Original Research

Correlation Between Personal Hygiene Behavior During Menstruation and The Occurrence of Vulvar Pruritus at SMPN 1 Nassau

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ABSTRACT

Vulvar Pruritus is a problem that often occurs during menstruation. This is a disorder of female external genitalia in the form of severe itching. This problem can be prevented through good personal hygiene behaviour. Personal hygiene is an action to maintain the health and hygiene of female organs during menstruation. This study aims to determine whether there is a relationship between personal hygiene behaviour during menstruation and vulvar pruritus in SMP Negeri 1 Nassau. This is correlation research with a cross-sectional design. Samples were female students at SMP Negeri 1 Nassau, with 102 respondents. The criteria of the sample are female students who have experienced menstruation. Female students who experience pruritus but not because of menstruation or are not in the vulvar pruritus category are excluded as a sample. The sample used a simple random sampling technique. Data were collected using a questionnaire and analyzed using the Pearson Product Moment test. The results showed that from 102 respondents, 86.3% had moderate behaviour doing personal hygiene, 51% of respondents had moderate vulvar pruritus, and only 11.8% had no problem. There was a weak correlation between female students’ behaviour regarding personal hygiene during menstruation and pruritus vulva at SMP Negeri 1 Nassau with a result of p < 0.05 (p=0.039). But even though it has a weak correlation, keeping personal hygiene of genital organs is very influential in reducing the risk of vulvar pruritus.


37
Introduction

Menstruation is a process experienced by women with the release of the inner lining of the uterus or the endometrium that comes out through the vagina (Trisetyaningsih et al., 2020). Menstruation occurs every month and lasts approximately 3-7 days, the normal menstrual cycle occurs 22-35 days, and the age of women experiencing their first menstruation is at the age of 12-14 years (Elisa, 2022).

Teenagers often ignore genital hygiene because of the lack of understanding about menstrual hygiene. In addition, at school, young women only received information about physiological reproduction, the definition of menstruation, and the duration of menstruation. Lack of information results in a person not having adequate knowledge in behaving. So reproductive problems often occur in young and adult women (Yusiana et al., 2016).

Society considers reproductive health still taboo to be discussed by adolescents. This limits communication between parents and adolescents about menstrual hygiene. As a result, adolescents do not understand, do not understand and sometimes make wrong decisions regarding reproductive health (Hubaedah, 2019). Parents, especially mothers, are the most influence on personal hygiene behaviour during menstruation because a daughter will learn and adhere to pre-existing habits from the family (Yusiana, Silvianita, & Saputri, n.d.).

Knowledge and experience during menstruation are closely related to the age of onset of menstruation. This will affect self-care behaviour during menstruation. At this stage, teenagers think that menstrual hygiene is unimportant, so they do not learn about matters related to their reproductive health (Juwitasari et al., 2020). Statistical data in Indonesia from 43.3 million young women aged 10-14 years have deplorable hygiene behaviour (Abd.Rosyid & Mukhoirrotin, 2017).

A lack of understanding of personal hygiene can cause irritation or infection of the vagina. One of them is the occurrence of pruritus vulva; pruritus vulva is a disorder that is often experienced in the genital area with a severe itchy sensation on the female external genitalia. Vulvar pruritus can occur due to infection, allergies and moist genitalia during menstruation (Juwitasari et al., 2020).

Data from the Ministry of Health of the Republic of Indonesia (2017) shows that as many as 5.2 million young women experience the same complaint after menstruation because they do not maintain cleanliness, namely pruritus vulvae which are characterized by itching in the genitals in women (Pandelaki et al., 2020). The results of Indah’s research (2012) showed that 100% of young women at SMPN 1 Ngimbang Lamongan had experienced pruritus of the vulva during menstruation (Rossita, 2019). The results of Hubaedah's research (2019), the incidence of pruritus vulvae during menstruation in class VII female students of SMPN 1 Sepulu was 59 respondents (74.7%). The results of the study by Cahayani et al. (2022), of 41 respondents, there were 7 (17.1%) adolescents who experienced mild vulvar pruritus, 31 (75.6%) respondents experienced moderate vulvar pruritus, and as many as 3 (7.3%) respondents experienced severe vulvar pruritus.

Symptoms that often appear when a woman experiences pruritus include burning, itching, redness and swelling in the vulva area, thickened and scaly skin of the vulva, lumps filled with fluid or thick and smelly liquid coming out of the vagina (Widjaja et al., 2021). The causal factors for pruritus of the vulva during menstruation are internal factors, including infections and skin diseases and external factors, including vulva hygiene, wearing underwear, using anti-septic soap and the frequency of changing pads during menstruation (Mu’minun et al., 2021).

