

Knowledge and Attitude Towards Menstrual Cup Usage Among Adolescent Girls: A Study in Gurugram, Haryana

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ABSTRACT

Introduction: Menstrual cups are becoming increasingly popular as a sustainable and cost-effective alternative to traditional menstrual products like pads and tampons. However, awareness and acceptance of menstrual cups among adolescent girls in India remain limited. This study aims to assess the knowledge and attitude of adolescent girls towards menstrual cup usage in selected schools in Gurugram, Haryana.

Aim: To assess knowledge and attitude of adolescent girls regarding menstrual cup.

Methods: A cross-sectional study was conducted among 60 adolescent girls using a structured self-administered questionnaire. The data collected included demographic information, knowledge about menstrual cups, and attitudes towards their usage. Descriptive statistics were used to analyze the data, and associations between demographic factors and knowledge were explored using Chi-square tests.

Results: The study found that 61.7% of adolescent girls had an average level of knowledge about menstrual cups, while only 5% demonstrated high knowledge. The majority (51.66%) of respondents indicated they would never prefer using a menstrual cup, and 36.66% were skeptical about the economic benefits of menstrual cups. Significant associations were found between knowledge levels and area of residence.

Conclusion: Although menstrual cups are a sustainable option for menstrual hygiene, misconceptions and cultural barriers hinder their adoption among adolescent girls. Increased awareness through educational initiatives is needed to improve knowledge and positively influence attitudes towards menstrual cups.

INTRODUCTION

Menstrual hygiene management is an essential aspect of women's reproductive health, especially for adolescent girls. The onset of menstruation is a significant milestone in a girl's life, marking the transition to womanhood. However, the stigma, cultural taboos, and limited knowledge surrounding menstruation often create challenges in managing menstrual health effectively. In India, where more than half of the female population experiences menstruation, these challenges are particularly pronounced. Many adolescent girls rely on traditional menstrual hygiene products such as sanitary pads and cloth, which may not always be available, affordable, or eco-friendly. This highlights the importance of exploring alternatives like menstrual cups, which offer benefits in terms of health, sustainability, and cost-effectiveness.

Menstrual cups, which are made from medical-grade silicone or rubber, are reusable devices designed to collect menstrual blood. Unlike disposable sanitary products, they are environmentally friendly and can last for up to 10 years with proper care. Despite their advantages, menstrual cups remain underutilized, particularly in rural and semi-urban areas of India. This is largely due to the lack of awareness, limited access, and deep-rooted

misconceptions regarding their use. Cultural norms, such as the belief that menstrual cups may compromise virginity, further hinder their acceptance among adolescent girls. Additionally, the marketing and widespread availability of sanitary pads have made them the default menstrual hygiene product in many communities.

In recent years, there has been a growing recognition of the need for more sustainable menstrual products that not only benefit individual users but also reduce the environmental burden caused by disposable pads and tampons. The global shift towards eco-friendly solutions makes it imperative to understand the factors influencing the acceptance and use of menstrual cups, particularly among adolescents who are at the beginning of their reproductive journey.

This study aims to assess the knowledge and attitudes of adolescent girls in Gurugram, Haryana, regarding the use of menstrual cups. By exploring the level of awareness and identifying factors that contribute to positive or negative attitudes, the findings of this research could inform targeted educational campaigns and interventions that promote sustainable menstrual hygiene practices. The insights gained from this study may also help address the misconceptions surrounding

menstrual cups, thereby encouraging more widespread adoption among young girls and contributing to better menstrual health management in India.

Purpose for the study: To assess the knowledge and attitude toward menstrual cup usage among adolescent girls in selected schools.

Materials And Methods:

This cross-sectional descriptive study was conducted to assess the knowledge and attitudes of adolescent girls regarding menstrual cup usage in selected schools in Gurugram, Haryana. The study population consisted of adolescent girls who had attained menarche and were enrolled in the selected schools. A purposive sampling technique was used to select 60 participants based on their willingness and availability during the study period.

Study Design:

A quantitative approach using a structured questionnaire was employed. The study design was non-experimental and descriptive in nature, aiming to assess knowledge and attitude without manipulation of variables.

