



## Preventing Pruritus Vulvae and Maintaining Personal Hygiene at SMK Plus NU Sidoarjo

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### Abstract

In Indonesia, 5,2 million young women often experience pruritus vulvae during menstruation, which is characterized by an itching sensation in the vagina. Poor personal hygiene is one of the factors that cause pruritus vulvae complaints. This study aims to determine the relationship between personal hygiene during menstruation and the incidence of pruritus vulvae in adolescents at SMK Plus NU Sidoarjo. The research design is analytic with a cross-sectional approach. The population of all teenagers in SMK plus Nu Sidoarjo with a sample size of 90 respondents was taken by proportional stratified sampling. The independent variable is personal hygiene and the dependent variable is pruritus vulvae. The research instrument is a questionnaire, analyzed by the Spearman rank test at a significance level of  $= 0,05$ . The results showed that half (50%) of adolescent girls had good personal hygiene and most (51,1%) had mild pruritus vulvae. Spearman rank test analysis obtained a value of  $P = 0,000$ , meaning that there is a relationship between personal and pruritus vulvae in adolescent girls at SMK PlusNU Sidoarjo. It can be concluded that the better personal hygiene, the lighter the incidence of pruritus vulvae, on the contrary, the less personal hygiene, the more severe the incidence of pruritus vulvae. It is expected that young women will carry out proper personal hygiene in order to maintain the health and cleanliness of the reproductive organs in preventing the occurrence of pruritus vulvae.

## INTRODUCTION

Menstruation is an event of dirty blood coming out of the genitals. When the cleanliness of the area is not maintained properly, then it has the potential for infection to occur in the female reproductive organs (Syamsu Yusuf, 2012). This requires young women to pay attention to the health of the reproductive organs by always maintaining personal hygiene of the reproductive organs during menstruation (Potter, 2012). Germs that easily enter cause disturbances in the reproductive tract, pruritus vulvae is a disorder of the reproductive tract characterized by itching or irritation around the vulva (Klaus Wolf, Richard Allen Johnson, Arturo P, Saavedra, 2017)

WHO (World Health Organization) conducted a survey in several countries. The result is that young women aged 10-14 years have reproductive health problems. Pruritus vaginality is a reproductive health problem in adolescents that required them to be able to take good care of their reproductive organs (Prawirohardjo, 2014). The results of the study prove that 5,2 million young women in 17 provinces in Indonesia often experience complaints about their reproductive organs. The complaint is in the form of itching in the female genital organs, a sign of pruritus vulvae. They experience these complaints after menstruation because they do not maintain cleanliness in the reproductive organs (Kemenkes, 2017). According to statistical data, out of 69,4 young women aged 10-14 years in Indonesia, 63 million teenagers have bad hygiene behavior. One such behavior is the lack of health care for the reproductive organs. There are 30% of this behavior is due to environmental factors and 70% due to using inappropriate pads during menstruation (Riskesdas, 2016).

The number of cases of ISR in East Java such as Candidiasis and cervicitis that occurred in young women was 86,5% found in Surabaya and Malang. The highest cause of these cases is the

*Candida Albicans* fungus as much as 77% which likes to breed in high humidity such as during menstruation (Kasdu, 2008). It can also cause pruritus vulvae, characterized by itching in the female genitalia. A preliminary study conducted at SMK Plus NU Sidoarjo in July 2022 by conducting interviews with 10 female students showed that 8 people (80%) experienced complaints of itching and often complained of discomfort in the vulva during menstruation.

Lack of vulvae care, may cause pruritus vulvae in adolescents. Symptoms of pruritus vulvae include itching in the genitals, vaginal discharge, burning sensation on the skin, and crushing around the vulva. This causes them to scratch their vulva if itches during menstruation. If the vulva skin is scratched by sharp nails, it can cause infection, such as Acute Candidiasis infection and vaginal infection. There was local infiltration, and thick and colored chromatolysis because the vulva area is scratched for a long time which causes sores, swelling, and bleeding or further infection (Klaus Wolf, Richard Allen Johnson, Arturo P, Saavedra, 2017). According to Tony, 2012, maintaining hygiene and not using all topical products is a solution to eliminate the sign and symptoms of pruritus vulvae. Avoid commercial cleansers and pads that contain perfumes which often cause sensitivity and irritation. Sweating, occlusion, and excessive cleaning habits of the pubic area exacerbating factors, so these should be avoided. The selection of underwear that is made of cotton and absorbs moisture is very important to avoid excessive moisture in the pubic area.

