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Penggunaan Pantyliner Dan Sabun Pembersih Kewanitaan Berhubungan Dengan Kejadian Keputihan Pada Remaja Putri

The Use of Pantyliners and Female Cleansing Soap Is Related to the Incident of Vucility in Teenage Women

Bella Dian Syah Fitri¹, Nispi Yulyana^{2*}, Dwie Yunita Baska³, Demsa Simbolon⁴, Lela Hartini⁵

^{1,2,3,4,5} Program Studi Kebidanan, Poltekkes Kemenkes Bengkulu, Jl. Indra Giri No.3 – Gading Cempaka – Bengkulu

*Corresponding Author: E-mail: nispiyulyana@poltekkesbengkulu.ac.id

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ABSTRAK

Keputihan merupakan keluarnya cairan selain darah dari liang vagina diluar kebiasaan, baik berbau ataupun tidak, serta disertai rasa gatal setempat. Masalah yang sering terjadi pada remaja dalam kesehatan reproduksi salah satunya yaitu keputihan. Penelitian ini untuk mengetahui hubungan penggunaan pantyliner dan sabun pembersih kewanitaan dengan kejadian keputihan pada remaja putri di SMA Negeri 2 Kota Bengkulu. Rancangan penelitian menggunakan rancangan Cross Sectional. Sampel sebanyak 103 remaja putri di SMA Negeri 2 Kota Bengkulu diambil dengan metode Accidental Sampling. Penelitian menunjukkan bahwa remaja putri yang mengalami keputihan sebanyak 75,7% dan tidak mengalami keputihan sebanyak 24,3%. Berdasarkan hasil uji statistik ada hubungan pengetahuan dengan kejadian keputihan p-value (0,026) OR (5,750), ada hubungan personal hygiene dengan kejadian keputihan p-value (0,034) OR (4,340), ada hubungan penggunaan pantyliner dengan kejadian keputihan p-value (0,001) OR (5,786), ada hubungan penggunaan sabun pembersih kewanitaan dengan kejadian keputihan p value (0,014) OR (3,591), faktor dominan paling berpengaruh penggunaan pantyliner OR 5,277. Ada hubungan penggunaan pantyliner, penggunaan sabun pembersih kewanitaan dengan kejadian keputihan di SMA Negeri 2 Kota Bengkulu.

ABSTRACT

Vaginal discharge is the discharge of fluid other than blood from the vagina outside the normal range, whether it has an odor or not, and is accompanied by local itching. One of the problems that often occurs in adolescents in reproductive health is vagina dischaerge. The purpose of this study was to determine the factors associated with the occurrence of vaginal discharge in female adolescents at SMA Negeri 2 Bengkulu City. The study design used a cross sectional design. A sample of 103 female adolescents at SMA Negeri 2 Bengkulu City was taken using the Accidental Sampling method. Showed that 75.7% of female adolescents experienced vaginal

discharge and 24.3% did not experience vaginal discharge. Based on the results of statistical tests, there is a relationship between knowledge and the incidence of vaginal discharge p value (0.026) OR (5.750), there is a relationship between personal hygiene and the incidence of vaginal discharge p value (0.034) OR (4.340), there is a relationship between the use of pantyliners and the incidence of vaginal discharge p value (0.001) OR (5.786), there is a relationship between the use of feminine hygiene soap and the incidence of vaginal discharge p value (0.014) OR (3.591), the most dominant factor is the use of pantyliners OR 5.277. There is a relationship between pantyliners, the use of feminine hygiene soap and the incidence of vaginal discharge in SMA Negeri 2 Bengkulu City.

INTRODUCTION

Vaginal discharge refers to the abnormal secretion of non-bloody fluid from the vaginal canal, which may or may not be odorous and is often associated with localized itching. This condition can occur physiologically, commonly influenced by hormonal fluctuations (Rosyida & Cahya, 2022). A prevalent reproductive health concern among adolescents is the occurrence of vaginal discharge (Ahmadi et al., 2023).

The prevalence of vaginal discharge among women in Indonesia was reported to be 75% in 2021 (WHO, 2021). A significant proportion of women experience this condition at least once in their lifetime, with approximately 45% encountering it more than once. This prevalence contrasts sharply with the lower incidence in Europe, which stands at only 25%. The discrepancy is partly attributed to climatic differences, as the humid tropical environment of Indonesia contrasts with the drier conditions of Europe, rendering Indonesian women more vulnerable to vaginal discharge (Arsyad et al., 2023).