Sample And Sampling Technique:

The sample size comprised 60 adolescent girls selected through purposive sampling. This non-probability sampling method ensured the inclusion of participants who met the study's eligibility criteria, such as willingness to participate and having experienced menarche.

Data Collection Tool:

Data was collected using a structured, self-administered questionnaire, which was divided into three sections:

1. **Section A:** Demographic details including age, annual family income, family type, age at menarche, and area of residence.
2. **Section B:** Knowledge assessment about menstrual cups, which included questions on the purpose, benefits, and usage of menstrual cups.

Objectives of study:

1. Assessing the knowledge and attitude of adolescent girls related to menstrual cup.
2. To find out the association between knowledge and selected demographic variable regarding usage of menstrual cup.
3. **Section C:** Attitude assessment using a Likert scale to gauge participants' views on menstrual cup usage, economic benefits, and potential stigma

The questionnaire was validated by experts in the field, and a pilot test was conducted to ensure reliability. Ethical approval was obtained from the institutional ethics committee, and written informed consent was taken from both the participants and school authorities before data collection.

Data Analysis

Data were analyzed using descriptive statistics such as frequency, percentage, mean, and standard deviation to assess the level of knowledge and attitude. The Chi-square test was employed to determine the association between knowledge and selected demographic variables. A p-value of <0.05 was considered statistically significant.

Results

The results suggest that while knowledge about menstrual cups exists, there is a general reluctance and skepticism towards their use among adolescent girls in Gurugram.

The study involved 60 adolescent girls from selected schools in Gurugram, Haryana, to assess their knowledge and attitudes towards menstrual cup usage. The majority of the participants (35%) were 16 years old, with 83% residing in rural areas. The annual family income of most participants (35%) was less than ₹25,000, and 52% came from nuclear families.

Table 1: Demographic Profile of the Subjects

Variables	Categories	Frequency (f)	Percentage (%)
Annual Family Income	Less than ₹25,000	21	35%
	₹25,000 - ₹50,000	10	17%
	₹50,000 - ₹75,000	19	32%
	More than ₹75,000	10	17%
Type of Family	Joint Family	29	48%
	Nuclear Family	31	52%
Area of Residence	Rural	50	83%
	Urban	10	17%

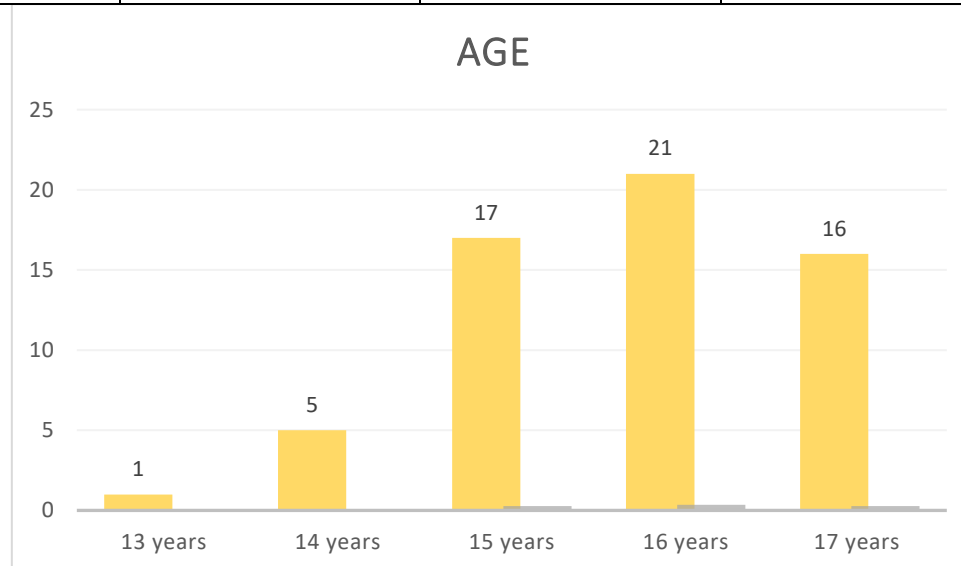


Figure 1: The Column chart represents the distribution of adolescent girls according to their Age (in years).

