

Understanding and Promoting Menstrual Hygiene Knowledge among Adolescent Girls

A Study at a Public High School in Yogyakarta, Indonesia

¹Amalia Ade Finantika, ¹Kharisah Diniyah*

Corresponding Author: *kharissa188@gmail.com

¹ Universitas 'Aisyiyah Yogyakarta, Indonesia

ARTICLE INFO

ABSTRACT

Article history

Received 14 August 2023

Revised 1 October 2023

Accepted 6 October 2023

Based on data from the World Health Organization (WHO), the global prevalence of reproductive tract infections among teenagers ranged from 35% to 42% in 2012. In the specific context of Indonesia, statistics reveal that out of the country's 69.4 million adolescents, a staggering 63 million exhibited concerning hygiene behaviours. Additionally, it was noted that up to 5.2 million young women frequently experienced discomfort during menstruation due to inadequate hygiene practices. This research aims to provide insights into the knowledge and practices of menstrual hygiene among adolescents at a public high school in Yogyakarta, Indonesia. The study employed a quantitative descriptive approach and was conducted as a cross-sectional investigation. The results revealed that most respondents exhibited a high level of readiness and knowledge, with 91.6% categorised as having good knowledge, while 8.3% demonstrated sufficient ability. Notably, none of the participants fell into the category of inadequate knowledge. Regarding preparation for menstruation, 44 respondents were well-prepared, whereas four respondents exhibited sufficient preparation. These findings shed light on the importance of promoting menstrual hygiene education and practices among adolescents in Indonesia to improve overall reproductive health and well-being.

Keywords

Adolescent

Education

Knowledge

Menstrual Hygiene

This is an open-access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



Introduction

Personal hygiene during menstruation is maintaining cleanliness and well-being in women to prevent diseases and enhance their overall sense of comfort and health [1]. Health behaviours related to personal hygiene are paramount, as improper practices can lead to Reproductive Tract Infections (RTIs) and Fungal and Bacterial Infections (FBIs) [2]-[4],

Personal hygiene aims to improve an individual's health, preserve one's cleanliness, rectify inadequate personal hygiene, prevent diseases, boost self-confidence, and promote beauty [5]. Failing to adhere to proper private hygiene practices can negatively affect adolescent girls. These consequences include an inability to maintain the cleanliness of their reproductive organs, compromised appearance and health during menstruation, and an increased risk of urinary tract infections, vaginal discharge, cervical cancer, and other reproductive health issues [6].

Reproductive health is fundamentally enshrined in Article 71 of Law No. 36 of 2009, which states that reproductive health encompasses physical and mental well-being, not merely freedom from diseases or disabilities related to the reproductive system, functions, and processes. Understanding reproductive health also includes the rights of every individual to access safe, effective, and affordable reproductive health services [7]. Knowledge plays a significant role in personal hygiene practices [8]-[10]. Students with insufficient knowledge about personal hygiene may refrain from engaging in proper hygiene behaviours during menstruation, potentially endangering their reproductive health. One of the consequences of inadequate personal hygiene is the development of vaginal infections due to poor cleanliness [11]. Maintaining personal hygiene during menstruation is crucial for preventing health issues and promoting overall well-being. Adequate knowledge and understanding of reproductive health rights and hygiene practices are essential for young women to safeguard their reproductive health and ensure a healthy and confident transition through menstruation.

As described in the provided text, the research aim is to investigate and understand the knowledge and practices related to menstrual hygiene among adolescent girls at a public high school in Yogyakarta, Indonesia. This research aims to show how well these students are informed about and adhere to proper menstrual hygiene practices. The objective is to assess their readiness and knowledge regarding personal hygiene during menstruation. Ultimately, the research aims to improve these adolescent girls' reproductive health and overall well-being by identifying areas where education and awareness can be enhanced.

Material And Methods

The research conducted employed a descriptive research design with a quantitative methodology. Specifically, a cross-sectional research design was utilised, which involves data collection at a single point in time. This approach was chosen to assess the level of knowledge among female adolescents at a public high school in Yogyakarta, Indonesia, regarding menstrual hygiene practices.

Results

A. Respondent characteristics

Fig. 1 shows the distribution of respondent characteristics, including age, age of first menarche, student grade and information source.

