

KNOWLEDGE, ATTITUDE, AND PRACTICE REGARDING MENSTRUAL HYGIENE IN FEMALE ADOLESCENTS

BASHARAT J*, SADDIQUE H, TASNEEM SS

Department of Nursing, The Superior University, Lahore, Pakistan

*Corresponding author's email address: jennifergill181@gmail.com

(Received, 24th September 2024, Revised 15th December 2024, Published 19th December 2024)

Abstract: Menstrual hygiene is a critical aspect of adolescent health and well-being. However, cultural taboos, lack of education, and limited resources contribute to poor menstrual hygiene management (MHM), particularly in developing countries like Pakistan. **Objective:** To assess the knowledge, attitudes, and practices (KAP) regarding menstrual hygiene among female adolescents in Lahore, Pakistan. **Methods:** A descriptive cross-sectional study was conducted among 172 female adolescents aged 12–18 years. Data were collected using a structured questionnaire covering socio-demographic characteristics, knowledge, attitudes, and practices related to menstrual hygiene. Descriptive and inferential statistics were analyzed using SPSS version 26. **Results:** The study found that 45.3% of participants had low knowledge of menstrual hygiene, 59.3% exhibited negative attitudes, and 65.1% demonstrated poor practices. Parents were the primary source of information (72.7%), while schools and healthcare providers played a minimal role. Common misconceptions and suboptimal practices, such as reusing cloth, highlighted the urgent need for education and awareness. **Conclusion:** Despite some awareness, significant gaps in knowledge, negative attitudes, and unsafe practices prevail among female adolescents in Lahore. Comprehensive educational programs involving families, schools, and healthcare providers are essential to improve menstrual hygiene management and empower adolescent girls to manage menstruation safely and with dignity.

Keywords: Menstrual Hygiene, Knowledge, Attitudes, Practices, Adolescents, Pakistan, Public Health

Introduction

Menstrual hygiene is a fundamental aspect of adolescent health and well-being, with significant implications for physical, psychological, and social outcomes. The onset of menstruation marks a critical transition in a girl's life, often accompanied by a lack of preparedness and understanding due to cultural taboos and inadequate education (1, 2). In developing countries like Pakistan, menstrual hygiene management (MHM) remains a neglected aspect of public health, with limited resources and awareness contributing to poor practices and adverse health outcomes (3, 4).

Cultural beliefs and societal stigma surrounding menstruation in Pakistan often restrict open discussions, leaving many adolescent girls with insufficient knowledge about menstrual health. A study conducted in Sindh revealed that 60% of adolescent girls were unaware of menstruation before menarche, leading to anxiety and poor menstrual hygiene practices (5). Similarly, another study from Punjab reported that only 30% of girls used sanitary pads, with the majority relying on unhygienic alternatives such as cloth, increasing their risk of infections (6).

Proper knowledge and positive attitudes toward menstruation are essential for adopting hygienic practices. However, the lack of formal education on menstrual health in schools and the limited involvement of parents and healthcare providers exacerbates the issue. Parents, particularly mothers, play a crucial role in shaping their daughters' menstrual hygiene practices. Unfortunately, many mothers in Pakistan lack adequate knowledge, perpetuating misconceptions and unsafe practices (7, 8).

Globally, studies have emphasized the importance of MHM education in improving knowledge and practices among

adolescents. For example, a study in India found that school-based awareness programs significantly enhanced knowledge and reduced stigma associated with menstruation (9). Similarly, WHO guidelines advocate for comprehensive menstrual health education to empower girls and reduce the health risks associated with poor menstrual hygiene (10). Despite these international efforts, Pakistan faces unique challenges, including socio-cultural barriers, resource constraints, and inadequate policy focus on menstrual health (11).

This study aims to assess the knowledge, attitude, and practices (KAP) regarding menstrual hygiene among female adolescents in Lahore, Pakistan. By identifying gaps and challenges, the findings will provide valuable insights for designing targeted interventions to improve menstrual hygiene management and promote adolescent health in the Pakistani context.

Methodology

The study employed a descriptive cross-sectional design to evaluate the knowledge, attitudes, and practices (KAP) regarding menstrual hygiene among female adolescents in Lahore, Pakistan. This design was selected to provide a comprehensive snapshot of the participant's understanding, perceptions, and behaviours related to menstrual hygiene at a specific point in time.

