

THE RELATIONSHIP OF REPRODUCTIVE HEALTH KNOWLEDGE WITH THE INCIDENCE OF PRURITUS VULVAE IN ADOLESCENT GIRLS AGE 13-15 YEARS

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Abstract

Background: Around the world, adolescent girls often experience problems with their reproductive system, one of which is Pruritus Vulvae. According to the Indonesian Ministry of Health, as many as 5.2 million adolescent girls often experience this condition, and the lack of knowledge of adolescents about reproductive hygiene is one of the causes of this problem.

Purpose: This study aims to determine the relationship between reproductive health knowledge and the incidence of pruritus vulvae at SMP Negeri 3 Panji.

Methods: This research belongs to the type of quantitative research. The research design uses a correlational descriptive with a cross-sectional approach. There were 90 respondents present in the study and samples used as many as 84 respondents using the Proportionate Stratified Random Sampling technique. The instruments used are questionnaires related to knowledge of reproductive health and Pruritus Vulvae. The questionnaire has been tested for validity and rehabilitation. Data analyzed using the Spearman test.

Results: From the results of the univariate analysis showed that 45 (53,57%) respondents have high knowledge, 34 (40,48%) respondent have moderate knowledge, and respondent has low knowledge 5 (5,95%). As well as 66 (78,57%) respondents do not have Pruritus Vulvae and 18 (21,43%) respondents have pruritus vulvae. The result of bivariat analysis obtained p-value $(0,012) \leq \alpha (0,05)$, that there is a relationship of knowledge of reproductive health with the occurrence of Priritus Vulvae.

Conclusions: The majority of Panji high school pupils have high knowledge of reproductive health and do not experience Pruritus Vulvae. So it can be concluded that there is a correlation between the knowledge of Reproductive Health and the occurrence of pruritus vulvae in teenage daughters aged 13-15 years.

Suggestion: It is hoped that families can provide basic knowledge related to reproductive health, as well as schools can add books about reproductive health. Teenagers can also make the best use of the Internet.

Keywords: Knowledge; Reproductive Health; *Prutitus Vulvae*

Introduction

When a person can have fun with their sexual life and undergo reproductive functions and processes in a healthy and safe manner, including in terms of having offspring, there are no diseases or disorders of the reproductive system, function, or the reproductive process itself,

referred to as reproductive health (Prabandari, 2018). It is very important for a person to have an adequate understanding of reproduction, because otherwise, they will ignore it and harm their health. The lack of adolescent knowledge about *Vulva Hygiene* shows the need for adolescents to receive good information from health workers, parents, peers, and educators to be able to prevent the risk of developing *Pruritus Vulvae* symptoms in adolescent girls (Fauziah & Yolanda, 2022). Itching in the female genital area is called *Pruritus Vulvae*. It can occur due to chronic inflammation such as *lichen sclerosus* or psoriasis, fungal, bacterial, viral, or parasitic infections, pre-invasive lesions as well as secondary causes such as drug allergies, diabetes, estrogen deficiency, or vulvar hygiene behaviors (Rosyid & Mukhoiratin, 2017). The itching that occurs causes discomfort so that the sufferer scratches the vulva (Alenazi et al., 2018).). This happens because of poor hygiene habits caused by the abundance of activities carried out, which suppresses awareness of how to clean the genitals, change underwear, and maintain personal hygiene, especially using irritating soap or caustic cleaners (Karadeniz, 2019). Adolescent girls who do not have good immunity can quickly get infections, which can lead to vaginal discharge, urinary tract infections (UTIs), pelvic inflammatory disease (PRP), and possible cervical cancer (Luthfiani et al., 2023).

In several countries examined by the World Health Organization (WHO), adolescent girls aged 10–14 years experience reproductive health problems, including *Pruritus Vulvae* (Harahap, 2020). Adolescent girls affected by genital infections aged 15-24 years old, in 2020 there were quite a lot, which was around 31.8%. Based on data collected by the Indonesian Ministry of Health, as many as 5.2 million adolescent girls experience *Pruritus Vulvae* (Sulaikha, 2018). Meanwhile, adolescents in East Java experience *Pruritus Vulvae* and cervicitis as much as 86.5% of 6 million adolescent girls (Widayati et al., 2023). The results of a preliminary study at the State Junior High School (SMP) 3 Panji, information was obtained that in the school there was no counseling related to reproductive health only about basic health. Of the 10 female students interviewed at SMP Negeri 3 Panji, it was seen that 7 of them experienced itching, which is related to lack of personal hygiene and itching on the genitals or genitals. The teenage girl who experienced itching was because she did not know how to clean and care for her genitals properly.

