

The Relation between Vulva Hygiene and Leucorrhea Incidence at Senior High School 6 Bau-Bau

Nur Wahyuni Munir¹, Yusrah Taqiyah^{2*}, Atier Ningsih Pangiron³

^{1,2,3}Nursing Study Program, Universitas Muslim Indonesia, Makassar, Indonesia

Email: ¹nurwahyuni.munir@umi.ac.id, ²yusrah.taqiyah@umi.ac.id,

³ningsipangiron97@gmail.com

Abstract. Leucorrhea is all discharge from the genitalia which is not blood but is a clinical manifestation of various infections, malignancies, or benign tumors of the reproductive organs. Vulva hygiene is the behavior of maintaining the cleanliness of the reproductive organs, especially the vaginal area so it is one of the factors that influence the occurrence of leucorrhea. This study aims to determine the relationship between vulva hygiene and leucorrhea incidence at Senior High School 6 Bau-Bau. This research used a cross-sectional from June-July 2019. The data were collected using a questionnaire on 48 students of class XI at Senior High School 6 Bau-Bau using a consecutive sampling technique. Data analysis used the chi-square test with a significance level of $\alpha < 0.05$. The results showed that vulva hygiene was less than 60.4%, and leucorrhea incidence was 79.2%. This study concludes that there is a significant relationship between vulva hygiene and leucorrhea incidence in XI students at Senior High School 6 Bau-Bau (p -value = 0.0001). The vulva hygiene in students at Senior High School 6 Bau-Bau needs to be further improved because vulva hygiene greatly affects the health of the genitalia.

Keywords: Vulva hygiene; leucorrhea; students

1. Introduction

The reproductive organs are sensitive organs that require special care. One of the reproductive health problems that have long been a problem for young women is the problem of leucorrhea. The problem of leucorrhea has long been a problem for women. All women of all ages can experience leucorrhea. Adolescents are part of those at risk of reproductive health problems because adolescence is a transitional period and a period of maturity for their sexual organs [1].

The health of the reproductive organs starts with maintaining personal hygiene, including vaginal hygiene, which aims to keep the vagina clean, normal, and healthy and avoid the possibility of disease, including leucorrhea [2]. Women rarely pay attention to the cleanliness of their external genital organs. Infections in the vagina every year affect women around the world 10-15% of 100 million women. For example, adolescents with a bacterial infection with candida 15% and experience leucorrhea. This incident is because adolescents do not know the problems surrounding the reproductive organs. In Indonesia, leucorrhea cases are increasing every year. Based on the study's results, it was stated that in 2014, 52% of women in Indonesia experienced leucorrhea. In 2015, 60% of women had experienced leucorrhea; in 2016, almost 70% of women in Indonesia experienced leucorrhea. Adolescents and young adults aged 15-24 years are the age group that is vulnerable to reproductive tract infections.

In 2017, of 43.3 million adolescents aged 15-24 years, 83.3% had sexual relations, which is the cause of leucorrhea. Currently, at least 90% of women have the potential to develop leucorrhea, including young women, because Indonesia is a country with a tropical climate. Based on the Regulation of the Minister of Social Affairs No.30 of 2011 concerning National Standards of Child Care for social welfare institutions, it states that; LKSA must provide or provide adequate information regarding reproductive health, facilitate children to discuss reproductive health with competent parties, especially the problem of leucorrhea.

In maintaining reproductive health, knowledge of vulva hygiene behavior is needed. This health behavior is manifested by preventing disease, improving health, and treating disease. Wrong knowledge, attitudes, and behavior in caring for the genital organs can cause leucorrhea, such as wrong directions

in cleaning, rarely changing underwear, not drying genitalia, wearing scented soap, and wearing tight pants [3]. The results of Berliana's research showed that there was a relationship between behavior and the incidence of leucorrhea at Junior High School Mejobo 2 Kudus [4]. In addition, Wulandari's research also showed a relationship between vulvar hygiene behavior and pathological leucorrhea in class X students at Senior High School 7 Muhammadiyah Yogyakarta [5].

