

The Following Factors are Associated with the Incidence of Vulva Pruritus

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ABSTRACT

Vulva pruritus, or itching in the vulva area, can be a health issue that impacts the well-being of adolescents. Vulva pruritus symptoms can be caused by a lack of information, inappropriate hygiene behavior, and a lack of home hygiene facilities. **Purpose:** The purpose of this study is to identify the contributing factors to the occurrence of vulva pruritus cases among adolescents in the village of Rerer. **Methods:** This study employed descriptive correlation with a cross-sectional research design, using a total of 78 samples selected through total sampling technique. **Findings:** The results of the Spearman rank indicated that the p-value was 0.334, which was greater than 0.05. This suggests that there is no statistically significant relationship between knowledge and the occurrence of vulva pruritus symptoms. The results of the Pearson correlation test yielded a p-value of 0.000, indicating a statistically significant relationship between vulva hygiene behavior and vulva pruritus symptoms ($p < 0.05$). It is that adolescents recommendation enhancement of education and awareness about vulva hygiene behavior, improvement of home hygiene facilities and that future researchers consider additional factors such as family support and exposure to information.

Keywords: behavior, knowledge, vulva hygiene, vulva pruritus

INTRODUCTION

Vulva pruritus is a symptom of intense itching in the female genitalia, which often leads to the opportunity to scratch the area unconsciously. This can cause scratches or friction that can damage the skin, cause pain, bleeding and infection of the skin (musriani et al., 2019). Other symptoms that may manifest alongside vulvar pruritus include vaginal discharge, burning, swelling and redness of the labia and vulva, as well as the presence of fluid-filled bumps on the vulva (hubaedah, 2019). Vulvar pruritus is frequently associated with dermatological conditions such as inflammation, infection and skin diseases that affect the female reproductive organs (raef & elmariah, 2021).

The occurrence of vulva pruritus can give rise to a number of psychological issues for women. Vulva pruritus can give rise to feelings of concern, embarrassment, and fear, and even anxiety (Nyamin et al., 2020). Vulva pruritus has a significant impact on quality of life, as it is the most uncomfortable symptom that can lead to the development of inflammatory conditions

such as atopic dermatitis, infection, and neoplasms that can affect the female genitals (Raef & Elmariah, 2021). Vulva pruritus can affect women of all ages, including adolescents, who are a particularly vulnerable group for this condition.

As indicated by data from the World Health Organization (WHO) (2016), approximately 10-20% of adolescents globally are affected by vulva pruritus. According to data from the Ministry of Health (2018) in Indonesia, approximately 5.2 million adolescent girls, out of a total of 8.6 million, frequently experience symptoms of vulvar pruritus, a condition characterized by an itchy sensation in the female genitals. Regarding the data from North Sulawesi, no information is available.

The incidence of vulva pruritus is associated with several factors, including knowledge, hygiene behavior and the availability of hygiene facilities in the home. As posited by Hubaedah (2019), a paucity of knowledge regarding the significance of maintaining a hygienic and healthy lifestyle, particularly regarding the female reproductive organs, can have a detrimental impact on the cleanliness of these organs. This is because reproductive health plays a pivotal role in shaping behavior, which in turn can influence the maintenance of optimal reproductive health conditions. It is crucial to possess knowledge regarding the utilization of clean water during vaginal cleansing, the hygiene of undergarments, the use of pads during menstruation, and the application of feminine cleansing soap (Trisetiyaningsih et al., 2020). The research conducted by Fariningsih et al. (2022) and Hubaedah (2019) demonstrated a correlation between the level of knowledge regarding vulvar hygiene and the prevalence of vulvar pruritus. Conversely, the research conducted by Parwati et al. (2022) indicated that there was no association between knowledge and the incidence of vulvar pruritus.

A further factor that plays an important role is that of vulvar hygiene behavior. As posited by Cahyani et al. (2022), vulva hygiene behavior is associated with the practice of maintaining health and efforts to maintain cleanliness in the female area. It is therefore evident that improper vulva hygiene behavior can have a negative impact on women's reproductive health. Proper vulvar hygiene behavior encompasses the cleansing of the female area, the utilization of clean water during vaginal washing, the maintenance of underwear hygiene, and the use of sanitary pads during menstruation (Pandelaki et al., 2020). The research conducted by Puspadila et al. (2018) indicates a significant relationship between vulvar hygiene behavior and the incidence of vulvar pruritus.

Another factor associated with the incidence of vulva pruritus is the environmental factor of clean water. The availability of clean water and hygiene facilities in the living environment is an important factor in the prevention of vulvar pruritus in adolescents (Tri & Indah, 2018). The presence of supportive facilities, such as the availability of clean, clear, tasteless, and odorless water, the availability of at least four pads per day during menstruation, and the availability of at least one trash can outside and inside the house (Eugenia, 2022), has been linked to a reduction in the incidence of vulvar pruritus (Tri & Indah, 2018).

