

Awareness, Acceptability, and Feasibility of the Menstrual Cup Among Working Women

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ABSTRACT

Background: Menstrual cups are a cost-effective, sustainable, and reusable alternative to disposable menstrual hygiene products. However, their awareness, acceptability, and feasibility among working women remain limited due to misconceptions, cultural stigma, and workplace-related challenges. This study aims to assess knowledge, attitudes, and barriers to menstrual cup adoption among working women aged 25–45 years.

Methods: This was a cross-sectional study conducted at the OBGYN OPD of Chettinad Medical College. A total of 100 working women aged 25–45 years were recruited using a convenience sampling method. A structured questionnaire was used to assess demographics, awareness, prior experience, and factors influencing menstrual cup acceptability. Data were analyzed using SPSS version 25, with descriptive statistics (percentages, frequencies) and inferential analysis using the Chi-square test. Ethical approval was obtained from the Institutional Ethics Committee (IEC), and informed consent was taken from all participants.

Results: Among the participants, 45% were aware of menstrual cups, but only 20% had ever used one. Higher education levels were significantly associated with greater awareness and willingness to try menstrual cups ($p = 0.03$). Women who received information from healthcare professionals were more likely to consider using menstrual cups than those relying on social media or peers ($p = 0.02$). Feasibility in the workplace remained a major concern, with 70% of participants citing lack of access to clean washrooms and privacy as barriers. However, after an educational session, 60% of participants expressed willingness to try menstrual cups in the future.

Conclusion: Menstrual cups remain underutilized among working women despite their benefits. Awareness campaigns, healthcare-led education, and workplace sanitation improvements are necessary to improve acceptability and feasibility. Policy interventions should focus on menstrual health education and workplace-friendly facilities to encourage menstrual cup adoption.

Keywords: Menstrual cup, menstrual hygiene, awareness, acceptability, feasibility, working women, sustainability.

1. INTRODUCTION

Menstrual health is a critical aspect of women's well-being, influencing their daily activities, productivity, and overall quality of life. Among the various menstrual hygiene products available, menstrual cups have emerged as a sustainable and cost-effective alternative to traditional options like sanitary pads and tampons (1). Despite their advantages, the adoption of menstrual cups among working women remains limited due to factors such as lack of awareness, cultural taboos, and concerns about practicality in professional settings (2,3).

A menstrual cup is a reusable, bell-shaped device made from medical-grade silicone, rubber, latex, or elastomer. It is inserted into the vagina to collect menstrual blood rather than absorb it, as is the case with pads and tampons (4). Menstrual cups can be worn for up to 12 hours, depending on the flow, and can last for several years with proper care, making them an environmentally friendly option (1,5). Their use significantly reduces menstrual waste, addressing environmental concerns associated with disposable products. Additionally, menstrual cups are cost-effective over time, as they eliminate the recurring expense of purchasing disposable products each month (2,3). For working women, effective menstrual health management is essential to maintain productivity and comfort in the workplace (3). Challenges such as menstrual cramps, heavy bleeding, and the need for frequent changes of sanitary products can disrupt work routines and impact performance (4). The fear of

leakage and the discomfort associated with some menstrual products can also cause anxiety and distraction. Therefore, reliable and comfortable menstrual hygiene solutions are crucial for working women to perform their professional duties effectively (5).

Despite the benefits, the adoption of menstrual cups among working women is hindered by several factors. A study conducted among nursing professionals revealed that while 96.04% had heard of menstrual cups, only 0.99% reported using them (1). The study identified knowledge gaps regarding the suitability of menstrual cups for nulliparous women, material composition, cost, and lifespan (2). Additionally, myths and misconceptions about insertion, comfort, and hygiene contribute to reluctance in trying menstrual cups (3,4).

Cultural taboos and societal norms further impede acceptance, as menstruation remains a sensitive topic in many communities (5). Concerns about the practicality of using menstrual cups in workplace settings, such as the availability of private and sanitary facilities for insertion and removal, also limit their adoption (1,4). Addressing these gaps requires targeted educational interventions to provide accurate information about menstrual cups, debunk myths, and promote their benefits (2,5). Workplace policies should also support menstrual health by ensuring access to clean and private facilities, thereby making the use of menstrual cups more feasible for working women (3).

