

Original Research

The Relationship between Vulva Hygiene Behavior and the Risk of Vaginal Discharge (Fluor Albus) in 8th Grade Adolescent Girls at SMPN 1 Parongpong

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ABSTRACT

Background: Poor personal hygiene behavior can cause vaginal discharge (fluor albus) in adolescent girls. As mentioned by Lawrence Green's theory, three factors can influence a person's health behavior, namely predisposing factors, supporting factors, and reinforcing factors. health behavior, namely predisposing factors, supporting factors, and reinforcing factors. **Research Objective:** This study aims to find out whether there is a relationship between vulva hygiene behavior and the risk of vaginal discharge (fluorine albus) in 8th grade adolescent girls at SMPN 1 Parongpong. **Methods:** This study is a correlative analytical study with a cross-sectional approach. The sampling technique in this study uses purposive sampling where sampling is in accordance with the researcher's wishes, namely 67 people from all grade 8 girls at SMPN 1 Parongpong. This study used measuring tools in the form of questionnaires, vulvar hygiene behavior, and the incidence of vaginal discharge. **Results:** Most or about 34 (50,7%) of 8th grade female adolescent students with a risk of vaginal discharge at SMP N 1 Parongpong had vulvar hygiene behavior with the enough category. Most or about 38 (56,7%) female students in grade 8 with a risk of vaginal discharge at SMP N 1 Parongpong experience physiological vaginal discharge. physiological vaginal discharge. **Conclusion:** Most or around 34 (50.7%) of 8th grade adolescent girls with vulva hygiene behavior at SMP N 1 Parongpong behaved in the sufficient category. Most or around 38 (56.7%) of 8th grade adolescent girls at risk of vaginal discharge at SMP N 1 Parongpong experience physiological vaginal discharge. There is relationship between vulva hygiene behavior and the risk of vaginal discharge in 8th grade adolescent girls at SMP N 1 Parongpong with a p-value of 0.001.

Keywords: Vulva hygiene behavior; fluor albus; adolescents

1. INTRODUCTION

Vaginal discharge or (leukorea, fluorine albus) is the discharge of fluid per vagina that is not blood. Leucholic is a clinical manifestation of various infections, malignancies or benign reproductive tumors. This disorder does not cause mortality but morbidity because it always wets the inside and causes irritation, itching so that it interferes and reduces comfort in sex.⁽¹⁾ Normal albus fluorine usually occurs during the menstrual process, the color is transparent and odorless. While it is pathological if it is yellowish, greenish, or greyish, smells fishy, and can cause symptoms such as

itching, redness, swelling, burning, pain when urinating or during intercourse. The most common albus fluoridation is bacterial vaginosis, candidiasis vulvovaginalis and trichomoniasis vaginalis.⁽²⁾

The process of reproductive health care needs to pay attention to several things, including knowledge, attitudes, and skills. It is important for adolescent girls to maintain the health of their reproductive organs, especially by performing Vulva Hygiene treatment (WHO, 2020).⁽³⁾ Vulva hygiene is an act of maintaining the cleanliness and health of the outer female organs to avoid infection. If the external reproductive organs are infected with bacteria or microorganisms, it will endanger other reproductive organs and cause reproductive health problems, one of which is vaginal discharge.⁽⁴⁾

The incidence of vaginal discharge is estimated to be 35-42% of people between the ages of 10-18 years old who have an infection in their reproductive organs, and 27-33% who have an infection in their reproductive organs between the ages of 18 and 22 years.⁽⁵⁾ According to a study by the World Health Organization, 33% of poor reproductive health problems are vaginal discharge that is natural in women.⁽⁶⁾ The World Health Organization (WHO) in 2018 also reported that 75% of women worldwide experience vaginal discharge, while European women experience up to 25% of vaginal discharge. The prevalence of leucorrhoea (vaginal discharge) in adolescents in South Asia is 70%, in Indonesia, around 90% of women have the potential to experience leucorrhoea. Indonesia is in a region with a tropical climate. As a result, the fungus can easily develop, resulting in many cases of vaginal discharge.⁽⁷⁾

