

# The Relationship Between Knowledge and Personal Hygiene Behavior in Adolescent Girls During Menstruation: A Literature Review

Nurafmi Djuguna, Rosi Marlina, Ella Farida Sembiring, Andriyanti\*

Midwifery Study Program, Faculty of Medicine, Airlangga University, Surabaya 60115, Indonesia

E-mail: [amhiedj@gmail.com](mailto:amhiedj@gmail.com); [ochieponti@gmail.com](mailto:ochieponti@gmail.com);  
[ella.sembiring91@gmail.com](mailto:ella.sembiring91@gmail.com); [andriyanti@fk.unair.ac.id](mailto:andriyanti@fk.unair.ac.id)

\*Corresponding author details: [Andriyanti; andriyanti@fk.unair.ac.id](mailto:Andriyanti@fk.unair.ac.id)

## ABSTRACT

**Background:** Menstrual hygiene is crucial for maintaining the reproductive health of adolescent girls. Personal menstrual hygiene involves practices that enhance health by implementing appropriate hygiene measures during menstruation. These practices aim to maintain individual cleanliness and health, leading to physical and psychological well-being, and ultimately improving overall quality of life. **Methods:** This literature review is based on various research articles published from 2020 to 2021. The articles were identified through searches conducted on Google Scholar, using specific keywords along with inclusion and exclusion criteria. **Results:** Five articles were selected as suitable and relevant for use after passing the critical appraisal stage using the JIB (Journals and Instruments for Bibliometrics) tool. **Conclusion:** Based on the review results, it is concluded that health education can enhance adolescents' knowledge and behaviors regarding personal hygiene during menstruation.

**Keywords:** menstruation; adolescents; knowledge; behavior

## INTRODUCTION

During adolescence, individuals undergo various sexual developments, such as the maturation and functioning of sexual organs. Puberty is a stage experienced by adolescents, during which females undergo physical changes such as breast enlargement and the growth of pubic hair, and can experience menarche, the onset of their first menstrual period [1]. Menstruation is the process of blood leaving the vagina, resulting from the natural monthly cycle in women's bodies. This cycle is part of the reproductive system's preparation for potential pregnancy, and the amount of blood discharged during menstruation typically ranges from 50 to 150 milliliters [2].

Menstrual hygiene is crucial for the reproductive health of adolescent girls. Personal menstrual hygiene involves practices aimed at maintaining cleanliness and health during menstruation, which contributes to physical and psychological well-being and improves overall quality of life [3]. According to data from the World Health Organization (WHO) cited in Laili and Crusitasari (2019), the incidence of reproductive tract infections (RTIs) is highest among adolescents (35%-42%) and young adults (27%-33%) [4].

The Central Statistics Agency (BPS) 2015 and the National Development Planning Agency (BPPN) report that up to 63 million adolescents in Indonesia are at risk of unhealthy behaviors, including inadequate personal hygiene for reproductive organs [5].

Lack of knowledge among adolescents regarding menstrual hygiene can be a significant indicator of potential issues with reproductive health, as the intimate area is highly susceptible to bacterial and fungal infections during menstruation.

Therefore, the researcher aims to conduct a study on the Literature Review of the relationship between adolescent girls' knowledge and their personal hygiene behaviors during menstruation.

## METHODS

In this literature review, data was sourced from several previous research articles. The data was accessed through Google Scholar using keywords "Menstruation," "Adolescents," "Behavior," and "Knowledge." Articles were identified based on relevance to the topic and were restricted to those published between 2020 and 2021. Subsequently, the articles were selected according to the inclusion criteria established, resulting in a total of 5 articles.

## RESULT

The search results using 5 articles, which were reviewed according to the established criteria, were then subjected to the critical appraisal stage using the Joanna Briggs Institute (JBI) instrument to assess the suitability of the articles.

TABLE 1: Result of Research Screening.