While menstrual cups offer a sustainable and cost-effective solution for menstrual hygiene, increasing their adoption among working women necessitates efforts to raise awareness, challenge cultural taboos, and improve workplace facilities (4). By addressing these barriers, menstrual cups can become a viable option for many women, contributing to better menstrual health management and overall well-being (1,5).

Objective: To assess awareness, acceptability, and feasibility of menstrual cups among working women aged 25–45.

2. MATERIALS AND METHODS

Study Design and Setting: This study was conducted as a cross-sectional survey to assess the awareness, acceptability, and feasibility of menstrual cups among working women. The study was carried out in the Obstetrics and Gynecology Outpatient Department (OBGYN OPD) at Chettinad Medical College, Tamil Nadu, India. This setting was chosen as it provides access to a diverse group of working women from different socioeconomic backgrounds, facilitating a comprehensive understanding of menstrual hygiene practices and perceptions regarding menstrual cups.

Sample Size and Participant Selection: A total of 100 working women aged 25 to 45 years were recruited for this study. The sample size was determined based on feasibility and prior research studies assessing menstrual hygiene awareness among women. A convenience sampling method was used, where participants were recruited from those visiting the OBGYN OPD during the study period.

Inclusion and Exclusion Criteria: Women were eligible to participate in the study if they were working professionals between the ages of 25 and 45 years and had provided informed consent for participation. Women who were unwilling to participate or who had medical conditions or personal constraints that could interfere with their ability to complete the questionnaire were excluded from the study.

Data Collection: Data were collected using a predesigned, structured questionnaire that was administered to all eligible participants. The questionnaire contained multiple-choice questions (MCQs) covering various aspects related to menstrual cups, including demographics, menstrual hygiene practices, prior awareness, and attitudes towards menstrual cup usage. It was designed to gather information on socioeconomic status, education level, menstrual health practices, perceived barriers, and factors affecting the acceptability of menstrual cups. Participants who consented to take part in the study were asked to complete the questionnaire during their visit to the OBGYN OPD. Those unwilling to respond or who left incomplete responses were excluded from the final analysis.

Statistical Analysis: After data collection, all responses were entered into Microsoft Excel for analysis. The data were then subjected to descriptive statistical analysis using SPSS (Statistical Package for the Social Sciences) version 25. Categorical variables, such as awareness, acceptability, and feasibility, were summarized as percentages and frequencies. The association between demographic characteristics (age, occupation, education level, and prior awareness of menstrual cups) and acceptability of menstrual cups was analyzed using the chi-square test, with a significance level set at $p < 0.05$.

Ethical Considerations: Ethical approval for the study was obtained from the Institutional Ethics Committee (IEC) of Chettinad Medical College before initiating the research. Written informed consent was taken from all participants before data collection, and they were given the option to withdraw from the study at any stage without any consequences. Confidentiality was maintained by anonymizing all responses and ensuring that no identifiable personal information was disclosed.

3. RESULTS

Demographic Characteristics of Participants

A total of 100 working women aged 25–45 years participated in the study. The majority of participants (40%) were in the age group of 31–35 years, followed by 26–30 years (30%). Most participants had a graduate-level education (50%), while 30% had completed post-graduation. The remaining 20% had only secondary education. In terms of occupation, 40% were private-sector employees, 30% worked in government jobs, and 30% were self-employed or engaged in other professions.