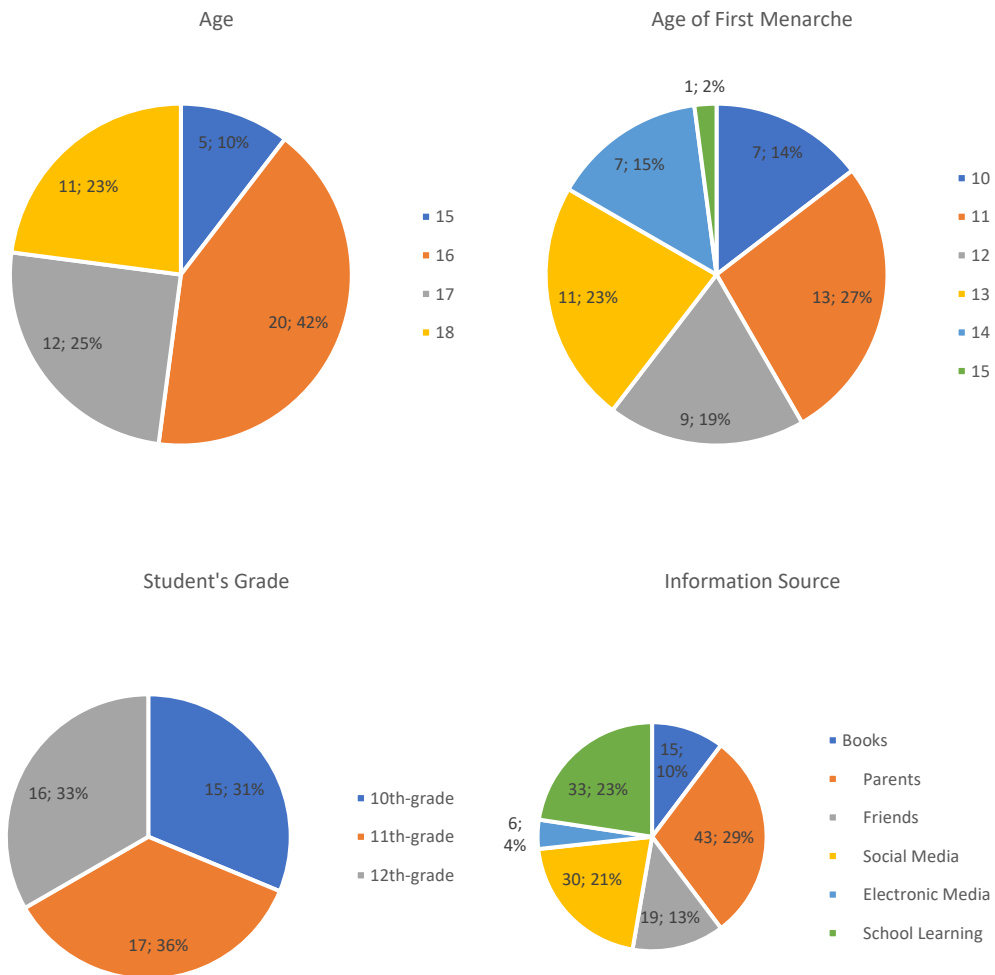


Fig. 1. Respondent characteristics: age, age of first menarche, student grade and information source

Respondents in this study predominantly fall within the age group of 16 years, with 20 students, followed by 17 years with 12 students, 18 years with 11 students, and 15 years with five students. Therefore, the majority of the respondents in this study are 16 years old. Based on the research results, it can be observed that most respondents experienced menarche at the age of 11 years. The respondents in this study were equally distributed among the three grade levels: 10th, 11th, and 12th. Most respondents obtained information from their parents.

These demographic details provide a comprehensive overview of the respondents, including their ages, educational levels, and primary sources of information. Understanding these characteristics is essential for interpreting the research findings and their implications.

B. Cross Tabulation of Knowledge Distribution

This research presents the distribution of knowledge regarding menstrual hygiene at a public high school in Yogyakarta, Indonesia, in 2023. Based on the variable "Description of Knowledge on Menstrual Hygiene" from 48 female students, the majority, 91.6%, possess good knowledge, while 8.4% have sufficient knowledge. The detail is shown in Fig. 2 and Fig. 3.

