

## Awareness and Adoption Rates of Menstrual Cups Among Adolescents and Young Women

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### ABSTRACT

Menstrual hygiene management is a crucial aspect of women's reproductive health. Menstrual cups have emerged as a sustainable, cost-effective alternative to conventional menstrual products like sanitary pads and tampons. However, the awareness and adoption rates of menstrual cups remain limited, particularly among adolescents and young women. To assess the awareness levels, adoption rates, and factors influencing the use of menstrual cups among adolescents and young women aged 15-30 years, a study was conducted involving 300 participants from educational institutions and community health centers. A structured questionnaire and semi-structured interviews were used to collect data on awareness, usage patterns, and barriers to adoption. Quantitative data was analyzed using SPSS software, while qualitative data was analyzed thematically. Out of 300 participants, 72% were aware of menstrual cups, while only 25% had used them. Among users, 80% reported satisfaction due to comfort, cost-effectiveness, and reduced menstrual cramps. However, fear of discomfort, lack of knowledge about insertion and removal, and cultural misconceptions were identified as primary barriers to adoption. Although menstrual cups offer significant advantages, their acceptance among young women is hindered by misinformation and social stigma. Targeted awareness campaigns and educational programs can help improve acceptance and accessibility.

**Keywords:** Menstrual cup, menstrual hygiene, awareness, adoption rate, reproductive health.

### 1. INTRODUCTION

Menstrual hygiene management plays a pivotal role in maintaining the reproductive health and well-being of women. Conventional menstrual products such as sanitary pads and tampons are widely used but are often associated with environmental pollution and high recurring costs. Menstrual cups, made of medical-grade silicone or rubber, offer a reusable and eco-friendly alternative.

Despite their advantages, menstrual cups are underutilized, particularly among adolescents and young women. Lack of awareness, fear of discomfort, and cultural taboos act as significant barriers to adoption. This study aims to evaluate the awareness levels, adoption rates, and factors influencing the use of menstrual cups among adolescents and young women.

#### Objectives

To assess the level of awareness regarding menstrual cups.

To evaluate the adoption rates among adolescents and young women.

To identify the factors influencing menstrual cup usage.

To explore the barriers and facilitators to menstrual cup adoption.

### 2. MATERIALS AND METHODS

#### Study Design

A cross-sectional study with a mixed-methods approach was conducted over a period of three months.

#### Study Population

Adolescents and young women aged 15-30 years from educational institutions and community health centers in Chennai.

**Sample Size**

300 participants were recruited through convenience sampling.

**Inclusion Criteria**

Individuals aged 15-30 years

Those who have used or are currently using menstrual cups

Willing to provide informed consent

**Exclusion Criteria**

Individuals with medical conditions contraindicating menstrual cup use (e.g., pelvic infections or silicone allergy)

Those unwilling to participate

**Data Collection Tools**

Structured Questionnaire: Assessed awareness, usage patterns, and satisfaction levels.

Semi-structured Interviews: Explored personal experiences and perceived barriers.

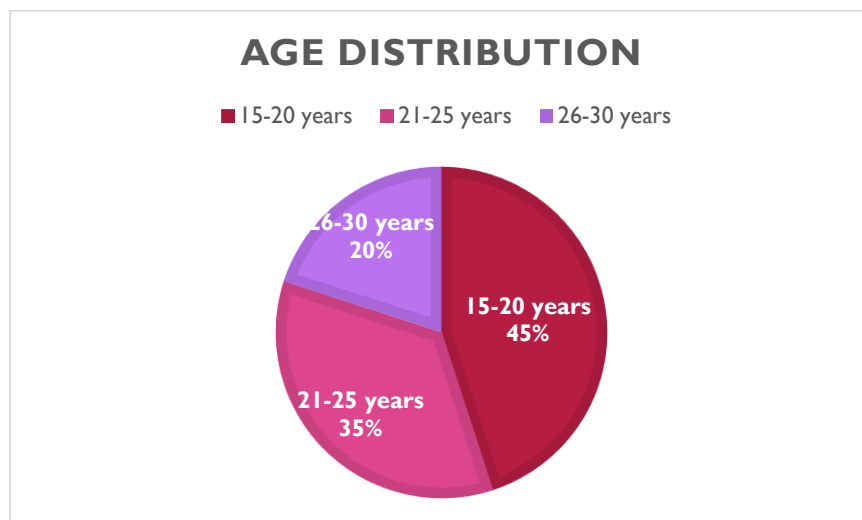
**Data Analysis**

Quantitative data analyzed using SPSS software for descriptive and inferential statistics.

