

Advisability of Menstrual Cup for the Management of Menstruation-Survey among South Indian Gynecologists

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Abstract: Menstrual cup is bell shaped made up of silicon rubber, which does not cause any irritation, collects menstrual fluid for a period of 10-12 hrs and disposal of menstrual blood and it can be reused for a period of 10 years by boiling it. To reduce the solid waste burden and to increase the menstrual hygiene in developing countries, menstrual cup is highly suggested. Only recently the cup is made available in India and only few are advising it. So in the present study the awareness about menstrual cup among south Indian gynaecologists and their opinion regarding advisability when awareness is created is explored. In the study 189 participated and all of them were aware that current practises for menstrual management are hazardous but only 50 are aware of menstrual cup, even after discussing the anticipated problem like leakage messiness, difficulty to worn, needs backup removal difficulty 100% are ready to advise the menstrual cup to for menstrual hygiene.

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I. Introduction

Menstruation is regular discharge of blood from the uterus through the vagina¹. Length of the menstrual cycle is from first day of one period to the first day of the next period, ranging from 21-45 days^{1,2}. Bleeding occurs for 2 to 7 days¹. Menstrual hygiene management is by many ways. The choice of menstrual management mainly depends woman's own choices, cultural acceptability and economic status. The preferred products for menstrual management differs for rural and urban population, rural women mostly use reusable cloth, urban women use disposable sanitary napkins³.

Government of India launched a programme under NRHM "scheme for promotion of menstrual hygiene among adolescent girls in rural India", in which rural women are educated about menstrual hygiene and sanitary pads are provided at free of cost⁴ so rural people changed their menstrual management products from reusable cloths to sanitary pads. Reusable cloth, pads should be rinsed, washed and dried properly. Washing these reusable products are limited due to lack of water. Privacy is needed to wash and dry them under sun⁴. Due to lack of privacy and water women will use rags or damp pads or damp clothes.

Apart from the problems of allergy, infections and recurring cost sanitary napkins are becoming the main burden as solid waste which takes many years for biodegradation. 33.6 million menstruating women in India of them 21 million use sanitary pads at the average of 8 sanitary pads per cycle. The sanitary pad burden as waste is, 1 billion pads per month and 12 billion pads per year.

As these 12 billion sanitary pad burden may take 500-800 years to decompose. one sanitary pad is equivalent to 4 average size plastic bags. The decomposition of the sanitary napkins and tampons leads to the infection through the skin contact, also releases toxins in the soil and on burning these menstrual products, it releases Diacene, Furane and asphyxiate gases into the environment. Other globally faced problem with improper sanitary pads disposal is blocked sewages and their management⁵.

To reduce the solid waste burden and to increase the menstrual hygiene in developing countries reusable cloth pads, menstrual cups are being recommended⁶. Menstrual cup which is bell shaped cup made up of silicon rubber, which does not cause any irritation, collects menstrual fluid for a period of 10-12 hrs and disposal of menstrual blood and it can be reused for a period of 10 years by boiling it. In 2014, social media movement was launched SMI (sustainable menstruation in India) with a handful of members advocating the use of menstrual cup for its uses and environmental friendliness.

Menstrual cup has the potential to be a sustainable solution to menstrual management with cost saving and bio-friendly when compared to tampons and pads⁷. Although infection, allergic reaction, toxic shock syndrome, improper-fit, disposal of blood are the main drawbacks with the usage of menstrual cup they are stated to be rare. In a study Preclinical, Clinical, and Over-the-Counter Postmarketing Experience with a New Vaginal Cup: Menstrual Collection by Brabara B North Micheal J Oldham, results demonstrate that the

menstrual cup d has no significant health risks and is acceptable to many women without the need for fitting or other medical services.the above said problems can be solved with continuous usage⁸.

Despite the above sated advantages in India recommendation of menstrual cup remains low. The cause for this phenomenon is to be determined. Lack of awareness among gynaecologists may be one of the reasons. so this study aims to test the above hypothesis by a survey about the awareness of menstrual cup among gynecologists andtheir opinion regarding advisability when awareness is created in their day to day practise.

Subjects And Methods

It was a questionnaire based cross sectional study, among 189Gynecologist attending the conferences in south India mainly APCOG 2017,APCOG 2018,AICOG 2019. Study tool was a questionnaire to evaluate the awareness advisability of menstrual cup by south Indian gynecologist attending the conferences in the year 2017 and 2018. A pretested questionnaire containing 7 questions was given for the gynecologist attending the conferences in south India.Gynecologistsnot willing to participate are excluded from the study.

All the information collected and recorded in the pre designed pro forma, the data was entered in the MS excel sheet and analyzed using Epi Info V7. statistical significance for continuous variables will be tested using student t-test. Frequencies will be described using percentages.

II. Results

Table No. 1 About menstrual hygiene practices

	yes	no
Awareness about the menstrual cup	50(26.5%)	139(73.5%)
Most common method of mensrual management – sanitary pads	189(100%)	0
Do u know current method i.e pads are hazardous	189(100%)	0
Problems with sanitary pads		
1. disposal	179(94.7%)	10
2. problem during changing of pads(privacy etc..)	7(3.7%)	181
3.infection	3(1.6%)	185

Only 26.5% of the gynecologist among 189 participants are aware of menstrual cup.

Table2: Anticipated probems with use of menstrual cup by the subjects

	yes	No
Leakage	167(88.4%)	22
Messiness	189(100%)	0
Difficult to worn	189(100%)	0
Needs backup	183(96.8%)	5
Removal difficulty	189(100%)	0
Recommendation to others	189(100%)	0

Messiness ,difficulty to worn are the 100% difficulties anticipated by the participants with the use of menstrual cup.

III. Discussion

Awareness of menstrual cup is low(26.5%)of the participated gynaecologists in the study. Those who know came to know about the menstrual cup by means of social media. remaining 139 (73.5%) are not aware of the menstrual cup. But once awareness is created 95% thought that menstrual cup is advisable for menstrual hygiene. So an awareness campaign among gynaecologists is needed to promote the use of menstrual cup.

This becomes relevant because that all subjects in the study said sanitary pads are the main method used for menstrual management and aware of problems with sanitary pads like disposal problem 179(94.7%), changingproblems(3.7%) like privacy, availability of hygienic environment and proper sanitary facilities, also causes infections (1.6%), Environmental hazard (100%).

The anticipated problems with the usage of menstrual cup are leakage167(88.4), messiness189(100%), difficulty to worn189(100%), needs backup method for menstrua management 183(100%), removal difficulty 189(100%)the above said problems are the anticipated problems as opined by the participants in the study. In spite of the above anticipated problems 95% of the subjects felt that menstrual cup is a good alternative to the current methods of menstrual management.

In a study Preclinical, Clinical, and Over-the-Counter Postmarketing Experience with a New Vaginal Cup: Menstrual Collection by Brabara B North Micheal J Oldham, results demonstrate that the menstrual cup has no significant health risks and is acceptable to many women without the need for fitting or other medical services. In this study also the problems like removal difficulty (108),poor fit (102) ,leakage(168),messy(98) are faced by the participants ,the above said problems can be solved with continuous usage according to this study.

IV. Conclusion

By creating awareness among gynaecologists menstrual cup may be made as an alternative to current menstrual management practices to diminish the hazards associated with the current practices. But large field studies are required to affirm the safety of menstrual cup.

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