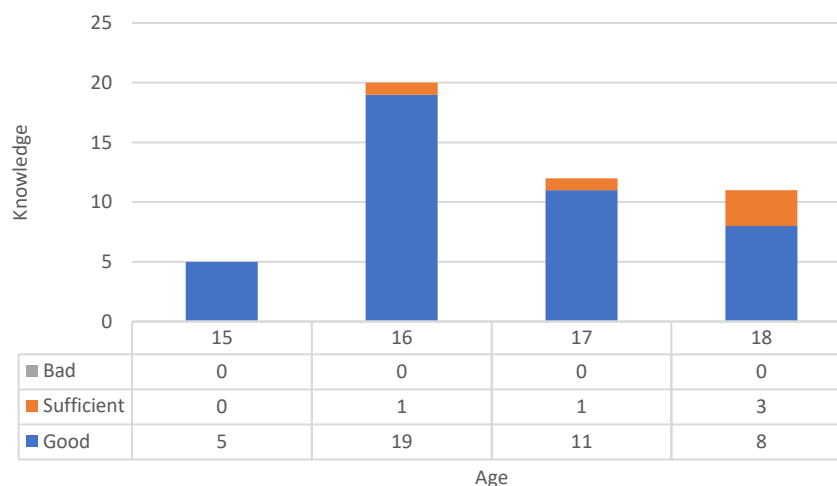


Fig. 2. Crosstab: Age and Knowledge

Based on the cross-tabulation (crosstab) in Fig. 2, which details knowledge about personal hygiene during menstruation based on age, the following observations are made:

- For 15-year-olds, all respondents (100%) fall into the "good" knowledge category.
- Among 16-year-olds, 95% of respondents have "good" knowledge, while 5% have "sufficient" knowledge.
- For 17-year-olds, 92% of respondents have "good" knowledge, and 8% have "sufficient" knowledge.

- Among 18-year-olds, 73% of respondents have "good" knowledge, while 27% have "sufficient" knowledge. No respondents in any age group have "bad" knowledge.

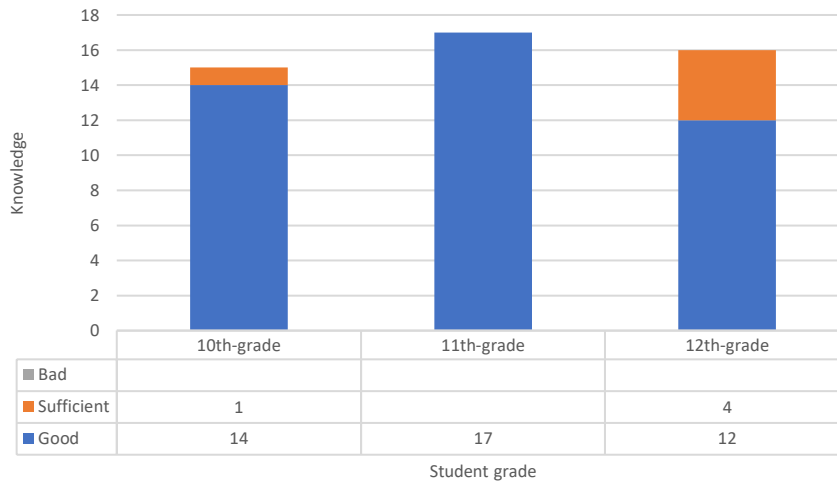


Fig. 3. Crosstab: Student Grade and Knowledge

The cross-tabulation in Fig. 3, detailing adolescent knowledge about personal hygiene during menstruation based on grades, provides the following insights:

- In 10th-grade students, 93.75% of students have "good" knowledge, 6.25% have "sufficient" knowledge, and none have "bad" knowledge.
- In 11th-grade students, all students have "good" knowledge (100%).
- In 12th-grade students, 75% have "good" knowledge, and 25% have "sufficient" knowledge. No students have "bad" knowledge.

These findings indicate that most respondents in different age groups and grades exhibit good knowledge about personal hygiene during menstruation, with no respondents falling into the "bad" knowledge category. This suggests a positive awareness and understanding of menstrual hygiene among the studied population.

