

KNOWLEDGE, ATTITUDE, PRACTICE AND PERCEPTION ABOUT MENSTRUATION AND MENSTRUAL HYGIENE AMONG ADOLESCENT SCHOOL GIRLS

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Abstract

Background: Menstruation is a normal physiological process; however, inadequate knowledge, negative attitudes, poor practices, and unfavorable perceptions regarding menstruation and menstrual hygiene remain common among adolescent schoolgirls, particularly in developing countries. These gaps can negatively affect physical health, psychological well-being, and school attendance. Understanding menstrual hygiene management among adolescents is essential for designing effective school- and community-based interventions.

Objective: To assess the knowledge, attitude, practice, and perception regarding menstruation and menstrual hygiene among adolescent schoolgirls.

Material and Methodology: A school-based cross-sectional study was conducted among 109 adolescent schoolgirls with a mean age of 15.1 ± 2.01 years. Data were collected using a structured questionnaire covering socio demographic characteristics and menstrual knowledge and practices. Descriptive statistics were used to analyze the data and present frequencies and percentages.

Results: The majority of participants used absorbent materials during menstruation (92%), with sanitary pads being the most commonly used material (84.4%). Most respondents reported cleaning their genitalia during menstruation (95.4%) and taking regular baths (75.2%). Mothers were the primary source of information for menstruation (83.5%). Overall, 92.7% of participants demonstrated good xii menstrual hygiene practices. However, only 56.9% reported changing pads during school hours, indicating barriers related to school facilities or discomfort.

Conclusion: The study found generally good menstrual hygiene practices among adolescent schoolgirls; however, gaps remain in menstrual management during school hours and consistent hygienic behaviors. Strengthening school-based menstrual health education and improving sanitation facilities are essential to promote positive attitudes and safe practices.

INTRODUCTION

Menstruation is a normal biological process that marks the beginning of reproductive maturity in adolescent girls, yet it is often surrounded by myths, misconceptions, and cultural taboos that affect girls' knowledge, attitudes, practices, and perceptions regarding menstrual hygiene. During adolescence, girls experience significant physical and psychological changes, and proper menstrual hygiene management is essential to maintain reproductive health and overall well-being. However, many adolescent school girls lack adequate information before menarche, which can lead to fear, embarrassment, and unsafe hygiene behaviors. Research has emphasized that menstruation remains a sensitive topic in many societies, limiting open communication and access to accurate education.

Globally, studies have shown that knowledge and awareness about menstruation vary widely among adolescent girls, especially in low- and middle-income countries. Poor sanitation facilities, social stigma, and inadequate school-based education programs contribute to negative attitudes and poor hygienic practices. Evidence suggests that although many girls may have some knowledge about menstruation, their attitudes and perceptions are often influenced by traditional beliefs and family restrictions, which can prevent them from practicing safe menstrual hygiene.

Several recent studies conducted among school-going adolescents have highlighted that knowledge alone does not guarantee healthy practices. For example, research among adolescents reported that while the majority of girls had adequate awareness about menstrual hygiene, their attitudes remained unsatisfactory and practices were not always consistent with recommended standards, indicating the need for structured health education programs in schools.

In Pakistan, menstrual hygiene management remains a significant public health concern among adolescent girls due to socio-cultural barriers and limited access to resources. A study conducted among adolescent girls revealed common myths and challenges, including embarrassment, lack of affordable sanitary products, and restrictions imposed by elders, which negatively affected girls'

perception and hygiene behaviors during menstruation. ¹ Furthermore, research from different regions of Pakistan has shown that although awareness about menstrual hygiene is gradually improving, many girls still face challenges related to privacy, sanitation facilities, and health education in schools.

Understanding the combined aspects of knowledge, attitude, practice, and perception (KAPP) is essential because these factors collectively influence menstrual hygiene management among adolescent school girls. Studies conducted in Pakistani communities have emphasized that improving education, promoting positive attitudes, and addressing cultural misconceptions can significantly enhance menstrual hygiene practices and empower adolescent girls to manage menstruation confidently. Therefore, examining these components through research is necessary to design effective health promotion strategies and school-based interventions aimed at improving menstrual health outcomes among adolescents.

