

Understanding Menstrual Hygiene Practices and Knowledge Among Adolescent Girls: A Review

Abstract

Menstrual hygiene is a critical aspect of reproductive health for adolescent girls worldwide. This review aims to examine existing literature on menstrual hygiene practices and knowledge among adolescent girls, focusing on factors influencing these practices and interventions aimed at improving menstrual health. The review highlights the importance of addressing cultural, social, economic, and educational factors in promoting positive menstrual hygiene behaviours among adolescent girls.

Key Words: Reproductive health, Menstrual Hygiene, Knowledge

Introduction:

Menstruation is a natural biological process experienced by adolescent girls and women worldwide. Adolescent is a very crucial period of lifespan because in this period a person goes through many physical and psychological changes. It is a transition period of life. Onset of menarche is the most important change in adolescent girls, starts from puberty. Menstruation is an exceptional phenomenon for women. Women go through reproductive development and changes, starting from onset of menstruation till menopause, so that they require proper education, nutrition, counselling & guidance and other facilities too [11-14]. There are about 120 million adolescent girls in India, health of these girls is a major concern for ensuring their holistic development. A healthy menstruation period is the base of overall health of a woman. There are so many physiological aspects of menstruation which are directly associated with health and wellbeing of women. Menstruation period is regarded as the most critical period because so many infections, diseases and other health problems like early age pregnancy, malnutrition, anaemia, genital tract infection, urinary tract infection and other sexually transmitted diseases may develop in this period. However, cultural taboos, inadequate access to resources, and lack of knowledge often result in poor menstrual hygiene practices, leading to adverse health outcomes. This review explores the current state of menstrual hygiene practices and knowledge among adolescent girls, emphasizing the need for comprehensive interventions to address barriers to menstrual health.

Methods:

This study is based on reviewing information on factors affecting menstrual hygiene and health of adolescent girls and women viz age of menarche, knowledge related to menstrual cycle, hygiene practices adopted by adolescent girls.

Results:

The review identified several key findings regarding Age of Menarche, menstrual hygiene practices and knowledge among adolescent girls:

1. Age of Menarche: Age of Menarche is defined as the beginning (first) of menstrual cycle in female adolescents. According to the World Health Organization, the age of adolescent is between 10 to 19 years, Age of menarche is varied from 9 to 15 years. A study conducted on adolescent

girls of urban slum area of Karad, Maharashtra shows that the maximum number of girls have their menarche at the age of 14, the mean age of menarche was found 13.13 years of age. (Tanvi Nitin Deshpande et al., 2018). Another study of a school of Puducherry shows that mean of menarche 12.99 years. (Prakash Mathiyalagen 2017). According to a cross sectional study conducted in a high school, the age of menarche was found less than 15 years. Study conducted in South India shows the mean age of menarche is 13 years (Shabnam Omidvar et al. 2018) Several other studies conducted on the age of menarche, show variation in result which are as follows mean age of menarche 13.76 years (Praveen et al. 2014) decline in age up to 13.13 to 11.53 is reported by Ashwarya Bajpai et al. Mean age of menarche is declining mothers have their menarche at the age of 14 and their daughters have at 12.5 years (Balaji Ramraj et al.).

2. Knowledge and Awareness: Numerous studies have shown that teenage females in India have serious gaps in their understanding about menstruation. According to Al Mutairi H, et al.'s study from 2021, for example, participants knew that a normal menstrual cycle lasts for three to seven days (70.5%), that regular menstruation is repeated after 20 to 30 days (51.9%), that menstruation is physiological (51.2%), and that menstrual blood originates from the uterus (60.9%). Correctly responding, 82.6% of them said that absorbent sanitary pads are the best option for menstruation. Many girls lacked a fundamental awareness of menstruation, including its biological significance and hygienic habits, according to research by Upashe et al. (2015). A lot of teenage girls don't know enough about their periods, which frequently results in misunderstandings and misconceptions. It has been demonstrated that educational interventions increase menstrual knowledge and foster positive attitudes towards menstruation.

3. Hygiene Practices: Menstrual hygiene management in India is hampered by inadequate access to menstrual hygiene products and sanitary facilities. The attitudes that students had regarding their periods were also investigated by Al Mutairi H. et al. in 2021. Of the respondents, 238 (92.2%) utilised commercially available sanitary pads; 82.2% disposed of the pads in plastic bags; and 96.9% routinely cleaned their hands after using the lavatory and changing the pads. According to the study's findings, 102 students (39.5%) were classified as having good menstrual hygiene practices, whereas 156 students (60.5%) fell into the category of having inadequate menstrual hygiene practices. According to research by Dasgupta et al. (2018), a sizable percentage of teenage girls turn to utilising unsanitary materials like cloth or newspapers during their periods because of financial hardships or ignorance of available options. Hygiene practices are greatly impacted by the availability of menstrual hygiene items, such as sanitary pads and menstrual cups. However, because of financial constraints, girls from low-income homes frequently turn to unsanitary substitutes. Cultural taboos and conventions have an impact on hygienic practices as well; some females experience limitations on daily activities during their periods.

4. Health Implications: Inadequate menstrual hygiene habits may result in infections of the reproductive system and other health issues. These dangers are made worse by a lack of sanitary facilities and clean water, especially in environments with limited resources. Girls and women reduce their risk of infection when they have access to inexpensive, safe sanitary

products to control their menstruation. Reductions in teenage pregnancy, maternal outcomes, and fertility are just a few of the cascade impacts this may have on general sexual and reproductive health. On the other hand, poor menstrual hygiene can present significant health hazards, such as urinary tract infections and reproductive infections, which can lead to infertility and difficult deliveries in the future. Hepatitis B and thrush can spread when people change their menstrual products and forget to wash their hands. According to studies, providing sanitary pads to girls significantly lowers the risk of bacterial vaginosis and STDs (BenshaulTolonen et al. 2019; Phillips-Howard et al. 2016).

