

KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING MENSTRUAL HYGIENE IN SCHOOL GOING ADOLESCENT GIRLS OF JABALPUR CITY

Shweta Sirsikar¹, Himanshy Rai², Akansha Tomar³

¹Associate Professor, Department of Obstetrics and Gynaecology, Netaji Subhash Chandra Bose Medical College, Jabalpur, Madhya Pradesh, India
²Post Graduate Student, Department of Obstetrics and Gynaecology, Netaji Subhash Chandra Bose Medical College, Jabalpur, Madhya Pradesh, India
³Associate Professor, Department of Community Medicine, Netaji Subhash Chandra Bose Medical College, Jabalpur, Madhya Pradesh, India

Received : 05/01/2025
Received in revised form : 20/02/2025
Accepted : 08/03/2025

Keywords:
Menstruation; Menstrual hygiene; Practices; Adolescent girls.

Corresponding Author:
Dr. Shweta Sirsikar,
Email: drshwetasisrikar1980@gmail.com

DOI: 10.47009/jamp.2025.7.2.116

Source of Support: Nil,
Conflict of Interest: None declared

Int J Acad Med Pharm
2025; 7 (2); 568-572



Abstract

Background: The World Health Organization (WHO) defines menstrual health as the complete well-being of a person in physical, mental, and social aspects, not just the lack of disease or infirmity, in connection to their menstrual cycle. Menstrual health is not a matter of hygiene, but a matter of health and human rights, and it impacts the lives of millions of people who menstruate across the world. The purpose of this study was to evaluate the knowledge, attitudes, and practices regarding menstrual hygiene in school going adolescent girls of Jabalpur city. **Materials and Methods:** A cross-sectional observational study was conducted via pre structured questionnaire involving knowledge, attitude and practices regarding menstrual hygiene in school going adolescent girls of Jabalpur City for the duration of 12 months. SPSS version 21.0 was used to analyze them. **Result:** Only 70% of girls use menstrual hygiene products among which 45% belong to private school and 35% belong to government school. The study found that more than half of the participants had a poor level of knowledge and practices and negative attitudes towards menstrual hygiene, which is mainly governed by social, economic and cultural factors. **Conclusion:** Adolescence is a critical period of change from girlhood to womanhood. Girls experience menstruation for first time during this period. Menstruation is a periodic and cyclical shedding of endometrium accompanied by blood loss. Menstrual hygiene is principally defined as maintaining cleanliness of body during menstrual flow. This topic needed to be more focused and it's need of time to improve knowledge and practices regarding menstrual hygiene for better health.

INTRODUCTION

Menstruation is a term for the natural process that occurs to females of reproductive age every month, unless a pregnancy or a medical condition interferes. The term menstruation is derived from Latin word —menses which means moon, it is a cyclical process of discharge of blood and endometrial dead tissue debris from the uterus in a reproductive age group of non-pregnant female with a duration of approximately 28 days.^[1] It is also named as menstrual cycle- mc, catamenia, period and in Indian culture term —mahwari or —mahina is commonly used. World Health Organization (WHO) defined adolescents between the age group of 10-19 years, and teenage girls make up about one-fifth of all females worldwide.^[2] They define menstrual health as the complete well-being of a person in physical, mental, and social aspects, not just the lack of disease or infirmity, in connection to their menstrual cycle.

Menstrual health is not a matter of hygiene, but a matter of health and human rights, and it impacts the lives of millions of people who menstruate across the world.^[3]

UNICEF reports that 2.3 billion people globally live without basic sanitation services and only 27 per cent of people in the least developed countries have a hand washing facility with water and soap at home. This affects the ability of people who menstruate to wash themselves and their menstrual materials. In addition, many people who menstruate are exposed to stigma, discrimination, and exclusion because of cultural and social norms that consider menstruation as taboo, shameful, or dirty.^[4] In this period females adjust and cope with the sudden changes in their body along with dealing with the conditions prevailing related to the menstrual hygiene and social conditions around them. Most of the adolescent girls enter their puberty in environment with lack of information and proper knowledge about these major changes in their body.