Based on a preliminary study conducted by researchers at Senior High School 6 Bau-Bau, initial data were obtained for 369 students, where the number of female students was 202 and the number of men was 167. Based on the data obtained, the number of female students was more than male. From the results of interviews with 15 female students in class XI, 9 students said they had leucorrhea and did not know about vulva hygiene. Therefore, researchers are interested in researching female students at SMA Negeri 6 Bau-Bau which focuses on class XI where the number of women for class XI is 56.

2. Research Methods

This research used a cross-sectional study from June-July 2019. The data were collected using a questionnaire on 48 students of class XI at Senior High School 6 Bau-Bau using a consecutive sampling technique. Data analysis used the chi-square test with a significance level of $\alpha < 0.05$.

3. Results and Discussion

Based on Table 1 shows that there are more students aged 16 years (39.6%), while the least are 18 years old (27.1%). Based on class, there are more natural science classes (52.1%) than social science classes (47.9%).

Based on Table 2, out of 48 students, it is known that low vulva hygiene is higher (60.4%), and the incidence of leucorrhea is 79.2%. The chi-square test results showed p -value = 0.0001 that there is a significant relationship between vulva hygiene and leucorrhea incidence.

Table 1 Characteristics of Respondents

Characteristics	n (%)
Age	
16	19 (39.6)
17	16 (33.3)
18	13 (27.1)
Class	
XI Natural Science	25 (52.1)
XI Social Science	23 (47.9)
Total	48 (100)

Vulva hygiene is a series of processes for maintaining and cleaning the outer female reproductive organs that must be done properly to avoid infection. The procedure for vulva hygiene behavior is washing the vagina with soft soap, but don't overdo it because it can irritate. Make it a habit to wash the vagina from front to back, not the other way around; choose cotton-based underwear, vaginal cleaning activities by spraying water, cleaning it with scented soap, or using a spray (either in the form of a special tool or a vaginal spray bottle) is not recommended and never insert foreign objects into the vagina, especially if these objects have nothing to do with the vagina. Also, be aware of vaginal fluids that are not normal, such as leucorrhea that is watery, smells, or has an unusual color. Also, avoid

sprinkling powder on the vagina because it will cause yeast and bacteria to grow in the vaginal area. In addition, use squat toilets when using a public toilet, and avoid using toilet paper too often (especially scented ones) every time you urinate or defecate. Also, avoid the habit of using fragrances in intimate areas and not using pantyliners throughout the day because they can irritate the vagina [6].

Table 2 The Relation between Vulva Hygiene and Leucorrhea Incidence at Senior High School 6 Bau-Bau

Vulva Hygiene	Leucorrhea Incidence				Total		p-value
	Leucorrhea		Not Leucorrhea		n	%	
	n	%	n	%			
High	9	47.4	10	52.6	19	39.6	0,0001
Low	29	100	0	0	29	60.4	
Total	38	79.2	10	20.8	48	100	

This study is in line with research conducted by Rini with the results of 66.3% of students who have poor behavior in maintaining vulva hygiene, 22.1% of students who have sufficient behavior, and 11.6% of those who have good behavior [7]. This research is also in line with a study conducted by Zandrato, which states that 76.9% of students have poor behavior in maintaining the cleanliness of vulva hygiene. In comparison, those who have good behavior are 23.1%, this is because the respondent's education is still in junior high, attitudes and behaviors in maintaining their reproductive health are very low, and they still do not understand the importance of protecting the female's area to avoid various dangerous diseases [8].

The factor that influences the lack of vulva hygiene behavior is knowledge. Based on the results of the initial interviews conducted, the average student answered that they did not know the act of performing vulva hygiene, that there were no lessons at school that discussed the act of maintaining vulva hygiene, the lack of education about vulva hygiene was the cause of lack of good behavior in maintaining vulva hygiene in Senior High School 6 Bau-Bau.