Table 2: Knowledge Categories on Menstrual Cups

Knowledge Level	Frequency (f)	Percentage (%)
Good (7-10)	3	5.0%

Average (4-6)	37	61.7%
Poor (0-3)	20	33.3%

Regarding knowledge, the majority 61.7% of the participants had an average level of knowledge about menstrual cups, while 33.3% had poor knowledge, and only 5% demonstrated good knowledge.

Most participants (42%) reported experiencing menarche between the ages of 13-14.

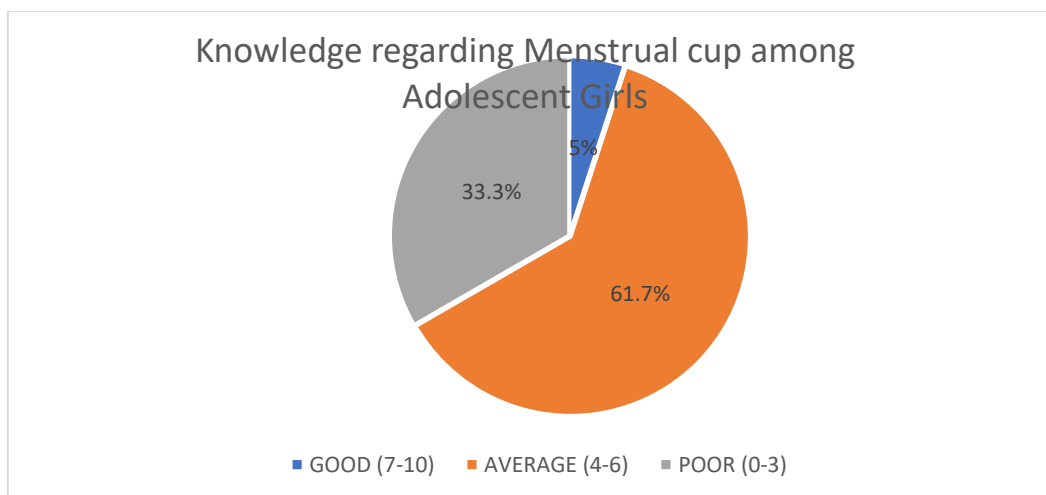


Figure no.2: Pie chart showing the percentage distribution of knowledge Scores regarding menstrual cup usage among adolescent Girls.

Table 3: Attitude of Adolescent Girls Regarding Menstrual Cup Usage

Statements	Response	Frequency (f)	Percentage (%)
Do you prefer using a menstrual cup?	Never	31	51.66%
	Rarely	9	15%
	Sometimes	15	25%
	Often	3	5%
	Very Often	2	3.33%
How frequently do you think there is a stigma associated with using menstrual cups?	Never	13	21.66%
	Rarely	21	35%
	Sometimes	9	15%
	Often	11	18.33%
	Very Often	6	10%
How frequently do you think using a menstrual cup is economically beneficial?	Never	9	15%
	Rarely	22	36.66%
	Sometimes	21	35%
	Often	5	8.33%
	Very Often	3	5%
Do you feel that menstrual cups provide freedom and flexibility?	Never	7	11.66%
	Rarely	8	13.33%
	Sometimes	20	33.33%
	Often	17	28.33%
	Very Often	8	13.33%
How often would you recommend menstrual cups to friends?	Never	10	16.66%
	Rarely	20	33.33%
	Sometimes	9	15%
	Often	12	20%
	Very Often	9	15%
How frequently do you perceive menstrual cups offer superior leak protection?	Never	19	31.66%
	Rarely	17	28.33%
	Sometimes	16	26.66%
	Often	4	6.66%
	Very Often	4	6.66%
How often do you believe menstrual cups are environmentally friendly?	Never	7	11.66%
	Rarely	22	36.66%
	Sometimes	15	25%
	Often	9	15%
	Very Often	7	11.66%
How frequently do you view menstrual cups as adaptable for different levels of menstrual flow?	Never	11	18.33%
	Rarely	14	21.66%
	Sometimes	25	26.66%
	Often	8	16.66%
	Very Often	2	23.33%
How often do you feel pressure from societal norms regarding menstrual products?	Never	13	21.66%
	Rarely	16	26.66%