A large proportion of females are not comfortable in talking and sharing the knowledge about menses because of the social restrictions and practices and there is also lack of information on this subject in females due to social taboo. A little information they receive is from mother, female friends, teacher in many societies. Regarding menstruation there are many misconceptions and practices related to menstrual hygiene that led to negative impact on health of a female Indian culture. It affects the quality of living and health of female.^[5]

Lack of proper information and lack of awareness about this subject not only lead to the poor menstrual hygiene but also affect environment like throwing pads in open, improper disposal methods affect not only environment hazardously but also affect the health of general population. In India rural areas have a social taboo about this subject.^[6] In this study, we aim to gain information about the knowledge that adolescent school going girls is having, the attitude with which they manage during menstruation and the practices they follow.

Aims & Objectives

1. To assess knowledge and attitude of adolescent school going girls about Menstruation.
2. To evaluate menstrual hygiene practice, they follow during menstruation.

MATERIALS AND METHODS

This is a cross sectional observational study conducted in school going adolescent girls of Jabalpur city, from August 2022 to September 2023, who had achieved menarche before this study. A pre structured questionnaire involving knowledge, attitude and practices regarding menstrual hygiene was used to collect the information. Data was collected by the researchers using personal interview method. All the students after taking permission from school administration were briefed about the purpose of this study and all the data was collected.

Inclusion Criteria

- Girls who had achieved menarche before this study.
- Willing to participate in the study.

Exclusion Criteria

- Girls with primary amenorrhea.
- Girls who were seriously ill.

RESULTS

The study was conducted on school-going adolescent girls between the ages of 10-19 years. Total 708 school-going adolescent girls participated in this study. Out of which, 62.1% of adolescent school-going girls had sufficient knowledge about menarche, while remaining 37.9% were unaware about menarche. 95.3% were aware about the duration of normal menstrual cycle, while 4.7% were unaware. 81.2% i.e., majority of girls had a clear idea that menstruation is a physiological phenomenon,

whereas 17.1% consider it to be a disease & 1.7% thought it to be an injury. 50.3% participants considered menstrual blood originate from vagina, while 46.8% knew that menstrual blood originates from uterus. 61% majority got the information regarding menstruation from mother, while 18% from other relatives, 14% & 7% from peer group & mass communication respectively. 95.2% had knowledge about the importance of menstrual cycle. 95.9% preferred healthy and nutritional food during menses over 4.1% participants who prefer unhealthy and junk food. 63% girls had restrictions like not having meals with other members of family, going to the temple or kitchen, sleeping on a separate bed. Rest 37% didn't have any lifestyle modification. 51% participants had pain in abdomen during menstruation. 38% girls reported weakness or lethargy during menstruation. 63.5% girls have to follow restriction of daily physical activity during menstruation like school absenteeism and restriction of sports activity, while 36.5% participants have no such limitations. 93.5% girls felt comfortable about discussing menstrual cycle with other females, while 6.5% feel awkward to have a discussion about menstrual cycle. 87.8% girls opined that males should know about menstrual cycle related topic. 80.9% participants were not comfortable in buying menstrual hygiene products by themselves, while 19.1% buy their menstrual hygiene products by their own choices. 77% girls use sanitary napkin during their menstruation. 46% girls change their menstrual hygiene product at 5-7 hours interval. 83.9% participants were aware of proper method of disposal of their menstrual hygiene products. 50.5% girls felt that there is a lack of proper sanitation facilities like proper toilet and hand washing facilities at their school, while 49.5% were satisfied with the available sanitation facilities at their school. Most of the adolescent girls (90.8%) had the habit of washing hands after using menstrual hygiene products during menstruation. 79.5% of adolescent girls were aware that unhygienic menstrual practices like not changing menstrual hygiene product regularly or washing hands can lead to adverse health effect on a long run. 90.4% girls were convinced that improper disposal of menstrual hygiene products brings side effect to environment. 59.5% girls washed their perineum with water, while 30.8% use commercial soap and intimate wash for the same. Still 9.6% of adolescent girls don't follow any kind of perineal hygiene method. 56% girls have good bathing practices, while 19% take regular bath between 8-12 hours. 25% took bath once in a day.