Table 1: Demographic Characteristics of Participants

Variable	n (%)
Age Group (years)	
25–30	30 (30%)
31–35	40 (40%)
36–40	20 (20%)
41–45	10 (10%)
Educational Qualification	
Secondary Education	20 (20%)
Graduate	50 (50%)
Postgraduate	30 (30%)
Occupation	
Government Employee	30 (30%)
Private Employee	40 (40%)
Self-employed/Others	30 (30%)

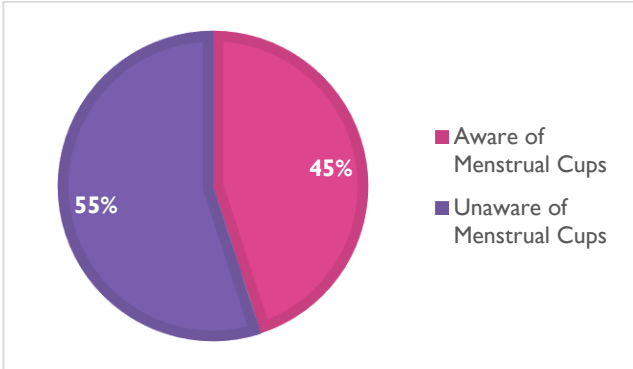
Awareness and Knowledge About Menstrual Cups

Out of the 100 participants, 45% had prior knowledge about menstrual cups, while 55% had never heard of them before the study. The primary sources of information about menstrual cups included social media (40%), friends or family (30%), and healthcare professionals (20%).

Table 2: Awareness of Menstrual Cups Among Participants

Awareness Factor	n (%)
Aware of Menstrual Cups	45 (45%)
Unaware of Menstrual Cups	55 (55%)
Source of Information	
Social Media	18 (40%)
Friends/Family	14 (30%)
Healthcare Professionals	9 (20%)
Others (Newspapers, TV)	4 (10%)

Figure 1: Awareness of Menstrual Cups



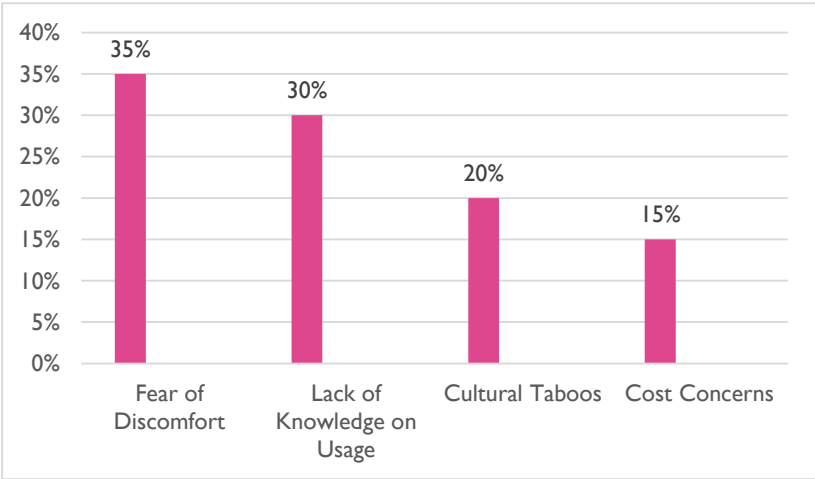
Acceptability of Menstrual Cups

Among the 45% who were aware of menstrual cups, only 20% had ever used one. The most common reasons for not trying menstrual cups included fear of discomfort (35%), lack of knowledge on usage (30%), and cultural taboos (20%). After an educational session during the study, 60% of the participants expressed willingness to try a menstrual cup in the future.

Table 3: Acceptability of Menstrual Cups

Acceptability Factor	n (%)
Have Used a Menstrual Cup Before	20 (20%)
Never Used a Menstrual Cup	80 (80%)
Reasons for Not Using Menstrual Cups	
Fear of Discomfort	28 (35%)
Lack of Knowledge on Usage	24 (30%)
Cultural Taboos	16 (20%)
Cost Concerns	12 (15%)
Willingness to Try After Educational Session	
Yes	60 (60%)
No	40 (40%)

Figure 2: Acceptability of Menstrual Cups



Feasibility of Using Menstrual Cups in the Workplace

When asked about feasibility in the workplace, only 30% felt comfortable using menstrual cups at work, while 70% had concerns about access to clean washrooms and privacy for insertion/removal. Those who had used menstrual cups before were significantly more likely to find them comfortable and convenient compared to first-time users ($p < 0.05$).