Behaving hygienically by getting used to cleaning the genital area using clean water and washing from the genitals towards the anus is an effort to prevent dirt and germs from the anus from entering the genitals, frequently changing pads during menstruation,  $\leq 6$  hours in 24 hours (Kumalasari, 2015). Based on the description above, the purpose of this study was to determine the relationship between personal hygiene during menstruation and the incidence of pruritus vulvae in adolescents at SMK Plus NU Sidoarjo.

## RESEARCH METHODS

The research design used in this study is observational analytic, namely research that aims to analyze whether there is a relationship or difference between variables (Sugiyono, 2016). While the approach uses a cross-sectional approach, which is a type of research that emphasizes the time of measurement or observation of independent and dependent data only once, at a time (Nursalam, 2013). The research was conducted at SMK Plus NU Sidoarjo from August to September 2022. The population in this study were teenagers at SMK Plus Sidoarjo majoring in accounting, totaling 117 people. This study used a sample of 90 samples. Sampling in this study was carried out using probability sampling with a proportional stratified sampling technique, namely how to take samples if members of the population have strata proportionally (Hidayat, 2017). The independent variable in this study is personal hygiene during menstruation. The dependent variable is pruritus vulvae in adolescents. The measuring instrument used in this study was a questionnaire containing 16 questions about personal hygiene and 10 questions about pruritus vulvae. Measuring personal hygiene uses a Likert scale with very good criteria if the score is 79-100%, good if the score is 53-78, sufficient if the score is 27-52%, and less if the score is 1-26%. While the measurement of pruritus vulvae uses the Gutman scale with severe criteria if the score is  $> 7$ , moderate if the score is 4-7, mild if the score is 1-3 and does not experience pruritus vulvae if the score is 0. The data were tabulated using the frequency distribution and then analyzed using the Rank Spearman correlation test with significance  $\alpha = 0,05$ . The ethics of this research is to maintain the confidentiality of the respondent's identity (Confidentially), before giving the questionnaire, the respondent fills out an informed consent form that includes the respondent's name with initials (Anonymity).

**RESEARCH RESULT****General Data**

**Table 1**  
**Frequency Distribution of Adolescent Characteristics Based on Age at SMK Plus NU Sidoarjo**

No	Age	Amount	Percentage (%)
1	15 years	4	4,4
2	16 years	27	30,0
3	17 years	36	40,0
4	18 years	23	25,6
Amount		90	100,0

Source: Primary Data for 2022

Table 1 shows that out of 90 teenagers, almost half are 17 years old, namely 36 people (40 %)

**Table 2**  
**Distribution of Frequency of Adolescent Characteristics by Class at SMK Plus NU Sidoarjo**

No	Class	Amount	Percentage (%)
1	X	29	32,2
2	XI	35	38,9
3	XII	26	28,9
Amount		90	100,0

Source: Primary Data for 2022

Table 2 shows that out of 90 teenagers, almost half are class XI, namely 35 people (38,9 %)

**Custom Data**

**Table 3**  
**Distribution of The Frequency Personal Hygiene During Menstruation at SMK Plus NU Sidoarjo**

No	Personal Hygiene	Amount	Percentage (%)
1	Lack of	4	4,4
2	Moderate	28	31,2
3	Good	45	50,0
4	Very Good	13	14,4
Amount		90	100,0

Source: Primary Data for 2022

Table 3 shows that out of 90 teenagers, half have good personal hygiene, namely 45 people (50%).

