

## Original Article

## The Effect of Peer Group Education on Menstrual Hygiene Management in Knowledge of Prevention of Pruritus Vulvae in Adolescents

**Ririn Harini**

Maternity Nursing Department, Faculty of Health Science, Muhammadiyah University of Malang, Indonesia

**Anggraini Dwi Kurnia**

Family and Community Health Nursing Department, Faculty of Health Science, Muhammadiyah University of Malang, Indonesia

**Adilla Zenara Nafisa**

Bachelor Nursing Student, Faculty of Health Science, Muhammadiyah University of Malang, Indonesia

**Correspondence:** Anggraini Dwi Kurnia, Family and Community Health Nursing Department, Faculty of Health Science, Muhammadiyah University of Malang, Indonesia e-mail dwi\_kurnia@umm.ac.id

### Abstract

**Background:** Teenage girls during puberty will experience menstruation. If they are unable to care for their reproductive organs during menstruation, it will cause several health problems, one of which is pruritus vulvae. The purpose of this study was to determine the effect of peer group education on menstrual hygiene management on knowledge of prevention of pruritus vulvae in adolescents.

**Method:** The design of this study used a pre-experimental design with one group pre-post test. The sample in this study was 26 students at Sunan Kalijaga Joining Islamic Boarding School. The method of data collection uses a questionnaire before and after given peer group education. Analysis of data using the Wilcoxon Signed Rank test with a significance of 0.05.

**Results:** The results of this study showed that the majority of respondents had sufficient knowledge about management of menstrual hygiene to the knowledge of prevention of pruritus vulvae before doing peer group education with an average of 14.69 while after peer group education, an average of 19.57 was obtained. The results of the data analysis test using the Wilcoxon Signed Rank obtained the effect of peer group education on menstrual hygiene management on pruritus vulvae prevention knowledge in adolescents with p values = 0,000 and  $\alpha = 0.05$ .

**Conclusion:** There is an improvement in knowledge about menstrual hygiene management to the knowledge of prevention of pruritus vulvae in adolescents after peer group education. Based on the results obtained, the peer group education is effectively used for learning methods.

**Keywords:** Peer Group Education, Prevention of Pruritus Vulva

### Introduction

Growth in each individual takes place continuously and cannot be repeated again. Every individual experiences stages of growth or time in his life, one of which is adolescence. In adolescence there are physical changes, both structural and function. In general, the occurrence of very rapid physical growth is in early adolescence (12-18 years). Teenagers not only grow in terms of size, but also experience

functional progress, especially sexual organs or puberty. In young women at puberty is characterized by menstruation. If they are unable to take care of their reproductive organs during menstruation, it will cause several health problems (irianto, 2015).

Health problems that can occur are irritation, inflammation, vaginal secretions and vulvar pruritus. Pruritus vulvae, this is an early sign of vaginitis. Pruritus vulvae itself is an unpleasant

vulvar sensation that encourages the urge to scratch. The severity of pruritus is dependent on the cause. Symptoms often stand out at night or when the female area is touched (Misery and ständer, 2010). Often itching makes you uncomfortable and sore. Scars can be seen when examined by a doctor with a special tool. If the vaginal skin is scratched then, there will be secondary infections such as acute candida infection, bacterial vaginosis and trichomoniasis and will make things worse (Tony, 2011).

Prognosis of pruritus vulvae disturbed sleep patterns, reduced quality of life, continuous anxiety, psychological disorders and their social life (Wolf et al, 2009). Indonesian statistical data of 43.3 million young women aged 10-14 have bad personal hygiene during menstruation (riskesdas, 2016). Research results prove 5.2 young women in 17 provinces in Indonesia experience complaints of itching on the genitals during menstruation due to not maintaining cleanliness (Ministry of Health, 2016). While research conducted by Burnet Survey conducted in 4 provinces, namely NTT, Papua, East Java, and South Sulawesi on the management of menstrual hygiene in schools stated that one in four women reported problems with the disease or pain in their genitals and 9% stated pain during discharge urination during menstruation (unicef, 2014).