No	Author	Year	Title	Methods	Results
1	Siti Chasani	2020	The Relationship Between Knowledge Levels and Behavior Regarding Personal Hygiene During Menstruation Among Seventh-Grade Students at SMPIT Bina Adzkie Depok	D: crosstional S: 45 (n) A: chisquare	Based on the research findings, nearly half of the respondents demonstrated good knowledge, with 16 respondents (29.1%) showing a high level of understanding. Almost half of the respondents had adequate knowledge about personal hygiene, represented by 24 respondents (43.6%), while nearly half had insufficient knowledge, with 15 respondents (27.3%). Statistical testing revealed a p-value of 0.005. Since the p-value is less than the significance level of 0.05 (p-value < $\alpha = 0.05$ ), it can be concluded that there is a significant relationship between the level of knowledge and personal hygiene practices during menstruation.
2	Desy Susanti, Ayu Mustika Handayani, Juliana Larasantika	2020	The Relationship Between Knowledge and Attitudes of Adolescent Girls Towards Personal Hygiene Behavior During Menstruation	D: crosstional S: 39 (n) A: chi square	The research findings show that among 3 respondents with poor knowledge, all 3 respondents (100%) practiced personal hygiene. Among 13 respondents with good knowledge, 6 respondents (46.2%) did not practice personal hygiene, while 7 respondents (53.8%) did. Among 23 respondents with very good knowledge, 6 respondents (26.1%) did not practice personal hygiene, whereas 17 respondents (73.9%) did. Statistical analysis using the chi-square test resulted in a p-value of 0.037 (p < 0.05). This indicates that there is a significant relationship between the knowledge of adolescent girls about personal hygiene during menstruation at SMK Kesehatan Keluarga Bunda Jambi.
3	Yanna Wari Harahap, Suryati, Masnawati	2021			The research results demonstrate a relationship between knowledge and personal hygiene practices, where the majority of adolescent girls who have never received information about personal hygiene during menstruation exhibited poor personal hygiene practices, totaling 21 individuals (51.2%). Conversely, the minority of adolescent girls who have received information and exhibited good personal hygiene practices during menstruation amounted to 8 individuals (19.5%).
4	Ni Luh Agustini Purnama	2021	Knowledge and Personal Hygiene Practices During Menstruation Among Adolescents	D: crosstional S: 42 (n) A: spearman rank test	The research results show that out of 35 respondents with good knowledge, 33 respondents (94.3%) had personal hygiene practices during menstruation categorized as good. Only 1 respondent with poor knowledge had inadequate personal hygiene practices. The Spearman's rank test results indicate a p-value < 0.05, meaning there is a significant relationship between knowledge and personal hygiene practices during menstruation.

No	Author	Year	Title	Methods	Results
5	Erlinawati Dewi Hartoyo, Bela Novita Amaris Susanto	2021	The Effect of LeafletMedia on Genitalia Personal HygieneDuring Menstruation on Adolescent Knowledge and Behavior	D: pre-experiment deigns S: 104 (n) A: wilcoxon	The research results show that initially, 54 respondents (50.9%) were in the good knowledge category, and 70 respondents (67.3%) had good behavior. However, after the intervention in the form of education on external genitalia and personal hygiene during menstruation,there was an improvement. Nearly all respondents were in the good knowledgcategory, with 82 respondents (78.8%) and good behavior with 92 respondents (88.5%). This resulted in an improvement difference of 27.7% in knowledge and 21.2% in behavior. The Wilcoxon statistical test results yielded a p-value of 0.000 ( $p < 0.05$ ). Therefore, it can be concluded that the null hypothesis ( $H_0$ ) is rejected, meaning there is a significant effect of the health education intervention on external genitalia personal hygiene on adolescents' knowledge and behavior.

Based on the review of 5 journals, it can be concluded that there is an influence of knowledge on the personal hygiene behavior of adolescents during menstruation.

As seen from the study results (Chasani, 2020), the level of knowledge regarding personal

hygiene during menstruation is reflected in the data from 16 respondents [6]. Of these, 10 respondents (18.2%) with good knowledge had good personal hygiene, 2 respondents (3.6%) with good knowledge had adequate personal hygiene, and 4 respondents (7.3%) with good knowledge had poor personal hygiene. Among the 24 respondents with adequate knowledge, 7 respondents (12.7%) had good personal hygiene, 10 respondents (18.2%) had adequate personal hygiene, and 7 respondents (12.7%) had poor personal hygiene. Among the 15 respondents with poor personal hygiene, 1 respondent (1.8%) had poor personal hygiene, 4 respondents (7.3%) had adequate knowledge with adequate personal hygiene, and 10 respondents (18.2%) had poor knowledge with poor personal hygiene.

## DISCUSSION

The study by Susanti et al. (2020) revealed that among 3 respondents with poor knowledge, all 3 (100%) practiced personal hygiene [7]. Out of 13 respondents with good knowledge, 6 (46.2%) did not practice personal hygiene, while 7 (53.8%) did practice it. Among 23 respondents with adequate knowledge, 6 (26.1%) did not practice personal hygiene, and 17 (73.9%) did [7].

Similar results were obtained from the study by Hartoyo and Bela (2021), where 54 respondents (50.9%) had good knowledge, and 70 respondents (67.3%) had good behavior [1].

However, after an intervention in the form of personal hygiene education for external genitalia during menstruation, improvements were observed, with nearly all respondents falling into the good knowledge category (82 respondents or 78.8%) and good behavior (92 respondents or 88.5%). The improvement in knowledge was 27.7%, and the improvement in behavior was 21.2% [7].