**Table 4**  
**Frequency Distribution of Pruritus Vulvae at SMK Plus NU Sidoarjo**

No	Pruritus Vulvae	Amount	Percentage (%)
1	No	9	10,0
2	Mild	46	51,1
3	Moderate	8	31,1
4	Severe	7	7,8
Jumlah		90	100,0

Source: Primary Data for 2022

Table 4 shows that out of 90 teenagers, most of them experienced pruritus vulvae, namely 46 people (51.1%)

**Table 5**  
**Cross Table Between Personal Hygiene During Menstruation and Pruritus Vulvae at SMK Plus NU Sidoarjo**

No	Personal Hygiene	Pruritus Vulvae								N	%
		No Pruritus Vulvae		Mild Pruritus Vulvae		Moderate Pruritus Vulvae		Severe Pruritus Vulvae			
		n	(%)	n	(%)	n	(%)				
1	Lack of	0	0,0	0	0,0	1	25,0	3	75,0	4	100
2	Moderate	0	0,0	11	39,3	14	50,0	3	10,7	28	100
3	Good	2	4,4	29	64,4	13	28,1	1	2,2	45	100
4	Very good	7	53,8	6	46,2	0	0,0	0	0,0	13	100
Amount		9	10,0	14	51,1	28	31,1	7	7,8	90	100
R (coefisiensi) = - 0,586						p value = 0,000		a = 0,05			

Source: Primary Data for 2022

Table 5 shows that of the 4 adolescents with poor personal hygiene, the majority (75%) of adolescents experience severe pruritus vulvae, and of the 28 adolescents with sufficient personal hygiene, half (50%) experienced moderate pruritus vulvae. The results of the Spearman Rank statistical test with the help of the SPSS program obtained a value of  $p=0,000$ , so  $p < 0,005$  which means there is a relationship between personal hygiene during menstruation and the incidence of pruritus vulvae in adolescents at SMK Plus Sidoarjo.

## DISCUSSION

### Personal Hygiene for adolescents at SMK Plus NU Sidoarjo

The results of the study in Table 3 show that half (50%) of young women have good personal hygiene. The majority of respondents had good vulva hygiene. This was influenced by the age of the respondents in this study, namely, most were 17 years old (mid-adolescents) at which age their knowledge and experience about personal hygiene was quite good. (Bujawati et al., 2017) states that age can affect comprehension and mindset, so that as age increases comprehension and mindset also develop which has an impact on better behavior. The research conducted (Rosyid & Mukhoirotin, 2017) shows that the majority of respondents have good personal hygiene, this is because young women have good knowledge of personal hygiene and young women think that personal hygiene is important and already have knowledge about the impact negative from poor personal hygiene.

The majority of personal hygiene respondents are in a good category, this can be seen in the results of filling out the negative personal hygiene questionnaire, namely question number 4 "I just let it go if my vagina feels moist". The majority answered never and sometimes. While on the positive question, namely on question number 9, namely "I change sanitary pads 4-5 times a day", question number 11, namely "I change sanitary napkins after defecation or urination", question number 13, namely "I use underwear made of T-shirt or cotton and question number 14, namely "I change my pants 2 times a day" the majority answered often and always. It can be concluded that the respondents were very good at understanding personal hygiene behavior during menstruation.

According to (Kusmiran, 2012) that personal hygiene behavior during menstruation is the habits of protecting and maintaining the female genital organs, including washing using running water, how to clean the vagina from front to back, changing pads 4-5 times a day, changing pants at least 2 times in 24 hours and wear underwear made of sweat-absorbing material.

According to researchers, during menstruation, young women should always pay attention to and maintain personal hygiene, maintaining cleanliness, especially in the vulvae area, it will provide a sense of comfort and avoid health problems in the area, such as complaints of itching, redness, and discomfort.

### **Pruritus Vulvae for Adolescents at SMK Plus NU Sidoarjo**

The results of the study in Table 4 show that most (51,1%) adolescents experience mild pruritus vulvae, this illustrates that adolescents sometimes experience itching around the vulva. Itching in the vulva area is an uncomfortable and very disturbing feeling so it should not be taken lightly.

According to the researchers, the respondents experienced pruritus vulvae in the mild category, seen from the results of filling out the questionnaire in question number 1, the majority of respondents answered “Yes” and experienced itching in the genital area, which in question number 2, most of the respondents answered “Yes”, namely complaints of itching in adolescents can be overcome by efforts to maintain cleanliness, especially in the vulvae area. This can also be proven by question number 3, namely a small proportion of respondents experience vaginal discharge. This can be overcome by using a panty liner when experiencing vaginal discharge.

