

# **A Study on Acceptability, Feasibility and Concerns of College Students Regarding Menstrual Cup Usage**

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## **Abstract**

This study examines the acceptability, affordability, and concerns of college students regarding menstrual cups as an alternative to sanitary pads. Globally, there is increasing recognition of menstrual health and hygiene (MHH) within development and humanitarian initiatives. However, girls and women often face inadequate access to water, sanitation facilities, and disposal mechanisms necessary for managing menstruation in educational institutions, homes, workplaces, and public facilities, including healthcare centers and government buildings. The study's findings indicate that menstrual cups are more affordable than sanitary pads, as they are cost-effective and reusable over an extended period. Additionally, their zero-waste generation presents a significant environmental advantage. However, respondents expressed concerns such as fear of leakage, apprehension about losing virginity, discomfort with inserting a foreign object, and difficulty in selecting the correct size. To address these concerns, there is a need to strengthen efforts to improve the availability, accessibility, and variety of menstrual hygiene products, considering factors such as affordability, sustainability, proper disposal, and local market dynamics.

**Keywords:** Menstrual hygiene, Sanitary pads, Menstrual cups, feasibility, Acceptability, Concerns, affordability

## **1. Introduction**

"Ensuring safe and dignified menstrual hygiene is a fundamental prerequisite for women's and girls' health, well-being, and human rights. UNICEF envisions a world where every girl can access education, participate fully in recreational activities, and maintain optimal health without facing psychological distress, societal stigma, or structural barriers to critical information and menstrual health resources. Effective menstrual hygiene management for adolescent girls and women across diverse contexts is essential for advancing human dignity, gender equity, and public health. A growing body of empirical evidence from low- and middle-income countries highlights the persistent obstacles many girls encounter in managing menstruation with dignity, privacy, and autonomy, emphasizing the pressing need for holistic and sustainable interventions. A growing body of evidence from low- and middle-income countries indicates that many girls struggle to manage menstruation and associated hygiene with dignity and ease. This challenge is even more pronounced for girls and women in emergency contexts. Limited access to menstrual health resources, compounded by discriminatory social norms, misinformation, inadequate sanitation facilities, and restricted availability of appropriate absorbent materials, significantly hinders

their ability to maintain proper menstrual hygiene at home, in schools, workplaces, and other public spaces."

## **2. Review of literature**

Van Eijk (2018) in her study on the effectiveness of menstrual cups as a viable solution for menstrual hygiene management in economically challenged settings, she conducted a pilot study assessing the uptake and maintenance of menstrual cup use among young schoolgirls in Kenya. The study evaluated factors influencing adoption, continued use, and long-term feasibility. Objective evidence, including changes in cup color over time and group education sessions, was used to assess the impact and sustainability of menstrual cup use.

Pokhrel (2021) through his study explores the acceptability and feasibility of using vaginal menstrual cups among schoolgirls in rural Nepal through a qualitative pilot study. It highlights the challenges of menstrual hygiene management in low-income settings, particularly among school-aged girls, due to traditional beliefs, limited knowledge of hygienic practices, and restricted access to appropriate and affordable menstrual hygiene products.

Medhi (2022) examines the acceptability, affordability, accessibility, and awareness of menstrual cups among menstruating women in India. The findings indicate that 79% of menstrual cup users reported comfort with its use. Additionally, respondents emphasized the importance of awareness initiatives, such as seminars, to dispel myths and misconceptions surrounding menstrual cups.

Arumadi (2023) was conducted a cross-sectional study among 109 female medical students. Although most participants exhibited a positive attitude toward menstrual cups, the proportion of those who had previously used them remained low. Several concerns and apprehensions regarding menstrual cup use must be addressed to facilitate broader acceptance and adoption.

Dave (2024) examines the eco-friendly and sustainable nature of menstrual cups, highlighting their cost-effectiveness and growing presence in the Indian market. While menstrual cups are a dominant menstrual hygiene product in Western countries, their adoption in India remains limited. The study emphasizes the environmental benefits of menstrual cups and advocates for increased awareness and acceptance among Indian women to promote sustainable menstrual hygiene practices.

## **3. Significance of the study**

This study aims to provide evidence for a better understanding of the menstrual cup as a method for managing menstrual flow and to assess its appropriateness and acceptability among college students. Disposable sanitary towels and pads remain the most commonly used menstrual management products. However, in resource-constrained settings and densely populated informal settlements, these products are often prohibitively expensive, cumbersome to transport, and challenging to dispose of, posing significant environmental and logistical concerns. Public infrastructure and policies in health and education consistently underprioritize and underfund menstrual hygiene management, support, and education. Limited access to adequate WASH (Water, Sanitation, and Hygiene) facilities, menstrual health information, and essential materials presents significant barriers for women and girls with disabilities, hindering their ability to manage menstruation hygienically and with dignity. There is a critical need to enhance efforts to expand the availability and diversity of menstrual hygiene products, taking into account affordability, sustainability, disposal mechanisms, and local market dynamics.

