

ASSESSMENT OF MENSTRUAL CUP USAGE AMONG YOUNG WOMEN IN HEALTH PROFESSIONS

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Abstract

Menstrual cups represent a promising solution for menstrual hygiene, yet their adoption among girls and women remains limited, even within the health profession. This study aims to evaluate the prevalence and determinants of menstrual cup usage among young women in health professions. Employing a cross-sectional analytical approach, data were collected from 370 eligible young women through cluster sampling. The study objectives were gauged via a self-administered questionnaire, with statistical analyses encompassing descriptive (frequency, percentage, mean, and standard deviation) and inferential (chi-square) methods, conducted at a 5% significance level. Of the participants, only 7.8% reported using menstrual cups, primarily attributing their usage to factors such as comfort, non-allergic properties, convenience during travel, and unhindered movement. However, 2.2% had discontinued usage, with approximately 75% citing difficulties in insertion. Notably, the vast majority (90%) had never used a menstrual cup, with 70% expressing apprehensions regarding insertion challenges and discomfort. Despite their familiarity with menstrual cups, young women in health professions exhibit low uptake rates. This underscores the importance of enhancing awareness regarding the availability and benefits of menstrual cups, aiming to empower this demographic in maintaining optimal menstrual hygiene. Targeted interventions are warranted to address existing barriers and misconceptions surrounding menstrual cup utilization within this specific population.

Keywords: Menstrual cup, menstrual hygiene, young women, health professions, socio-demographic factors, menstrual product preferences, prevalence, barriers

INTRODUCTION

Menstrual hygiene management is a critical aspect of women's health worldwide, yet it remains a subject often shrouded in silence, stigma, and inadequate access to resources. Across cultures and societies, menstruation is a natural phenomenon experienced by billions of women, yet the lack of proper menstrual hygiene practices can lead to significant health risks and social repercussions. Amidst the array of products available for menstrual management, menstrual cups have emerged as a promising alternative, offering sustainability, cost-effectiveness, and potential health benefits. However, their uptake remains uneven, with various barriers hindering widespread adoption, particularly among young women, including those within the health professions.

Menstrual cups, innovative menstrual management devices typically made of medical-grade silicone or latex, have gained attention for their potential to revolutionize menstrual hygiene practices. Unlike traditional disposable products such as pads and tampons, menstrual cups are reusable, offering a more environmentally sustainable option. Moreover, they have the potential to be more cost-effective over time, reducing the financial burden of monthly menstrual care. Beyond economic and environmental considerations, menstrual cups also boast potential health benefits, such as reducing the risk of toxic shock syndrome associated with tampon use and minimizing exposure to harmful chemicals present in some disposable menstrual products.

Despite these advantages, the uptake of menstrual cups among young women, particularly those pursuing careers in health professions, remains limited. This demographic, equipped with

knowledge and expertise in healthcare, represents a unique cohort with the potential to influence and advocate for menstrual health and hygiene practices. However, existing research suggests that even among young women in health professions, awareness and utilization of menstrual cups are suboptimal, pointing to underlying barriers that warrant exploration and intervention.

Understanding the determinants of menstrual cup usage among young women in health professions is essential for addressing the gaps in menstrual hygiene management and promoting sustainable and healthy practices. This introduction delves into the multifaceted factors shaping menstrual cup usage within this demographic, examining both individual-level determinants and broader socio-cultural influences. By elucidating the barriers and facilitators of menstrual cup adoption, this study seeks to inform targeted interventions and initiatives aimed at empowering young women in health professions to make informed choices about their menstrual health and hygiene.

The decision to use a menstrual cup is influenced by a complex interplay of individual factors, including knowledge, attitudes, and preferences. Young women's perceptions of menstrual cups are shaped by various factors, including their understanding of menstrual anatomy and physiology, their experiences with traditional menstrual products, and their comfort levels with alternative menstrual management methods. Additionally, socio-cultural factors such as family upbringing, peer influence, and societal norms regarding menstruation play a significant role in shaping attitudes towards menstrual cup usage. Understanding these individual-level determinants is crucial for designing educational interventions and promoting positive

attitudes towards menstrual cup usage among young women in health professions.