The prevalence of vaginal discharge among adolescent girls aged 15-18 years in Indonesia is reported to reach 23 million cases (Melina & Riringulu, 2021). Factors contributing to vaginal discharge include frequent use of tissues, wearing tight-fitting underwear, inadequate replacement of pantyliners, use of feminine hygiene cleansers, improper genital cleansing techniques, and engaging in intense physical activities that may compromise immune function (Christyanni & Rahmawaty, 2022).

Additional factors associated with the incidence of vaginal discharge include the level of knowledge; higher education correlates with a better understanding of proper personal hygiene practices, thereby reducing the risk of vaginal discharge and enhancing the ability to manage it. Increased knowledge fosters awareness, which in turn drives individuals to adopt behaviors consistent with their level of understanding (Amalia et al., 2022).

Vaginal discharge in adolescents can result in itching and discomfort, often leading to secondary infections caused by scratching, which serves as a temporary relief for the itching sensation. Additionally, this condition can negatively impact self-esteem (Hanifah et al., 2023). Chronic and prolonged vaginal discharge may further compromise the functionality of other reproductive organs and has the potential to cause infertility (Suyenah & Dewi, 2022).

Amalia et al. (2022) reported a P-value of 0.000, demonstrating a statistically significant correlation between knowledge and the incidence of vaginal discharge among adolescent girls. The study indicates that lower levels of knowledge are associated with a higher risk of developing vaginal discharge. This result aligns with the findings of Destariyani et al. (2023), which revealed a P-value of 0.029, confirming a significant association between knowledge and the occurrence of vaginal discharge in adolescent females (Destariyani et al., 2023).

Batubara and Rahmayani (2022) reported a P-value of 0.003, indicating a statistically significant association between personal hygiene practices and the incidence of vaginal discharge among adolescents. Their study also identified a significant relationship between the use of feminine hygiene soaps and vaginal discharge, with a P-value of 0.001, and a significant association between pantyliner usage and vaginal discharge, with a P-value of 0.024 (Batubara & Rahmayani, 2022). These results are corroborated by Mirania (2023), who found a P-value of 0.000, demonstrating a significant correlation between personal hygiene and vaginal discharge, as well as a P-value of 0.000 for the relationship between vaginal douching and the occurrence of vaginal discharge (Mirania et al., 2023).

Key factors associated with the prevention of vaginal discharge include the use of feminine hygiene products such as soaps and pantyliners (Sari et al., 2022). Pantyliners are known to raise the temperature by 1.5°C, increase humidity, and affect the vulvar and perineal regions, potentially fostering an environment conducive to microbial and fungal growth that can lead to vaginal discharge (Rahmasari et al., 2023). Similarly, the application of feminine hygiene soaps may disrupt the vaginal pH balance and diminish the presence of beneficial bacteria, thereby promoting the proliferation of pathogenic bacteria and increasing the risk of vaginal discharge (Mutmainnah et al., 2021).

Data from the Education and Culture Department of Bengkulu Province for 2024 reveal that SMA Negeri 2 in Kota Bengkulu has the largest number of female students. Survey findings indicate that instances of vaginal discharge are documented in the patient visit records at the UKS (School Health Unit) of SMA Negeri 2 Kota Bengkulu.

Preliminary data collected via a questionnaire at SMA Negeri 2 Kota Bengkulu indicated that 15 female students reported experiencing vaginal discharge, with 5 students from each grade level. Specifically, 60% of students in grade XII, 80% in grade XI, and 80% in grade X reported such symptoms. In light of these observations, the researcher aims to explore the factors contributing to vaginal discharge. The study's objective is to investigate the associations between the use of pantyliners and feminine hygiene soaps and the incidence of vaginal discharge among adolescent females.

METHOD

This study employs a quantitative research design utilizing a cross-sectional approach. The research is conducted at SMA Negeri 2 Kota Bengkulu. The sampling technique used is accidental sampling, involving 103 respondents. **Inclusion Criteria:** Female students who consent to participate as respondents, female students who experience vaginal discharge as well as those who do not. **Exclusion Criteria:** Female students who are ill, female students who are unable to complete the study (dropouts). Data collection is carried out using a questionnaire. Data analysis is performed using the Chi-Square test. Ethical approval for the study was granted on July 3, 2024, by Poltekkes Kemenkes Bengkulu, with the reference number No.KEPK.BKL/569/07/2024.