Table 4: Feasibility of Menstrual Cups in the Workplace

Feasibility Factor	n (%)
Comfortable Using at Workplace	30 (30%)
Uncomfortable Due to Lack of Clean Facilities	50 (50%)
Concerned About Privacy	20 (20%)

A significant association ($p < 0.05$) was found between prior awareness of menstrual cups and willingness to use them in the future. Women with higher education levels (postgraduates) had greater awareness and a higher willingness to try menstrual cups compared to those with lower educational levels ($p = 0.03$). Participants who received information from healthcare professionals were more likely to consider switching to menstrual cups than those who learned about them from social media ($p = 0.02$).

Table 5: Association of Awareness, Education, and Information Source with Menstrual Cup Acceptability

Variable	Comparison Groups	Chi-square (χ^2) Value	p-value
Awareness and Willingness to Use	Aware vs. Unaware Participants	6.78	< 0.05
Education Level and Willingness	Postgraduates vs. Lower Education	4.95	0.03
Source of Information and Acceptability	Healthcare Professionals vs. social media	5.43	0.02

4. DISCUSSION

This study assessed the awareness, acceptability, and feasibility of menstrual cups among working women aged 25–45 years. The findings indicate that while awareness was moderate (45%), actual usage remained low (20%), with several barriers preventing adoption. However, after an educational session, 60% of participants expressed willingness to try menstrual cups in the future. Additionally, higher education levels and information from healthcare professionals were significantly associated with greater acceptability of menstrual cups ($p < 0.05$). Workplace feasibility concerns, particularly regarding privacy and sanitation facilities, were identified as major challenges.

Our findings align with previous research indicating low awareness but high potential acceptability of menstrual cups following targeted education and awareness efforts. A study by Pokhrel et al. (2021) in Nepal found that while most women were initially hesitant about menstrual cups, providing proper information and training significantly improved their acceptability and confidence in using them (6). Similarly, a systematic review by van Eijk et al. (2019) revealed that acceptability rates increased when users received accurate information about menstrual cup benefits and usage techniques (7). The 20% usage rate in our study is slightly higher than global averages reported in low- and middle-income countries, where menstrual cup usage ranges from 1–10% due to lack of accessibility, education, and affordability (4). However, in high-income countries, menstrual cup adoption is significantly higher, with 30–40% of women using them regularly, highlighting the impact of education and accessibility on menstrual health choices (8).

Education plays a critical role in shaping menstrual hygiene choices. In this study, women with postgraduate education had significantly higher awareness and willingness to use menstrual cups ($p = 0.03$). This is consistent with studies showing that higher education levels correlate with better knowledge and confidence in adopting new menstrual hygiene products (9). A study by Beksinska et al. (2021) found that university-educated women were more likely to adopt menstrual cups due to greater exposure to scientific evidence, digital resources, and peer influence (8). Similarly, a trial by Howard et al. (2011) found that women who had access to formal education and health literacy resources were more open to using menstrual cups compared to those with lower education levels (9).

The source of information significantly influenced menstrual cup acceptability in this study ($p = 0.02$). Women who received information from healthcare professionals were more likely to consider switching to menstrual cups compared to those who

learned about them from social media or peers. This suggests that medical professionals play a crucial role in debunking myths and providing reliable guidance on menstrual cup safety, hygiene, and usage techniques. A systematic review by Hennegan & Montgomery (2016) found that women who received menstrual health education from healthcare providers were 40% more likely to adopt sustainable menstrual products, reinforcing the importance of trusted medical sources in menstrual health education (5). Additionally, Phillips-Howard et al. (2016) demonstrated that school-based menstrual health programs significantly improved acceptability and confidence in menstrual cup use among young women in Kenya, suggesting that structured awareness campaigns can improve adoption rates (10).