Knowledge of a person's personal hygiene is related to behaviour in maintaining and caring for the health of their reproductive organs. This behaviour is related to the efforts to keep the genital area clean during menstruation. Knowledge and behaviour of vulva hygiene is an effort to prevent and control infection, prevent skin damage, and increase comfort and personal hygiene (Pandelaki et al., 2020).

Inappropriate hygiene behaviour harms reproductive health. During menstruation, women guard the genital area to prevent infection or irritation of the vagina. If you maintain proper hygiene, fungi and bacteria will not thrive, which can cause itching, often called vulvar pruritus.
Correlation Between Personal Hygiene ... 

(Hubaedah, 2019). Research by Indah (2012) showed that 100% of respondents had experienced vulvar pruritus during menstruation, 15.2% always felt vulvar pruritus every day during menstruation, and 84.8% of respondents experienced vulvar pruritus not every day during menstruation.

Other research found that 57.3% of respondents had experienced vulvar pruritus during menstruation (Putinah & Setiawan, 2020). A study from Annah Hubaedah (2017) showed that most of the respondents had experienced vulvar pruritus during menstruation, as much as 74.7%. Therefore, it is crucial to re-examine the relationship between personal hygiene behaviour during menstruation and the occurrence of vulvar pruritus in different situations and places.

Method

We used correlation research and the design of cross-sectional, which aims to find the correlation between personal hygiene behaviour during menstruation and the occurrence of vulvar pruritus. The research was conducted in April 2022 at SMP Negeri 1 Nassau. The population were female students at SMP Negeri 1 Nassau, with 102 respondents. The criteria of the sample are female students who have experienced menstruation. Female students who experience pruritus but not because of menstruation or are not in the vulvar pruritus category are excluded as a sample. The sample size was calculated using Vincent's formula (1991). The sampling technique used a simple random sampling technique. It was done by randomly taking female students' numbers that had been written on closed rolls of paper.

The research instrument used a questionnaire of personal hygiene behaviour with five multiple choice questions for knowledge, 4 questions for attitudes with choice “yes” or “no”, and 5 questions for actions with 4 choices of the answer, which are always, often, sometimes, and never. The validity test for knowledge is 0.444, and for attitudes and actions is 1. The reliability test for knowledge is 0.974, and for attitudes and actions is 0.614. Questionnaire of vulvar pruritus has 5 questions with choice “yes” or “no”. The validity test is 0.948, and the reliability is 0.772.

Data collection was carried out after receiving a letter of passing ethical review from a committee of ethics at STIKes Santa Elisabeth Medan with No. 035/KEPK-SE/PEDT/IV/2022. Researchers also got permission from the principal of SMP Negeri 1 Nassau. Researchers gave informed consent to prospective respondents before answering the questionnaires distributed.

Data analysis was performed using univariate and bivariate. Univariate analysis was used to identify the independent variable, namely personal hygiene behaviour during menstruation and the dependent variable, namely pruritus vulva and presented in tabular form. Bivariate analysis was carried out through the Pearson Product Moment test with α <0.05 because the data have a normal distribution.

Results and Discussion

Table 1. The Occurrence of Vulvar Pruritus for Female Students (n=102)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>CI 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vulvar Pruritus</td>
<td>2.42</td>
<td>1.311</td>
<td>2.16-2.68</td>
</tr>
</tbody>
</table>

Table 2. Distribution of The Frequency of Occurrence of Vulvar Pruritus in Female Students

<table>
<thead>
<tr>
<th>Vulvar Pruritus</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Occur</td>
<td>12</td>
<td>11.8</td>
</tr>
<tr>
<td>Mild</td>
<td>34</td>
<td>33.3</td>
</tr>
<tr>
<td>Moderate</td>
<td>52</td>
<td>51.0</td>
</tr>
<tr>
<td>Severe</td>
<td>4</td>
<td>3.9</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>100</td>
</tr>
</tbody>
</table>

The findings in Table 1 show that the average occurrence of pruritus vulva at SMP Negeri 1 Nassau is 2.42 based on a score of 3-4 in the moderate category with SD 1.311. The score is 0 until 5. Interval estimation results (95% CI) showed the range of vulvar pruritus...
was 2.16-2.68. The findings in Table 2 show that from 102 respondents, the majority of respondents had moderate vulvar pruritus (51%), and minority respondents had severe vulvar pruritus (3.9%). 33.3% of respondents had mild vulvar pruritus and only 11.8% of respondents who had not the problem. The findings in Table 2 show that the average personal hygiene behaviour during menstruation at SMP Negeri 1 Nassau is 18.17 based on a score of 13-20 in the adequate category with SD 2.711. The lowest personal hygiene behaviour score is 11, and the highest is 25. The interval estimation results (95% CI) show that the behaviour range score is 17.63-18.70. The findings in Table 4 shows that out of 102 respondents, most respondents had moderate behaviour doing personal hygiene (86.3%), minority respondents had good behaviour (13.7%), and no one respondent had terrible behaviour.