Discussion

This research shed light on the level of knowledge among adolescent girls regarding personal hygiene during menstruation. Most respondents, totalling 91.6%, demonstrated a "good" level of knowledge, while only 8.4% exhibited "sufficient" command in this area. These results imply that the adolescent girls in this study possess a commendable understanding of menstrual hygiene, and only a small proportion may require additional education and guidance.

Several factors may contribute to this positive outcome. Firstly, it is essential to recognise the role of self-awareness and individual consciousness in influencing knowledge and practices related to menstrual hygiene [12],[13]. Adolescents with a heightened self-awareness are more likely to prioritise their health and well-being, including proper menstrual hygiene practices. The findings align with the theory of reasoned action and planned behaviour, emphasising the significance of individual beliefs and attitudes in shaping behaviour [14]. In this context, the adolescents' awareness of the importance of menstrual hygiene appears to drive their pursuit of knowledge and adherence to proper practices.

Moreover, it is worth noting the impact of educational initiatives, both within the school environment and from other sources, on the knowledge levels of these adolescent girls [15]. According to the data, most respondents received information about menstrual hygiene from their parents, accounting for 89.6%. This reflects parents' critical role in imparting knowledge and values to their children. The social cognitive theory emphasises the influence of observational learning; in this case, parents serve as role models for their children regarding hygiene practices. Additionally, 68.8% of respondents reported learning about menstrual hygiene in school. This indicates that educational institutions proactively educate students about this crucial aspect of reproductive health.

Furthermore, the findings from the cross-tabulation based on age and grades provide valuable insights. Across different age groups and grades, most respondents maintained "good" knowledge levels, demonstrating that age and education did not significantly impact knowledge in this context. However, it is noteworthy that no respondents fell into the "poor" knowledge category, suggesting a general awareness and understanding of menstrual hygiene among the studied population. As influenced by self-awareness and consciousness, the positive outcome of adolescents' knowledge and practices related to menstrual hygiene aligns with several theories related to knowledge, age, and menarche.

1. Knowledge and Self-Awareness Theory

The findings strongly support that self-awareness shapes knowledge and practices [16]. Adolescents who are more self-aware tend to prioritise their health and well-being, including menstrual hygiene. This aligns with theories of self-concept and self-efficacy, which suggest that individuals with a higher self-concept are more likely to engage in positive health behaviours [17].

2. Theory of Reasoned Action and Planned Behavior

The results are consistent with the Theory of Reasoned Action and Planned Behavior, which emphasises the importance of individual beliefs and attitudes in influencing behaviour [18]. In this context, adolescents' awareness of the importance of menstrual

hygiene appears to drive their pursuit of knowledge and adherence to proper practices. This theory suggests that attitudes and subjective norms can predict behavioural intentions and actual behaviour.

3. Parental Influence and Social Cognitive Theory

The data highlighting that most respondents received information about menstrual hygiene from their parents underscores parents' significant role in imparting knowledge and values to their children [19],[20]. This aligns with the Social Cognitive Theory, which emphasises observational learning. Parents serve as role models for their children regarding hygiene practices, reinforcing the importance of parental involvement in health education.

4. Educational Initiatives and Learning Theory

The fact that a substantial percentage of respondents learned about menstrual hygiene in school reflects the effectiveness of educational initiatives [21]. This aligns with various learning theories, such as constructivism and behaviourism, which emphasise the role of education in knowledge acquisition. Educational institutions proactively educating students about menstrual hygiene demonstrate the importance of formal education in shaping awareness and practices.

5. Age and Knowledge Levels

The age and knowledge level findings provide valuable insights into knowledge stability across different age groups [22]-[24]. The fact that most respondents maintained "good" knowledge levels regardless of age or grade suggests that age does not significantly impact understanding in this context. This observation could be explained by the fact that knowledge about menstrual hygiene is generally acquired during adolescence, regardless of age. This aligns with the idea that specific knowledge is more time-dependent, such as age at menarche, while others are more stable.

