

**ASSOCIATION OF VULVAR HYGIENE PRACTICES WITH VAGINAL DISCHARGE IN REPRODUCTIVE-AGE INDONESIAN WOMEN**

**Meiyana Sinaga<sup>1\*</sup>, Sarinah Br Silalahi<sup>2</sup>**

<sup>1,2</sup>Program Studi Pendidikan Profesi Bidan, Sekolah Tinggi Ilmu Kesehatan Sehati, Medan, Indonesia

\*Correspondence Email: [meiyanasinaga87@gmail.com](mailto:meiyanasinaga87@gmail.com)

**ABSTRACT**

*Vaginal discharge is a common reproductive health issue experienced by women of reproductive age. It may be physiological or pathological, and one of the factors influencing the occurrence of pathological discharge is vulvar hygiene practices. Inadequate genital hygiene—such as wearing damp underwear, improper cleansing techniques, or the use of unsuitable cleansing products—can increase the risk of infection and lead to abnormal vaginal discharge. Therefore, proper vulvar hygiene plays an essential role in maintaining women’s reproductive health. This study aims to examine the relationship between vulvar hygiene practices and the incidence of vaginal discharge among women of reproductive age. The research employed a quantitative method with a cross-sectional design. The sample consisted of 19 women of reproductive age selected through a total sampling technique. Data were collected using a questionnaire assessing vulvar hygiene practices and the incidence of vaginal discharge. Data analysis was conducted using the Chi-Square test with a significance level of 0.05. The results showed that nearly half of the respondents demonstrated good vulvar hygiene practices (47.4%), and the majority did not experience vaginal discharge (78.9%). The Chi-Square analysis revealed a significant association between vulvar hygiene practices and the incidence of vaginal discharge, with a p-value of 0.000 ( $p < 0.05$ ). These findings indicate that better vulvar hygiene practices are associated with a lower risk of developing vaginal discharge. In conclusion, proper vulvar hygiene contributes to the prevention of vaginal discharge among women of reproductive age. Continuous education and health promotion efforts are necessary to enhance women’s knowledge and awareness of the importance of maintaining genital hygiene as a preventive measure against reproductive health problems.*

*Keywords: Vulva Hygiene Behavior; Vaginal Discharge; Women of Childbearing Age.*

## INTRODUCTION

Vaginal discharge is a common issue experienced by women of reproductive age. Poor hygienic practices, as well as inadequate attitudes and knowledge regarding the maintenance of external genital hygiene, may contribute to the occurrence of vaginal discharge. Malodorous and itchy discharge can cause significant discomfort for women (Diah Haryono F., Setyorini N., & Mastuti S., 2021). According to the World Health Organization (WHO), nearly all women and adolescents have experienced vaginal discharge, with a prevalence of 60% among adolescents and 40% among women of reproductive age, whereas the prevalence among European women is approximately 25% (World Health Organization, 2020).

In Indonesia, 75% of women have experienced vaginal discharge at least once in their lifetime, with 50% occurring among adolescents and 25% among women of reproductive age. This figure sharply contrasts with other countries, where the prevalence is only around 25%. This higher rate is associated with Indonesia's humid climate, which facilitates the growth of fungal infections, thereby increasing the likelihood of vaginal discharge among Indonesian women (Nurul & Qomariyah, 2021).

Physiological vaginal discharge is caused by blockage of the vaginal mucous membrane due to hormonal stimulation. Pathological vaginal discharge typically occurs in both the upper and lower female reproductive tract. It is caused by infections from pathogenic organisms such as *Trichomonas vaginalis*, *Candida* species, *Chlamydia trachomatis*, *Gardnerella* species, and *Neisseria gonorrhoeae*. It can be concluded that vaginal discharge is one of the reproductive health problems frequently reported by adolescent girls and particularly by women of reproductive age. Vaginal discharge among women of reproductive age requires special attention. If left untreated, pathological discharge may lead to more serious conditions. Normal discharge is characterized by a clear color, absence of odor, and no itching; conversely, discharge that is yellowish, malodorous, and accompanied by itching is classified as abnormal (Sofiyah & Andarwulan, 2021).