DISCUSSION

This study was conducted under the Department of Obstetrics and Gynecology of Netaji Subhash Chandra Bose Medical College, Jabalpur, on the school-going adolescent girls between the ages of 10-19 years. Total 708 school going girls participated in

the study from various private, semi-private and government school of Jabalpur city.

In the present study, 62.1% girls had sufficient knowledge about the menses before attainment of menarche. A study conducted by Kuldeep Jagannath et al,^[7] showed that 70.9% girls had knowledge about menses before menarche. This shows that awareness regarding menstruation is not that much in school going girls. There is a need to make policies that ensure all students having access to accurate and comprehensive education on the menstruation.

In our study, 95.3% girls were aware about the duration of normal menstrual cycle. A study conducted by Ruby Khatoon et al,^[8] showed that only 60.8% of girls answered correctly about the average length of normal menstrual cycle.

In our study, 81.2% girls were having acceptable knowledge about menstrual cycle. Gupta et al,^[9] and Dabade KJ et al,^[7] reported that 70.7% and 78.1% have an acceptable knowledge about menstrual cycle. However, it is more than the other studies but this needs more attention and educational campaigns are needed.

In our present study, 46.8% girls knew that menstrual blood originates from uterus. 50.3% adolescent girls thought it originated from vagina. Belayneh Z et al,^[10] reported that in their study only 39.1% knew that menstrual blood originated from uterus. Thus, it signifies that there is lack of knowledge and pertaining confusion regarding the source of menstrual blood. The result showed that more focus is needed to tackle with the misinformation among the girls.

In our study, main source of information regarding menstruation is mother (61%). Dabade KJ et al,^[7] and Gupta et al,^[11] reported that mother was the primary source of information about menstruation in 52.7% and 64.5% respectively.

In the present study, 95.2% girls knew the importance of menstrual cycle in their life. Rupali Gupta et al,^[11] reported only 41.35% participants were aware about importance of menstrual hygiene in their life.

In our study, 63% girls felt restrictions in their life during menses in various activities like 43% were restricted from entering into worship place, 13% were not allowed to enter kitchen, 4% slept on a separate bed, 2% were not allowed to have meals with other members of the family. Rupali Gupta et al,^[11] conducted a study on the school going girls of Sitapur (U.P.) and showed prevalence of various types of restrictions practices during menstruation cycles. 54.43% girls slept separately, 49.78% were not allowed in religious events, 41.35% were not allowed in kitchen.

In our study, 51% participants had pain in abdomen during menstruation. 38% girls reported weakness or lethargy during menstruation. A study conducted by Rupali Gupta et al,^[11] showed that 66% girls had pain in abdomen during menstruation followed by weakness or lethargy, nausea and vomiting.

In our study, 63.5% girls noticed restriction of daily physical activity during menses (absenteeism from

school and restriction of sport activities) while 36.5% were having no such physical restrictions. A study conducted by Sarkar M. et al,^[5] reported that 58% girls were facing school absenteeism and restriction of sports activity. Rupali Gupta et al,^[11] reported 49.52% girls didn't go to school including different types of restriction like sports activity during menstruation.

In our study, 93.5% girls felt comfortable about discussing this topic with other females and 6.5% felt awkward discussing menstrual cycle related topic. A study conducted by Harshad Thakur et al,^[12] reported that more than 70% girls were comfortable in discussing about menstruation with other females.

In the present study, 77% of adolescent girls use sanitary napkins as menstrual hygiene product. A study conducted by Ruby Khatoon et al,^[8] showed that 48.60% girls used sanitary napkins as menstrual hygiene products. A study conducted by Dasgupta and Sarkar,^[5] in a rural area showed that most girls preferred cloth over sanitary pads as menstrual absorbents. Only 11.25% girls use pads when they were menstruating. Harshad Thakur et al,^[12] reported that 74.5% girls use sanitary napkins. According to most of the girls, the cost of commercially available sanitary pads is high. So, to tackle with condition, the State Government of Madhya Pradesh started Udita Yojana,^[13] Uttar Pradesh (Kishori Suraksha Yojna),^[14] Rajasthan (Udaan),^[15] Andhra Pradesh (Swechha),^[16] Karnataka (Shuchi),^[17] Bihar (Kishori Shakti Yojana),^[18] Punjab (Udaan),^[19,20] Maharashtra (Asmita) and Tripura (Kishori Suchita Abhiyaan).^[21,22] Under the umbrella of these schemes, free or subsidized distribution of sanitary napkin was started. Some studies showed that old, ragged, and rejected clothes are kept by women for this and used by the majority of women in the slum and in rural areas as it is the cheapest material available.^[23,24]

In our study, 46% girls changed their menstrual hygiene product at 5-7 hours interval i.e., around three times a day. A study conducted by Tamphasana T et al,^[25] showed that 71.1% girls changed their menstrual hygiene products more than three times a day.