These findings underscore the multifaceted nature of knowledge acquisition and behaviour related to menstrual hygiene. They highlight the interplay between individual factors, educational initiatives, and age, all of which contribute to a positive outcome regarding awareness and practices in this critical aspect of reproductive health. The research findings indicate a positive level of knowledge regarding personal hygiene during menstruation among adolescent girls. This can be attributed to individual awareness, parental guidance, and school-based education. These results underscore the importance of continued efforts to promote reproductive health education and the need for ongoing support and guidance for adolescents as they navigate this critical phase.

Conclusion

This study has provided valuable insights into the knowledge of adolescent girls regarding personal hygiene during menstruation. The majority of respondents, comprising 91.6%, demonstrated a "good" level of knowledge, while a smaller proportion, 8.4%, exhibited "sufficient" knowledge in this domain. None of the respondents fell into the "poor" knowledge category. These findings suggest a commendable awareness and understanding of menstrual hygiene among the studied population. The results emphasise the significance of individual attention and consciousness in influencing knowledge and practices related to menstrual hygiene. Adolescents with a heightened self-awareness are more likely to prioritise their health and well-being, including proper menstrual hygiene practices. The theories of reasoned action and planned behaviour support the idea that individual beliefs and attitudes play a pivotal role in shaping behaviour, including hygiene practices during menstruation. Furthermore, parental guidance and school-based education were identified as essential contributors to the knowledge levels of these adolescent girls. Parents serve as role models and sources of information, with 89.6% of respondents reporting that their parents were their primary source of knowledge. Educational institutions also played a vital role, with 68.8% of respondents learning about menstrual hygiene in school. Notably, the study revealed that age and grades did not significantly impact knowledge levels, as most respondents across different age groups and grades maintained "good" knowledge levels. This suggests that reproductive health education is effective and consistent across these demographic factors. In light of these findings, it is crucial to continue promoting and enhancing reproductive health education programs within the family and in schools. Adolescents should be empowered with accurate information and encouraged to maintain proper menstrual hygiene. Additionally, ongoing support and guidance for adolescents are essential as they navigate this critical phase of their lives.

Conflict of Interest

The authors declare that there is no conflict of interest.

References

- [1] Amri, S. (2022). The Relationship between Knowledge and Attitudes of Students on Menstrual Personal Hygiene in Private Vocational High School Students Napsi'ah Stabat Kab. Langkatin 2022. *Science Midwifery*, 10(2), 1932-1938.
- [2] Tarkka, M., & Deveau, A. (2016). 8 An emerging interdisciplinary field: fungal–bacterial interactions. *Environmental and Microbial Relationships*, 161-178.
- [3] Wasserheit, J. N. (1989). The significance and scope of reproductive tract infections among Third World women. *International Journal of Gynecology & Obstetrics*, 30(Supplement), 145-168.
- [4] Ademas, A., Adane, M., Sisay, T., Kloos, H., Eneyew, B., Keleb, A., ... & Alemu, K. (2020). Does menstrual hygiene management and water, sanitation, and hygiene predict reproductive tract infections among reproductive women in urban areas in Ethiopia?. *PLoS one*, 15(8), e0237696.