One of the personal hygiene practices for women includes care of the external genitalia, which consist of the mons pubis located anterior to the symphysis pubis, the labia majora forming two large folds of the vulva, the labia minora, the clitoris, and surrounding areas including the urethra, vagina, perineum, and anus. The purpose of vulvar hygiene practices is to improve the health status of women of reproductive age, prevent diseases or irritation around the vulva, maintain cleanliness, and correct poor vulvar hygiene behaviors. Proper vulvar hygiene seeks to keep the vagina dry and not moist, as humid conditions can facilitate external infections. Recommended practices include washing hands before touching the vaginal area, bathing regularly while cleansing the vulva with warm water and mild soap, and ensuring proper cleansing technique—from front to back—to prevent the transfer of bacteria from the anus to the vagina. Women are also advised to avoid sharing towels (Sari, Riski, & Indriani, 2022).

Women must maintain the cleanliness and health of their genitalia through proper hygiene practices to prevent infections. Regular reproductive organ care includes cleansing with water and practicing proper genital hygiene, such as washing from front to back. Genital care also involves thoroughly rinsing and gently cleaning the vaginal area, especially after urination, to prevent residual urine or other debris from remaining. After cleansing, the vaginal area should be dried using tissue or a small towel (Rahayu, Damayanti, & Purwanti, 2022).

Based on research conducted by Ilmassalma et al. (2021) titled *The Relationship Between Knowledge and Attitudes Toward the Incidence of Vaginal Discharge*, an individual's attitude reflects their tendency to behave or act. Attitudes are influenced by three interconnected components: the cognitive aspect, which is based on knowledge; the affective aspect, which is based on beliefs; and the conative aspect, which reflects readiness to act. Vulvar hygiene behavior is influenced by a person's attitudes regarding vulvar hygiene. Poor vulvar hygiene practices are one of the contributing factors to pathological vaginal discharge. Studies conducted by Berliana (2018) and Rahmawati (2021) likewise demonstrated a correlation between vulvar hygiene behaviors and the incidence of vaginal discharge among adolescent girls.

## RESEARCH METHODS

This study is a quantitative research employing a cross-sectional design. The research utilizes two variables: the independent variable, namely vulvar hygiene behavior, and the dependent variable, the incidence of vaginal discharge. The purpose of this study is to determine the relationship between vulvar hygiene behavior and the incidence of vaginal discharge among women of reproductive age at PMB Nurhayati, Bakaran Batu, Lubuk Pakam, in 2025. According to Saryono & Anggraini (2010),

the research setting is the place where informants interact with their environment and construct their lived experiences. This study was conducted at PMB Nurhayati Bakaran Batu, Lubuk Pakam, North Sumatra. The research period is scheduled from January 2025 to June 2025.

The study population comprises all subjects or objects being investigated. In this research, the population includes all women of reproductive age at PMB Nurhayati Bakaran Batu Lubuk Pakam from January to March 2025, totaling 82 respondents. A sample is a portion of the accessible population that can be selected as research subjects through sampling techniques (Nursalam, 2019). The sampling technique used in this study is purposive sampling, in which samples are selected based on predetermined criteria.

## RESULTS AND DISCUSSION

This study was conducted at the Independent Midwife Practice (PMB) Nurhayati, located in Bakaran Batu Village, Lubuk Pakam Subdistrict, Deli Serdang Regency, North Sumatra Province. This PMB is one of the healthcare facilities frequently visited by the community, particularly women of reproductive age, to obtain maternal and child health services, including antenatal care, family planning, immunization, and other reproductive health services.

PMB Nurhayati has a clean and well-organized environment and is managed directly by a midwife with extensive practical experience. The available facilities include an examination room, a waiting area, and basic medical equipment that supports healthcare services. Its strategic location within a densely populated residential area makes the facility easily accessible to the surrounding community, both by private vehicles and public transportation. The daily patient visits are relatively high, particularly among women of reproductive age, making this location highly suitable for conducting research on the relationship between vulvar hygiene behavior and the incidence of vaginal discharge.

