

International Journal of Clinical Obstetrics and Gynaecology

ISSN (P): 2522-6614
ISSN (E): 2522-6622
© Gynaecology Journal
www.gynaecologyjournal.com
2021; 5(2): 211-214
Received: 14-01-2021
Accepted: 17-02-2021

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Knowledge, attitude, and practices regarding menstrual cup among reproductive women in a rural tertiary care Hospital

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DOI: <https://doi.org/10.33545/gynae.2021.v5.i2d.889>

Abstract

Background: The menstrual cup is a recently developed alternative to sanitary napkins. Hence, in this present study, the knowledge, practices, and attitudes of menstrual cups among rural adult women were evaluated.

Methods: This cross-sectional study was conducted on women who are in the age group of 18-45 years and are willing to participate in the study. The relevant data were collected using a preformed questionnaire. The questionnaire included all the data about the demographic parameters including age, educational level, and profession, participant's knowledge about the menstrual cup, concerns, and attitude towards the same. After the data was obtained they were entered in excel and descriptive analysis was done by calculating the percentage. The appropriate diagrams were also done for data interpretation.

Results: In this study total of 120 participants were included. Among them, 80% of the study participants were aware of the menstrual cup. 36.7% of the participants got information from media, 26.7% from family, 20.8% from friends, and 14.2% from media personnel. The maximum of participants was in the age group of 21 years to 30 years (58.33%). The educational level of the participants was mostly in the undergraduate (35%) or post-graduate level (25.8%). The main concern about the menstrual cup was found to be fear of leakage (51.7%), followed by discomfort (26.7%). 65% of the participants said if a menstrual cup is made available they are willing to use it.

Conclusion: This study thus concluded that though many of the participants were aware of the usage of the menstrual cup the acceptance of the cup is still not achieved.

Keywords: Knowledge, rural women, reproductive age, sanitary napkin, menstrual health and hygiene

Introduction

Millions of women globally experience menstruation every month. It is a normal biological process. The start of menstruation indicates the start of the reproductive years in female life. It often marks the transition of a child to the full-grown adult woman in society. Though it is the most common biological process, 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 accustomed to their monthly period^[1].

Studies have pointed out that in India, menstrual health management should be strengthened by providing proper education about the MHM items, spreading awareness about the usage of hygienic absorbents and their disposal, and managing the menstrual flow effectively and hygienically^[2]. It is also reported that in India, 62% of the young women in the age group of 15 years to 24 years still use 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^[3].

In rural areas maintenance of menstrual hygiene is, therefore, is an important yet unrecognized issue. It was reported previously that menstrual protection in these areas mostly comprises locally prepared napkins, and sanitary napkins^[4].

The menstrual cup is a recently developed alternative to sanitary napkins. These cups are made from higher level medical grade silicone, latex, rubber, or elastomer and when inserted inside the vaginal canal and are capable of collecting menstrual flow. They can be emptied and reinserted and they are required to be boiled after each cycle^[5]. These cups were first patented in the USA and presently almost 100 brands are available globally that marketed this product^[5].

Previously in few of the studies conducted in low and middle-income countries have shown that among school girls menstrual cups have received positive responses^[6, 7].

These studies have shown a potential option of these cups in reproductive women. However, in India the feasibility and safety of menstrual cups among reproductive women are scarce. Hence, in this present study, the knowledge, practices, and attitudes of menstrual cups among rural adult women were evaluated. Moreover, this study will also analyze and assess the factors associated with the practices, attitudes, and knowledge of reproductive women while using a menstrual cup in rural India.

Methodology

This study is a cross-sectional study and was conducted at Sri Devaraj Urs University of higher education and research centre. The data was collected from the study participants selected from the specified geographical locations as per the inclusion criteria.

Inclusion Criteria

Women in the reproductive age group of i.e.18-45 years who were studying or working in the institute were included in this study.