Based on data from the Central Statistics Agency, (2022),⁽⁸⁾ in Indonesia, the province with the highest number of adolescent populations is in West Java, the number of adolescents aged 10-19 years is 4,314.8 million people. Based on data from the Central Statistics Agency, (2023),⁽⁹⁾ in the city of Bandung the number of adolescents aged 10-14 years is 183,603 people, the number of adolescents aged 15-19 years is 200,030 and the number of young women is 186,559 people. The number of adolescent girls in Indonesia is still high, so it requires special attention, especially regarding reproductive health. According to statistical data mentioned by Trisnawati (2018), women who experience vaginal discharge as much as 27.60% of the total population of West Java are adolescents and childbearing age aged 10-24 years.⁽¹⁰⁾

In Indonesia, many women and young women do not want to consult a doctor because they consider vaginal discharge or fluorine albus as trivial and not worth talking about. Albus fluorine can cause infertility, ectopic pregnancies caused by blockage of the fallopian tubes, and can also be an early indication of cervical cancer. Vaginal hygiene, antibiotic use, and stress are some of the factors that can cause abnormal vaginal discharge. The incidence of vaginal discharge is estimated to be 35-42% of people between the ages of 10-18 years old who have an infection in their reproductive organs, and 27-33% who have an infection in their reproductive organs between the ages of 18 and 22 years.⁽⁵⁾

Based on the results of a preliminary study that has been carried out by researchers at SMPN 1 Parongpong, the researcher distributed a questionnaire through a Gform link to class 8B students and it was found that out of 10 student respondents with poor behavior, as many as 5 people (50%), as many as 3 people (30%) behaved adequately, and as many as 2 people (20%) behaved well. Of the ten respondents, 7 female students (70%) experienced vaginal discharge, and as many as 3 female students (30%) experienced no vaginal discharge.

Based on the high incidence of vaginal discharge and the poor way adolescent girls clean their feminine areas that have described in this background, the researcher was interested in conducting a study to find out the relationship between vulva hygiene behavior and the risk of vaginal discharge (fluor albus) among grade 8 adolescent girls at SMPN 1 Parongpong.

2. METHODS

2.1 Study Design

This type of research is correlative analysis with a cross sectional. The research method used is correlative in accordance with the research objectives, namely the relationship between vulva hygiene behavior and the risk of vaginal discharge (fluorine albus) in Grade 8 adolescent girls at SMPN 1 Parongpong which was measured using observation sheets at one time. The sample in this study amounted to 67 respondents with the sampling technique used was purposive sampling. The instrument used is to use an observation sheet of vulva hygiene behavior and the risk of vaginal discharge that has been tested for validity

and reliability. This research was conducted on July 22-30, 2024.

2.2 Data Collection and Analysis

Data on vulva hygiene behavior with the risk of vaginal discharge (fluor albus) focuses on the hygiene behavior of 8th grade adolescent girls at SMPN 1 Parongpong. Data on vulvar hygiene behavior was obtained through a questionnaire consisting of 14 questions while the risk of vaginal discharge (fluor albus) questionnaire consisted of 6 questions. The total score was calculated, then categorized based on the operational definition. All data processing was carried out using software, namely the SPSS for Window program.

The analysis techniques used in this study were univariate analysis and bivariate analysis. Univariate analysis in this study aims to explain or describe the characteristics of each research variable. While the bivariate analysis in this study aims to evaluate the correlation between vulvar hygiene behavior and the risk of vaginal discharge in 8th grade adolescent girls at SMP N 1 Parongpong using the Chi Square test. The chi square test is used for qualitative data (non numeric). The results of the study regarding vulvar hygiene behavior as an independent variable (independent) that can affect the risk of vaginal discharge as the dependent variable (dependent).