Leucorrhea is discharge from the vagina. In general, leucorrhea is divided into physiological and pathological leucorrhea. Physiological leucorrhea usually affects women in the moments before menstrual periods and is also generally due to sexual stimulation, the effects of pregnancy, and even influenced by stress. Fungi, bacteria, or viruses cause pathological leucorrhea. Suppose the mucus is yellowish-white or greenish-yellow, smells and causes intense itching and even pain. In that case, it is most likely caused by a fungus, for example, the fungus *Candida albicans*, *Trichomonas vaginalis*, or *Neisseria gonorrhoea* [1].

This research is in line with the study conducted by Anggraini and Alum that as many as 61.1% of students experienced leucorrhea, many 38.9% of students did not experience leucorrhea [9]. It is because most of the existing respondents have a primary school education, so there is a lack of health information for adolescents. This research is also in line with a study conducted by Zandrato, which equals 84.6% of students who experience leucorrhea due to a lack of knowledge obtained from both schools and outside of school and from information media. Sources of information on reproductive health can be obtained from health workers, print media, and electronic media [8].

The interview results indicate that many students experienced leucorrhea marked by a discharge in the form of mucus from a clear white/clear leucorrhea, some were very large in number, and some were shaped like paste and elastic. Lack of education about how to maintain vulva hygiene is a factor in the lack of knowledge about vaginal discharge, which causes poor vulva hygiene and results in vaginal discharge.

Rahma's research also shows a relationship between vulva hygiene and the incidence of leucorrhoea because the better a person's behavior in maintaining genital hygiene, the lower the incidence of abnormal vaginal discharge symptoms, and vice versa [10]. However, this study is not in line with research conducted by Murti, which states that there is no relationship between vulva hygiene and the incidence of leucorrhoea because many factors influence leucorrhoea than the behavior of maintaining genitalia hygiene. Leucorrhoea can be triggered by many things, including genetic factors, stress levels, multiple partners, chronic fatigue, use of drugs or contraceptives, use of vaginal antiseptics, previous medical history, environment, education, and demographic factors such as economic status, and socio-culture [11].

Based on the results of the interviews, poor behavior in maintaining vaginal hygiene, such as the habit of not washing hands before touching the female area, causes the bacteria on the hands to move into the vagina so that these bacteria can interfere with vaginal health and can cause leucorrhoea. The habit of not drying the vaginal area after defecating or urinating because there is no supply of tissue in the home or school toilets can also cause the vagina to become wet and moist so that it can become an environment for the growth of germs and fungi that cause infection, and can trigger leucorrhoea. In addition, the habit of not cleaning the female area from the front (vagina) to the back (anus). This prevents dirt from sticking to the vagina and can trigger leucorrhoea.

Some students behave well in vulva hygiene, but experience leucorrhoea can be caused by diet. The results of research conducted by Darma showed a relationship between diet and the incidence of leucorrhoea. The diet in question is the consumption of foods that can trigger vaginal discharge, namely foods whose manufacturing process uses flour, certain types of fruit that contain sugar, packaged processed foods with high sugar levels, and soft drinks. Leucorrhoea can also be triggered by many things, such as stress levels caused by the body's release of the hormone cortisol, which can disturb the pH balance of the vagina and can lead to excessive vaginal discharge. Environmental factors can also cause vaginal discharge, such as tropical and humid weather, which can trigger yeast growth in the vagina, which is caused to leucorrhoea [12].

4. Conclusions

The results showed that vulva hygiene was less than 60.4%, and leucorrhoea incidence was 79.2%. This study concludes that there is a significant relationship between vulva hygiene and leucorrhoea incidence in XI students at Senior High School 6 Bau-Bau (p -value = 0.0001). The vulva hygiene in students at Senior High School 6 Bau-Bau needs to be further improved, like changing underwear immediately at least 2 times/day and using underwear with a material that easily absorbs sweat because vulva hygiene greatly affects the health of the genitalia.

5. References

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