Based on data compiled by the central statistical agency and the national development planning agency in 2010, 63 million adolescents in Indonesia are at risk of engaging in unhealthy behavior. For example the lack of measures to take care of the cleanliness of the reproductive organs when experiencing menstruation. The incidence of infectious diseases that occur in the reproductive tract in adolescents (10-18 years) is 35 - 42% (pythagoras, 2015). While the results of Ariyani's research (2009) related to biopsychosocial hygiene during menstruation in the capital 82.6% of young women lacked in maintaining genital hygiene during menstruation and only 17.4% had good behavior in genitalia care.

Research conducted by Indah (2010) found that out of 79% of female teenage respondents who were out of balance, 100% had experienced pruritus vulvae during menstruation. Where as many as 15.2% always feel pruritus vulvae every day during menstruation and 84.8% do not

experience every day. Research conducted by Alenazi et al (2018) in the city of Arar, 37% of adolescents aged 15-20 years experienced pruritus vulvae. Based on survey data from the world health organization (who) in several countries, girls 10-14 years of age have problems with reproduction, namely pruritus vulvae.

One of the causes of health problems that arise in adolescents in Islamic boarding schools is poor personal hygiene. A good and healthy personal hygiene during menstruation should be important to prevent the onset of the disease (rofi'ah, et al, 2017). Lack of knowledge and information becomes an obstacle as experienced by adolescents in Islamic boarding schools, especially female students because of their busy schedules ranging from recitation to school activities. They get information about menstruation only from teachers in schools and teachers of the Koran and the knowledge gained is only basic knowledge. Even access to the outside world is very limited, such as watching TV arranged by the clerics around 21:00 - 22:30 (retnowuni, et al, 2017).

The purpose of the study was to know peer group education about menstrual hygiene management against the prevention of pruritus vulvae in adolescents in Islamic boarding schools where this peer group is an effective learning media because with peers, adolescents will be more open and easier to communicate than parents. or teacher. Information that tends to be sensitive will be easily conveyed by peers compared to adults because it is delivered in a language of their age (Rofi'ah et al, 2017). Therefore, by providing clear information it is expected to be able to answer questions about health problems, especially reproduction. If the explanation obtained is true and correct, then it can help the development of adolescents in the future (irianto, 2015).

## Methods

This study uses a pre-experimental method using a design type of Pre-Experimental research used is One Group Pretest Posttest. So in this study there was no comparison group (Control). The population in this study were all students of Sunan Kalijaga Islamic Boarding School and had menstruated totaling 250 students. Respondents in this study were 26 students using the Quota sampling method. The instrument to be used in

this study was a questionnaire sheet containing general and specific data. General data includes name, age and gender. While specific data is a questionnaire about the behavior of pruritus vulvae prevention.

There are several stages of research, namely pre research and research, including 1) Pre research stage: a. Provide detailed explanation to prospective respondents of the objectives of research and the benefits of research; b. If agreeing to be a respondent, the respondent is asked to sign the information consent given by the researcher; c. The researcher is assisted by an assistant from PIKM; d. Then divide all respondents / study participants into several groups (1 group consisting of 8-12 people). 2) Phase pene Litian : a. Give an explanation to the respondent who will do the research; b. Then the researcher gives a questionnaire (Pretest) before the education is done by the counselor; c. Then divide all respondents / study participants into several groups (1 group consisting of 8-12 people) and each group there is 1 counselor; d. Counselors provide health education to peers; e. After completing the intervention process, the researcher asked for a contract with respondents regarding evaluation; f. Then do the evaluation and respondents were asked to fill in the posttest questionnaire that was provided by the researcher; g. After that, analyze the data using the Wilcoxon sign rank test which aims to see whether there is a difference between the pretest and posttest. data analysis using the Wilcoxon test.

## Results

The results of the study include the characteristics of respondents and data analysis about the effect of the *Peer Group Education* method on the knowledge of prevention of *pruritus vulvae* in adolescents at Sunan Kalijaga Islamic Boarding School.