METHODOLOGY

A school-based cross-sectional study was conducted to assess the knowledge, attitude, practice, and perception (KAPP) regarding menstruation and menstrual hygiene among adolescent girls. The study was carried out at The Ways Foundation Public School, Nawabshah Housing Society, Nawabshah. Data collection was over two months period of time from 17 November to 17 January 2026 after approval of Institutional Review Board (IRB). The required sample size was calculated as 109 participants using the RaoSoft online sample size calculator, assuming a 95% confidence level, a population proportion of 0.5, and a margin of error of 5%. Participants were recruited using a non-probability convenience sampling technique. The inclusion criteria included adolescent girls aged 10–19 years who had attained menarche, were present at the time of data collection, provided informed consent, and were able to read and understand the Urdu language. Girls who were ill during the study period or who had previously attended any formal

health education program related to menstrual hygiene were excluded from the study.

RESULTS

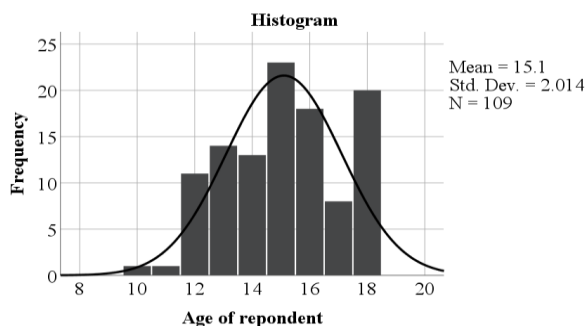


Fig 1: Age of Participant

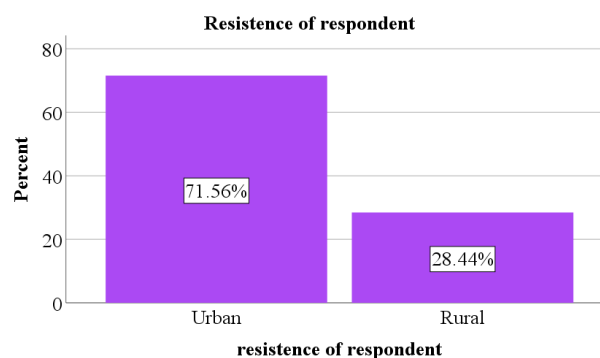


Fig 2: Resistance of participant

Table 1: Grade of respondent

Grade	Frequency	Percent
6	11	10.1
7	31	28.4
8	30	27.5
9	17	15.6
10	20	18.3
Total	109	100.0

Table 2: Religion of respondent

Religion	Frequency	Percent
Muslim	104	95.4
Hindu	5	4.6
Total	109	100.0

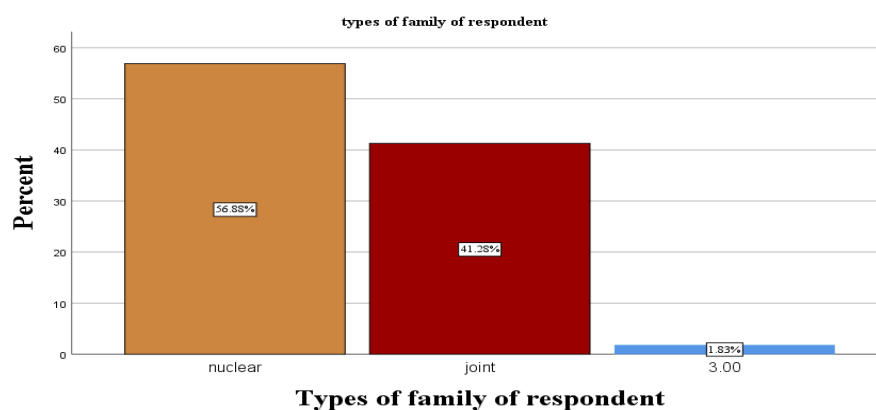
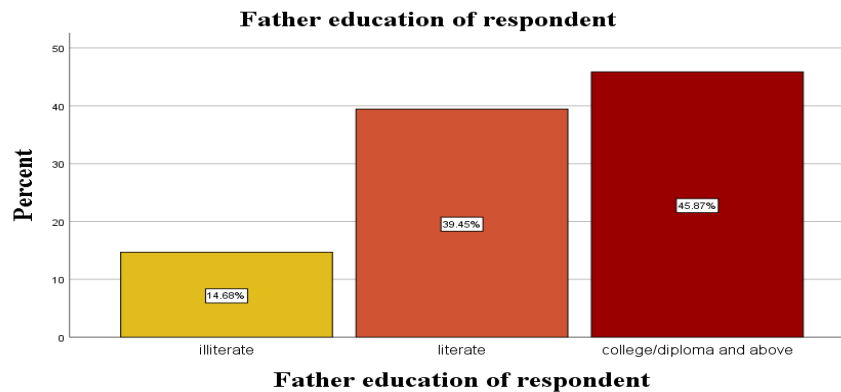