The phenomenon observed in Rerer village is that the water used is occasionally turbid and mixed with soil following precipitation. It is typically utilized for bathing or cleansing after defecation or urination. The climate of Rerer Village is colder than that of surrounding areas due to its mountainous location. Research indicates that the minimum temperature in Rerer

Village is 21 °C, with fluctuations in temperature influencing humidity and the balance of microorganisms in the genital area. These factors have been linked to an increased incidence of vulvar pruritus. In light of these findings, the researcher is interested in investigating the factors associated with the incidence of vulvar pruritus in adolescents in Rerer Village.

LITERATURE REVIEW

According to Laily et al. (2022) vulva pruritus is a disorder of the skin of the female external genitalia characterized by an itchy sensation on the genitals, vaginal discharge, burning, cracked skin around the vulva, swollen, red labia and vulva, and fluid-filled bumps on the vulva. Vulva pruritus causes a variety of symptoms and it is recommended not to scratch the vulval area, and when itching occurs, the infection develops into a more serious or acute disease (Kusmiran, 2012). Other symptoms of vulval pruritus include: genital itching, vaginal discharge, burning sensation and cracked skin around the vulva, swollen and red labia and vulva, and fluid-filled bumps on the vulva (Hubaedah, 2019). According to Eugenia (2022), there are several factors that influence the incidence of vulva pruritus, among others: infectious factors, iritative substance factors, knowledge factors, vulvar hygiene behavior factors and home hygiene facilities factors.

Vulva pruritus can also significantly affect quality of life because it is the most uncomfortable symptom that impacts psychosocial well-being, where vulva pruritus can cause inflammation such as atopic and neoplastic dermatitis that can affect the female genitals (Raef & Elmariah, 2021). According to the Jakarta NHS Polytechnic Writing Team (2019), daily vulva care can be carried out as follows: use of underwear, shaving pubic hair, use of sanitary pads, vulval hygiene, use of antiseptic liquid.

Research conducted by Puspadila et al., (2018), there is a significant relationship between vulvar hygiene behavior and the incidence of vulvar pruritus. Another study conducted by Rossita (2019), showed a relationship between knowledge and the incidence of vulvar pruritus. While research conducted by Parwati et al., (2022), there is no relationship between knowledge and the incidence of vulvar pruritus. Research conducted by Tri and Indah (2018), there is a relationship between home hygiene facilities and the incidence of vulvar pruritus.

Minimal knowledge and lack of knowledge of the importance of implementing a clean and healthy life, especially the female area, will have an impact on the cleanliness of the reproductive organs, because if someone has knowledge about reproductive health, they will choose the right behaviour, (Nyamin et al., 2020). Knowledge that is important to have regarding the hygiene of the female area includes shaving pubic hair once every 40 days, washing the genitals from front to back, regarding the use of clean water when washing the vagina including washing hands with clean water before and after changing pads, and not using excessive cleaning soap, regarding the cleanliness of underwear including using underwear made of materials that can absorb sweat such as cotton, and regarding the use of pads during menstruation including changing pads at least 4 times a day to prevent bacterial infections (Trisetiyaningsih et al., 2020).

Proper vulva hygiene behaviour includes cleanliness of the female area including using a clean towel or tissue when drying the vagina, and shaving pubic hair once every 40 days, using clean water when washing the vagina from front to back, cleanliness of underwear, namely using underwear made of sweat-absorbing materials such as cotton, changing underwear at least 2 times a day, changing underwear if it has been exposed to menstrual blood, and using pads during menstruation, namely changing pads at least 4 times a day to prevent bacterial infections (Pandelaki et al., 2020). Research conducted by Kusumastuti (2021) and Hubaedah (2019), there is a significant relationship between vulvar hygiene behaviour and the incidence of vulvar pruritus.

According to Eugenia (2022) another factor associated with the incidence of vulvar pruritus is the environment where hygiene facilities at home can support women in improving vulvar hygiene. Three important things to consider to support home hygiene facilities are the availability of clean water, the availability of sanitary napkins and the availability of trash cans.

METHODS

In order to respond to the initial four research questions, namely how prevalent vulvar pruritus symptoms are among adolescents in Rerer village and how adolescents in Rerer village describe their knowledge, hygiene practices and home hygiene facilities, the researcher will employ frequency data analysis with a percentage formula to classify the data.