### Characteristics of Respondents by Age:

Research data for respondent characteristics based on age are presented in Table 1 below: Based on table 1, it can be seen that the average age of respondents is 13 years with a minimum value of 13 years, a maximum of 15 years, and a standard deviation value is 0.582.

### Characteristics of Respondents by Class:

Research data for the characteristics of the

respondents based on the class presented in the following table 2: Based on table 2, it can be seen that the majority of respondents are grade 8 junior high school.

### Characteristics of Respondents Based on the Experience of Pruritus Vulvae:

Research data for the characteristics of respondents based on the experience of *pruritus vulvae* are presented in table 3 below: Based on table 3, it can be seen that the majority of respondents have experienced *pruritus vulvae* as many as 18 respondents (69.2%), while a small proportion of respondents namely 8 respondents (30.8%) have never experienced *pruritus vulvae*.

### Knowledge of Prevention of Pruritus Vulvae Before Peer Group Education.

Research data about the respondents' knowledge of prevention of *pruritus vulvae* before *peer group education* shown in 4 below: Based on table 4 can be known that before the *peer group education* of 26 respondents in the boarding school Sunan Kalijaga Jabung, the majority of 15 respondents (57.7%) have knowledge in the category enough. While a small portion that is 6 respondents (23.1%) had knowledge y ang are in the category of good, and the remaining amount of five respondents (19.2%) were in the category of less.

### Knowledge Prevention of Pruritus Vulvae After Peer Group Education:

Research data about the respondents' knowledge of prevention of *pruritus vulvae* se has a *peer education group* displayed on tabe 5. Based on table 5 it can be seen that after the *peer group education* of 26 respondents in the Sunan Kalijaga Jabung Islamic boarding school, almost all 23 respondents (88.5%) had knowledge in either category. While a small portion 3 respondents (11.5%) had knowledge of the prevention of *pruritus vulvae* that are in the category of pretty and not a single respondent is in a category of less.

### Differences in Knowledge of Prevention of Pruritus Vulvae Before and After Peer Group Educatio:

Data on the results of respondents' research on differences in *pruritus vulvae* prevention knowledge before and after *peer group education* is displayed in Table 6 below. Based on the

table 6 it can be seen that students who have good knowledge increased by 17 respondents, while those with sufficient knowledge fell from 15 to 3 and those who had less than 5 respondents' knowledge became nonexistent.

Based on the test results listed in the table 7, it can be seen that the Z statistics generated are -

4,269 with a probability of 0,000. This means that the probability or level of significance ( $\alpha < 0.05$ ). Thus it can be concluded that there is a significant difference between the knowledge of prevention of *pruritus vulvae* before and after *peer group education*.

**Table 1. General Respondents' Descriptive Analysis**

	N	Minimum	Maximum	The mean	Std.Deviation
Age	26	13.00	15.00	13.5	0.582

**Table 2. A nalisa Descriptive Class Respondents**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	8.00	26	100.0	100.0

**Table 3. Descriptive Analysis of the Experience of Pruritus Vulvae Respondents**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	69.2	69.2
	Not	8	30.8	100.0
Total	26	100.0	100.0	

**Table 4. Distribution of Frequency of Knowledge About Prevention of Puritus Vulvae Before *Peer Group Education* at Sunan Kalija Jabung Islamic Boarding School**

Knowledge Criteria	Frequency	Percentage(%)
Well	6	23.1%
Enough	15	57.7%
Less	5	19.2%

**Table 5. Distribution of Frequency of Knowledge About Prevention of Puritus Vulvae Se *Peer Group Education* at Pondok Pesantren Sunan Kalija Jabung**

Knowledge Criteria	Frequency	Percentage (%)
Well	23	88.5%
Enough	3	11.5%
Less	0	0.0%

**Table 6. Difference Frequency Distribution of Knowledge About Prevention *P pruritus vulvae* Before and after *Peer Group Education* in Pondok Pesantren Sunan Kalija Jabung**

Knowledge Criteria	Pretest	Posttest	Difference	Percentage(%)
Well	6	23	17	65%
Enough	15	3	12	46%
Less	5	0	5	0%