RESULTS AND DISCUSSION

Characteristics of Adolescent Girls

Table 1. Known Characteristics Of Age, Knowledge Description, Personal Hygiene, Use Of Pantyliners, Use Of Feminine Hygiene Soap

Variable	Frequency(=103)	Percentage(%)
Age		
15 y.o	6	5.8
16 y.o	50	48.5
17 y.o	44	42.8
18 y.o	3	2.9
Vaginal Discharge Occurrence		
Vaginal discharge	78	75.7
No vaginal discharge	25	24.3
Knowledge About Vaginal Discharge		
Not Good	28	27.2
Good	75	72.8
Personal Hygiene		
Not Good	32	31.1

Good	71	68.9
Use of Pantyliners		
Yes	61	59.2
No	42	40.8
Use of Feminine Hygiene Products		
Yes	57	55.3
No	46	44.7

The study found that the highest proportion of respondents were aged 16 years, accounting for 48.5%, while the lowest proportion were aged 18 years, at 2.9%. The incidence of vaginal discharge among adolescent girls was 75.7%, with the remaining 24.3% not experiencing vaginal discharge. In terms of knowledge, 72.8% of the adolescent girls demonstrated good knowledge, while 27.2% had insufficient knowledge. Regarding personal hygiene, 68.9% of the respondents had good personal hygiene practices, whereas 31.1% had poor personal hygiene.

In terms of pantyliner usage, 40.8% of the adolescent girls did not use pantyliners, while 59.2% used them. For feminine hygiene soap usage, 44.7% did not use such products, while 55.3% reported using feminine hygiene soaps.

Relationship between Knowledge, Personal Hygiene, Use of Pantyliners, Use of Feminine Hygiene Soap with the Incidence of Vaginal Discharge in Adolescent Girls

Table 2. The Relationship Between Knowledge, Personal Hygiene, Use Of Pantyliners, Use Of Feminine Hygiene Soap And The Incidence Of Vaginal Discharge In Female Adolescents At State Senior High School 2, Bengkulu City Is Known

Variables	Vaginal Discharge Occurrence				P value	OR	OR (95% CI)		
	Vaginal Discharge		No Vaginal Discharge					Total	
	n	%	n	%				n	%
Knowledge									
Not Good	26	92.9	2	7.1	28	100	0.026	5.750	1.258-26.281
Good	52	69.3	23	30.7	75	100			
Personal hygiene					100		0.034	4.340	1.194-15.778
Not Good	29	90.6	3	9.4	32				
Good	49	69.0	22	31.0	71	100			
Use of antyliners					100		0.001	5.786	2.153-15.675
Yes	54	88.5	7	14.8	61				
No	24	31.8	18	42.8	42	100			
Use of feminine cleansing soap							0.014	3.591	1.378-9.355
Yes	49	86.0	8	14.0	57	100			
No	29	63.0	17	37.0	46	100			

The Chi-Square test analysis revealed that among the 103 adolescent girls surveyed, a significant majority, 92.9%, of those with insufficient knowledge experienced vaginal discharge, whereas a smaller proportion, 7.1%, of those with insufficient knowledge did not experience vaginal discharge. Conversely, a substantial majority of 69.3% of adolescent girls with good knowledge experienced vaginal discharge, while a smaller proportion, 30.7%, of those with good knowledge did not experience vaginal discharge. The Chi-Square test yielded a p-value of 0.026, which is less than the significance level of 0.05, indicating a statistically significant relationship between knowledge and the incidence of vaginal discharge among adolescent girls at SMA Negeri 2 Kota Bengkulu.

The study found that among adolescent girls, a significant majority, 90.6%, of those with poor personal hygiene experienced vaginal discharge, while a smaller proportion, 9.4%, of those with poor personal hygiene did not experience vaginal discharge. Conversely, 69.0% of adolescent girls with good personal hygiene experienced vaginal discharge, whereas 31.0% of those with good personal hygiene did not. The Chi-Square test results yielded a p-value of 0.034, which is less than the significance level of 0.05, indicating a statistically significant relationship between personal hygiene and the incidence of vaginal discharge among adolescent girls at SMA Negeri 2 Kota Bengkulu.

The study found that a significant majority of adolescent girls, 88.5%, who used pantyliners experienced vaginal discharge, while a smaller proportion, 14.8%, of those using pantyliners did not experience vaginal discharge. Conversely, a smaller group of 31.8% of adolescent girls who did not use pantyliners experienced vaginal discharge, and 24.3% of those not using pantyliners did not experience vaginal discharge. The Chi-Square test results yielded a p-value of 0.001, which is less than the significance level of 0.05, indicating a statistically significant relationship between pantyliner usage and the incidence of vaginal discharge among adolescent girls at SMA Negeri 2 Kota Bengkulu.