In our study, 83.9% girls were aware of proper method of disposal and 90.4% girls were aware that improper disposal of menstrual hygiene products can lead to deleterious effect on environment. This can be attributed to good social awareness and knowledge about menstruation. Tamphasana T et al,^[25] showed that 92.1% girls followed proper disposal method.

In our study, 50.5% girls felt that there is lack of proper sanitation facilities at their school. Tshomo et al^[26] concluded that 80.7% girls were unable to take proper menstrual hygiene care due to lack of proper infrastructure around them. Lack of safe and proper area for menstrual hygiene management affects the health and dignity of women and girls.

In our study, most of the adolescent girls (90.8%) had the habit of washing hands after using menstrual hygiene products. Khatoon, et al,^[8] reported in their

study that 69.4% of females regularly wash their hands. Thus, young girls should be taught and encouraged about regular hygiene practice like taking bath, washing hands properly and taking care perineal health that help to build a positive mental health status, good social behavior and overall health of a female.

In our study, 79.5% of adolescent girls were aware that unhygienic menstrual practice can lead to adverse health effects. Khatoon et al,^[8] reported that 87.4% of girls knew the importance of maintaining menstrual hygiene as it may lead to various disease. Thakur et al,^[12] reported that adolescent girls suffer from various reproductive health problems associated with menstruation due to unhygienic menstrual practices. Women who use cloth are double at risk of have bacterial vaginosis as compared to women who use nothing during menstruation.

In our study, 59.5% girls washed their perineum with water while 30.8% use commercial soap and intimate wash for the same. Still 9.6% girls don't follow any kind of perineal hygiene method. Tamphasana T et al,^[25] reported that 80.1% of females used only water to clean their external genitalia during menstruation. Sarkar M. et al,^[5] reported that 97.5% of adolescent girls cleaned their external genitalia with soap and water. This implicates to awareness among them and affordability of the family to purchase commercially available intimate wash/soap.

In our study, 56% of adolescent girls have good bathing practices, while 19% take regular bath between 8 – 12 hours. 25% took bath once in a day. Khatoon et al^[8] reported that 81.6% of females bath every day during menstruation and 18% bath alternate day (due to social stigma in some community). Tamphasana T et al,^[25] reported that in their region in Manipur area due to social stigma and prevailing menstrual practices 80.8% of females didn't take bath daily during menstruation.

In our study, 87.8% girls had opinion that males should know about menstrual cycle related topic. A study conducted by Zalelem et al,^[27] showed that more than 78% of female have opinion that males should know about this topic.

In our study, 40% adolescent girls feel comfortable in discussing about menstruation with their male peer group. This shows that still there is gender biasity in discussing the topic of menstruation. A study conducted by Manvi et al,^[28] 52.34% of girls were not comfortable in discussing about menstruation with their male peer group.

CONCLUSION

- After analyzing the data, we conclude that family member especially mothers are the major source of information regarding menstruation for adolescent girls.
- In our study, 46.8% of girls were aware about the origin of blood during menstruation to be from

uterus, while rest 50.3% still thinks it to be originated from vagina. More emphasis about the information and knowledge regarding menstruation should be imparted.

- Social and cultural restrictions are still a part of menstruation faced by adolescent girls and so we conclude an open discussion about these social stigmas.
- Unhygienic practices, improper sanitation and management of menstrual hygiene products can lead to health and environmental hazards. Lack of proper sanitation in school like proper toilet and hand washing still are the major hurdle for menstrual hygiene.
- Involvement of knowledge to the opposite gender is also emphasized.