### Table 3. Behaviour of Personal Hygiene During Menstruation For Female Students

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>CI 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviour</td>
<td>18.17</td>
<td>2.711</td>
<td>17.63-18.70</td>
</tr>
</tbody>
</table>

### Table 4. Distributions, Frequency, and Percentage of Female Students’ Behaviour Regarding Personal Hygiene During Menstruation

<table>
<thead>
<tr>
<th>Personal hygiene behaviour</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>14</td>
<td>13.7</td>
</tr>
<tr>
<td>Moderate</td>
<td>88</td>
<td>86.3</td>
</tr>
<tr>
<td>Bad</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>100</td>
</tr>
</tbody>
</table>

### Table 5. Correlation Between The Behaviour of Personal Hygiene During Menstruation and The Occurrence of Vulvar Pruritus

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Behaviour</th>
<th>Vulvar pruritus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviour</td>
<td>Pearson correlation 1</td>
<td>-.206</td>
</tr>
<tr>
<td></td>
<td>Sig(2-tailed)</td>
<td>.038</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>102</td>
</tr>
</tbody>
</table>
| Vulvar pruritus | Pearson correlation -.206 | 1 |}

The findings in Table 5 show that the results of the correlation analysis obtained \( r = -0.206 \) and \( p = 0.038 \). Shows that the results of the analysis of the relationship between personal hygiene behaviour during menstruation and the occurrence of vulvar pruritus in 102 respondents obtained \( p <0.05 \), which means that personal hygiene menstruation has a weak negative correlation with the occurrence of vulvar pruritus at SMP Negeri 1 Nassau.

Personal hygiene during menstruation is an understanding or mastery of the concept of personal hygiene in the area of the reproductive organs, especially when experiencing menstruation (Solihat Holida & Sri, 2020). Behaviour personal hygiene includes knowledge, attitudes and actions of a person in maintaining the cleanliness of the genital area.

Based on the research results from 102 respondents, most respondents had moderate behaviour doing personal hygiene (86.3%), and minority respondents had good behaviour (13.7%). No one respondent had terrible behaviour. Researchers assume that most of the personal hygiene behaviour in female students during menstruation is moderate because their attitudes and actions when changing pads are sufficient; they do not know the frequency of time to change pads during menstruation.

Knowledge also affects personal hygiene; students with less knowledge need to learn about good personal hygiene during...
menstruation, one of which is changing pads; attitudes can also influence, which can be seen from awareness of good behaviour during menstruation. If the female student does not behave with good hygiene during menstruation, it can endanger her reproduction; one of the impacts caused by lack of personal hygiene is the emergence of vaginal infections caused by cleanliness.

In line with previous research by Diah (2021), 39.6% of respondents had good behaviour, and respondents with terrible behaviour, as much as 30.2%. A person's behaviour will affect the action or attitude during menstruation. The impact of poor behaviour during menstruation is irritation; therefore, adolescents must take care of the reproductive organs properly and correctly to avoid vulva pruritus. Awareness of young women about this behaviour must be increased by increasing adolescent knowledge about personal menstrual hygiene by providing an explanation of correct personal hygiene and how to behave properly when experiencing menstruation and also actions that can be considered during menstruation by changing pads at least four times a day to avoid irritation of the genital area respectively (Kusumastuti et al., 2021).

We found that most respondents had moderate vulva pruritus (51%), and minority respondents had severe vulva pruritus (3.9%). 33.3% of respondents had mild vulva pruritus and only 11.8% of respondents who had not the problem. Good behaviour doing personal hygiene can affect the occurrence of vulva pruritus. From the data, we still find that there are 13.7% of respondents with good behaviour, even though most of them had moderate behaviour, which makes the occurrence of moderate vulva pruritus high.

Based on the results of the correlation analysis, the results obtained were \( p = 0.038 \). Shows that the results of the analysis of the relationship between personal hygiene behaviour during menstruation and the occurrence of pruritus vulva in 102 respondents obtained \( p <0.05 \), which means that personal hygiene menstruation has a weak negative correlation with the occurrence of vulva pruritus at SMP Negeri 1 Nassau. Researchers assume that good personal hygiene behaviour will reduce the risk of vulva pruritus during menstruation. Personal hygiene is essential, not only when a woman gets a menstrual period but every day, to keep the area of genitalia clean.

When a woman gets menstruation, the genital area needs more attention due to the discharge of menstrual blood through the vagina. The use of pads during menstruation also increases the humidity around the genitalia. This causes the vagina to become more sensitive to irritation and infection if the genital area is not kept clean. In addition to behaviour towards the cleanliness of the genital area, the use of packaged pads also easily irritates, especially in hot conditions. Therefore, it is more advisable to use pads made of absorbent cloth. Good behaviour begins with good knowledge. Knowledge related to implementing personal hygiene during menstruation includes the ideal frequency of changing pads, types of pads, cleaning techniques, and the impact if genital hygiene is not maintained. Knowledge optimization can be done through the provision of early education to adolescents.