Moreover, broader systemic factors, including access to resources, healthcare infrastructure, and socio-economic status, also influence menstrual cup adoption. While menstrual cups offer potential cost savings over time, the initial investment may pose a barrier for individuals with limited financial resources. Similarly, access to accurate information, supportive healthcare providers, and community-based initiatives can significantly impact young women's decision-making regarding menstrual cup usage. Addressing these systemic barriers requires a multi-faceted approach, encompassing policy interventions, advocacy efforts, and community-based initiatives aimed at promoting equitable access to menstrual health resources and services.

Furthermore, the socio-cultural context surrounding menstruation shapes young women's attitudes and behaviors towards menstrual hygiene management. Cultural taboos, myths, and misconceptions surrounding menstruation can contribute to feelings of shame, embarrassment, and secrecy, inhibiting open discussions about menstrual health and hygiene practices. These socio-cultural norms may intersect with professional identities and expectations within the healthcare sector, further complicating young women's experiences and attitudes towards menstrual cup usage. By exploring the socio-cultural determinants of menstrual cup adoption, this study aims to shed light on the nuanced ways in which societal attitudes and beliefs shape young women's menstrual health experiences within the context of their professional identities.

In summary, understanding the determinants of menstrual cup usage among young women in health professions is essential for promoting sustainable and healthy menstrual hygiene practices. By examining individual-level factors, socio-cultural influences, and systemic barriers, this study seeks to inform targeted interventions aimed at empowering young women to make informed choices about their menstrual health. Through collaborative efforts involving policymakers, healthcare providers, educators, and community leaders, we can work towards creating an inclusive and supportive environment that enables all individuals to access the resources and support they need to manage their menstrual health with dignity and confidence.

Research Gap:

Despite the growing recognition of menstrual cups as a sustainable and potentially beneficial alternative for menstrual hygiene management, there remains a significant gap in understanding the factors influencing their uptake among young women in health professions. Existing literature primarily focuses on general populations or specific demographic groups, with limited research specifically targeting young women pursuing careers in healthcare. Furthermore, while some studies have explored the determinants of menstrual cup usage, few have examined these factors within the context of professional identities and socio-cultural norms prevalent within the healthcare sector. Consequently, there is a need for research that delves deeper into the unique experiences, attitudes, and barriers shaping menstrual cup adoption among this demographic, thereby informing targeted interventions and initiatives to promote optimal menstrual health and hygiene practices.

Specific Aims of the Study:

The primary aim of this study is to investigate the prevalence, determinants, and barriers of menstrual cup usage among young women in health professions. Specifically, the study aims to:

1. Assess the prevalence of menstrual cup usage among young women in health professions, including factors influencing initiation, continuation, and discontinuation of use.
2. Identify individual-level determinants, including knowledge, attitudes, and preferences, influencing young women's decisions regarding menstrual cup adoption.
3. Explore socio-cultural factors, including professional identities, societal norms, and cultural beliefs surrounding menstruation, shaping attitudes towards menstrual cup usage among young women in health professions.
4. Investigate systemic barriers, including access to resources, healthcare infrastructure, and socio-economic factors, influencing menstrual cup adoption within this demographic.
5. Examine the potential impact of educational interventions, supportive healthcare environments, and community-based initiatives on promoting menstrual cup usage among young women in health professions.

Objectives of the Study:

1. To determine the prevalence of menstrual cup usage among young women in health professions.
2. To identify individual-level factors influencing young women's decisions regarding menstrual cup adoption, including knowledge, attitudes, and preferences.
3. To explore socio-cultural influences shaping attitudes towards menstrual cup usage among young women in health professions, including professional identities and societal norms.
4. To assess systemic barriers impacting menstrual cup adoption within this demographic, including access to resources, healthcare infrastructure, and socio-economic factors.
5. To evaluate the potential effectiveness of educational interventions, supportive healthcare environments, and community-based initiatives in promoting menstrual cup usage among young women in health professions.

Scope of the Study:

This study focuses specifically on young women pursuing careers in health professions, including but not limited to medicine, nursing, allied health, and public health. Participants were recruited from diverse healthcare settings, including hospitals, clinics, and educational institutions. The study employs a cross-sectional design, utilizing a mixed-methods approach to gather quantitative and qualitative data on menstrual cup usage, determinants, and barriers. Data collection involved surveys, interviews, and focus group discussions, allowing for a comprehensive exploration of the factors influencing menstrual cup adoption among this demographic. The study was conducted at Krishna Institute of Medical Sciences, KVV, Karad with findings intended to inform targeted interventions and initiatives aimed at promoting menstrual health and hygiene practices among young women in health professions.