Do you believe menstrual cups are more hygienic than other products?	Sometimes	10	16.66%
	Often	14	23.33%
	Very Often	7	11.66%
	Never	7	11.66%
	Rarely	17	28.33%
	Sometimes	14	23.33%
	Often	12	20%
	Very Often	10	16.66%

In terms of attitude, 51.66% of the respondents indicated that they would never prefer using a menstrual cup, while only 5% expressed a strong preference for it. Additionally, 36.66% of the girls rarely believed in the economic benefits of menstrual cups, and 35% occasionally thought about it. A significant association was found between knowledge of menstrual cups and the participants' area of residence ($p < 0.05$), indicating that urban girls were more knowledgeable.

DISCUSSION

This study aimed to assess the knowledge and attitudes of adolescent girls regarding menstrual cup usage in selected schools of Gurugram, Haryana. The findings revealed that while a majority of the participants (61.7%) had an average level of knowledge about menstrual cups, there was still a significant portion (33.3%) who had poor knowledge. Only 5% demonstrated a good understanding of the benefits and proper use of menstrual cups. This highlights a need for better educational efforts to promote awareness about menstrual cups, especially considering their advantages in terms of cost-effectiveness and environmental sustainability.

The tool used for data collection was a structured self-administered questionnaire. It was divided into three sections: demographic details, knowledge assessment, and attitude measurement. The knowledge section explored participants' understanding of the purpose, benefits, and usage of menstrual cups. The attitude section employed a Likert scale, covering topics such as preference, economic benefits, and potential stigma associated with menstrual cup usage. The reliability and validity of the tool were ensured through expert evaluation and a pilot study. The structured questionnaire proved effective in capturing both quantitative and qualitative data on the participants' perceptions.

The study's results are consistent with previous research, which also found low levels of knowledge and acceptance of menstrual cups among adolescent girls. A similar study by Devan et al. (2022) showed that while awareness of menstrual cups was relatively high, only a small percentage of girls were willing to use them due to cultural and social barriers. In this study, more than half (51.66%) of the participants expressed a preference against using menstrual cups, and 36.66% did not believe in the economic benefits of menstrual cups, a finding that aligns with studies that report resistance due to misinformation and cultural misconceptions.

The statistically significant association between knowledge and area of residence ($p < 0.05$) suggests that girls from urban areas tend to be more knowledgeable about menstrual cups. This indicates the role of access to information and education, which is often more available in urban settings.

In conclusion, although menstrual cups are a sustainable and cost-effective option for menstrual hygiene, the results of this study show that misconceptions and cultural stigmas remain significant barriers to their widespread adoption among adolescent girls. The study underscores the need for targeted educational interventions to improve knowledge and reshape attitudes toward menstrual cup usage.

CONCLUSION

This study explored the knowledge and attitudes of adolescent girls in selected schools in Gurugram, Haryana, towards menstrual cup usage. The findings indicate that while a majority of the participants had an average level of knowledge about menstrual cups, a significant number lacked sufficient understanding, with only 5% demonstrating good knowledge. Attitudes towards menstrual cups were generally negative, with over half of the participants expressing reluctance to use them. Concerns about

stigma, cultural taboos, and skepticism regarding the economic benefits of menstrual cups were prominent.

The results showed a significant association between knowledge and area of residence, suggesting that urban girls were more knowledgeable about menstrual cups than their rural counterparts. This emphasizes the role of access to education and resources in shaping knowledge and attitudes towards menstrual hygiene products.

The study highlights the need for improved education and awareness campaigns that specifically target adolescent girls, especially in rural areas. By addressing cultural misconceptions and providing accurate information on the benefits of menstrual cups, such initiatives can foster greater acceptance and encourage sustainable menstrual hygiene practices. Overall, increasing awareness and dispelling myths surrounding menstrual cups are crucial steps toward promoting better menstrual health management among adolescent girls.

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