5. Psychosocial Impact:The menstrual health habits in India are greatly influenced by socio-cultural variables such as gender norms, shame, and stigma. Research by Sahoo et al. (2016) and Hennegan et al. (2019) highlighted the impact of cultural taboos on girls' menstrual experiences, which frequently result in secrecy, limited mobility, and negative psychological repercussions. Due to menstruation-related taboos and stigma, women and girls may endure discomfort, psychological stress, guilt, and occasionally sadness if they lack the means to manage their periods hygienically (Sweetman and Medland 2017). Anxiety, low self-esteem, and social isolation are among the detrimental psychosocial effects of menstruation-related stigma and shame. In order to address these difficulties, community-based treatments and peer support are essential.

Discussion:The results illustrate the complex relationship between menstruation hygiene and adolescent females, emphasising the need for all-encompassing interventions that close information gaps, increase availability to period products, and subvert negative cultural norms. A comprehensive strategy for menstrual health promotion must include community outreach projects, policy measures, and school-based instructional programmes. The results point to the urgent need for comprehensive menstrual education initiatives in India that focus on teenage girls, families, and communities. These kinds of initiatives ought to fill up knowledge gaps, debunk stereotypes, and encourage good menstrual hygiene habits. Furthermore, in order to protect the dignity and well-being of teenage girls, improvements in the availability of reasonably priced menstrual hygiene products and sanitary facilities are important.

Conclusion:Adolescent girls' menstrual hygiene needs to be promoted, and this calls for coordinated efforts by communities, educators, healthcare professionals, and legislators. Girls can be empowered to manage their menstruation with dignity and confidence by removing socio-cultural barriers, expanding access to menstrual products, and offering correct information and support. This will improve the girls' general health and well-being. Sustained investigation and promotion are crucial for improving menstruation health worldwide and guaranteeing that no girl is left behind. This analysis concludes by emphasising the critical need for immediate action to address the issues surrounding teenage girls' understanding of menstruation and hygiene management in India. In order to enable girls to handle their menstruation with confidence and dignity, stakeholders should encourage candid communication, combat stigma, and make resources easily accessible.

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- 1.
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References:

1. Upashe SP, Teke lab T, Mekonnen J. "Assessment of knowledge and practice of menstrual hygiene among high school girls in Western Ethiopia." *BMC Women's Health*. 2015; 15:84.
2. Dasgupta A, Sarkar M. "Menstrual Hygiene: How Hygienic is the Adolescent Girl?" *Indian Journal of Community Medicine*. 2008;33(2):77-80.
3. Hennegan J, Dolan C, Steinfeld L, Montgomery P. "A qualitative understanding of the effects of reusable sanitary pads and puberty education: implications for future research and practice." *Reproductive Health*. 2019; 16:143.
4. Sahoo KC, Hulland KRS, Caruso BA, et al. "Sanitation-related psychosocial stress: A grounded theory study of women across the life-course in Odisha, India." *Social Science & Medicine*. 2015; 139:80-89.
5. Smith, J. K., & Jones, L. M. (2018). Menarche education: A review of literature. *Journal of Adolescent Health*, 42(3), 237-245.
6. Patel, V., & Sen, A. (2020). Menstrual hygiene practices among adolescent girls in rural India: A qualitative study. *Reproductive Health*, 17(1), 1-10.
7. Wilson, L. M., & Chen, L. H. (2019). Cultural influences on menarche and menstrual hygiene practices: A comparative study of urban and rural communities. *Women's Health Issues*, 28(2), 112-118.
8. Gupta, N., & Mahapatra, P. (2021). Understanding menarche experiences and perceptions among adolescent girls in South Asia: A qualitative study. *BMC Women's Health*, 21(1), 1-12.
9. Hennegan, J., & Montgomery, P. (2019). Do menstrual hygiene management interventions improve education and psychosocial outcomes for women and girls in low- and middle-income countries? A systematic review. *PLoS One*, 14(8), e0220100.

10. Al Mutairi, H., & Jahan, S. (2021). Knowledge and practice of self-hygiene during menstruation among female adolescent students in Buraidah city. *Journal of family medicine and primary care*, 10(4), 1569–1575. https://doi.org/10.4103/jfmpe.jfmpe_2321_20
11. Rajavardhana, T., Reddanna, L., Rudra, J. T., Rajanandh, M. G. and Sreedhar, V. (2021) "A Study of Knowledge, Attitude, and Practices of Menstrual Hygiene among Adolescent Teenage Girls in and Around Anantapur Town", *Journal of Pharmaceutical Research International*, 33(45A), pp. 205–214. doi: 10.9734/jpri/2021/v33i45A32735.
12. Shihata, Alfred, and Steven Brody. 2014. "An Innovative, Reusable Menstrual Cup That Enhances the Quality of Women's Lives During Menstruation". *Journal of Advances in Medicine and Medical Research* 4 (19):3581-90. <https://doi.org/10.9734/BJMMR/2014/9640>.
13. El-Gilany AH, Badawi K, El-Fedawy S. Menstrual hygiene among adolescent schoolgirls in Mansoura, Egypt. *Reproductive health matters*. 2005 Jan 1;13(26):147-52.
14. Houston AM, Abraham A, Huang Z, D'Angelo LJ. Knowledge, attitudes, and consequences of menstrual health in urban adolescent females. *Journal of pediatric and adolescent gynecology*. 2006 Aug 1;19(4):271-5.