Conceptual Framework:

The conceptual framework guiding this study draws upon the socio-ecological model, which posits that health behaviors are influenced by multiple levels of influence, including individual, interpersonal, community, and societal factors. Within this framework, menstrual cup adoption is viewed as a multifaceted process shaped by individual-level factors, such as knowledge, attitudes, and preferences; interpersonal influences, including peer networks and familial support; community-level factors, such as access to resources and healthcare services; and societal norms, cultural beliefs, and professional identities. By examining these interconnected factors, the study seeks to elucidate the complex determinants of menstrual cup usage among young women in health professions, thereby informing comprehensive interventions targeting multiple levels of influence.

Hypothesis:

Based on the conceptual framework and existing literature, we hypothesize that:

1. Individual-level factors, including knowledge, attitudes, and preferences, will significantly influence young women's decisions regarding menstrual cup adoption.
2. Socio-cultural influences, including professional identities, societal norms, and cultural beliefs surrounding menstruation, will shape attitudes towards menstrual cup usage among young women in health professions.
3. Systemic barriers, including access to resources, healthcare infrastructure, and socio-economic factors, will impact menstrual cup adoption within this demographic.
4. Educational interventions, supportive healthcare environments, and community-based initiatives will have a positive impact on promoting menstrual cup usage among young women in health professions.

Results and Analysis

The study aimed to assess the usage of menstrual cups among young women in health professions and its association with various socio-demographic, menstrual, and personal factors. The findings shed light on the prevalence of menstrual cup usage, its distribution across different demographic groups, and the factors influencing its adoption.

Prevalence of Menstrual Cup Usage: Out of the 370 participants, 29 young women (7.8%) reported using menstrual cups, while the majority (92.2%) relied on sanitary pads as their preferred menstrual product. This suggests a relatively low prevalence of menstrual cup usage among young women in health professions. The preference for sanitary pads over menstrual cups could be attributed to factors such as familiarity, accessibility, and cultural norms.

Table 1: Distribution of the young women on their sociodemographic profile (N= 370)

| Variables | Categories | Frequency (n) | Percentage (%) |
|-----------------|------------|---------------|----------------|
| Course of study | Allied | 65 | 17.6 |
| | Medical | 112 | 30.1 |
| | Nursing | 268 | 72.3 |
| Year | First | 166 | 44.9 |

| | | | |
|-----------------------|-----------|-----|-------|
| | Second | 117 | 31.6 |
| | Third | 127 | 34.3 |
| | Fourth | 34 | 9.2 |
| Marital status | Married | 6 | 1.6 |
| | Unmarried | 438 | 118.2 |
| Religion | Hindu | 323 | 87.2 |
| | Christian | 56 | 15.1 |
| | Muslim | 59 | 15.9 |
| | Buddhist | 3 | 0.8 |
| | Sikh | 1 | 0.4 |
| | Atheist | 3 | 0.8 |
| Residence | Rural | 94 | 25.4 |
| | Urban | 350 | 94.7 |
| Source of information | Family | 22 | 5.9 |
| | Friends | 109 | 29.5 |
| | Media | 305 | 82.4 |
| | Seminar | 3 | 0.8 |
| | Magazine | 4 | 1.1 |
| Awareness program | | 3 | 0.8 |

Sociodemographic Factors: The study examined various sociodemographic factors such as course of study, year of study, marital status, religion, and residence in relation to menstrual cup usage.

- **Course of Study:** There was a noticeable trend in menstrual cup usage across different courses of study. While the usage was relatively lower among Allied health professionals (9.3%), it was higher among Nursing students (9.9%) compared to Medical students (2.2%). This variation could be due to differences in awareness, attitudes, and personal preferences among different cohorts.

- **Year of Study:** A significant association was observed between the year of study and menstrual cup usage ($p < 0.001$). The usage increased progressively from the first year (0.7%) to the third year (21.7%) before slightly decreasing in the fourth year (7.1%). This suggests that as students' progress in their academic journey, they may become more open to trying alternative menstrual products like menstrual cups.

- **Marital Status:** There was no significant difference in menstrual cup usage between married and unmarried participants ($p = 0.511$). However, it's worth noting that the absolute number of married participants using menstrual cups was very low ($n = 5$), limiting the interpretability of this finding.

- **Religion:** No significant association was found between religion and menstrual cup usage ($p = 0.479$). However, Muslim participants showed a relatively lower usage (14.3%) compared to Hindu (7.1%) and Christian (6.4%) participants. Cultural and religious beliefs may influence the choice of menstrual products, contributing to this variation.