### Univariate Analysis

**Table 1. Frequency and Percentage Distribution of Respondents Based on Their Characteristics at the Independent Midwife Practice (PMB) Nurhayati.**

No	Characteristic	Frequency (F)	Percentage (%)
<b>Age</b>			
1	< 20 Year	3	15.8
2	20 – 25 Year	6	31.6
3	26 – 30 Year	10	52.6
<b>Total</b>		<b>19</b>	<b>100.0</b>
<b>Education</b>			
1	SD	1	5.3
2	SMP	4	21.1
3	SMA	9	47.4
4	S1	5	26.3
<b>Total</b>		<b>19</b>	<b>100.0</b>
<b>Work</b>			
1	Work	5	26.3
2	Doesn't Work	14	73.7
<b>Total</b>		<b>19</b>	<b>100.0</b>

Based on Table 1., it is known that most respondents are in the 26–30-year age group, totaling 10 respondents (52.6%). In terms of educational level, the majority of respondents completed senior high school, amounting to 9 respondents (47.4%). Meanwhile, regarding employment status, most respondents are unemployed, totaling 14 respondents (73.7%). The discussion section describes the results of data processing, interprets the findings logically, links to relevant reference sources. (Bookman Old Style, 11, normal), 1 space. png/jpg image format.

**Table 2. Frequency and Percentage Distribution of Respondents' Vulvar Hygiene Behaviors**

No	Vulva Hygiene Behavior	Frequency (F)	Percentage (%)
1	Good	9	47.4
2	Moderate	6	31.6
3	Poor	4	21.1
<b>Total</b>		<b>19</b>	<b>100.0</b>

Based on Table 2, it is known that the majority of women of reproductive age have good vulvar hygiene behavior, totaling 9 respondents (47.4%). This is followed by women with moderate vulvar hygiene behavior, totaling 6 respondents (31.6%), and those with poor vulvar hygiene behavior, totaling 4 respondents (21.1%).

**Table 3. Frequency and Percentage Distribution of Vaginal Discharge Incidence Among Women of Reproductive Age**

No	Vaginal Discharge	Frequency (F)	Percentage (%)
1	No Vaginal Discharge	15	78.9
2	Vaginal Discharge	4	21.1
<b>Total</b>		<b>19</b>	<b>100.0</b>

Based on Table 3, it is known that the majority of women of reproductive age did not experience vaginal discharge, totaling 15 respondents (78.9%), followed by those who experienced vaginal discharge, totaling 4 respondents (21.1%).

**Bivariate Analysis**

**Relationship Between Vulvar Hygiene Behavior and the Incidence of Vaginal Discharge Among Women of Reproductive Age**

The analysis of the relationship between vulvar hygiene behavior and the incidence of vaginal discharge among women of reproductive age was carried out using the Chi-Square test. The testing criteria state that if the probability value is  $< \alpha$  (0.05), then  $H_0$  is rejected and  $H_a$  is accepted. Conversely, if the probability value is  $> \alpha$  (0.05), then  $H_a$  is rejected and  $H_0$  is accepted.

**Table 4. Chi-Square Test**

Vulvar Hygiene Behavior	Incidence of Vaginal Discharge	Total	P-Value	No Vaginal Discharge
Good	9	9		0
Moderate	6	6	<b>0.000</b>	0
Poor	0	4		4
<b>Total</b>	<b>15</b>	<b>4</b>	<b>19</b>	

Based on Table 4, the results of the Chi-Square test indicate that there is a relationship between vulvar hygiene behavior and the incidence of vaginal discharge among women of reproductive age. The data analysis shows a p-value of 0.000, which is lower than the significance level ( $\alpha$ ) of 0.05. This indicates that the null hypothesis ( $H_0$ ) is rejected, meaning that there is a significant relationship between vulvar hygiene behavior and the incidence of vaginal discharge among women of reproductive age.

**Vulvar Hygiene Behavior Among Women of Reproductive Age**

Based on the findings of the study, it is known that the majority of women of reproductive age demonstrated good vulvar hygiene behavior, totaling 9 respondents (47.4%). Meanwhile, 6 respondents (31.6%) showed moderate behavior, and the remaining 4 respondents (21.1%) exhibited poor vulvar hygiene practices.