Interpretation of hypothesis test results is based on p value, and strength of correlation. If the p value < alpha (0.05) then this indicates rejection null hypothesis (Ho) or significant relationship between previous related behavior and events stunting. conversely, if the p value > alpha (0.05), then the null hypothesis (Ho) cannot be rejected, this shows that there is no significant

relationship between vulva hygiene behavior and the risk of vaginal discharge.

2.3 Ethical Clearance

This study was approved by Fakultas Keperawatan, Institute Kesehatan Rajawali with the reference no. 468/IKR/FKEP/VI/2024.

3. RESULTS

The characteristics of the research carried out were all 8th grade female students at SMPN 1 Parongpong are represented in Table 1.

Table 1. Characteristics of participated students

Age	Frequency (f)	Percentage (%)
13 years old	13	19.4
14 years old	39	58.2
15 years old	15	22.4
Total	67	100.0

3.1 Univariate Analysis

Based on Table 2, it showing the frequency distribution of vulva hygiene behavior at SMPN 1 Parongpong in 2024. Of the 67 respondents, most of them had poor vulva hygiene behavior, as many as 18 (26.9%) respondents, most had adequate vulva hygiene behavior, as many as 34 respondents (50.7%), and most of them had good vulva hygiene behavior as many as 15 (22.4) respondents.

Based on Table 3, it shows that most of the respondents in SMPN 1 Parongpong experienced pathological vaginal discharge as many as 29 (43.3), and most of them experienced physiological vaginal discharge as many as 38 respondents (56.7%).

Table 2. Vulva hygiene behavior

Vulva hygiene behavior	Frequency	Percentage
Lacks vulva hygiene behavior	18	26.9
Fair vulva hygiene behavior	34	50.7
Good vulva hygiene behavior	15	22.4
Total	67	100.0

Table 3. Risk of vaginal discharge

Risk of Vaginal Discharge	Frequency	Percentage
Pathological vaginal discharge	29	43.3
Physiological vaginal discharge	38	56.7
Total	67	100.0

3.2 Bivariate Analysis

The results of the statistical test in table 3 showed that the significant value with the calculation results obtained $p\text{-value} = 0.001$ or less than the error level

value or alpha value of 0.05 which means that there was a meaningful relationship between vulva hygiene behavior and the risk of vaginal discharge.

Table 3. The Relationship between Vulva Hygiene Behavior and the Risk of Vaginal Discharge (Fluor Albus) in Grade 8 Adolescent Girls at SMPN 1 Parangpong

Vulva Hygiene Behavior	Risk of vaginal discharge				Total		p
	Pathological vaginal discharge		Physiological vaginal discharge				
	N	%	N	%	N	%	
Lacks vulva hygiene behavior	17	25.4	1	1.5	18	26.9	0.001
Fair vulva hygiene behavior	8	11.9	26	38.8	34	50.7	
Good vulva hygiene behavior	4	6.0	11	16.4	15	22.4	
Total	29	43.3	38	56.7	67	100.0	

4. DISCUSSION

According to research conducted by Devi, one of the factors that affect vulva hygiene behavior is knowledge about reproductive health.⁽¹¹⁾ Good knowledge and care are decisive factors in maintaining reproductive health. The habit of cleaning the female organs is a form of behavior based on knowledge that will affect the good or bad cleanliness of the female organs. And it will also affect the incidence of vaginal discharge.

Supported by research which stated that adolescent girls who have a good attitude in maintaining the health of the reproductive organs will have a sense of responsibility for the health of their reproductive organs by always maintaining the cleanliness of the feminine area.⁽¹²⁾ So that by always maintaining the cleanliness of the reproductive organs, it is hoped that various kinds of bacteria that can cause diseases of the female organs such as vaginal discharge will be avoided.