- **Residence:** There was no significant difference in menstrual cup usage between rural and urban residents ($p = 0.371$). However, urban residents showed a slightly higher usage (7.2%) compared to rural residents (10.3%), although the difference was not statistically significant.

Menstrual and Personal Factors: The study also examined menstrual and personal factors such as the regularity of menstrual cycle and the presence of gynecological issues in relation to menstrual cup usage.

- **Regularity of Menstrual Cycle:** No significant association was found between the regularity of menstrual cycle and

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menstrual cup usage ($p = 0.268$). However, participants with irregular menstrual cycles showed a slightly lower usage (2.1%) compared to those with regular cycles (8.7%).

- **Gynecological Issues:** Similarly, no significant association was found between the presence of gynecological issues and menstrual cup usage ($p = 0.423$). Participants with gynecological issues such as PCOD and ovarian cysts showed a slightly lower usage (7.5%) compared to those without significant issues (7.5%).

Table 2: Distribution of the young women based on their menstrual profile (N= 370)

| Variables | Categories | Frequency (N) | Percentage (%) |
|-------------------------------|------------|---------------|----------------|
| Regularity of menstrual cycle | Irregular | 58 | 15.7 |
| | Regular | 385 | 104.1 |

| | | | |
|----------------------|----------------------------|-----|-------|
| Gynaecological issue | Severe cramps dysmenorrhea | 2 | 0.6 |
| | PCOD | 23 | 6.2 |
| | Ovarian cyst | 2 | 0.6 |
| | Nothing significant | 414 | 111.6 |
| Sanitary products | Menstrual cup | 35 | 9.5 |
| | Sanitary pad | 410 | 110.5 |

The findings of this study provide valuable insights into the factors influencing menstrual cup usage among young women in health professions. The observed variations in usage across different demographic groups highlight the complex interplay of socio-cultural, personal, and environmental factors in shaping menstrual product preferences.

Table 3: Association between categorical variables of socio-demographic, menstrual, and personal factors with the pattern of menstrual cup use (N=370)

| Variables | Categories | Sanitary product | Menstrual cup | Sanitary pad | Total | p-value |
|-------------------------------|------------|------------------|---------------|--------------|-------|---------|
| Course of study | Allied | 6 (11.1) | 59 (108.7) | 65 | | 0.061 |
| | Medical | 3 (3.3) | 109 (117.8) | 112 | | |
| | Nursing | 26 (11.8) | 241 (108.1) | 268 | | |
| Year of study | First | 2 (1.4) | 164 (118.6) | 166 | | 0.000 |
| | Second | 4 (4.1) | 114 (116.9) | 117 | | |
| | Third | 28 (26.4) | 100 (94.3) | 127 | | |
| | Fourth | 3 (10.7) | 32 (113.9) | 34 | | |
| Marital status | Married | 0 | 6 (120) | 6 | | 0.511 |
| | Unmarried | 35 (9.5) | 402 (109.6) | 438 | | |
| Religion | Hindu | 23 (8.6) | 300 (111.9) | 323 | | 0.479 |
| | Christian | 4 (7.1) | 67 (113.6) | 56 | | |
| | Muslim | 9 (18.4) | 51 (104.6) | 59 | | |
| | Buddhist | 0 | 3 (150) | 3 | | |
| | Sikh | 0 | 1 (100) | 1 | | |
| | Atheist | 0 | 3 (150) | 3 | | |
| Residence | Rural | 11 (14.1) | 84 (107.7) | 94 | | 0.371 |
| | Urban | 26 (8.9) | 324 (111.1) | 350 | | |
| Source of information | Family | 3 (16.7) | 19 (105.6) | 22 | | 0.265 |
| | Friends | 10 (11) | 131 (103.2) | 109 | | |
| | Media | 23 (9.1) | 282 (111.5) | 305 | | |
| | Seminar | 0 | 3 (150) | 3 | | |
| | Magazine | 0 | 4 (133.3) | 4 | | |
| Awareness program | | 0 | 3 (150) | 3 | | |
| Regularity of menstrual cycle | Irregular | 1 (2.2) | 57 (118.9) | 58 | | 0.268 |
| | Regular | 34 (10.6) | 352 (109.3) | 386 | | |
| Gynaecological issue | Present | 31 (8.9) | 383 | | | |

The progressive increase in menstrual cup usage with advancing academic years suggests a potential role of education and exposure in promoting awareness and acceptance of alternative menstrual products. However, further research is needed to explore the underlying reasons for these trends and to design targeted interventions to promote menstrual health and hygiene among young women.