To respond the fifth and sixth problem statements and to address H_{01} and H_{02} , namely whether there is a significant relationship between knowledge and vulvar pruritus symptoms in adolescents in Rerer Village, and whether there is a significant relationship between vulvar hygiene behaviour and vulvar pruritus symptoms in adolescents in Rerer Village, the Spearman Rank formula will be employed. This is due to the fact that, following the normality test, the data distribution is not normal. In order to respond to the seventh problem statement and answer H_{03} , namely whether there is a significant relationship between home hygiene facilities and vulvar pruritus symptoms in adolescents in Rerer Village, the appropriate statistical method is Mann Whitney, given that the data distribution is not normal, as indicated by the normality test. In order to ascertain the significance of the relationship between variables, it is necessary to reject H_0 if the p-value is equal to or less than 0.05.

The population in this study is the total youth who were in the village of Rerer and Rerer 1 the population of Kombi who were 10-19 years old and the total population of the village Rerer was 53 participants and the Rerer one was 39 participants. The sampling technique used by the researchers is total samplings. For the samples to be used a total of 92 participants.

The questionnaire has been tested for reliability using the Cronbach Alpha formula with a reliability score of 0.790 for the vulva pruritus questionnaire, 0.635 for knowledge, 0.892 for vulva hygiene behavior, and 0.836 for home hygiene,

RESULTS AND DISCUSSION

Table 1
Vulva Pruritus in Adolescents

Category	Frequency	Percentage
Vulva pruritus	37	47,4
Without Vulva pruritis	41	52,6
Total	78	100

Pruritus vulva incidence in adolescents in the Rerer Village was not a pruritus of the vulva with 41 participants (52.6%), and the pruritis vulva 37 participants (47.4%).

Pruritus vulva is a disorder in the female external genital skin characterized by a sensation of itching in the genitals, whitening, burning, ruptured skin around the vulva, swelling, redness on the labia and vulva and fluid-filled buds on the Vulva. (Laily et al., 2022). Waluyo et al. (2022) reported the absence of pruritus vulva, which includes the absence of itching in the pelvic area, absence of burning sensations and skin rupture around the vulva, absence of swelling and redness in the labial and vulvar regions, and absence of fluid-filled buds on the vulva.

The findings of a study conducted by Eugenia (2022) at the Putra Satria Foundation in South Jakarta revealed that 60.5% (89 out of 147 participants) experienced no pruritus vulva. In a study conducted by Alenazi et al. (2018) in the City of Arar, it was shown that 69.3% (208 out of 300 participants) did not experience pruritus vulva.

Every person has a unique skin type, with some individuals having skin that is less prone to irritation or infection, resulting in a lack of pruritus symptoms. Additionally, each person has a natural collection of bacteria in their genital area, and the specific composition of these bacteria can differ. Consequently, certain teenagers may have a well-balanced bacterial flora that offers protection against infection or irritation, while those experiencing pruritus in the vulva are more vulnerable to infections.

Table 2
Overview of Knowledge Levels in Adolescents

Category	Frequency	Percentage
Good Knowledge	34	43,6
Poor Knowledge	44	56,4
Total	78	100

Therefore, the knowledge level of adolescent in Rerer Village might be described as follows: 44 individuals (56.4%) had a poor knowledge level, while 34 participants (43.6%) had a good knowledge level.

Trisetiyaningsih et al. (2020) found that insufficient knowledge can result in the development of improper vulva hygiene practices, including misunderstanding the proper use of female cleaning soap, inadequate understanding of changing sanitary pads, neglecting vulva health, and disregarding knickers hygiene. These habits can lead to infections in the genital organs. Insufficient knowledge can be shaped by several educational elements,

information/media, social, cultural and economic circumstances, environmental conditions, personal experiences, and age (Budiman & Riyanto, 2013).

Table 3
Overview of Vulva Hygiene Behavior in Teenagers

Category	Frequency	Percentage
Good Vulva hygiene	29	37,2
poor vulva hygiene	49	62,8
Total	78	100

In Rerer Village, 62.8% of the participants (49 individuals) exhibited unsatisfactory vulva hygiene practices, while 37.2% (29 individuals) demonstrated good hygiene in this area. Therefore, in Rerer village, a significant number of teenagers engage in poor vulva hygiene practices, specifically 49 out of the total 78 participants (6.8 percent).

Humairoh et al. (2018) identified various improper vulva hygiene behaviors, such as inadequate cleaning of the female genital area, including wiping the vagina from back to front, using antiseptics during vaginal cleaning, not using clean water for washing, and not washing hands before cleansing. These practices can elevate the likelihood of irritation, infection, or health issues in the genital region.