Exclusion Criteria

- Women who are unwilling
- Adolescent girls who have not reached menarche
- Women who already had menopause because of surgical or physiological reasons

The eligible women were thus included in the study and informed consent was taken from them. Necessary administrative approval was taken from the study hospital and institutional ethics committee approval was also taken. The relevant data were collected using a preformed questionnaire. The questionnaire included all the data about the demographic parameters including age, educational level, and profession, participant's knowledge about the menstrual cup, the concerns, and attitude towards the same. After the data was obtained they were entered in excel and descriptive analysis was done by calculating the percentage. The appropriate diagrams were also done for data interpretation.

Results

In this study total of 120 participants were included. Among them, 80% of the study participants were aware of the menstrual cup. 36.7% of the participants got information from media, 26.7% from family, 20.8% from friends, and 14.2% from media personnel. The maximum of participants was in the age group of 21 years to 30 years (58.33%). The educational level of the participants was mostly in the undergraduate (35%) or post-graduate level (25.8%).

36.7% of the participants know that menstrual cup is made up of silicone, 10% said rubber, 15.8% said latex, and 21.7% said it is made up of all the materials mentioned above. 62.5% reported that they think the menstrual cup is a safe device, whereas 18.3% said they are not. Interestingly, 94.2% of the participants know the exact mechanism of action of the menstrual cup and 35.8% knew that the cups should be emptied within 6-12 hours. 53.3% said that washing with water is enough for menstrual cup washing, 7.5% said boiling is required, and 17.5% said washing with water as well as boiling is required for proper sanitization of menstrual cups. 96.7% of the study participants reported that they still use sanitary pads, none of the study participants reported using menstrual cups or tampons.

Only 3.3% of the participants mentioned using other methods. The main concern about the menstrual cup was found to leakage

(51.7%), followed by discomfort (26.7%), limited knowledge (15%), and allergies (6.7%). 65% of the participants said if a menstrual cup is made available they are willing to use it, 28.3% said they are not sure, and 6.7% said they are not willing. 50% of the participants were ready to pay Rs. 200-500 for the cup. However, when asked if they recommend using the menstrual cup to others, 45% said they will do, 49.2% said they do not know. 55% said they think using a menstrual cup is difficult, 10% said easy and 35% said they have no idea. 48.3% of the study participants reported that they have average knowledge about the menstrual cup, 45.8% had poor knowledge, and only 5.8% had good knowledge about the menstrual cup.

Discussion

In The present study maximum of the study, participants were in the 21 years to 30 years of age group. Maximum of the study participants were in the undergraduate levels. In the past maximum of the studies that assessed the level of knowledge of menstrual cup usage were done so in adolescent girls ^[6]. However, in the present study, all the women who are in the reproductive group were included.

In a previous study conducted by Sweatha and Amritha among the women who are at their reproductive stage in south India it was reported that though 82% of the participants have good knowledge about the menstrual cup, only 6% had used it. In that study, most of the study participants were in the 16 to 30 years age group. The participants were mostly from the medical and paramedical students who had a good awareness about the menstrual cup and 65.75% of the study participants had good knowledge about menstrual cup usage ^[5]. In contrast, the present study reported a low percentage of the study population who had good knowledge about the menstrual cup (5.8%). This finding is similar to the finding of the study by Arshad Ali *et al.* In this study authors reported that only 11.4% of the general study population knew about the menstrual cup ^[8].

The present study reported that most of the participants use sanitary napkins (96.7%) during their menstruation cycle for maintenance of menstruation hygiene. None of the study participants reported usage of tampons or menstruation cups. This finding was similar to the previous Indian study findings ^[9, 10]. It was shown that most adolescents and adults still use cloths and sanitary napkins for their menstrual protection ^[9].

Among the study participants, 36.7% of the participants knew that the menstrual cup is made up of silicone, 10% said rubber, 15.8% said latex, and 21.7% said it is made up of all the materials mentioned above. 62.5% reported that they think the menstrual cup is a safe device, whereas 18.3% said they are not. Besides, 51.7% of the present study participants reported that they fear that the menstrual cup will lead to leakage. A previous systematic review conducted by Van Eijk *et al.* has used menstrual blood leakage while using the menstrual cup as the primary outcome of leakage. However, study findings indicated that leakage was similar or lower for menstrual cups compared with the other devices used for maintenance of menstrual hygiene in women ^[11].