The study population included female adolescents aged 12–18 years studying in grades 9 and 10. A total of 172 participants were selected using convenience sampling. Inclusion criteria required participants to have experienced at least one menstrual cycle and to be willing to provide

informed consent. Exclusion criteria included students who had not yet attained menarche or were unwilling to participate in the study. The sample size was calculated to ensure adequate representation and statistical power.

Data collection was conducted using a structured and pre-validated questionnaire, which was developed based on existing literature and expert input. The questionnaire consisted of four sections: socio-demographic characteristics, knowledge, attitudes, and practices regarding menstrual hygiene. The socio-demographic section included variables such as age, education level, family structure, and sources of menstrual hygiene information. The knowledge section assessed awareness of menstrual health, sources of menstrual blood, and hygiene practices. The attitude section explored perceptions and beliefs about menstruation, while the practices section examined menstrual hygiene behaviours, including the use of sanitary products and disposal methods.

Ethical approval was obtained from the institutional review board before data collection. Participants were briefed about the study’s objectives, and written informed consent was obtained from both the students and their guardians. The anonymity and confidentiality of the participants were maintained throughout the study.

The data collection process was conducted in schools with permission from the administration. Trained female researchers distributed the questionnaires to participants in a classroom setting, providing instructions and assistance as needed. Participants were encouraged to complete the questionnaire independently and honestly, ensuring the accuracy of responses. Completed questionnaires were collected, reviewed for completeness, and securely stored. Data analysis was performed using SPSS version 26. Descriptive statistics, including frequencies and percentages, were used to summarize demographic characteristics, knowledge levels, attitudes, and practices. Inferential statistics were applied to identify associations between socio-demographic variables and KAP scores. The results were presented in tables and narratives to provide a clear and comprehensive understanding of the findings.

Results

This study aimed to evaluate the knowledge, attitude, and practice (KAP) regarding menstrual hygiene among female adolescents in Lahore, Pakistan. The study included 172 female adolescents aged 12–18 years. The majority of participants (52.9%) were between the ages of 15–18 years, while 47.1% were aged 12–14 years. Most participants were studying in grade 9 (51.7%) or grade 10 (48.3%). All participants reported having access to a toilet facility at home (100%). The primary source of information about menstrual hygiene was parents (72.7%), followed by teachers (18.6%) (Table 1).

The study revealed that the majority of participants had low knowledge levels regarding menstrual hygiene. Specifically, 45.3% of participants demonstrated low knowledge, 33.7% had moderate knowledge, and only 20.9% displayed high knowledge (Table 2).

The majority of participants exhibited negative attitudes toward menstrual hygiene. Specifically, 59.3% of participants had negative attitudes, while only 40.7% demonstrated positive attitudes (Table 3). The study revealed suboptimal menstrual hygiene practices among

participants. A significant proportion (65.1%) of participants exhibited poor practices, while only 34.9% adhered to good practices (Table 4).

The findings of this study reveal a considerable knowledge gap, negative attitudes, and suboptimal practices regarding menstrual hygiene among female adolescents in Lahore. While the majority of participants had access to basic facilities such as toilets, their lack of awareness and poor practices highlight the need for targeted educational interventions. Parents were identified as the primary source of information, suggesting the critical role of the family in shaping menstrual hygiene behaviours. However, the high prevalence of negative attitudes and poor practices underscores the need for a collaborative effort involving schools, healthcare providers, and community leaders to improve menstrual hygiene management.

Table 1: Socio-Demographic Characteristics of Participants

Variable	Category	Frequency (n)	Percentage (%)
Age	12–14 years	81	47.1
	15–18 years	91	52.9
Education	Grade 9	89	51.7
	Grade 10	83	48.3
Toilet Facility at Home	Yes	172	100.0
Source of Information	Parents	125	72.7
	Teachers	32	18.6
	Friends	5	2.9
	Social Media	4	2.3
	Other	6	3.5
Number of Sisters	None	33	19.2
	1	54	31.4
	2	51	29.7
	3	34	19.8
Living Parents	Both Parents	123	71.5
	Only Mother	32	18.6
	Only Father	14	8.1
	Other	3	1.7