Lawrence Green explained that a person's health is influenced by behavioral *causes* and *non-behavioral causes* (Notoatmodjo, 2019). Lawrence Green's theoretical conceptual model studies the problem of human behavior and the elements that affect it, as well as how to follow up by trying to change, maintain, or improve that behavior (Safrida, 2021). Three components determine or shape health behavior, namely: *Predisposing Factor* (Predisposing Factor)

includes: attitudes, beliefs, knowledge, values, beliefs, norms. *Enabling Factors* include: availability of health resources, accessibility of health resources, skills of health workers. *Reinforcing Factors* include peers, family, teachers, and health workers. Several factors affect the incidence of *Pruritus Vulvae*, knowledge is one of them (Notoatmodjo, 2019).

Reproductive health knowledge is information and understanding of the human reproductive system, its functions and processes, as well as how to maintain reproductive health (Prabandari, 2018). Adolescents usually learn about reproductive health from parents, teachers, health workers, and the internet. However, many parents still consider sex education to be a bad thing. Causing many adolescents to lack information about the importance of reproductive health (Dinengsih & Hakim, 2020). The impact of adolescents who lack knowledge of reproductive health is lack of hygiene of genital organs, premarital sexual intercourse, drug abuse, and experiencing sexually transmitted diseases (Andika Oktavian et al., 2020).

Pruritus vulvae has symptoms such as suffering from itching in the genital area, more at night, vaginal discharge, burning, and cracked skin, swelling and redness in the vulva and labia, as well as fluid-filled lumps (*blisters*) in the vulva (Rosyid & Mukhoirotin, 2017). The most common cause of *Pruritus Vulvae* is vaginal candidiasis that occurs due to infection with the fungi *Candida Albicans* and *Candida glabrata* (Woelber et al., 2020). Treatment of *Pruritus Vulvae* caused by an infection can be done with the use of antibiotics or antifungals, such as corticosteroid ointments that are used once daily. In addition to corticosteroids, emollient creams, and antihistamine tablets, these ointments are able to help relieve vulvar irritation and itching. The use of vaginal tablets, creams, or pessaries that contain the hormone estrogen can also be done if estrogen levels are low. Treatment for people with vulvodynia can also include surgery and local anesthetic creams (Sulaikha, 2018). In addition to healing, adolescent girls can also prevent the occurrence of *Pruritus Vulvae* in several ways, namely if there is an allergy or skin irritation, change the brand or type of pad, clean the infected area with running water with movements from the vagina to the anus so that feces do not enter the vagina, use soap with low PH, for a while, do not use soap until the irritation or inflammation disappears, Shaving or trimming pubic hair is better than scratching the itchy area because pubic hair can appear mold or lice, which can cause discomfort and itching (Harahap, 2020).

A lot of research has been done, but in reality there are still quite a lot of problems that have arisen, especially problems related to *Pruritus Vulvae*. The problem stems from adolescents' lack of knowledge about reproductive hygiene. For this reason, researchers are interested in conducting research on the relationship between reproductive health knowledge

and the incidence of *Pruritus Vulvae*, as well as adding insight and becoming the basis of nursing theory, especially in maternity nursing.

Methods

This correlational descriptive research uses a cross-sectional approach. This research was carried out at SMP Negeri 3 Panji located at Jl. Juglangan, Juglangan, Panji District, Situbondo Regency, Prov. East Java in February 2024. The population during the study was 107 students of SMP Negeri 3 Panji and the sample used was determined using the *Slovin* formula. The technique used for sampling is *Proportionate Stratified Sampling*. The sample was taken using inclusion criteria, including: female students of SMP Negeri 3 Panji from grades 7 – 9, female students aged 13 – 15 years, female students who are willing to be respondents. The exclusion criteria in this study are as follows: female students who are not willing to be respondents, female students who do not attend school during the study, female students who are sick or unable to participate in the research. Data collection used a questionnaire, which included two variables studied, namely: 1) Reproductive Health Knowledge, 2) *Pruritus Vulvae*.