Aishwarya and Tharani reported that in Bangalore most of the women are already using the menstrual cups and have complete information about them. This study reported that social media is a powerful source of information and a maximum of the participants received their information from social media ^[12]. In the same survey, the respondents reported that the durability, low economic costs, eco-friendliness, and reusable nature of the menstrual cup were the main reason behind its popularity. Similar to this finding, the present study reported that 36.7% of

the respondents came to know about the menstrual cup from social media. Thus, we feel that social media platforms can be used for creating awareness campaigns about menstrual cups and their usages.

In another study conducted in Nepal among school-going adolescents, girls have reported concerns regarding the loss of virginity, leakage, and loss of fertility. Moreover, in this study, it was also reported that support from the teachers, family members, and also from peers can help significantly reduce the stigma associated with the use of the menstrual cup [13]. However, in the present study, the acceptability of the menstrual cup among the study participants was low. This might be due to the rural background of the participants and also because of the

low cost of the local sanitary napkins that are easily available. The main significance of the present study is that though conducted in a limited sample of women from the reproductive stage, the similarity of the present study finding with the previous ones suggests that our study gave insight into the beliefs, concerns, and knowledge of women from the rural background about the menstrual cup. In addition, we believe that our findings can provide a significant contribution to the available literature and also guide future studies on menstrual hygiene management in rural areas and beyond. The main limitation of the present study is its small sample size. A large cohort study that can assess the acceptance of the cup based on its use in daily life could prove to be more beneficial.

Table 1: Demographic parameters of the study subjects

		N	Percentage (%)
Age (Years)	15-20 Years	23	19.2%
	21-30 Years	70	58.3%
	31-40 Years	22	18.3%
	41-45 Years	5	4.2%
	Total	120	100.0%
Education	Nursing	26	21.7%
	Undergraduate	42	35.0%
	Postgraduate	31	25.8%
	Professional	21	17.5%
	Total	120	100.0%
Do you know about menstrual cups?	Yes	96	80.0%
	No	24	20.0%
	I don't know	0	0.0%
	Total	120	100.0%
What is your source of information?	Family	32	26.7%
	Friends	25	20.8%
	Media	44	36.7%
	Medical Personnel	17	14.2%
	Others	2	1.7%
	Total	120	100.0%
What is a menstrual cup made of?	Silicone	44	36.7%
	Rubber	12	10.0%
	Latex	19	15.8%
	All of the above	26	21.7%
	I don't know	19	15.8%
	Total	120	100.0%
A menstrual cup is a safe device	Yes	75	62.5%
	No	22	18.3%
	I don't know	23	19.2%
	Total	120	100.0%
Mechanism of action of menstrual cup	Collection	113	94.2%
	Absorption	7	5.8%
	I don't know	0	0.0%
	Total	120	100.0%
Emptying time of cup	1-2 Hours	11	9.2%
	6-12 Hours	43	35.8%
	I don't know	66	55.0%
	Total	120	100.0%
Sterilization of cup	Washing with water	64	53.3%
	Boiling	9	7.5%
	Using microwave	0	0.0%
	All of the above	21	17.5%
	I don't know	26	21.7%
	Total	120	100.0%
Can the cup be used during postpartum	Yes	56	46.7%
	No	20	16.7%
	I don't know	44	36.7%
	Total	120	100.0%
What sanitary protection do you currently use	Sanitary pads	116	96.7%
	Tampons	0	0.0%
	Menstrual cups	0	0.0%

	Others	4	3.3%
	Total	120	100.0%
What are your concerns about menstrual cups	Limited Knowledge	18	15.0%
	Leakage	62	51.7%
	Discomfort	32	26.7%
	Allergies	8	6.7%
	Total	120	100.0%
How much would you pay for a menstrual cup	>Rs. 500	4	3.3%
	Rs. 200-500	60	50.0%
	<Rs. 200	56	46.7%
	Total	120	100.0%
If a menstrual cup is made available, will you use it	Yes	78	65.0%
	No	8	6.7%
	I don't know	34	28.3%
	Total	120	100.0%
Will you recommend the usage of menstrual cups to others	Yes	54	45.0%
	No	7	5.8%
	I don't know	59	49.2%
	Total	120	100.0%
How do you think about usage of menstrual cups	Easy	12	10.0%
	Difficult	66	55.0%
	I don't know	42	35.0%
	Total	120	100.0%
How do you rate your knowledge on menstrual cups	Good	7	5.8%
	Average	58	48.3%
	Poor	55	45.8%
	Total	120	100.0%