Qualitative data analyzed through thematic analysis to identify recurring patterns and experiences.

**3. RESULTS****Age Distribution:**

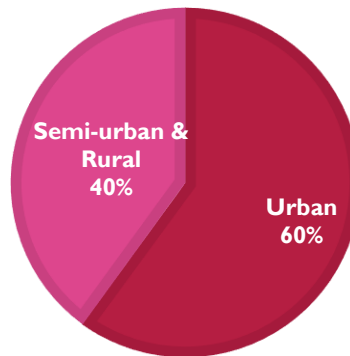
AGE DISTRIBUTION	NO OF PARTICIPANTS	PERCENTAGE
15-20 Years	135	45%
21-25 years	105	35%
26-30 years	60	20%

**Socioeconomic Status:**

SOCIOECONOMIC STATUS	NO OF PARTICIPANTS	PERCENTAGE
Urban	180	60%
Semi urban & rural	120	40%

## SOCIOECONOMIC STATUS

■ Urban ■ Semi-urban & Rural

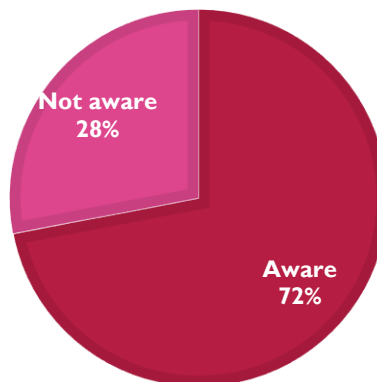


### Awareness Levels:

AWARNESS LEVEL	NO OF PARTICIPANTS	PERCENTAGE
AWARE	216	72%
NOT AWARE	84	28%

## AWARENESS OF MENSTRUAL CUPS

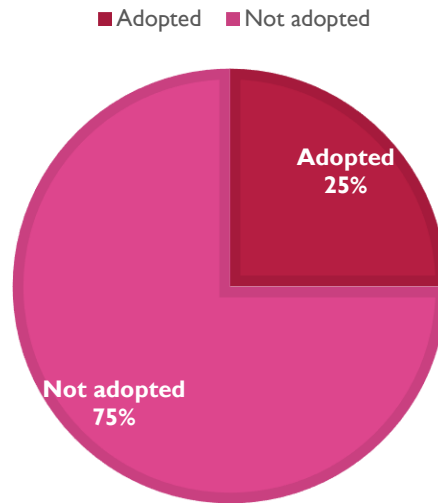
■ Aware ■ Not aware



### Adoption Rates:

ADOPTION RATES	NO OF PARTICIPANTS	PERCENTAGE
Adopted	75	25%
Not adopted	225	75%

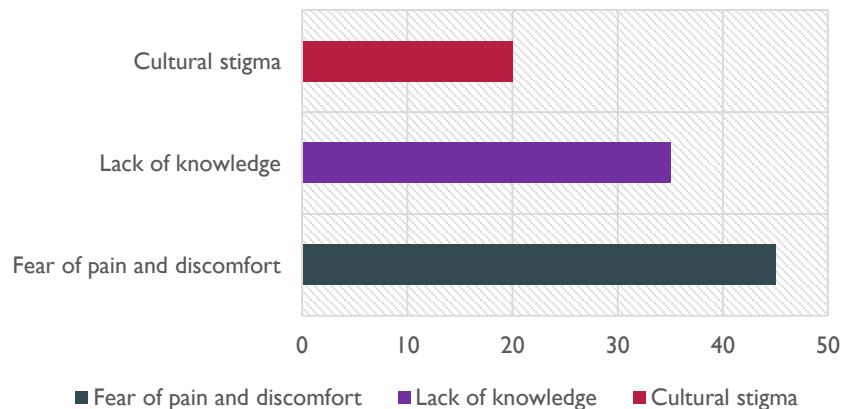
## ADOPTION OF MENSTRUAL CUPS



### Barriers to Adoption:

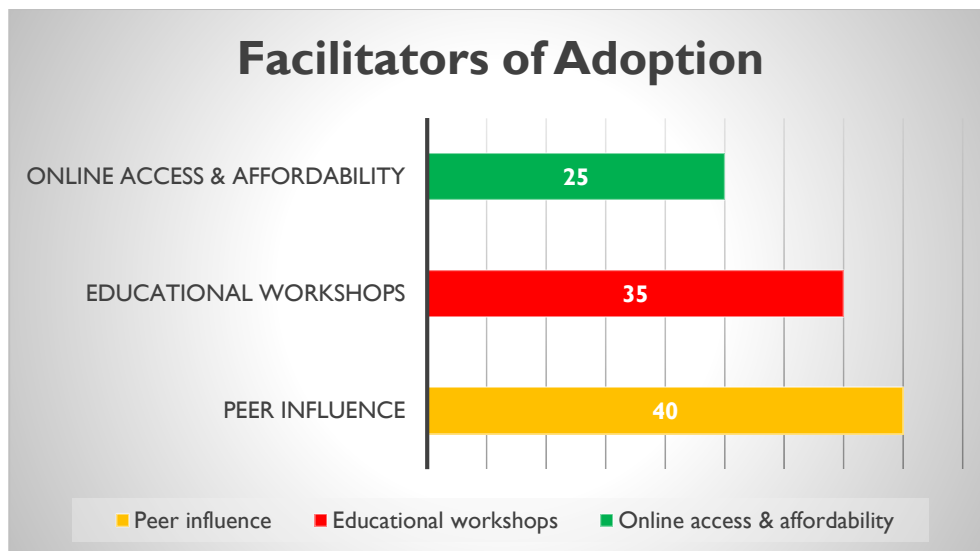
BARRIER TO ADOPTION	NO OF PARTICIPANTS	PERCENTAGE
Fear of pain & discomfort	135	45%
Lack of knowledge	105	35%
Cultural stigma	60	20%

### Barrier to Adoption



### Facilitators for Adoption:

FACILITATOR ADOPTION	FOR	NO OF PARTICIPANTS	PERCENTAGE
Peer influence		120	40%
Educational workshops		105	35%
Online accessibility		75	25%



#### 4. DISCUSSION

The present study aimed to assess the awareness and adoption rates of menstrual cups among adolescents and young women aged 15-30 years. The findings revealed that while 72% of participants had heard about menstrual cups, only 25% had actually adopted them. This highlights the gap between awareness and actual usage, which is influenced by several socio-cultural, psychological, and educational factors.

##### 1. Awareness vs. Adoption Gap

The study observed that despite a relatively high awareness rate, the adoption rate remained low. This is consistent with previous research by van Eijk et al. (2019), which reported that mere awareness does not translate into acceptance and usage. The lack of adequate knowledge about the correct method of insertion, removal, and cleaning of menstrual cups acts as a significant barrier.