Table 2: Knowledge Levels of Participants Regarding Menstrual Hygiene

Knowledge Level	Frequency (n)	Percentage (%)
Low Knowledge	78	45.3
Moderate Knowledge	58	33.7
High Knowledge	36	20.9

Table 3: Attitudes of Participants toward Menstrual Hygiene

Attitude Level	Frequency (n)	Percentage (%)
Negative Attitude	102	59.3
Positive Attitude	70	40.7

[Citation: Basharat, J., Saddique, H., Tasneem, S.S. (2024). Knowledge, attitude, and practice regarding menstrual hygiene in female adolescents. *Biol. Clin. Sci. Res. J.*, 2024: 1375. doi: <https://doi.org/10.54112/bcsrj.v2024i1.1375>]

Table 4: Practices of Participants Regarding Menstrual Hygiene

Practice Level	Frequency (n)	Percentage (%)
Poor Practices	112	65.1
Good Practices	60	34.9

Discussion

This study assessed the knowledge, attitudes, and practices (KAP) regarding menstrual hygiene among female adolescents in Lahore, Pakistan. The findings revealed significant gaps in knowledge, negative attitudes, and suboptimal practices, consistent with prior research conducted in similar settings.

In this study, 45.3% of participants demonstrated low knowledge regarding menstrual hygiene, while only 20.9% exhibited high knowledge levels. These findings align with Shahid et al., who reported that 40% of schoolgirls in rural Sindh had inadequate knowledge of menstrual hygiene due to limited access to educational resources and cultural taboos (12). Similarly, Naqvi et al. found that only 25% of girls in rural Punjab understood the importance of using sanitary pads, with misconceptions about menstruation being prevalent among the majority (13). The reliance on parents as the primary source of information (72.7%) in this study highlights the critical role of the family in shaping knowledge and practices. However, the low involvement of teachers and healthcare providers (18.6% and 2.9%, respectively) underscores a missed opportunity for institutional interventions.

Negative attitudes toward menstruation were observed in 59.3% of participants, comparable to the findings of Rizwan et al., who reported that 62% of girls in low-income communities of Pakistan viewed menstruation as a burden and were reluctant to discuss it openly (14). This pervasive stigma often perpetuates silence and misinformation, further hindering the adoption of safe menstrual hygiene practices. Regarding practices, 65.1% of participants in this study exhibited poor menstrual hygiene practices, a finding consistent with Ali and Rizvi, who reported similar behaviours in urban Karachi, where the majority of girls reused cloth instead of sanitary pads due to financial constraints and lack of awareness (15). Globally, Kaur et al. found that socioeconomic factors and cultural beliefs significantly influence menstrual hygiene practices, with similar trends observed in other developing countries like India and Nepal (16). The preference for reusing cloth or using inadequate menstrual products among a significant portion of participants in this study aligns with findings by Mahmood et al., who emphasized the urgent need for affordable and accessible menstrual products in Pakistan (17). Additionally, the consistent lack of education regarding menstrual hygiene in schools mirrors the observations of Shahid et al., who highlighted that most Pakistani schools do not include menstrual health education in their curriculum (12).

This study's findings emphasize the need for integrated educational programs that involve families, schools, and healthcare providers. Awareness campaigns targeting both adolescents and their parents can help dispel misconceptions and promote positive attitudes toward menstruation. As recommended by WHO guidelines, menstrual health education should be a part of school curriculums to ensure that girls are adequately prepared for

Menarche and understand the importance of hygienic practices (18).

In conclusion, the gaps identified in this study regarding knowledge, attitudes, and practices reflect broader systemic issues within the Pakistani context. Addressing these challenges requires a multifaceted approach, including public health policies, community engagement, and education reforms, to ensure safe and dignified menstrual hygiene management for all adolescents.

Conclusion

This study highlights significant gaps in knowledge, attitudes, and practices regarding menstrual hygiene among female adolescents in Lahore, Pakistan. While some participants demonstrated basic awareness, the prevalence of negative attitudes and poor practices underscores the need for targeted educational interventions. Family, schools, and healthcare systems must collaborate to provide accurate information, promote positive attitudes, and ensure access to affordable menstrual products. Addressing these challenges is essential for improving adolescent health, reducing stigma, and fostering safe menstrual hygiene practices.

