 (36.7%) in the study. Regarding practice of the study population during menstruation 45 (75%) women used sanitary napkins while 12 (20%) women used cloth as absorbent, tampons were used by 3 (5%) women and none used menstrual cups (Table 1).

Table 1: Sociodemographic Description of the Sample

Variables	Frequency	Percentage
Age		
20–29 yrs	25	41.7%
30–39 yrs	26	43.3%
40–49 yrs	9	15%
Gravida		
Nulliparity	26	43.3%
Primipara	22	36.7%
Multipara	12	20%
Menstrual Sanitary methods		
Sanitary napkins	45	75%
Tampons	3	5%
Clothes	12	20%
Menstrual cups	0	0%

Out of 60, 40 (66.6%) women found it easy to wear the cup in first cycle, 45 (75%) in second cycle and 54 (90%) in third cycle. Difficulty was encountered due to improper technique of insertion, anxiousne and embarrassment. For removal, 46 (76.7%) found it easy in first cycle, the comfort levels increased in second 48 (80%) and third 56 (93.3%) cycle. For the perception of how it feels, 44 (73.3%) were comfortable whereas 16 (26.7%) females were uncomfortable in first cycle. 51 (85%) were comfortable in second cycle and 9 (15%) were uncomfortable in the second cycle and 54 (90%) were comfortable

and 6 (10%) were uncomfortable in the third cycle. Leakage was encountered in 8 (13.3%) in first cycle which was corrected by proper counseling and advising frequent emptying of cup leading to decrease in incidence of leakage in second cycle 6 (10%) and third cycle 1 (1.7%). There were few side effects like allergy in 3 (5%) participants initially in the first cycle which were treated appropriately and no further allergic reactions were seen in the next two cycles. Among 60 participants, majority (95%) found menstrual cups as an effective menstrual management after three cycles (Table 2).

Table 2: Participant Feedback After Each Cycle

	Cycle 1			Cycle 2			Cycle 3		
	Easy	Not So Easy	Difficult	Easy	Not So Easy	Difficult	Easy	Not So Easy	Difficult
Insertion	40 (66.6%)	12 (20%)	8 (13.4%)	45 (75%)	9 (15%)	6 (10%)	54 (90%)	4 (6.6%)	2 (3.4%)
Removal	46 (76.7%)	12 (20%)	2 (21.3%)	48 (80%)	8 (13.3%)	4 (1.7%)	56 (93.3%)	3 (5%)	1 (1.7%)
Ease of maintenance	44 (73.3%) comfort	16 (26.7%) Uncomfort		51 (85%) comfort	9 (15%) Uncomfort		55 (91.7%) comfort	5 (8.3%) Uncomfort	
Cleaning	48 (80%) Easy	12 (20%) Difficult		50 (83.3%) Easy	10 (16.7%) Difficult		54 (90%) Easy	6 (10%) Difficult	
Leakage	8 (13.3%) yes	52 (86.7%) no		6 (10%) yes	54 (90%) no		1 (1.7%) yes	59 (98.3%) no	
Allergy	3 (5%)			0			0		

Discussion

Menstrual management is still a source of social embarrassment in our country and the women needs to be educated about this normal physiological change. Menstrual cup is a device for menstrual flow management and is claimed to be a health and environment friendly alternative to the conventional menstrual sanitary protections and they are more economical compared to the disposable ones. There are relatively few study reports that evaluate safety and acceptability of cups with actual use during menses worldwide. A study conducted by Oster *et al.* showed a greater acceptance of menstrual cups in school girls in Nepal.⁶ A study conducted in Canadian women where in 50 women were considered for the study found a greater acceptance of menstrual cups after more than 5 cycles of usage.⁷ A study conducted by Juma J on rural primary schools in western Kenya concluded that there was absolute safety of using menstrual cups.⁸ A study conducted by Mogove G *et al.* in Zimbabwe found that menstrual cups as menstrual management method for low socioeconomic status of women and girls in Zimbabwe.⁹ All these studies were consistent

with our study which proves that menstrual cup is the new revolution in women where efficacy, adaptability and safety is maximum.

Conclusion

The menstrual cups can replace the current methods of menstrual sanitation due to lower cost and improved hygiene. Increasing awareness and easy availability of this product can help in increasing the use. Government agencies can take help of female health workers to increase the awareness and assist the use of this device and thus improving the menstrual hygiene at lower cost which will be of significant importance in developing countries like India. It could be concluded that menstrual cups could be an eco-friendly option in comparison to other used vaginal devices which have great disposal problems.

Ethical approval: The study was approved by the Institutional Ethics Committee

Funding: No funding sources

Conflict of interest: None declared

References

1. Thakre SB, Thakre SS, Reddy M, *et al.* Menstrual hygiene: Knowledge and practice among adolescent school girls of Saoner, Nagpur District. *Journal of Clinical and Diagnostic Research.* 2011;5(5):1027-33.
2. Abhay BM, Naveeta K, Gargi AM, *et al.* A cross-sectional study on awareness regarding safe and hygienic practices amongst school going adolescent girls in rural area of Wardha District, India. *Global Journal of Health Science.* 2010;2(2):225-31.
3. Khan A. Perceptions and practices about menstrual hygiene among adolescent girls in a rural area: A cross-sectional study. *International Journal of Health Sciences and Research.* 2012;2(8):29-34.
4. Singh AK, Bandhani A, Nidhi M. Knowledge, attitude and practices about menstruation among adolescent female in Uttarakhand. *Pakistan Journal of Medical Sciences.* 2013;3(2):19-22.
5. Paty R, Smith AD. Gangrene and Fournier's gangrene. *Urol Clin North Am.* 1992;19(1):149-62.
6. Oster EFT, Thornton RE. Menstruation and education in Nepal. National Bureau of Economic Research Working Paper Series. 2009;14853.
7. United States Pharmacopoeia. Classification of plastics (Class VI) testing, USP XXII. 1990:1497-500.
8. Juma J, Nyothach E, Laserson KF, *et al.* Examining the safety of menstrual cups among rural primary school girls in western Kenya: observational studies nested in a randomised controlled feasibility study. *BMJ Open* 2017;7:e015429. doi:10.1136/bmjopen-2016-015429.
9. Mugove G, Madziyire, Tsitsi M, Magure & Chipso F, Madziwa. Menstrual Cups as a Menstrual Management Method for Low Socioeconomic Status Women and Girls in Zimbabwe: A Pilot Study. *Women's Reproductive Health*, 2018;5(1):59-65. DOI: 10.1080/23293691.2018.1429371.