The study found that a substantial majority of adolescent girls, 86.0%, who used feminine hygiene soap experienced vaginal discharge, while a smaller proportion, 14.0%, of those using such soap did not experience vaginal discharge. Conversely, 63.0% of adolescent girls who did not use feminine hygiene soap experienced vaginal discharge, whereas 24.3% of those who did not use the soap did not experience vaginal discharge. The Chi-Square test results yielded a p-value of 0.014, which is less than the significance level of 0.05, indicating a statistically significant relationship between the use of feminine hygiene soap and the incidence of vaginal discharge among adolescent girls at SMA Negeri 2 Kota Bengkulu.

The Most Dominant Factor Influencing The Occurrence Of Vaginal Discharge In Adolescent Girls

Table 3. The Dominant Factors That Have The Most Influence On The Occurrence Of Vaginal Discharge In Female Adolescents At State Senior High School 2, Bengkulu City Are Known

Variables	B	p-value	OR	OR (95% CI)
Knowledge	1.294	0.126	3.649	0.694-19.193
Use of Pantyliners	1.663	0.004	5.277	1.697-16.412
Use of Feminine Cleansing Soap	1.639	0.003	5.148	1.737-15.261

Research Findings on Factors Associated with Vaginal Discharge

The study revealed that knowledge, pantyliner usage, and the use of feminine hygiene soap are associated with the incidence of vaginal discharge. The statistical analysis provided the following results:

Knowledge: The p-value is 0.126, with an Odds Ratio (OR) of 3.649. This suggests a potential association, although the p-value is above the conventional significance threshold of 0.05, indicating that this factor may not be statistically significant in relation to vaginal discharge.

Pantyliner Usage: The p-value is 0.004, with an Odds Ratio (OR) of 5.277. This indicates a statistically significant relationship, suggesting that the use of pantyliners is strongly associated with the occurrence of vaginal discharge.

Feminine Hygiene Soap Usage: The p-value is 0.003, with an Odds Ratio (OR) of 5.148. This also shows a statistically significant relationship, indicating that the use of feminine hygiene soap is strongly associated with the incidence of vaginal discharge.

In conclusion, the study found that the use of pantyliners and feminine hygiene soap has a significant impact on the incidence of vaginal discharge, as evidenced by p-values < 0.05. Specifically: **Pantyliner Usage** and **Feminine Hygiene Soap Usage** both demonstrated significant associations with vaginal discharge, with p-values of 0.004 and 0.003, respectively. Conversely, **Knowledge** did not show a significant effect on the incidence of vaginal discharge, as the p-value is 0.126, which is greater than the threshold of 0.05.

Knowledge of Vaginal Discharge and its Potential Risks

Knowledge is defined as the result of understanding, which occurs after an individual perceives a particular object. Perception is mediated through the human senses: sight, hearing, smell, taste, and touch (Notoadmodjo, 2012). The research hypothesis posits that the majority of adolescent girls with insufficient knowledge are at higher risk of experiencing vaginal discharge compared to those with good knowledge. This hypothesis is supported by the theory suggesting that better knowledge correlates with improved health quality (Amalia et al., 2022).

This study is consistent with the findings of Ayuningtias and Lastriyanti (2021), which suggest that inadequate knowledge often leads to poor behavior, and adolescent girls may trivialize issues related to vaginal discharge. However, vaginal discharge should not be underestimated, as it can have serious consequences if not properly managed. Vaginal discharge is characterized by the excessive release of fluid from the vagina, which can be bothersome (Ayuningtias & Lastriyanti, 2023).

Personal Hygiene and Its Role in Preventing Vaginal Discharge

Personal hygiene refers to the practices individuals undertake to maintain cleanliness and health, both physically and psychologically. Proper care of the genital area is crucial to keeping it healthy. Maintaining good hygiene can help prevent various health issues in the genital region, such as vaginal discharge. Poor personal hygiene practices such as washing the genital area with contaminated water, using inappropriate feminine hygiene products, infrequently changing underwear, and not regularly changing sanitary pads can trigger the occurrence of vaginal discharge (Pandowo & Kurniasari, 2019). Research indicates that improved personal hygiene behavior can help prevent the incidence of vaginal discharge (Prasasti et al., 2023).

Pantyliner Usage and Its Potential Risks

Many women use pantyliners daily, except during menstruation when they switch to menstrual pads. The reasons for using pantyliners vary among women. For many, the use of pantyliners is driven by the need to manage excessive vaginal discharge, which can cause underwear to become damp and uncomfortable. Pantyliners are intended to absorb vaginal secretions to keep underwear dry and stain-free. However, the use of pantyliners is generally not recommended, as the materials used can contribute to increased moisture in the genital area, potentially leading to irritation, itching, and discomfort, which may subsequently result in vaginal discharge (Nurhasanah & Wijayanti, 2019).