The measurement of reproductive health knowledge variables uses an instrument in the form of a questionnaire from the previous researcher Allaily Amalia Rachma (2018), but there are some changes. The validity and reliability test of the instrument has been carried out, with the results of the validity test of 0.5 and the reliability test of 0.663 above Cronbach's value of $\alpha > 0.6$ significant. The questionnaire consisted of 12 questions with a favorable statement assessment scale with True answers = 1 False = 0, unfavorable statements with True answers = 0 False = 1. The total score is: 1) Low: 0 - 4, 2) Medium: 5 - 8, and 3) High: 9 - 12. The assessment instrument of *Pruritus Vulvae* uses a questionnaire from the previous researcher Ismi Sulaikha (2018). The instrument consists of 10 questions by selecting the answers "Yes = 1" and "No = 0". The scoring system is: 1) Experienced = 6 - 10, 2) Not experienced = 0 - 5. This research was carried out after obtaining a permit in accordance with the ethics that had been obtained by the researcher with the number: 90/KEPK/UDS/II/2024 from dr. Soebandi University, as well as permission from SMP Negeri 3 Panji. This research was carried out in accordance with the ethical procedures in the ethical procedures, namely: *Informed Consent* (research consent sheet), *Anonymity* (anonymous), *confedentially* (confidentiality), *justice* (justice), and *beneficency* (principle of usefulness). Furthermore, the researcher collaborates with related parties for the research data collection process according to the procedures that have been set by the researcher previously. Data collection by providing questionnaires to

female students using the instruments that have been determined by the researcher. After the data is collected completely, the data processing process is carried out including editing, coding using statistical analysis methods. Furthermore, data analysis was carried out, including univariate analysis and bivariate analysis. Univariate analysis was carried out on each variable including the characteristics of the respondents. Meanwhile, bivariate analysis was carried out by statistical test, namely the *Spearman* Test to determine the correlation between reproductive health knowledge variables and *Pruritus Vulvae*.

Results And Discussion

Results

The purpose of this research is to find out the relationship between reproductive health knowledge and the incidence of *Pruritus Vulvae*. This section presents the findings of research conducted on February 26, 2024 at SMP Negeri 3 Panji with a total of 84 respondents provided in the form of narrative tables and frequency distribution. It consists of general data and special data.

1. Characteristics of Respondents Based on Age, Class

Table 1. Frequency Distribution of Respondent Characteristics Based on Age at SMP Negeri 3 Panji, Year 2024

| Information | N | (%) |
|-------------|-----------|------------|
| Student Age | | |
| 13 Years | 31 | 36,09 |
| 14 Years | 34 | 40,48 |
| 15 Years | 19 | 22,62 |
| Sum | 84 | 100 |

Source : Primary data, 2024

The results of table 1 above show that of the 84 respondents, most of the 34 respondents (37,78%) are 14 years old at SMP Negeri Panji.

Table 2. Frequency Distribution of Respondent Characteristics Based on Class at SMP Negeri 3 Panji, Year 2024

| Information | N | (%) |
|-------------|-----------|------------|
| Class Oder | | |
| Grade 7 | 31 | 36,09 |
| Grade 8 | 30 | 35,71 |
| Grade 9 | 23 | 27,38 |
| Sum | 84 | 100 |

Source : Primary data, 2024

The result in the table 2 above show that of the 84 respondents, most of the 31 respondents (36,67%) are in grade 7 at SMP Negeri 3 Panji.

2. Reproductive Health Knowledge

Table 3. Distribution of Reproductive Health Knowledge Frequency at SMP Negeri 3 Panji, Year 2024

| Information | N | (%) |
|-------------------------------|-----------|------------|
| Reproductive Health Knowledge | | |
| Low | 5 | 5,95 |
| Keep | 34 | 40,48 |
| Tall | 45 | 53,57 |
| Sum | 84 | 100 |

Source : Primary data, 2024

The results of table 3 above show that of the 84 respondents, most of the 45 respondents (53,5%) belong to the category of high reproductive health knowledge with a score of 9-12 at SMP Negeri 3 Panji.

3. Pruritus Vulvae

Table 4. Distribution of Frequency of Pruritus Vulvae Incidents at SMP Negeri 3 Panji, Year 2024

| Information | N | (%) |
|------------------------|-----------|------------|
| <i>Pruritus Vulvae</i> | | |
| Experience | 18 | 21,43 |
| Not Experiencing | 66 | 78,57 |
| Sum | 84 | 100 |

Source : Primary data, 2024

The results of table 4 above show that of the 84 respondents, most of the 66 respondents (78,57%) did not experience Pruritus Vulvae at SMP 3 Negeri 3 Panji.