**Table 7. Results of Data Analysis Using the *Wilcoxon Signed Rank Test***

	Average	Z statistics	Probability
Prevention knowledge pruritus vulvae before peer group education	14.692		
Prevention knowledge pruritus vulvae after peer group education	19.577	-4.269	0.000

level of significance <0.05

## Discussion

### **Knowledge prevention of pruritus vulvae before peer group education on teenagers:**

Based on the results of the analysis it can be seen that the majority of respondents have sufficient category knowledge about the knowledge of prevention of pruritus vulvae. This is not in accordance with other studies conducted by Rofi'ah et al (2017) in junior high school fikri about the knowledge and attitudes of personal hygiene during menstruation shows that some respondents have less knowledge about personal hygiene during menstruation.

Knowledge is influenced by several factors, namely internal and external factors. The internal factors that influence are age and intelligence (intelligence level) (nursalam, 2011). The first internal factor is age. Age is a factor that represents a person's maturity. According to Sarwono (2011) and Hurlock (2011) there are three stages of adolescent development, namely early adolescence aged 11-13 years, middle adolescence (middle adolescence) 14-16 years late adolescence (late adolescence) 17-20 years. In the early teens, a young woman will experience menstruation. This certainly will affect adolescent knowledge about their hygiene behavior during menstruation because they

already have experiences and insights about menstruation. This is evidenced from the results of research in which respondents with an average age of 13 years have enough knowledge in the category.

In this study, respondents have not received counseling about previous menstrual hygiene management. This will certainly affect their knowledge. According to Blum (1974) in Maulana (2013) states that the factors that affect individual health are environmental factors, behavior, health services, and heredity. All respondents live in Islamic boarding schools so that they have been given insights about menstruation in general although it is not comprehensive and significant. The results showed that the knowledge possessed by respondents before the study was in the sufficient category. And in the research it can also be seen that most respondents have experienced pruritus vulvae.

### **Knowledge prevention of pruritus vulvae after peer group education on teenagers:**

Based on the results of research conducted at the boarding school Sunan Kalijaga Jabung showed that some respondents clicked on good knowledge after peer group education. Namely with the results of 26 students of the Sunan Kalijaga Jabung Islamic

Boarding School, most had the knowledge of prevention of pruritus vulvae that was in the good category. The results of this study are also in line with research of Rofi'ah et al (2017) stating there is a relationship between peer groups on the level of knowledge and attitude of menstrual hygiene. Peer groups can significantly improve the knowledge and behavior of members of their peer groups. Knowledge is influenced by several factors, namely internal and external factors. Internal factors include age, the more mature the level of maturity and strength of a person will be more mature in thinking and working in terms of public trust the more mature will be more trusting than people who are not yet high enough maturity. This is as a result of mental experience (nursalam, 2011).

In addition to age there is also experience, experience is the best teacher (experience is the best teacher), the saying can be interpreted that experience is a source of knowledge, or experience is a way to obtain a truth of knowledge. Therefore personal experience can also be used as an effort to gain knowledge. This is done by repeating the knowledge gained in solving problems faced in the past (notoadmodjo, 2010). Another internal factor is education, the higher a person's level of education the more knowledge he has. Conversely the less education will prevent the development of one's attitude towards newly introduced values (nursalam, 2011).

In addition to internal factors there are also external factors namely, information according to long (1996) in nursalam and pariani (2010) information is an important function to help reduce anxiety. Someone who gets information will heighten the level of knowledge of a matter. And the environment according to notoadmodjo (2010), the results of several experiences and observations that occur in the field (community) that a person's behavior includes the occurrence of health behavior, beginning with one's experiences and the presence of external factors (physical and non-physical environment). As well as socio-cultural and economic, habits and traditions carried out by someone without going through reasoning whether what is done is good or not. Economic status also determines the availability of facilities needed for certain activities, so that

socioeconomic status influences one's knowledge (Fitriani, 2015).