It's becoming clear that for menstrual hygiene a multi-sectorial approach is needed. Addressing menstruation challenges in adolescent girl in a strategic way is need of the hour. We need to link physical infrastructure, water & sanitation projects with our health education and reproductive health programme initiated by government. By this we can address the problem in more holistic way.

Recommendation

- Menstruation friendly toilet must be available in the school.
- Knowledge should be given to all girls before attainment of menarche regarding menstruation. So that they can follow safe & healthy menstrual hygiene.
- Sanitary pads must be available in school and dustbins must be available in school inside toilet for proper disposal.
- More of sanitation programs should be launched by government to spread knowledge about menstruation.

REFERENCES

1. Allen K (2007). The Reluctant Hypothesis: A History of Disclosure Surrounding the Lunar Phase Method of Regulating Conception. Lacuna Press. p. 239. ISBN 978-0-9510974-2-7.
2. <https://www.who.int/news/item/22-06-2022-who-statement-on-menstrual-health-and-rights>
3. Global Menstrual Health and Hygiene Collective (2020). The Global Menstrual Health and Hygiene Collective statement on the occasion of the 64th session of Commission on the Status of Women. <https://washmatters.wateraid.org/publications/global-menstrual-health-and-hygiene-collectives-statement>
4. UNICEF. Guidance on Menstrual Health and Hygiene. New York (NY): UNICEF. 2019. Available from <https://www.unicef.org/wash/files/UNICEF-Guidancemenstrual-health-hygiene-2019.pdf>.
5. Dasgupta A, Sarkar M. Menstrual hygiene: how hygienic is the adolescent girl? Indian J Community Med. 2008;33(2):77.
6. Shanbhag D, Shilpa R, D'Souza N, et al. Perceptions regarding menstruation and practices during menstrual cycles among high school going adolescent girls in resource limited settings around Bangalore city, Karnataka, India. Int J Collab Res Intern Med Public Heal 2012;4:1353– 1362.
7. Dabade, K. J., & Dabade, S. K. (2017). Comparative study of awareness and practices regarding menstrual hygiene among adolescent girls residing in urban and rural area. International Journal Of Community Medicine And Public Health, 4(4),