In this study, 45% of participants reported fear of discomfort and pain during insertion, while 35% cited a lack of proper guidance on usage. This indicates that awareness campaigns alone are insufficient; there is a need for hands-on training and educational workshops to overcome these psychological barriers.

##### 2. Influence of Cultural and Social Perceptions

Cultural taboos and social stigma surrounding menstruation continue to play a major role in limiting the acceptance of menstrual cups.

20% of participants expressed concerns about the loss of virginity due to the use of menstrual cups, reflecting deeply rooted myths related to female anatomy and sexual purity.

Fear of being judged by peers and family members also discouraged many from switching to menstrual cups.

These findings align with the study conducted by Mason et al. (2015) in rural Kenya, where cultural beliefs and misinformation significantly impacted the adoption of menstrual cups. Overcoming such barriers requires community-based awareness programs that involve healthcare professionals, school authorities, and family members to normalize menstrual cup usage.

##### 3. Role of Peer Influence and Positive Testimonials

The study revealed that 40% of participants who adopted menstrual cups did so due to recommendations from peers and social media influencers. This finding is consistent with the study by Oster & Thornton (2012), which highlighted the significant role of peer influence in technology adoption, especially in younger age groups.

Participants who received positive testimonials from friends who successfully used menstrual cups reported higher confidence in trying the product. Moreover, social media platforms like Instagram and YouTube served as key sources of information, with influencers sharing their personal experiences and providing demonstrations on the correct usage of menstrual cups.

This suggests that incorporating social media campaigns and peer-led workshops can be effective strategies to promote menstrual cup adoption among adolescents and young women.