Supported by research by Leatemia et al. stated that poor vulva hygiene behavior can occur due to several things as mentioned by Lawrence Green's theory, that a person's health behavior can be influenced by three factors, namely: 1) predisposition factors including knowledge, attitudes, beliefs, values and traditions, 2) factors Enabling (appreciation) includes age, economic status, education, resources and facilities

and infrastructure 3) Driving or reinforcing factors include figures who are role models such as religious, community, and health leaders. Predisposition factors and precipitation factors are related, where good knowledge about vulva hygiene will not work well if the state of infrastructure is inadequate.⁽²⁾

According to Manuaba et al., flour albus can occur due to 2 triggering factors, namely infectious factors and non-infectious factors. Infection factors can result from bacteria, fungi, parasites and viruses.⁽¹⁾

Then non-infectious factors can be caused by the entry of foreign objects into the vagina, unclean vaginal areas, rarely changing underwear and pads during menstruation and improper care, then using underwear that is too tight and made of materials that do not absorb sweat can make the genetic organs moist so that it causes flour albus or vaginal trigger fungus.

There are two things that are factors that drive vaginal discharge, namely endogenous factors from inside the body and exogenous factors from outside the body. Endogenous factors are abnormalities in the genital opening, exogenous factors are divided into two, namely due to infection and non-infection. Infection factors are bacteria, fungi, parasites, viruses, while non-infectious factors are the entry of foreign objects into the vagina either intentionally or not, unclean vagina, moist genital area, body condition, endocrine or hormonal disorders.⁽¹³⁻¹⁸⁾

Based on research conducted by Kurniyanti and Lutfiyanti, using a quantitative cross-sectional design with a population of 45 and total sampling as the sampling technique, the results showed a relationship between genital health maintenance behavior and the incidence of vaginal discharge.⁽¹⁹⁾ Among the respondents, 11 (50.0%) who exhibited poor genital health maintenance behavior experienced pathological vaginal discharge, and 11 (50.0%) experienced physiological vaginal discharge. Conversely, among female students who demonstrated good genital health maintenance behavior, 21 (91.3%) experienced physiological vaginal discharge, while only 2 (8.7%) experienced pathological vaginal discharge.

Another study conducted by Shah et al., titled "Knowledge and Practice of Genital Health and Hygiene among Adolescent Girls of Lalitpur Metropolitan City, Nepal," utilized a cross-sectional analysis method with a population of 400 participants selected through random sampling. The study found that adolescents had inadequate knowledge, which led to poor genital hygiene practices. These findings highlight the critical importance of raising awareness and providing information about proper genital hygiene practices.⁽²⁰⁾

The limitations experienced by the researcher in this study were that direct interviews were not conducted with adolescents regarding knowledge about vulva hygiene. This has the potential to reduce the accuracy of the data because there is no opportunity for researchers to dig deeper into the respondents' understanding of the questions given. In the process of collecting research data, the research was carried out at SMPN 1 Parongpong, precisely on 8th grade students. The questionnaire was partly shared using an observation sheet and partly using a Google form link shared through a WhatsApp group. The limitation experienced is that in this study, interviews with adolescents were not conducted regarding knowledge about vulva hygiene.

5. CONCLUSION

Most or around 34 (50.7%) of 8th grade adolescent girls with vulva hygiene behavior at SMP N 1 Parongpong behaved in the sufficient category. Most or around 38 (56.7%) of 8th grade adolescent girls at risk of vaginal discharge at SMP N 1 Parongpong experience physiological vaginal discharge. There was a

relationship between vulva hygiene behavior and the risk of vaginal discharge in 8th grade adolescent girls at SMP N 1 Parongpong with a p-value of 0.001.

It is recommended to hold adolescent reproductive health counseling in schools, especially related to genital hygiene behavior. This step is expected to improve behavior and knowledge about good vulva hygiene and reduce the risk of vaginal discharge (fluorine albus). For the next researcher, it is hoped that they should be able to conduct research on vaginal discharge by looking at variables that affect other than vulva hygiene behavior. It is hoped that it will be possible to identify all the variables that affect the occurrence of vaginal discharge.

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Conflict of Interest

The authors declare no conflict of interest.

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