Fig 3: Family type of respondent

Table 3: Mother education of respondent

Mother Education	Frequency	Percent
Illiterate	25	22.9
Literate	47	43.1
College/diploma and above	36	33.0
Total	109	100.0

**Fig. 4 Father Education of respondent****Section B: Knowledge about Practices and Menstruation Questionnaires****Table 4:**

Question	Yes	No
Use absorbent material?	100 (92%)	8 (7%)
Change panty daily during menses?	82 (75.2%)	27 (24.8%)
Clean your genitalia during menses?	104 (95.4%)	5 (4.6%)
Change of pad during school?	62 (56.9%)	47(43.1%)
Taking bath during menses?	82(75.2%)	26(23.9%)

Table: 5

How do you dry the cloth?	Sunlight 84 (81.7%)	Inside house 19 (17.4%)
Practice score?	Good 101 (92.7%)	Bad 8 (7.3%)

Table: 6

Using cloth how do you clean it?	Soap and Water 86 (78.9%)	Only water 15 (13.8%)	Other 8 (7.3%)
Number times pad/cloth change per day?	Once 19 (17.4%)	Twice 61(56.0%)	Three or more 29 (26.6%)
Dispose pads?	Dustbin 88 (80.7%)	Toilet 15 (13.8%)	Other 6 (5.5%)

Types of wrap used for disposing pad?	Papers 26 (23.9%)	Plastic bag 72 (66.1%)	Other 11 (10.1%)
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Table: 7

Types of material use during menstruation?	Sanitary pad 92 (84.4%)	Toilet Roll 6 (5.5%)	Clothes 6(5.5%)	Other 5 (4.6%)
Absorbents used during menstruation?	Fresh cloth 30 (27.5%)	Sanitary pad 69 (63.3%)	Used cloth 1(9%)	Both cloth and pads 9 (8.3%)
Method of disposal of sanitary pad?	Burn it 19 (17.4%)	Throw it in the routine waste 86 (78.9%)	Burial 2 (1.8%)	

Discussion

The present study assessed the knowledge, attitude, practice, and perception (KAPP) regarding menstruation and menstrual hygiene among adolescent schoolgirls. The findings revealed that while most participants demonstrated good menstrual hygiene practices, gaps in knowledge, attitudes, and behaviors still exist.

Regarding demographic characteristics, the majority of participants were in the early to mid-adolescent age group, which aligns with the period of menarche when girls start establishing menstrual hygiene behaviors. Participation was higher among students of higher grades, suggesting that older girls may have greater exposure to reproductive health information and feel more comfortable discussing menstruation.

The study highlighted that most girls had heard about menstruation before menarche, primarily from their mothers. Despite this, misconceptions and myths regarding menstruation persisted, reflecting the influence of cultural taboos and social restrictions.

In terms of hygiene practices, sanitary pads were the most commonly used absorbent material, and the majority of participants reported proper cleaning and bathing habits. However, only 56.9% of girls changed pads during school hours, indicating barriers related to school infrastructure or social discomfort. Socioeconomic status also played a role, as girls from lower-income families demonstrated comparatively poorer menstrual hygiene practices.