## 4. Statement of the Problem

Menstruation is a natural physiological process and an essential indicator of reproductive health in women. However, in many societies, it remains a taboo subject and is often perceived as impure. Disposable sanitary pads and napkins are the most commonly used menstrual management products, yet their improper use and inadequate hygiene practices can increase the risk of reproductive tract infections, leading to further health complications for women and girls. Certain sanitary pads may pose health risks due to factors such as prolonged use, inadequate hygiene, or exposure to chemical additives. To address these concerns, this study examines the cost-effectiveness of menstrual cups in comparison to other menstrual hygiene products, evaluating their economic viability and potential health benefits.

## 5. Objectives

- To find out the various factors that influences the students to buy the menstrual cup.
- To examine the cost effectiveness of menstrual cup as compared to sanitary pads
- To find out the concerns faced in the usage of menstrual cup
- To assess the satisfaction level of menstrual cup usage among respondents

## 6. Research Methodology

The present study is undertaken to find out the acceptability, feasibility and concerns of college students regarding menstrual cup usage. Both primary and secondary data are used for the study. Primary data collected through structured interview schedule from sample respondents. Secondary Data collected through various published records, Journals, research studies, Newspapers, books, magazines and also from internet. Data collected from the 200 college students randomly selected from Kottayam district. Percentage, Likert scale and Rank order scale are used to analyse the collected data.

### \*Rank order scale

In order to analyse the various factors influenced to use menstrual cup rank order scale is used. The respondents were asked to rank each factor in order of preference. Each rank was given a score such as highest score was given a highest rank and lowest score was given for a lowest rank. The total score for each problem is calculate by multiplying the rank score with corresponding number of respondents. The factor having the highest score has selected as the first rank factor which influenced to use menstrual cup.

### \*Likert scale

5 point likert scale is used to analyse the level of satisfaction of respondents towards menstrual cup.. Respondents are asked to respond to the five response viz, highly satisfied, partially satisfied, neither satisfied nor dissatisfied, partially dissatisfied and highly dissatisfied. The values are assigned formal 5 to 1 respectively to the responses.

$$\sum(fx/\text{total no.of respondents})$$

## 7. Analysis and Findings

**Table : 1 Duration of the menstrual cycle**

Duration of menstrual cycle (In days)	No . of respondents	Percentage (%)
3	8	4
4	60	30
5	72	36
6	44	22

7	16	8
Total	200	100

**Source : Primary data**

From the table it is clear that 36 percent of respondents have 5 days menstrual cycle, followed by 30 percent have 4 days, 22 percent respondents have 6 days, 8 percent respondents have 7 days and 4 percent respondents have 3 days of menstrual cycle.

**Table: 2 Menstrual Materials Used Prior to the Adoption of the Menstrual Cup**

Menstruation material	No . of respondents
Sanitary pad	200 (100)
Old cloth	32(16)

**Source : Primary data**

**\* Figures in bracket shows percentage to total**

The above table shows that all the respondents used sanitary pads and 16 percent used both sanitary pad and old cloth before starting to use menstrual cup.

**Table: 3 Factors Contributing to the Avoidance of Sanitary Pads**

Reasons	No.of respondents
Costly	96 (48)
Inconvenience of frequent changing of pads	104(52)
Fear of leakage	88 (44)
Irritation/ itching	136 (68)
Bad odour	116 (58)
Not environmentally friendly	92 (46)
Contain chemicals	76 (38)
Pads are bulky and sometimes don't fit well	68 (34)

**Source: Primary data**

**\* Figures in bracket shows percentage to total**

The analysis of the factors contributing to the avoidance of menstrual pads show that 68 percent of the respondents avoided sanitary pads due to irritation / itching, 58 percent due to bad odour, 52 percent due to inconvenience of frequent changing of pads, 48 percent due to high cost, 46 percent due to environmental factors. 44 percent due to the fear of leakage, 38 percent due to the fear of chemical content in pads and 34 percent users avoided sanitary pads due to bulky feeling and not fit well.

**Table : 4Average Annual expense of menstrual product**

Menstrual product	Average annual expense (In Rs.)
Sanitary pad	1440
Menstrual cup	530

**Source : Primary data**

As per the above table it has been revealed that annual expense for sanitary pad per person is Rs. 1440 and for menstrual cup it is only Rs. 530

**Table: 5 Duration of Menstrual Cup Usage**

No . of years using menstrual cup	No . of Respondents	Percentage (%)
1	76	38
2	124	62
Total	200	100

**Source : Primary data**

62 percent of people are using menstrual cup since last 2 years, whereas 38 percent of people using menstrual cup since last 1 year.