#### 4. Satisfaction and Long-Term Benefits

Among the 25% of participants who had adopted menstrual cups, 80% reported high satisfaction levels. The key reasons for satisfaction included:

Comfort and convenience: Fewer leaks and longer usage duration (up to 8-12 hours).

Cost-effectiveness: Significant reduction in monthly expenditure on sanitary pads and tampons.

Environmental impact: Reduction in plastic waste and contribution to sustainable menstruation.

These findings are supported by Howard et al. (2011), who reported that menstrual cup users experienced fewer instances of irritation, rashes, and infections compared to users of disposable sanitary products.

#### 5. Barriers to Adoption

Despite the high satisfaction levels, several barriers to adoption were identified:

Lack of proper education and guidance (35%): Many participants expressed hesitation due to limited knowledge about insertion and removal techniques.

Fear of discomfort and pain (45%): Especially common among adolescents who had not been exposed to internal menstrual products like tampons.

Accessibility and affordability (20%): In rural and semi-urban areas, menstrual cups are not easily available, and the initial cost is perceived as high, even though it is cost-effective in the long run.

This highlights the need for structured menstrual health education programs in schools and colleges, along with affordable access to menstrual cups in local pharmacies and online platforms.

#### 6. Impact of Educational Interventions

The study showed that participants who attended awareness sessions or educational workshops were more likely to adopt menstrual cups. Steele & Yu (2022) emphasized that hands-on demonstration sessions on insertion and removal techniques significantly improve user confidence and reduce fear.

Introducing menstrual cup awareness programs in school health curriculums and conducting workshops led by gynecologists and menstrual health educators can help bridge the knowledge gap.

#### 7. Psychological Comfort and Body Autonomy

Another crucial finding was the positive impact of menstrual cup usage on women's psychological comfort and body autonomy. Participants who successfully transitioned to menstrual cups reported feeling more in control of their menstrual health.

Unlike sanitary pads, which require frequent changing, and tampons, which pose a risk of Toxic Shock Syndrome (TSS), menstrual cups provide a safer and more comfortable option, especially for women with heavy flow. This aligns with the findings of Beksinska et al. (2020), where users reported improved confidence and reduced anxiety during their menstrual cycle.

#### 8. Role of Healthcare Professionals

Interestingly, only 15% of participants reported receiving information about menstrual cups from healthcare providers. This highlights the lack of proactive counseling on alternative menstrual products in clinical settings.

Gynecologists and healthcare providers play a critical role in educating young women about safe and sustainable menstrual hygiene practices. Incorporating menstrual cup awareness in antenatal clinics, adolescent health camps, and reproductive health counseling sessions can significantly improve acceptance rates.

#### *Strengths of the Study*

The study was conducted on a diverse population across urban, semi-urban, and rural areas.

A mixed-methods approach (quantitative survey and qualitative interviews) provided a comprehensive understanding of the factors influencing menstrual cup adoption.

#### *Limitations of the Study*

The study was limited to a single geographical location (Chennai), which may not reflect the perspectives of women from different cultural backgrounds.

Self-reported data may be subject to recall bias and social desirability bias.

#### *Future Recommendations*

Incorporating menstrual cup awareness programs in school and college health curriculums.  
Training healthcare professionals to provide counseling on menstrual cup usage during routine gynecological consultations.  
Addressing cultural taboos and myths through community-based awareness campaigns.  
Ensuring the availability and affordability of menstrual cups in rural and semi-urban areas.  
Using social media platforms to spread positive testimonials and educational content.

## 5. CONCLUSION

Menstrual cups offer a sustainable and cost-effective alternative to traditional menstrual products. However, their adoption among adolescents and young women is limited due to misinformation, fear of discomfort, and cultural taboos. Targeted educational interventions and awareness campaigns are essential to improve acceptance and accessibility.

### *Recommendations*

Incorporate menstrual cup awareness programs in school health education.  
Conduct community-based workshops to address misconceptions and promote proper usage.  
Ensure availability and affordability of menstrual cups in rural areas.

### *Limitations*

Limited to a single geographical location (Chennai).  
Self-reported data may be subject to recall bias.

**Conflict of Interest:** None declared.

**Funding Source:** Self-funded study.

### **Ethical Approval:**

Approved by the Institutional Ethical Committee of Sree Balaji Medical College and Hospital, Chennai.

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