The majority of adolescents experience mild pruritus vulvae, this is probably due to the age factor of the respondent being 17 years old (mid-adolescents) whose level of maturity and mindset is quite good so that they will also be better at receiving information. In accordance with the opinion (Notoatmodjo, 2014), that a person’s age affects comprehension that the knowledge obtained is getting better.

Pruritus vulva is a symptom of itching on the outer female reproductive organs causing irritation, burning, redness, and swelling of the skin on the vulva. Pruritus vulvae are caused by infections, skin diseases (lichen sclerosis and lichen planus), low vulva hygiene, using soap, underwear that does not absorb moisture, and the frequency of changing pads (Hollingworth, 2012).

According to the researchers, when menstruation occurs, blood flowing in the genitalia results in an increase in humidity in the organ. During menstruation, female genitalia are very susceptible to infection which results in menstrual disorders. The lack of knowledge in adolescents to maintain and care for the genital organs can lead to the growth of fungi and bacteria that can cause pruritus vulvae.

### **The Relationship between Personal Hygiene and Pruritus Vulvae in Adolescents at SMK Plus NU Sidoarjo**

The cross-tabulation results in Table 5 show that most adolescents with poor personal hygiene (75%) experience severe pruritus vulvae. Half of the adolescents with adequate personal hygiene (50%) experienced moderate pruritus vulvae. The majority of adolescents with good personal hygiene (64,4%) experienced mild pruritus vulvae. Meanwhile, the majority of adolescents with very good personal hygiene (53,8%) did not experience pruritus vulvae.

This illustrates that the better the personal hygiene, the lighter the incidence of pruritus vulvae, conversely, the less personal hygiene, the more severe the incidence of pruritus vulvae. After the Spearman rank statistical test was carried out, the value of  $p = 0,000$ , so  $p < 0,05$ , which means there is a relationship between personal hygiene during menstruation and the incidence of pruritus vulvae in adolescents at SMK Plus NU Sidoarjo.

Research (Pandelaki et al., 2020) showed similar results, namely that there was a relationship between personal hygiene during menstruation and the incidence of pruritus vulvae in female students at SMAN 7 Manado ( $p = 0,000$ ). Research (Mu’minun et al., 2021) also showed the same results, namely that there was a significant relationship between personal hygiene behavior during menstruation and symptoms of pruritus vulvae in young women at the Antang Makassar Health Center ( $p = 0,000 < \alpha = 0,05$ ).

(Tarwoto Wartonah, 2015) has the opinion that the purpose of personal hygiene is an effort to increase health status, maintain personal health, improve low self-hygiene, prevent disease, create beauty, and increase self-confidence. Affirmed by (Pribakti B, 2012) Vulva Hygiene is maintaining reproductive hygiene tools, especially the vaginal area. Vulva hygiene is useful so that the female reproductive organs are maintained, reduces vaginal discharge, and reduces the risk of getting ToRCH infection and gonorrhea.

However, this study also found a small proportion (2,2%) of respondents with good personal hygiene but experienced severe pruritus vulvae, this is because the cause of pruritus vulvae is not only influenced by personal hygiene but other factors such as immunity, infection, skin disease, inflammation, and health conditions (diabetes mellitus), the environment, namely the concentration



level of water pH levels and allergic factors caused by food. This is in line with the results of a study (Pandelaki et al., 2020) which stated in their research that although one aspect of prevention, namely vulva hygiene is carried out properly, there are other aspects that can trigger pruritus vulvae.

According to researchers, pruritus vulvae is one of the symptoms that can cause vaginal infections, such as acute candidiasis, bacterial vaginosis, and trichomonas infection. To relieve itching that bothers you need to know the cause first. By eliminating the cause of itching, the complaint will also disappear. Maintaining cleanliness in the vaginal area is an effort to prevent itching in the area. In addition, it is also necessary to increase the body's immunity with a healthy lifestyle to avoid infection, including the occurrence of pruritus vulvae.

## CONCLUSION

At the time of menstruation, the state of the female genital organs becomes moister than usual. These conditions cause germs and bacteria to grow properly thus triggering disturbances in the area, one of which is pruritus vulvae. Therefore, young women must always maintain personal hygiene of the genital organs, especially during menstruation so they do not experience pruritus vulvae.

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