These results indicate that most women of reproductive age already possess adequate knowledge and practices related to intimate hygiene. This may be influenced by several factors, such as educational level, access to health information, personal experience, and the role of healthcare providers in offering education on the importance of maintaining genital cleanliness. Good vulvar hygiene practices include habits such as cleansing the genital area with clean water from front to

back, changing underwear regularly, using clean sanitary pads and replacing them frequently during menstruation, and avoiding cleansing products that contain irritants. When practiced consistently, these behaviors can help prevent urinary tract infections, abnormal vaginal discharge, and other reproductive health disorders.

However, the findings also show that approximately 52.7% of respondents fall into the moderate and poor categories of vulvar hygiene behavior. This indicates the need for improved reproductive health education, particularly regarding the care and cleanliness of the genital area. Strengthening educational efforts is essential to ensure that all women of reproductive age develop proper understanding and practices to maintain their reproductive health.

The findings of this study are consistent with research conducted by Sari and Widyaningsih (2021), which showed that women of reproductive age with good knowledge of reproductive health tend to have better vulvar hygiene practices. The study emphasized that continuous education, both from healthcare providers and informational media, has a significant influence on women's intimate hygiene behaviors.

### **Incidence of Vaginal Discharge Among Women of Reproductive Age**

Based on the study findings, most women of reproductive age did not experience vaginal discharge, totaling 15 respondents (78.9%). Meanwhile, 4 respondents (21.1%) reported experiencing discharge.

These findings suggest that the majority of respondents are in good reproductive health and do not experience abnormal discharge. This condition is likely associated with proper genital hygiene practices, such as washing the vulva correctly, changing underwear regularly, and avoiding irritant products. Although the majority did not experience discharge, a small proportion of women did experience it. This requires attention, as vaginal discharge may indicate early signs of reproductive tract infection or an imbalance in the vaginal flora. Therefore, it is essential for every woman of reproductive age to understand the difference between normal (physiological) and abnormal (pathological) discharge and to seek medical evaluation when experiencing unusual symptoms.

These results align with the study conducted by Putri and Lestari (2020), which stated that good vulvar hygiene behavior can reduce the risk of pathological discharge. Additionally, factors such as a healthy lifestyle, nutritious diet, and the use of cotton underwear also contribute to preventing vaginal discharge.

### **Relationship Between Vulvar Hygiene Behavior and the Incidence of Vaginal Discharge Among Women of Reproductive Age**

Based on the statistical analysis using the Chi-Square test, it can be concluded that there is a significant relationship between vulvar hygiene behavior and the incidence of vaginal discharge among women of reproductive age. The data analysis results show a p-value of 0.000, which is lower than the significance level ( $\alpha$ ) of 0.05. Thus, the null hypothesis ( $H_0$ ) is rejected, and the alternative hypothesis ( $H_1$ ) is accepted, indicating that there is a relationship between vulvar hygiene behavior and the incidence of vaginal discharge among women of reproductive age.

These findings indicate that women who practice good vulvar hygiene tend to have a lower risk of experiencing vaginal discharge compared to those whose hygiene practices are moderate or poor. This supports the understanding that genital hygiene plays an essential role in maintaining the balance of normal vaginal flora and preventing the growth of pathogenic microorganisms that cause abnormal discharge.

### **CONCLUSIONS**

Based on the study findings, it can be concluded that most women of reproductive age demonstrated good vulva hygiene practices, and the majority did not experience vaginal discharge, indicating generally good reproductive health. The Chi-Square test showed a significant relationship between vulva hygiene behavior and the occurrence of vaginal discharge (p-value = 0.000 < 0.05), suggesting that better hygiene practices are associated with a lower likelihood of experiencing vaginal discharge.