A person’s behaviour will affect the action or attitude during menstruation. The impact of poor behaviour during menstruation is irritation; therefore, adolescents must take care of the reproductive organs properly and correctly to avoid pruritus vulva. As many as 21 respondents had good behaviour, namely 21 people (39.6%). In contrast, the respondent’s behaviour regarding lacking vulva hygiene and good behaviour, as many as 16 people (30.2%), respectively (Kusumastuti et al., 2021).

Research by K. Diah (2021) also showed that there is a behavioural relationship between vulva hygiene with the incidence of pruritus vulvae from 21 people who have good vulva hygiene behaviour, there are three people who experience mild pruritus vulvae, 15 people experience moderate pruritus vulvae and three people experience pruritus vulvae heavy. Meanwhile, out of 16 people with good vulva hygiene, ten experienced mild pruritus vulvae, and 6 experienced moderate pruritus vulvae because teenagers do not understand vulva hygiene behaviour problems during menstruation and pruritus vulvae.

This is the impact of a lack of personal hygiene, including physical impacts in the form of impaired skin integrity, psychosocial impacts in the form of the need for comfort, vaginal discharge, and itching. Therefore,
Correlation Between Personal Hygiene During Menstruation

During menstruation, adolescents must maintain the cleanliness of the reproductive organs, especially in the vaginal area, so it is better for adolescents to increase behavioural knowledge about personal menstrual hygiene properly to avoid pruritus vulvae.

Suryaningsih (2017) states that vulvar pruritus that is not treated immediately will result in secondary infections due to wounds that facilitate the entry of vaginosis and trichomoniasis bacteria to become vaginitis. In the next stage, it can also interfere with activities and adolescents' social life and can even affect mental health if the itching is long and not treated immediately (Cahyani et al., 2022).

Nikmah (2020) found that personal hygiene behavior correlates with the incidence of pruritus vulvae during menstruation. This research shows that 85% of samples have pruritus vulvae with bad behavior, but only 15% are without the problem and have good behavior. This was due to the respondents’ personal hygiene behavior, which was not suitable for cleaning genital organs during menstruation. This situation includes how many times girls or women change their underwear, keep drying genital organs, and the way to clean the vagina from back to front. It’s vital for girls or women always care about their genital organs to prevent vulvar pruritus and other infection.

The health of the female reproductive organs must be maintained from the start; this is one way to prevent pruritus vulvae during menstruation. This method can be done by cleaning the genital area with clean running water and cleaning it with the correct approach, namely washing from front to back (from the vagina to the anus). This is done to prevent bacteria and dirt from entering the anus into the vagina. Pads should also be changed as often as possible and no more than 6 hours of use (Mu’minun et al., 2021).

The application of health education to adolescents regarding personal hygiene during menstruation is generally critical in increasing the knowledge and attitudes of adolescents regarding their reproductive health (Batubara, 2020). Health education about reproduction should have been given to adolescents; it had to be delivered as early as possible. This is done because the information obtained since childhood will later be helpful to be stored and used as a provision when they grow up. Education about health, especially the reproductive system, needs to be considered by all groups, including parents and adolescents.

Conclusion

Of 102 respondents, 86.3% had moderate behavior doing personal hygiene. 51% of respondents had moderate vulvar pruritus, and only 11.8% had no problem. There was a weak correlation between female students’ behavior regarding personal hygiene during menstruation and pruritus vulva at SMP Negeri 1 Nassau with a result of p <0.05 (p=0.038). But even though it has a weak correlation, keeping personal hygiene of genital organs is very influential in reducing the risk of vulvar pruritus, especially when girls or women get menstruation.

Limitations of the study

Other factors that influence the occurrence of vulvar pruritus in adolescents besides personal hygiene were not studied, so that the results could be biased. For the following research, we also need to find other factors which can affect the occurrence of vulvar pruritus, such as pad type, frequency of pad changing, use of tight pants during menstruation, and kind of soap to clean the genital area.

Acknowledgement

The researchers expressed their gratitude to the parties involved in the research, such as the high school principal, Dear Santa Elisabeth Medan High School of Health Sciences, friends of the team lecturers and students who participated together in conducting the research.

Conflict of Interest

There is no conflict of interest in this study. Researchers and respondents do not know each other and are not bound to one institution.
Correlation Between Personal Hygiene ...

References


Indah, F. T. N. (2012). Kejadian Pruritus Vulvae Saat Menstruasi Pada Remaja Puteri (Studi pada Siswi SMAN 1 Ngimbang Kabupaten Lamongan) [Skripsi, Universitas Airlangga]. http://lib.unair.ac.id


Correlation Between Personal Hygiene ...