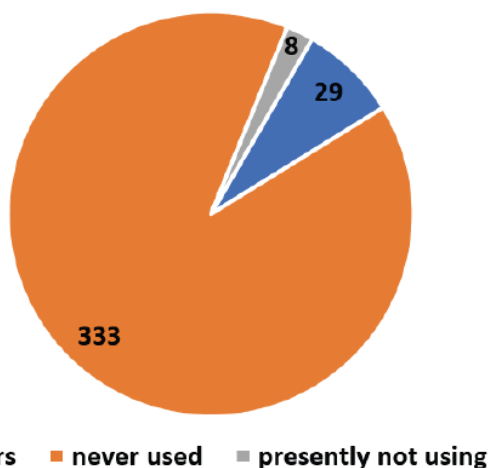


Figure 1: Distribution of young women based on the usage of menstrual cup

This study provides valuable insights into the prevalence and factors associated with menstrual cup usage among young women in health professions. The findings underscore the need for comprehensive menstrual health education and advocacy efforts to promote informed choice and access to a diverse range of menstrual products, ultimately contributing to the well-being and empowerment of women worldwide.

Conclusion:

In conclusion, this study offers valuable insights into the prevalence and factors associated with menstrual cup usage among young women in health professions. The findings indicate a relatively low prevalence of menstrual cup usage, with the majority of participants preferring sanitary pads. However, there were notable variations in usage across different demographic groups, highlighting the complex interplay of socio-cultural, personal, and environmental factors in shaping menstrual product preferences.

The progressive increase in menstrual cup usage with advancing academic years suggests the potential role of education and exposure in promoting awareness and acceptance of alternative menstrual products. However, further research is needed to explore the underlying reasons for these trends and to design targeted interventions to promote menstrual health and hygiene among young women.

Overall, this study underscores the importance of comprehensive menstrual health education and advocacy efforts to promote informed choice and access to a diverse range of menstrual products. By addressing barriers to adoption and fostering a supportive environment, we can contribute to the well-being and empowerment of women worldwide.

Limitations of the Study:

Despite its contributions, this study has several limitations that should be considered. Firstly, the cross-sectional design limits causal inference and prevents the establishment of temporal

relationships between variables. Additionally, reliance on self-reported data introduces the potential for recall and social desirability biases, which may influence the accuracy of responses.

Furthermore, the study sample was limited to young women in health professions, which may not be representative of the broader population. Future research should strive to include a more diverse sample to enhance the generalizability of findings. Lastly, the study did not explore in-depth qualitative aspects such as attitudes, beliefs, and experiences related to menstrual cup usage, which could provide valuable insights into the underlying motivations and barriers.

Implications of the Study:

Despite these limitations, the findings of this study have several implications for practice, policy, and research. Firstly, the identification of demographic factors associated with menstrual cup usage can inform targeted interventions to promote awareness and acceptance among specific groups.

Secondly, the study highlights the importance of integrating comprehensive menstrual health education into health professions curricula to ensure that future healthcare providers are equipped to address menstrual health needs effectively.

From a policy perspective, the findings underscore the need for initiatives to improve access to menstrual products, including menstrual cups, especially in underserved communities. Additionally, policies should prioritize menstrual health as a fundamental aspect of reproductive health and hygiene.

Future Recommendations:

Building upon the findings of this study, several avenues for future research are warranted. Firstly, longitudinal studies are needed to explore the causal relationships between socio-demographic factors and menstrual product preferences over time.

Secondly, qualitative research can provide deeper insights into the attitudes, beliefs, and experiences of individuals regarding menstrual cup usage. Understanding the barriers and facilitators to adoption can inform targeted interventions to promote uptake. Furthermore, comparative studies across different cultural contexts can elucidate the influence of cultural norms and practices on menstrual product preferences. This can inform culturally sensitive approaches to menstrual health promotion.

Lastly, there is a need for policy initiatives aimed at improving access to affordable and sustainable menstrual products, including menstrual cups, particularly for marginalized populations. By addressing these gaps in research and practice, we can advance menstrual health equity and empower individuals to make informed choices about their menstrual health and hygiene.

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