**Table: 6 Source of information about menstrual cup usage**

Source of information	No. of respondents	Percentage
Friends	104	52
Doctor	40	20
Advertisement	56	28
Total	200	100

**Source : Primary data**

The above table shows the source of information of menstrual cup. 52 percent got information about the use of menstrual cup from friends, 28 percent of respondents got information through advertisements and 20 percent respondents got information from the doctor.

**Table: 7 Size of menstrual cup**

Size of menstrual cup	No. of respondents	Percentage (%)
Large	20	10
Medium	180	90
Small	0	0
Total	200	100

**Source: primary data**

The table shows the size of menstrual cup .90 percent of respondents using medium size and 10 percent using large menstrual cups in their menstrual cycle.

**Table: 8 Accessibility of Menstrual Products in Local Retail Stores**

Availability in nearest shop	No. of respondents	Percentage (%)
Yes	200	100
No	0	0
Total	200	100

**Source: Primary data**

Table: 7 shows that menstrual cups are available at the nearest shop of all the respondents.

**Table: 9 Frequency of change of menstrual cup**

Frequency of change	No. of respondents	Percentage
2 times	184	92
3 times	16	8
4 times	0	0
Not change	0	0
Total	50	100

**Source: Primary data**

The above shows that 92 percent respondents change menstrual cups 2 times in a day and 8 percent respondents changes 3 times in a

**Table: 10 Frequency of Reuse of the Same Menstrual Cup**

Frequency of usage	No . of respondents	Percentage
2-3 months	12	6
6 months & above	188	94
Total	200	100

**Source: Primary data**

The table indicates that 94% of respondents use the same menstrual cup for six months or longer, while 6% replace it within two to three months.

**Table: 11 Factors Influencing the Adoption of Menstrual Cups**

Factors	Total score	Rank
Leak free period protection	1647	1
Sleeping comfortably throughout the night	1616	3
Working, exercising, swimming during menstrual period	1586	6
No rashes, discomfort or itching	1614	4
No need to purchase sanitary pads every month	1618	2
Enables a zero – waste lifestyle	1579	8
Holds more fluid	1565	9
Affordable	1611	5
Convenient	1585	7

**Source :Primary data**

The above table analyses the factors motivated the respondents to use the menstrual cup. The most important motivating factor to use the menstrual cup is the leak free period protection capacity, followed by the other factors like no need to purchase sanitary pads every month, sleeping comfortably throughout night, no rashes, discomfort or itching, affordable, working exercising, swimming during menstruation and it enables a zero waste life style.

**Table: 12 Concerns of users**

Concerns	Total score	Rank
Allergies/ infection	332	1
Difficulty in usage compared to other products	281	3
Fear of insertion of a foreign body	267	4
Difficulty in accessing the cups	230	7
Discomfort	184	9
Fear of losing virginity	250	5
Limited knowledge	248	6
Leakage	194	8
Difficulty in choosing correct size	284	2

**Source: Primary data**

The analysis shows that the foremost concern among the menstrual cup users is the fear of allergies/infection, followed by most important motivating factor to use the menstrual cup is the leak free period protection capacity, followed by the other factors like no need to purchase sanitary pads every month, sleeping comfortably through night, no rashes, discomfort or itching, affordable, working exercising, swimming during menstruation and it enables a zero waste life style.

**Table: 13 Level of Satisfaction**

Level of satisfaction	No .of respondents	Likert scale	Total score
Highly satisfied	76	5	380
Partially satisfied	112	4	448
Neither satisfied nor dissatisfied	12	3	36
Partially dissatisfied	0	2	0
Highly dissatisfied	0	1	0
Total	200		864

**Source: primary data**

**Likert scale**= $\Sigma (fx / \text{total no. of respondents})$

= $864/200 = 4.32$

Likert scale value is greater than the middle value 3. The survey reveals that respondents are satisfied with the menstrual cup.

## Conclusion

The present study found that menstrual cup users reported high levels of satisfaction with its use. Menstrual cups are particularly beneficial for students, especially those residing in hostels, due to their convenience and long-lasting protection. An increasing number of women are adopting menstrual cups as a sustainable menstrual hygiene solution. When used correctly, menstrual cups provide a safe, cost-effective, and environmentally friendly alternative to conventional menstrual management methods.



Although initial use may require an adjustment period, proper insertion enhances comfort, and with time and practice, menstrual cups may become a preferred choice for many users.

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