Tabel 4
Results of Vulva Pruritus Relationship Analysis in Adolescents

Variable	Coefficient Correlation	P-value
Knowledge with Vulva Pruritus	-0,111	0,334
Vulva Hygiene Behavior with Vulva Pruritus	-0,394**	0,000

The statistical analysis using Spearman's rank correlation coefficient on the association between knowledge and symptoms of pruritus vulva in adolescents in Rerer Village yielded a p-value of 0.334, which is greater than the significance level of 0.05. Therefore, the null hypothesis (H0) is accepted, indicating that there is no significant relationship between knowledge and symptoms in adolescent pruritus vulva. A study conducted in Rerer Village found a significant association between hygienic vulva behavior and symptoms of vulva pruritus in adolescents. The resulting p-value was 0.000, which is less than the significance level of 0.05. Therefore, the null hypothesis (H0) was rejected, indicating that there is indeed a significant relationship between vulva hygiene behavior and symptoms of vulva pruritus in adolescents.

The theory that underpins this result aligns with the research conducted by Rossita (2019), which posits that there are additional factors that contribute to knowledge acquisition. One such factor is the source of information, as adolescents may lack the intelligence to access health-related information, which in turn hinders their ability to update their knowledge and may lead to vulva pruritus. Another factor is family support, as the family plays a crucial role in an adolescent's life, particularly during the onset of puberty when significant changes occur, such as menstruation.

Based on data analysis, it was found that there is no significant relationship between knowledge and symptoms of pruritus vulva in adolescents in the village of Rerer. According to the observations found that most adolescents have poor knowledge and no occurrence of pruritus vulva it is stated that knowledge alone does not guarantee the onset of pruritis vulva which may be related to the implementation of adolescent in daily practice that is not always consistent and there are other factors that can influence such knowledge e.g. environment, sources of information and age.

Vulva pruritus can be influenced by the way one maintains hygiene of the vulva (Eugenia, 2022). Practicing proper vulva cleanliness can help avoid vulva pruritus resulting from bacterial and viral infections. (Aini & Afridah, 2021).

Appropriate vulva hygiene practices involve using a clean towel or tissue to dry the vagina, shaving pubic hair every 40 days, washing the vagina from front to back with clean water, wearing knickers made of sweat-absorbent material like cotton, changing knickers at least twice a day, replacing pants if they come into contact with menstrual blood and using sanitary pads during menstruation, changing them at least four times a day to prevent bacterial infection (Pandelaki et al., 2020).

The data analysis results indicate a notable correlation between sanitary vulva behaviour and symptoms of pruritus vulva in adolescents residing in Rerer Village. Based on the available results, it is evident that a majority of adolescents exhibit inadequate hygiene practices in the vulva area, leading to vulva itching. Insufficient hygiene in this region can create a favourable environment for the proliferation of bacteria or fungi, resulting in vulva itching or pruritus vulva.

CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

The occurrence of vulva pruritus in the majority of adolescents in Rerer Village does not experience vulva pruritus. This indicates that although there are risk factors, the incidence of vulvar pruritus can still be controlled. The knowledge of adolescents in Rerer Village regarding reproductive health and vulva hygiene is categorized as poor. This highlights the need for improved education and information about reproductive health among adolescents to enhance their understanding and prevent further health issues. The hygiene behavior of the vulva among adolescents in Rerer Village is considered poor.

The relationship between knowledge and vulvar pruritus showed no significant correlation between the level of knowledge among adolescents and the symptoms of vulva pruritus. This indicates that although knowledge is important, other factors may have a greater influence on the occurrence of vulva pruritus. Regarding the relationship between hygiene behavior and vulva pruritus, there is a significant correlation between vulva hygiene behavior and the symptoms of vulva pruritus. Adolescents with good hygiene practices tend to experience fewer symptoms of vulva pruritus.

Suggestions that can be provided in this research include enhancing health education through more intensive and structured educational programs on reproductive health and vulvar

hygiene for adolescents in schools, community health centers, or community activities to increase knowledge and awareness among teenagers. The improvement of hygiene behavior through campaigns or workshops on good hygiene practices needs to be promoted. This can involve live demonstrations and the provision of written or visual guides. Counseling and guidance in counseling services for adolescents to discuss personal health issues more openly and receive advice from professional health workers.

The limitation of this research is the restricted data in terms of scope and depth. In addition, external factors, such as socioeconomic conditions, access to healthcare services, and cultural influences, are not fully considered in the analysis, which may mean that these factors could affect the health and behavior of adolescents. The suggestion given for future research is to conduct longitudinal studies to monitor changes in hygiene behavior and reproductive health knowledge among adolescents over time, which can provide deeper insights. Adding variables such as the roles of family and peers that influence adolescent health behavior can support positive behavioral changes.

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