## BIBLIOGRAPHY

- Ahmadi et al., (2023). Hubungan Antara Perilaku Eksternal Douching Dengan Kejadian Keputihan Pada Ibu Rumah Tangga Di Kledung Karangdalem Banyuurip Purworejo. Naskah Publikasi. Yogyakarta: Universitas Aisyiyah Yogyakarta;
- Arikunto (2017). Aplikasi Metodologi Penelitian Kebidanan dan Kesehatan Reproduksi. Yogyakarta: Nuha Medika
- Arikunto, Suharsimi. 2020. Prosedur Penelitian Suatu Pendekatan Praktek Edisi Revisi. Jakarta: Rineka Cipta .
- Astuti, H., et al. (2021). Hubungan perilaku vaginal hygiene dengan kejadian keputihan pada mahasiswi di asrama putri PSIK Unitri Malang. Nurs News (Meriden).
- Erni Ratna Suminar. (2021). Literature Review Analisis Faktor - Faktor yang Berhubungan dengan Kejadian Keputihan pada Remaja Putri. *Midwife's Research* , 10(2), 1–14.
- Ilmassalma.,Putri, A. A., Amelia K, P., & Cholifah, S. (2021). Hubungan Perilaku Personal Hygiene dengan Kejadian Keputihan pada Remaja Putri. *Midwifery Jurnal Kebidanan*, 7(1).
- Manuaba, I. B. G. dkk. 2010. Ilmu Kebidanan Kandungan dan KB untuk pendidikan Bidan. Edisi 2. Jakarta. EGC.
- Marhaeni, G. A. (2021). Keputihan pada wanita. *Jurnal Skala Husada : The Journal Of Health*, 13(1).
- Masturoh, I., Anggita, T. (2018). Metodologi Penelitian Kesehatan. Pusat Pendidikan Sumber Daya Manusia Kesehatan: Kemenkes RI.
- Mubarak, I W, I Lilis, and S Joko. 2015. Buku Ajar Ilmu Keperawatan Dasar (Buku 1). Jakarta: Salemba Medika.
- Nikmah, U. S., & Widyasih, H. (2020). Personal Hygiene Habits dan Kejadian Flour Albus Patologis pada Santriwati PP AL-Munawwir, Yogyakarta. *Media Kesehatan Masyarakat Indonesia*, 14(1),
- Notoatmodjo, S. 2018. Metodologi Penelitian Kesehatan. Edisi Revisi. Jakarta: Rineka Cipta
- Notoatmodjo, S. (2016). Metodologi penelitian kesehatan. Jakarta: Rineka..
- Nurul, & Qomariyah, S. (2021). Infeksi Saluran Reproduksi (ISR) pada Pereempuan Indonesia. 43
- Octaviyati, N. (2022). Hubungan pengetahuan mengenai kebersihan genitalia eksterna dengan kejadian keputihan pada mahasiswi fakultas MIPA UNS. Perpustakaan.Uns.Ac.Id Digilib.Uns.Ac.Id.
- Oktriani, T., & Wulandari, S. (2022). Pemberian rebusan daun sirih terhadap pengurangan keputihan patologis pada remaja putri. *J Kesehat Prima Nusant Bukittinggi*. 2018
- Rahayu, R. P., Damayanti, F. N., & Purwanti, I. A. (2022). Faktor - Faktor yang Berhubungan dengan Keputihan pada Wanita Usia Subur (WUS) di RT 04 RW 03 Kelurahan Rowosari Semarang. *Jurnal Kebidanan*, 4(1).
- Rahmawati, S. (2021). Health Education Tentang Vulva Hygiene Terhadap Pengetahuan Dan Sikap Remaja Putri Dalam Pencegahan Keputihan Di SMA Islam Terpadu Al-Kaffah Binjai
- Sari, D. M., Riski, M., & Nati Indriani, P. L. (2022). Hubungan penggunaan panty liner, cairan pembersih vagina dan personal hygiene dengan keputihan (flour albus). *Jurnal 'Aisyiyah Medika*, 7(2).
- Saryono & Angraini, 2010. Panduan Praktik Keperawatan Kebutuhan Dasar Manusia. Yogyakarta : PT Citra Aji Param.
- Sofiyah, S., & Andarwulan, S. (2021). Literature review: The Effect of Using NonHerbal Panty Liners on Abnormal Vaginal Discharge in Adolescent Girls. *Basic and Applied Nursing Research Journal*, 2(2), 60–64
- Sugiyono. (2018). Metode Penelitian Kualitatif, Kuantitatif, dan R&D. Alfabeta
- World Health Organization, (2020). Infant and Young Child Feeding. Diakses dari <https://www.who.int/news-room/fact-shee>