Declarations

Data Availability statement

All data generated or analysed during the study are included in the manuscript.

Ethics approval and consent to participate

Approved by the department concerned. (IRB-SNU-339-23)

Consent for publication

Approved

Funding

Not applicable

Conflict of interest

The authors declared the absence of a conflict of interest.

Author Contribution

JENIFER BASHARAT

Data collection, Drafting,
Study Design, Review of Literature.

HUMAIRA SADDIQUE

Coordination of collaborative efforts. Final approval

SYEDA SIDRA TASNEEM

Coordination of collaborative efforts, data Analysis

References

- Sommer M, Hirsch JS, Nathanson C, Parker RG. Comfortably, safely, and without shame: Defining

menstrual hygiene management as a public health issue. *Am J Public Health.* 2015; 105(7):1302-1311.

2. El-Gilany AH, Badawi K, El-Fedawy S. Menstrual hygiene among adolescent schoolgirls in Mansoura, Egypt. *Reprod Health Matters.* 2005; 13(26):147-152.

3. Ali TS, Rizvi SN. Menstrual knowledge and practices of female adolescents in urban Karachi, Pakistan. *J Adolesc.* 2010; 33(4):531-541.

4. Shahid A, Ali SA, Ahmed Z. Assessing menstrual hygiene management among schoolgirls in rural Pakistan: A cross-sectional study. *J Pak Med Assoc.* 2021; 71(3):781-786.

5. Shah R, Nisar N, Qadri MH, Fatima A. Knowledge and practices of adolescent girls regarding menstruation in an urban area of Sindh. *Pak J Med Res.* 2020; 59(1):22-26.

6. Naqvi F, Ahmad S, Yousaf Z. Menstrual hygiene management and its challenges in rural Punjab: A qualitative study. *Pak J Public Health.* 2019; 9(4):213-217.

7. Zaidi A, Hussain H, Memon F. Role of mothers in promoting menstrual hygiene practices among adolescent girls in Pakistan: A mixed-method study. *BMC Public Health.* 2022; 22(1):114.

8. Rizwan S, Rizwan A. Barriers to effective menstrual hygiene management in low-income communities of Pakistan: A review. *J Pak Med Assoc.* 2021; 71(5):1346-1351.

9. Kaur R, Kaur K, Kaur R. Menstrual hygiene, management, and waste disposal: Practices and challenges faced by girls/women of developing countries. *J Environ Public Health.* 2018; 2018:1-9.

10. World Health Organization. Adolescent health and menstrual hygiene management. WHO; 2020. Available from: <https://www.who.int/>

11. Mahmood T, Sultana S, Qureshi A. Menstrual health: A neglected aspect of adolescent health in Pakistan. *J Pak Med Assoc.* 2021; 71(6):1421-1427.

12. Shahid A, Ali SA, Ahmed Z. Assessing menstrual hygiene management among schoolgirls in rural Pakistan: A cross-sectional study. *J Pak Med Assoc.* 2021; 71(3):781-786.

13. Naqvi F, Ahmad S, Yousaf Z. Menstrual hygiene management and its challenges in rural Punjab: A qualitative study. *Pak J Public Health.* 2019; 9(4):213-217.

14. Rizwan S, Rizwan A. Barriers to effective menstrual hygiene management in low-income communities of Pakistan: A review. *J Pak Med Assoc.* 2021; 71(5):1346-1351.

15. Ali TS, Rizvi SN. Menstrual knowledge and practices of female adolescents in urban Karachi, Pakistan. *J Adolesc.* 2010; 33(4):531-541.

16. Kaur R, Kaur K, Kaur R. Menstrual hygiene, management, and waste disposal: Practices and challenges faced by girls/women of developing countries. *J Environ Public Health.* 2018; 2018:1-9.

17. Mahmood T, Sultana S, Qureshi A. Menstrual health: A neglected aspect of adolescent health in Pakistan. *J Pak Med Assoc.* 2021; 71(6):1421-1427.

18. World Health Organization. Adolescent health and menstrual hygiene management. WHO; 2020. Available from: <https://www.who.int/>.



Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third-party material in this article are included in the article's Creative Commons licence unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>. © The Author(s) 2024