The findings indicate a clear need for structured health education programs that not only provide knowledge but also address attitudes and cultural beliefs. Enhancing mother-daughter communication, promoting school-based menstrual health education, and improving access to sanitary products are critical to enabling adolescent girls to practice safe menstrual hygiene consistently.

Overall, this study underscores that while knowledge and some practices are improving among adolescent schoolgirls, cultural, social, and infrastructural barriers continue to influence attitudes and behaviors. These results align with evidence from South Asia and other low- and middle-income countries, highlighting the importance of comprehensive, context-sensitive interventions to promote menstrual health and well-being among adolescents.

COUNCLUSION

Recent research (2021–2025) shows that while many adolescent schoolgirls possess some awareness of menstruation and menstrual hygiene, significant gaps remain in translating Knowledge into positive attitudes and safe practices. Studies in South Asia, Africa, and Pakistan highlight pervasive socio-cultural barriers, infrastructure challenges, and educational deficits that impede optimal menstrual hygiene management. Comprehensive, context-sensitive policies and interventions are needed to improve menstrual health literacy, address stigma, and enable girls to manage menstruation with dignity and

confidence. The study concludes that adolescent schoolgirls demonstrated generally good knowledge and practices regarding menstruation and menstrual hygiene. The majority used sanitary pads, maintained personal hygiene, and followed appropriate disposal methods. Mothers played a central role in providing menstrual information. Despite these positive findings, challenges remain, particularly regarding menstrual management during school hours and consistent hygienic practices among all participants. Addressing these gaps through structured education and improved school facilities is essential for promoting menstrual health and well-being among adolescent girls.

REFERENCE

- Pramodha MS, Shashirekha HD. Knowledge, attitude and practice of menstrual hygiene among adolescent schoolgirls of rural area, Dakshina Kannada, India. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*. 2021 May 1;10(5):1788-95.
- Akter R. Mst. Rubi Akter Banu, Md. Suruj Hossain, Mt. Nahida Akter, Mst. Sherin Shila, Mst. Rumana Khatun, Hafiza Khatun, Most Momtaz Khatun. 2025:199-206.
- Khatoon F, Mohamed AA, Sirag HS, Ahmed FS, Ismail ME, Aboras R, Alhazimi LA, Aljohani RM, Elhaj TM, Alreshidi10 FF, Khan11 FH. Menstrual Hygiene Knowledge And Practices Among School Adolescent Girls In Rural Community In Pakistan.
- Agarwal N, Soni N, Singh SP, Soni GP. Knowledge and practice regarding menstrual hygiene among adolescent girls of rural field practice area of RIMS, Raipur (CG), India. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*. 2018 Jun 1;7(6):2317-22.
- Fatima G, Majeed F, Shahzadi A. Knowledge, Attitude and Practice regarding Menstrual Hygiene among Adolescent Girls of Rural Community in Lahore: Menstrual Hygiene among Adolescent Girls of Rural Community. *NURSEARCHER (Journal of Nursing & Midwifery Sciences)*. 2023 Dec 31:62-6.
- Raina, S. et al. (2020). Menstrual hygiene management among adolescent girls: Knowledge and practices. *Journal of Adolescent Health*, 66(2), 123–130.
- Torondel, B. et al. (2021). School-based menstrual health education and adolescent hygiene practices. *International Journal of Public Health*, 66, 1–10.
- Kaur, R. et al. (2020). Sources of menstrual information among adolescent girls. *Health Education Research*, 35(3), 187–196.
- Chandra Mouli, V., & Patel, S. (2021). Cultural barriers to menstrual hygiene in South Asia. *Reproductive Health*, 18, 45.
- Hennegan, J. et al. (2022). Menstrual hygiene practices in low- and middle-income countries. *Global Health Action*, 15(1), 210.
- Hennegan, J., & Montgomery, P. (2021). Socioeconomic factors affecting menstrual hygiene management in adolescents. *BMC Public Health*, 21, 192.
- Rasheed, S. et al. (2022). Impact of school-based menstrual education on adolescent girls. *Journal of Adolescent Health*, 70(5), 765–772.
- Sumpter, C., & Torondel, B. (2020). Menstrual hygiene management in developing countries: Evidence and interventions. *PLoS ONE*, 15(2), e0228873.