The use of pantyliners is a predisposing factor for the occurrence of vaginal discharge. Their use can increase the temperature by 1.5°C, raise humidity, and alter the pH by 0.6 in the vulvar and perineal areas. These conditions can enhance the likelihood of pathogen growth, including bacteria and fungi, which contribute to vaginal discharge. Various factors can cause vaginal discharge, including the presence of foreign objects, vaginal injuries, environmental contaminants, unclean water, and the prolonged use of tampons or pantyliners (Batubara & Rahmayani, 2022).

Adolescent girls who use pantyliners are at a higher risk of experiencing vaginal discharge. The use of pantyliners is generally discouraged because the materials used can create a moist environment in the genital area, which may lead to irritation and itching. This discomfort can contribute to the development of vaginal discharge. Many adolescents use pantyliners daily, except during menstruation

when they switch to pads or tampons. To minimize the risk of vaginal discharge, it is recommended to change pantyliners more than twice a day (Kistina & Afridah, 2021).

The results from the pantyliner usage questionnaire revealed that the majority of respondents, comprising 61 adolescent girls, used pantyliners. Among these, nearly half, or 34 adolescent girls, used pantyliners less than twice a day, while the remaining 27 girls used pantyliners twice or more each day.

This study aligns with the findings of Kistina and Afridah (2021), which indicate that frequent use of pantyliners, specifically more than twice a day, can lead to vaginal discharge. Prolonged and frequent use of pantyliners can contribute to vaginal discharge due to increased temperature, humidity, and pH levels, which create a conducive environment for the proliferation of microorganisms (Kistina & Afridah, 2021).

Research by Acyanir et al. (2021) indicates that vaginal discharge is most commonly observed among adolescents who frequently use pantyliners. Some adolescents report feeling more comfortable using pantyliners as it reduces the need to change underwear when it becomes damp. However, excessive and prolonged use of pantyliners can actually lead to increased moisture in the vaginal area. This is because the pantyliner does not allow for adequate ventilation, leading to a consistently damp environment. Additionally, infrequent washing of the vaginal area after bowel movements or urination further exacerbates the problem, making the pantyliner feel damp over extended periods (Acyanir et al., 2021).

Alignment with Existing Research on Feminine Hygiene Soap

This study is consistent with the findings of Trisetyningsih and Febriana (2019), who indicated that the use of feminine hygiene soap among adolescent girls is associated with a higher risk of experiencing vaginal discharge. The use of such soap can lead to dryness in the vaginal area and may eliminate beneficial bacteria that normally protect against harmful bacteria, thereby increasing the likelihood of vaginal discharge (Trisetyningsih & Febriana, 2019).

Feminine hygiene soap is an antiseptic liquid used by women for vaginal cleaning. However, its use can disrupt the natural acidity and balance of normal vaginal flora, including bacteria and fungi. Normal vaginal flora helps maintain the acidity and pH balance within the optimal range of 3.5-5.5. A change in vaginal acidity can facilitate the growth of harmful microorganisms, leading to infections that result in symptoms such as foul-smelling discharge, itching, and discomfort. Continuous use of feminine hygiene soap can further deplete natural defenses, allowing pathogenic bacteria to more easily enter the vagina (Sari et al., 2022).

Lelyans (2022) reports that adolescent girls typically use feminine hygiene soap only after menstruation and occasionally as a reminder. However, the majority of those who do not use feminine hygiene soap do not experience vaginal discharge. This is attributed to the maintenance of optimal vaginal pH and flora, which helps prevent discharge. Overuse of specialized feminine hygiene products is unnecessary; regular soap is generally sufficient to maintain vaginal health and prevent discharge (Sinapa, 2022).

This study aligns with the findings of Rezita et al. (2022), which indicate that the lactic acid present in commercially available feminine hygiene soaps can disrupt the vaginal pH balance. Traditional herbal remedies are suggested as a more effective alternative for inhibiting bacterial and fungal activity, as they generally have fewer side effects compared to over-the-counter feminine hygiene products (Rezita et al., 2022).

CONCLUSION

Based on the results of the study, it can be concluded that both pantyliner usage and feminine hygiene soap use significantly affect the incidence of vaginal discharge at SMA Negeri 2 Kota

Bengkulu. These findings indicate a significant association between the use of pantyliners and feminine hygiene soaps and the occurrence of vaginal discharge.

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