In line with the findings of Harahap et al. (2021), the study on the relationship between information provision and personal hygiene practices among adolescent girls during menstruation at MTsS Swadaya Padangsidempuan in 2019 showed a significant relationship with a p-value  $< 0.05$  (0.002) [8]. This indicates a significant association between the provision of information and personal hygiene practices during menstruation at MTsS Swadaya Padangsidempuan in 2019, where the majority of adolescent girls had never received information and had poor personal hygiene practices during menstruation (21 girls or 51.2%), while a minority had received information and had good personal hygiene practices (8 girls or 19.5%).

Consistent with Harahap's findings, a similar result was obtained in Purnama's (2021) study. Among 35 respondents with good knowledge, 55 (94.3%) had good personal hygiene practices during menstruation. Only 1 respondent with poor knowledge had poor personal hygiene practices. The Spearman Rank test showed a p-value  $< 0.05$ , indicating a relationship between knowledge and personal hygiene practices during menstruation. The correlation coefficient ( $\rho$ ) was 0.47, indicating a positive direction and moderate strength of the relationship. A positive direction means that higher knowledge scores correlate with better personal hygiene practices [9].

Knowledge or cognition is a crucial domain for the formation of one's actions (overt behavior). Based on experience and research, actions based on knowledge tend to be longer-lasting compared to those not based on knowledge [9].

In some developing countries, many adolescents still lack adequate information and do not realize the importance of personal hygiene, especially during menstruation. This leads to incorrect and unhealthy behaviors during their menstrual periods [1].

Therefore, efforts to improve knowledge of personal hygiene should include providing information through brochures, banners, and health education about menstrual hygiene, using easily understandable language so that adolescent girls can comprehend it well. Additionally, distributing brochures, and leaflets, and conducting discussions with adolescent girls should be done.

### CONCLUSION

Based on the literature review above, it can be concluded that health education can enhance adolescents' knowledge and behavior regarding personal hygiene during menstruation. Therefore, it is important to improve the quality of knowledge among adolescent girls about menstrual personal hygiene, which should be carried out by both schools and healthcare providers using engaging methods.

### ACKNOWLEDGMENT

The author would like to thank the Midwifery Study Program, Faculty of Medicine, Airlangga University, for supporting the research completion.

### REFERENCES

- [1] Hartoyo, E. D., & Bela, N.A.S., 2021. Pengaruh Media Leaflet Tentang Personal Hygiene Genitalia Pada Saat Menstruasi Terhadap Pengetahuan Dan Perilaku Remaja. IKESMA: Jurnal Ilmu Kesehatan Masyarakat, 17(1), P.1. <https://doi.org/10.19184/ikesma.V17i1.20402>
- [2] Nurmaningsih, E. And Izzah, N., 2021. Gambaran Pengetahuan Mengenai Personal Hygiene Saat Menstruasi Pada Remaja Putri: Literatur Review. Prosiding Seminar Nasional Kesehatan, Pp.302– 308.
- [3] Purnama, N.L.A., 2021. Pengetahuan Dan Tindakan Personal Hygiene Saat Menstruasi Pada Remaja. Jurnal Keperawatan, 10(1), Pp.61–66.
- [4] Mu'minum, N., Amin, K. And Jusmira, 2021. Hubungan Perilaku Personal Hygiene Saat Menstruasi Dengan Gejala Pruritus Vulvae Pada Remaja Putri Di Puskesmas Antang Faculty Of Nursing , Megarezky University Makassar , Indonesia N Ona Mu ' Minun Universitas Mega Rezky. Jurnal Kesehatan Panrita Husada, 6(1), Pp.86–101.
- [5] Hermawati, H., Rahmadini, A.F. And Kusmiati, M., 2021. Faktor-Faktor Yang Mempengaruhi Perilaku Remaja Terhadap Personal Hygiene Pada Saat Menstruasi Di Akademi Kebidanan Prima Husada Bogor Tahun 2021. Journal Of Nursing Practice And Education, 2(1), Pp.14–21.
- [6] Chasani, S., 2020. Hubungan Tingkat Pengetahuan Dan Perilaku Dengan Personal Hygiene Saat Menstruasi Pada Kelas Vii Di Smpit Bina Adzkie Depok , (July), Pp.1–23.
- [7] Susanti, D., Handayani, A.M. And Larasantika, J., 2020. Hubungan Pengetahuan Dan Sikap Remaja Putri Terhadap Perilaku Personal Hygiene Saat Menstruasi. Jurnal Kesehatan Luwu Raya, 7(1), Pp.88–95.
- [8] Harahap, Y.W., Suryati And Masnawati, 2021. Perilaku Personal Hygiene Remaja Putri Saat Menstruasi Di Mts Swadaya Padangsidimpuan. Jurnal Kesehatan Ilmiah Indonesia, 6(1), Pp.134–140.
- [9] Purnama, N.L.A., 2021. Pengetahuan Dan Tindakan Personal Hygiene Saat Menstruasi Pada Remaja. Jurnal Keperawatan, 10(1), Pp.61–66.