- [5] Robinson, S. (Ed.). (2021). *Priorities for Health Promotion and Public Health: Explaining the Evidence for Disease Prevention and Health Promotion*. Routledge.
- [6] Nugroho, T. (2014). *Masalah Kesehatan*. Yogyakarta: Nuha Medika.
- [7] Government Regulation. (2014). *Peraturan Pemerintah No.61 Tahun 2014 tentang Peran Bidan dalam Pelayanan Kesehatan Reproduksi*.
- [8] De Silva, A. O., Armitage, J. M., Bruton, T. A., Dassuncao, C., Heiger-Bernays, W., Hu, X. C., ... & Sunderland, E. M. (2021). PFAS exposure pathways for humans and wildlife: a synthesis of current knowledge and key gaps in understanding. *Environmental toxicology and chemistry*, 40(3), 631-657.
- [9] Ghanim, M., Dash, N., Abdullah, B., Issa, H., Albarazi, R., & Al Saheli, Z. (2016). Knowledge and practice of personal hygiene among primary school students in Sharjah-UAE. *Journal of Health Science*, 6(5), 67-73.
- [10] Rajbhandari, A. K., Dhaubanjari, R., GC, K. B., & Dahal, M. (2018). Knowledge and practice of personal hygiene among secondary school students of grade nine and ten. *Journal of Patan Academy of Health Sciences*, 5(2), 107-113.
- [11] Pane, J., Pakpahan, R., & Nadeak, S. (2022). An Overview of Young Women's Knowledge of Menstrual Personal Hygiene. *Indonesian Journal of Global Health Research*, 4(4), 921-928.
- [12] Asumah, M. N., Abubakari, A., Aninanya, G. A., & Salisu, W. J. (2022). Perceived factors influencing menstrual hygiene management among adolescent girls: a qualitative study in the West Gonja Municipality of the Savannah Region, Ghana. *Pan African Medical Journal*, 41(1), 1-13.
- [13] Chandra-Mouli, V., & Patel, S. V. (2020). Mapping the knowledge and understanding of menarche, menstrual hygiene and menstrual health among adolescent girls in low-and middle-income countries. *The Palgrave handbook of critical menstruation studies*, 609-636.
- [14] Huang, X., Dai, S., & Xu, H. (2020). Predicting tourists' health risk preventative behaviour and travelling satisfaction in Tibet: Combining the theory of planned behaviour and health belief model. *Tourism Management Perspectives*, 33, 100589.
- [15] Norris, E., van Steen, T., Direito, A., & Stamatakis, E. (2020). Physically active lessons in schools and their impact on physical activity, educational, health and cognition outcomes: a systematic review and meta-analysis. *British Journal of Sports Medicine*, 54(14), 826-838.
- [16] Carden, J., Jones, R. J., & Passmore, J. (2022). Defining self-awareness in the context of adult development: A systematic literature review. *Journal of Management Education*, 46(1), 140-177.
- [17] Babic, M. J., Morgan, P. J., Plotnikoff, R. C., Lonsdale, C., White, R. L., & Lubans, D. R. (2014). Physical activity and physical self-concept in youth: Systematic review and meta-analysis. *Sports medicine*, 44, 1589-1601.
- [18] Montano, D. E., & Kasprzyk, D. (2015). Theory of reasoned action, theory of planned behavior, and the integrated behavioral model. *Health behavior: Theory, research and practice*, 70(4), 95-108.
- [19] Luszczynska, A., & Schwarzer, R. (2015). Social cognitive theory. *Fac Health Sci Publ*, 225-251.
- [20] Eccles, J. S., & Wigfield, A. (2020). From expectancy-value theory to situated expectancy-value theory: A developmental, social cognitive, and sociocultural perspective on motivation. *Contemporary educational psychology*, 61, 101859.
- [21] Greenberg, M. T., Domitrovich, C. E., Weissberg, R. P., & Durlak, J. A. (2017). Social and emotional learning as a public health approach to education. *The future of children*, 13-32.
- [22] Braveman, P., Egerter, S., & Williams, D. R. (2011). The social determinants of health: coming of age. *Annual review of public health*, 32, 381-398.
- [23] Abdiyah, A. (2020). *Gambaran Faktor Yang Berkaitan Dengan Personal Hygiene Menstruasi Pada Remaja Putri Dengan Retardasi Mental Di Sekolah Luar Biasa (SLB) Marsudi Utomo Kesamben Kabupaten Blitar. Doctoral Dissertation*. Universitas Airlangga.
- [24] Agra, N. R. (2016). *Gambaran pengetahuan remaja putri tentang personal hygiene saat menstruasi pada siswi SMA Negeri 1 Sungguminasa tahun 2016. Doctoral Dissertation*. Universitas Islam Negeri Alauddin Makassar.

Authors



Amalia Ade Finantika is an Undergraduate Student pursuing a degree in Midwifery at the Faculty of Health Sciences, Universitas Aisyiyah Yogyakarta. She is dedicated to her studies in midwifery and actively contributes to her academic community. (email: amaliaadeina@gmail.com).



Kharisah Diniyah is a dedicated academic affiliated with Universitas Aisyiyah Yogyakarta, Indonesia. She pursued her degree, showcasing a solid commitment to healthcare and wellness. She has actively researched contributing to publications addressing crucial maternal and reproductive health aspects. Her work reflects her commitment to advancing healthcare knowledge, particularly in women's health, and her dedication to academic and research pursuits. (email: kharissa188@gmail.com).