4. The Relationship Between Reproductive Health Knowledge and the Incidence of Pruritus Vulvae

Table 5. The Relationship Between Reproductive Health Knowledge and the Incidence of Pruritus Vulvae

| Variabel | | <i>Pruritus Vulvae</i> | | | | Total | |
|-----------------------|-------------|------------------------|-------|---------------------------------------|-------|----------|-------|
| | | <i>Experience</i> | | <i>Not Experiencing</i> | | | |
| | | Σ | % | Σ | % | Σ | % |
| Knowledge | Low | 2 | 2,38 | 3 | 3,57 | 5 | 5,95 |
| | Keep | 11 | 13,1 | 23 | 38,1 | 34 | 40,48 |
| | Tall | 5 | 5,95 | 40 | 58,33 | 45 | 53,57 |
| Sum | | 18 | 21,43 | 66 | 78,57 | 84 | 100 |
| <i>Spearman's Rho</i> | | | | <i>Asymp.Sig = .012</i> | | | |
| <i>Measures</i> | | | | <i>Correlation Coefficient = .273</i> | | | |

Source : Primary data, 2024

The results in table 5 above showed that from 84 respondents showing the results of the spearman test with a $p\text{-value } (0,012) \leq \alpha (0,05)$, then H_a was accepted, which means that there is a relationship between reproductive health knowledge and the incidence of Pruritus Vulvae.

Discussion

Identification of Reproductive Health Knowledge

The results of the research on the variables of knowledge possessed by adolescents about reproductive health were found that most of them were at a high level of knowledge. In this study, the respondents included early adolescence because they were around 13-15 years old. During this period, he also experienced many psychological and physical changes. So, they are very curious, often interested in finding out new things, because the level of knowledge is also influenced by age (Sulaikha, 2018). Based on Notoadmojo's theory, knowledge is the result of human understanding or description of something or everything that wants to be known (Notoatmodjo, 2019). Knowledge is usually obtained from parents, teachers, and health workers. Parents themselves still consider reproductive health education to be taboo, for teachers and health workers only explain basic things (Dinengsih & Hakim, 2020). In the current era, technological advances have increased quite rapidly. Where teenagers have *gadgets* to access various sources of information that are wide and easy. They can learn about any topic through articles, videos, and other resources. Teenager also often discuss and share information with their friends though social media. However, due to information on the internet that is easily accessible and high curiosity in teenagers, there are teenagers who use it poorly such as opening pornographic sites. So, it must be under the supervision of a more mature person (Dinengsih & Hakim, 2020).

This theory is similar to what the Goddess said: the more people know about reproductive health, the more they know how to take care of it. This is due to the fact that maintaining reproductive health is essential to maintain fertility (Irianti & Tiarahma, 2021). From the results of the data, it was found that most of the female students had a very good level of adolescent knowledge about reproductive health.

Identification of *Pruritus Vulvae*

The results of the study showed that most of the students of SMP Negeri 3 Panji did not experience *Pruritus Vulvae*. This shows a good level of health and high awareness of the students in maintaining the health of the genital area. *Pruritus Vulvae* is an irritation or itching around the vulva and genital openings that occurs at night. Vaginal discharge can cause *Pruritus Vulvae* (Rosyid & Mukhoirotin, 2017). Symptoms commonly felt by women are itching on the genitals, burning and skin rupture in the vulva, swelling, and redness (mu'minum et al., 2021). The most dominating cause of *Pruritus Vulvae* is the lack of reproductive health knowledge about hygiene and how to care for it. Examples are feminine cleaning soap and laundry soap, the use of tight underwear, and the frequency of improper use of sanitary napkins (Woelber et al., 2020).

Lawrence Green explained that a person's health is influenced by behavioral *factors (behavior causes)* and non-behavioral *factors (non-behavioral causes)*. Health behavioral factors are determined or formed into 3, namely: *Predisposing Factor, Enabling Factor, Reinforcing Factor*. In the predisposing factor, there is something that affects *Pruritus Vulvae*, namely knowledge (Notoatmodjo, 2019). A person who has high knowledge, tends to have a good or positive attitude. From this attitude, a person knows more about the negative or positive impact of something.

The results of Laili's (2019) research found that the percentage of *Pruritus Vulvae* was 56.1% in Al-Furqon Gresik High School students. The percentage of these studies still shows fairly high symptoms of *Pruritus Vulvae* among adolescent girls (Laili, 2019). However, it is different from the results of this study because of the high knowledge of reproductive health, only as many as 18 female students experienced *Pruritus Vulvae*. According to researchers, some female students who experience *Pruritus Vulvae* are the cause of lack of reproductive health knowledge, such as only knowing that the female reproductive organs are only the vagina and blood membranes, the correct way to clean the genitals is from the direction of the anus to the genitals.