- 1284–1288. <https://doi.org/10.18203/2394-6040.ijcmph20171363>
8. Ruby Khatoon, Shahzeb Ansari, Syed Abid Asghar, Beena Sachan, Zeashan H Zaidi, & Sharique Ahmad. (2023). Knowledge, attitude, and practices of adolescent school girls regarding menstrual hygiene in Lucknow district. *Asian Journal of Medical Sciences*, 14(2), 90–95. Retrieved from <https://nepjol.info/index.php/AJMS/article/view/49421>
 9. Gupta M, Tiwari S, Wavare RR. Awareness And Practices Regarding Menstrual Hygiene Among Women of Reproductive Age Group Attending a Tertiary Care Hospital of Indore, India. *Natl J Community Med*. 2015 Jun. 30;6(02):274-7. Available from: <https://www.njcmindia.com/index.php/file/article/view/1179>
 10. Belayneh, Z., Mekuriaw, B. Knowledge and menstrual hygiene practice among adolescent school girls in southern Ethiopia: a cross-sectional study. *BMC Public Health* 19, 1595 (2019). <https://doi.org/10.1186/s12889-019-7973-9>
 11. Gupta R, Mishra S, Parihar A, et al. Knowledge, Attitude, and Practice of Menstrual Hygiene in Women Aged 13–45 Years Attending Hind Institute of Medical Sciences, Sitapur: A Cross-sectional Study. *Int J Infertil Fetal Med* 2021;12(3):49–54. <https://doi.org/10.5005/jp-journals-10016-1224>
 12. Thakur H, Aronsson A, Bansode S, Stalsby Lundborg C, Dalvie Sand Faxelid E (2014) Knowledge, practices, and restrictions related to menstruation among young women from low socioeconomic community in Mumbai, India. *Front. Public Health* 2:72. <https://doi.org/10.3389/fpubh.2014.00072> PMID: 25072044; PMCID: PMC4080761.
 13. https://www.aigppa.mp.gov.in/uploads/project/Situational_Analysis_of_Udita_Yojana_in_Madhya_Pradesh.pdf
 14. <https://www.indiastat.com/uttar-pradesh-state/data/social-and-welfare-schemes/kishori-shakti-yojana-ksy>
 15. Rajasthan Udaan Yogana Menstrual Hygiene Scheme (MHS) | Muft Sanitary Pad Yojana 2021 | Free Sanitary Napkins for Women: Sarkariyojana; 2021. Available from: <https://sarkariyojana.com/rajasthan-menstrual-hygienscheme-mhs-sanitary-napkins-women/>
 16. Under Swechha, Andhra govt to provide free sanitary napkins to school-going girls: Indian Today;2021. Available from: <https://www.indiatoday.in/india/story/swechha-andhra-govt-free-sanitary-napkins-school-college-girls-1860841-2021-10-05>
 17. Implement ‘Shuchi’ scheme in letter and spirit, HC tells Karnataka government. *The Hindu*. 2021;1–3. Available from: <https://www.thehindu.com/news/national/karnataka/implement-shuchi-scheme-in-letter-and-spirit-hc-tells-karnataka-government/article34473501.ece>
 18. Free sanitary pads for girls in middle and high schools of Bihar. Down to earth. <https://www.downtoearth.org.in/environment/free-sanitary-pads-for-girls-in-middle-and-high-schools-of-bihar-44635>
 19. Tribune News Services. Udaan scheme: 1 lakh women to receive sanitary pads for free. 2021. <https://www.tribuneindia.com/news/amritsar/udaan-scheme-1-lakh-women-to-receive-sanitary-pads-for-free-Tribune-News-Services.-Udaan-scheme-1-lakh-women-to-receive-sanitary-pads-for-free.-2021>.
 20. Sarkar S. Scheme to give free sanitary napkins to 22.50 lakh BPL women, girls launched: Hindustan Times; 2020. <https://www.hindustantimes.com/chandigarh/scheme-to-give-free-sanitary-napkins-to-22-50-lakh-bpl-women-girls-launched/story-dxpdGd8DfT87ZBEN.html>
 21. <https://socialwelfare.vikaspedia.in/viewcontent/social-welfare/women-and-child-development/women-development/woman-initiatives/woman-initiatives-of-maharashtra>
 22. <https://www.indiatoday.in/education-today/news/story/tripura-govt-to-provide-schoolgirls-with-free-sanitary-napkins-1761327-2021-01-21>
 23. Singh AJ. Place of menstruation in the reproductive lives of women of rural North India. *Indian J Community Med* (2006) 31(3):10–4. <https://doi.org/10.4103/0970-0218.54923>
 24. Garg S, Sharma N, Sahay R. Socio-cultural aspects of menstruation in an urban slum in Delhi, India. *Reprod Health Matters* (2001) 9(17):16–25. [https://doi.org/10.1016/S0968-8080\(01\)90004-7](https://doi.org/10.1016/S0968-8080(01)90004-7)
 25. Tamphasana T, Rajkumari B and Devi LU. Knowledge, attitude and practice regarding menstrual hygiene among adolescent girls in Imphal East, Manipur: A cross-sectional study. *Int J Community Med Public Health*. 2020;7(7):2595-2601. <https://doi.org/10.18203/2394-6040.ijcmph20202982>
 26. Tshomo T, Gurung MS, Shah S, Gil-Cuesta J, Maes P, Wangdi R, Tobden J. Menstrual Hygiene Management-Knowledge, Attitudes, and Practices Among Female College Students in Bhutan. *Front Reprod Health*. 2021 Aug 27;3:703978. DOI: 10.3389/frph.2021.703978
 27. Belayneh, Z., Mekuriaw, B. Knowledge and menstrual hygiene practice among adolescent school girls in southern Ethiopia: a cross-sectional study. *BMC Public Health* 19, 1595 (2019). <https://doi.org/10.1186/s12889-019-7973-9>
 28. Manvi Rajput, Sonam Chadda. Prevalence of healthy practice of menstrual hygiene among female college students in Delhi/ NCR. *NeuroQuantology*; October 2022, Volume 20, Issue 12, Page 1539-1547. <https://doi.org/10.14704/NQ.2022.20.12.NQ77132>