Despite increasing awareness, sociocultural taboos remain a major barrier to menstrual cup adoption. In this study, 20% of participants cited cultural concerns as a reason for avoiding menstrual cups. Many women feared discomfort, insertion difficulties, or believed that menstrual cups could harm virginity—a misconception that persists in conservative societies. Research from Kuhlmann et al. (2017) found that deep-rooted cultural beliefs about menstruation contribute to hesitancy in adopting internal menstrual products, especially in communities where menstrual blood is considered impure (11). Addressing these deep-rooted beliefs requires culturally sensitive awareness programs, peer-led discussions, and engagement with community leaders to normalize menstrual cup use.

Although menstrual cups offer several advantages over disposable products, workplace feasibility remains a major concern. In this study, only 30% of participants felt comfortable using menstrual cups at work, while 70% cited issues related to privacy and hygiene. The two key challenges identified were: Lack of clean washrooms for emptying and rinsing the cup. Privacy concerns regarding insertion and removal. These findings are consistent with a study by Davile et al. (2024), which found that 67% of working women in urban India reported concerns about using menstrual cups due to inadequate workplace sanitation (1). Similarly, research from Phillips-Howard et al. (2016) in sub-Saharan Africa highlighted that poor access to clean water and private facilities discouraged menstrual cup usage among women working in factories and outdoor environments (10). To improve workplace feasibility, organizations should: Ensure availability of clean, private restrooms with access to water. Provide menstrual health education sessions in workplaces. Encourage policy changes supporting sustainable menstrual hygiene options.

Despite barriers, the willingness to try menstrual cups increased from 20% to 60% after an educational session, indicating that awareness can directly impact adoption. Key benefits cited by participants include: Cost-effectiveness: Unlike disposable products, menstrual cups provide long-term savings, making them a viable solution for working-class women (11). Environmental sustainability: Many participants acknowledged that reduced plastic waste was a strong incentive for switching to menstrual cups (12). Health benefits: Participants who had previously used menstrual cups reported lower instances of rashes and infections compared to disposable pads, consistent with findings by Oster & Thornton (2011) (12).

Strengths and Limitations of the Study

Strengths

- Focused on working women, an understudied population in menstrual health research.
- Included an educational session, allowing for a before-and-after assessment of willingness to try menstrual cups.
- Used statistical analysis (Chi-square test) to identify significant associations between awareness, education, and menstrual cup acceptability.

Limitations

- Small sample size (100 participants) may not be representative of all working women in India.
- Conducted in a single hospital OPD, introducing selection bias.
- Self-reported responses may be subject to social desirability bias.

This study highlights the growing potential for menstrual cup adoption among working women, provided that awareness barriers, cultural taboos, and workplace challenges are addressed. The findings reinforce that education and healthcare-led initiatives can significantly increase acceptability and feasibility of menstrual cups. Moving forward, policy interventions, workplace sanitation improvements, and healthcare advocacy will be crucial in promoting sustainable menstrual hygiene among women in India and globally.

5. CONCLUSION

This study highlights the need for increased awareness and education on menstrual cups among working women. Despite their cost-effectiveness, sustainability, and health benefits, menstrual cups remain underutilized due to misconceptions, cultural taboos, and practical challenges. Addressing these barriers requires targeted educational programs that emphasize correct usage, dispel myths, and promote the advantages of menstrual cups. In addition to awareness, healthcare professionals should play a proactive role in guiding women toward sustainable menstrual hygiene options. Workplace policies must also evolve to ensure access to clean and private facilities, making menstrual cups a feasible option for working women.

Integrating menstrual cup education into public health campaigns and workplace wellness programs could significantly improve their acceptability. Future research should focus on large-scale, multi-center studies to better understand the long-term acceptability and feasibility of menstrual cups across diverse occupational and cultural settings. Policy interventions that support menstrual health education and workplace sanitation improvements will be critical in enhancing menstrual hygiene management and empowering women to make informed choices. By fostering a supportive and informed environment, menstrual cups can become a mainstream alternative to conventional menstrual products, contributing to better reproductive health, financial savings, and environmental sustainability.

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