Conclusion

In this study, the knowledge, attitude, and practices of the menstrual cup among rural reproductive women were evaluated in detail. This study thus concluded that though many of the participants were aware of the usage of the menstrual cup the acceptance of the cup is still not achieved. There exists a huge gap between the knowledge and willingness of the women to accept the menstrual cup. Even the knowledge level is also poor in most of the participants. Especially in rural parts of India, the use of these cups can be implemented as they are cost-effective, eco-friendly, and reusable. This study also pointed out that if made available, most of the participants are willing to use the menstrual cup.

Moreover, this study also pointed out the importance of the awareness campaigns about the use of the menstrual cup as they can help to build good menstrual hygiene among reproductive women.

References

- Sommer M, Sahin M. Overcoming the taboo: advancing the global agenda for menstrual hygiene management for schoolgirls. *Am J Public Health*. 2013;103(9):1556-9.
- Eijk AM van, Sivakami M, Thakkar MB, Bauman A, Laserson KF, Coates S *et al*. Menstrual hygiene management among adolescent girls in India: a systematic review and meta-analysis. *BMJ Open*. 2016;6(3):e010290.
- Divakar H, Singh R, Narayanan P, GVD, Suvarna R. Menstrual Health and Hygiene- Study of Knowledge Attitudes and Practices of Obygns on Usage of Menstrual Cups. *J Evid Based Med Healthc* 2020;7(8):372-6.
- Geertz A, Iyer L, Kasen P, Mazzola F. Menstrual Health in India. India 2016.
- KSB, Bhandary A. Menstrual cup: awareness among reproductive women. *Int J Reprod Contracept Obstet Gynecol* 2020;9(4):1382.
- Mason L, Laserson KF, Oruko K, Nyothach E, Alexander KT, Odhiambo FO *et al*. Adolescent schoolgirls' experiences of menstrual cups and pads in rural western Kenya: a qualitative study. *Waterlines* 2015, 15-30.
- Phillips-Howard PA, Caruso B, Torondel B, Zulaika G, Sahin M, Sommer M. Menstrual hygiene management among adolescent schoolgirls in low-and middle-income countries: research priorities. *Glob Health Action*. 2016;9(1):33032.
- Arshad Ali S, Baloch M, Riaz L, Iqbal A, Riaz R, Perveen B *et al*. Perceptions, Practices, and Challenges Regarding Menstrual Hygiene Among Women in Karachi, Pakistan: A Comparison Between General Population and Healthcare Workers. *Cureus [Internet]*. cited 2021;12(8). Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7502414/>
- Kakani C, Bhatt J. Study of adaptability and efficacy of menstrual cup in managing menstrual health and hygiene. *Int J Reprod Contracept Obstet Gynecol* 2017;6:3045.
- Balamurugan SS, Shilpa S, Shaji S. A Community Based Study on Menstrual Hygiene among Reproductive Age Group Women in a Rural Area, Tamil Nadu. *J Basic Clin Reprod Sci* 2014;3(2):83-7.
- Van Eijk AM, Zulaika G, Lenchner M, Mason L, Sivakami M, Nyothach E, *et al*. Menstrual cup use, leakage, acceptability, safety, and availability: a systematic review and meta-analysis. *Lancet Public Health* 2019;4(8):e376-93.
- Aishwarya N, Tharani S. Can Menstrual Cups become an Alternative to Sanitary Napkins? A Critical Analysis among Women in Bangalore City. *Indian J Public Health Res Dev*. 2019;10(11).
- Pokhrel K, Parajuli S, Shah M, Subedi S. Clinico-histopathological Correlation of Leprosy in Western Region of Nepal—A Pilot Study. *Indian J Lepr* 2017;89:9-14.