The Relationship Between Reproductive Health Knowledge and the Incidence of *Pruritus Vulvae* in Adolescent Girls Aged 13 – 15 Years

The test results showed that there was a relationship between knowledge and the occurrence of *Pruritus Vulvae*. Where the results of the analysis of knowledge variables and *Pruritus Vulvae* used a questionnaire. Data were obtained that knowledge about reproductive health was at a high level and *that Pruritus Vulvae* did not experience. Lawrence Green explains that knowledge affects a person's health. A well-informed person tends to be kind and positive because they understand the negative or positive impact of something. It is beneficial to prevent *Pruritus vulvae* by teaching adolescents about reproductive health. However, the factors that cause *Pruritus Vulvae* are diverse, which means that when the knowledge of a teenager's reproductive health is high, it can prevent all factors from occurring *Pruritus Vulvae* because it can come from other things such as: medical conditions, environment, and factors beyond its control (Meranggi & Wulandari, 2019). The level of knowledge can be affected by age, education, environment, and occupation. So, this is what distinguishes a person in responding to something.

High reproductive health knowledge does tend to improve hygiene behavior and vital organ care. Many teenagers today are looking for reproductive health knowledge through the

internet because of the advancement of technology today. Many teenagers have been given *gadgets* by their parents so that they can search for information easily and extensively (Yusuf & Hamdi, 2021). Teenage girls can experience a variety of complaints that can cause *Pruritus Vulvae* if they neglect the hygiene of their vaginal area. Teenage girls can experience a variety of complaints that can cause *Pruritus Vulvae* if they neglect the hygiene of their vaginal area. A teenager who understands the importance of keeping the genital area clean will be more likely to take precautions such as cleaning themselves properly, wearing clean and comfortable underwear, and avoiding the use of products that contain irritants. Teens can do a lot to help maintain their own vaginal hygiene. Education and training on reproductive health is very effective in improving the quality of Generation Z's knowledge of reproductive health among junior high school girls (Kustin, Dermawan, et al., 2023).

Having a high knowledge of good behavior in maintaining the health of the intimate area can prevent the occurrence of *Pruritus Vulvae*. One of the best ways to prevent vaginal discharge, urinary tract infections (UTIs), pelvic inflammatory disease (PRP), and cervical cancer is to avoid *Pruritus Vulvae*. A good knowledge of personal hygiene and proper health practices can help prevent a variety of reproductive health problems. to improve knowledge and reproductive health behavior of adolescents according to Kustin (2023) including knowledge about pruritus vulvae by empowering adolescent groups based on santri culture in optimizing the improvement of adolescent reproductive health skills (Kustin, Yuhbaba, et al., 2023).

The results of this study are in line with Ernyasih (2020)) research, which is based on the results of tests using *Chi Square*, showing that there is a relationship between knowledge and clean and healthy living behaviors with a *P-Value* = 0.000 (Ernyasih & Sari, 2021). The results of this study are also in accordance with the research of Annah Hubaedah (2019) which shows that there is a significant relationship between knowledge about *Vulva Hygiene* and the incidence of *Pruritus Vulvae* during menstruation (Hubaedah, 2019). In addition to knowledge, hygiene behavior also influences the incidence of *Pruritus Vulvae*. Highly knowledgeable respondents do not always perform vaginal hygiene measures in their behavior. Respondents were knowledgeable because they had learned about menstruation from their parents and siblings. Schools have taught teens about menstruation and sexual education. However, sexual education is not taught independently, but through biology lessons. Some of the materials taught include healthy reproduction, pregnancy process, Family Planning (KB) treatment, and genital organs, so that adolescents have a good understanding of personal hygiene (Hubaedah, 2019).

Conclusion

The results of the identification in the research that has been carried out, the reproductive health knowledge possessed by SMP Negeri 3 Panji students is at the highest level of 45 respondents. Meanwhile, for *Pruritus Vulvae*, most of them do not experience 66 respondents. From the results of the *Spearman* test, it can be concluded that there is a relationship between reproductive health knowledge and the incidence of *Pruritus Vulvae* in adolescent girls aged 13 - 15 years.

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Martapura , Indonesia Tabel Berdasarkan tabel 1 , mayoritas responden berada pada rentang usia 13-14 tahun sebanyak 38 orang (63 , 3 %), dan usia menarche terbanyak pada. April, 20–23.

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