In peer groups (peer groups), individuals feel the similarity between one another such as in the fields of age, needs, and goals that can strengthen the group (Lutfiani, 2011). The knowledge provided is an attempt to provide learning experiences and prevent the occurrence of an illness that might occur by opening communication channels, providing information and conducting education to improve knowledge, attitudes, and behavior through a leadership approach (advocacy), community development (social support ) and empowerment. Teenagers can recognize and overcome their own problems and can apply a healthy way of life by maintaining, maintaining and improving their health (Notoatmodjo, 2007).

If menstruation is accompanied by knowledge that is multiplying and true, then teens will respond to menstruation with positive things. And can prevent pruritus vulvae. The lack of knowledge of some students in Islamic boarding schools indicates that they should get information about the prevention of pruritus vulvae. Approaches that can be done include through family, peer groups, school institutions, and youth activity groups who care about puberty. Knowledge can influence Pruritus Vulvae in student in nursing student (Musriani, *et al*, 2019)

#### **The comparison of knowledge prevention before and after a given peer group education on the prevention of menstrual hygiene management of pruritus vulvae teenagers:**

The analysis showed that the majority of respondents experienced an increase in knowledge about the prevention of pruritus vulvae from being sufficient before peer group education to being good after peer group education. Based on the results of testing statistics using Wilcoxon signed rank there are significant differences in the knowledge of prevention of pruritus vulvae before and after peer group education. Judging from the average value that the average pruritus vulvae prevention knowledge after peer group education is higher than the average pruritus vulvae prevention knowledge before peer group education.

The peer group education method can significantly increase pruritus vulvae prevention knowledge because this method has two

advantages in delivering health education messages that are culturally appropriate and easily accepted by the community (easily accepted). Health education often experiences obstacles because of the limited knowledge between educators not in accordance with the objectives of the language security and the logic of the educator does not match the educational goals. In addition, topics that are taboo or are considered shameful are also boundaries between educators and educational goals (unaid, 2007). The topics related to sexuality and menstruation are still seen as taboo and embarrassing topics for teachers to ask. Though most of the time young women are spent at school or cottage. Therefore most of them look for answers to their peers. Therefore the peer group education method can be an effective intervention tool for increasing knowledge (Garg et al, 2012).

This health education method provides a more positive effect. With peers, teens will be more open and easier to communicate compared to parents and teachers. Sensitive and uncomfortable information can be conveyed by peers using language their age. Thus the information is more complete, easily understood, and ultimately the goal can be achieved. Besides that, as peer educators, peers not only provide information but also become role models in healthy behavior (irianto, 2015). This is in accordance with research Amelia (2014), namely peer education increases knowledge of premenstrual syndrome in adolescents. So the above research can be concluded that there is a significant difference in the knowledge of prevention of pruritus vulvae before and after peer group education in adolescents at the Sunan Kalijaga Islamic boarding school.

### Conclusions

Based on the results of the study, it can be concluded that the average knowledge of prevention of pruritus vulvae before the peer group education is done is in the sufficient category, the average knowledge of prevention of pruritus vulvae after the peer group education is in the good category. Wilcoxon test results found that there are significant differences in the prevention knowledge of pruritus vulvae before and after peer group education. Judging from the average value that the average pruritus vulvae prevention knowledge after peer group education is higher

than the average pruritus vulvae prevention knowledge before peer group education. Thus it can be stated that there are significant differences in the knowledge of prevention of pruritus vulvae before and after peer group education.

### References

- Alenazi, AR M, Alshammari, NA M, Albharani, B. A, Alshamarani, SM . 2018. Pruritus Vulva in Adolescent Females in Arar City, KSA. *The Egyptian Journal of Hospital Medicine* (July 2018) Vol. 72 (5), 4423 - 4423.
- Amelina, C, R. 2014. Peer Education Increases Knowledge of Teenage Premenstrual Syndrome. *Brawajaya Medical Journal*. Vol 28 August 2, 2014.
- Fitriani. 2015. Promosi Kesehatan. Yogyakarta : Graha Ilmu.
- Garg.R, Goyal.S, Gupta.S. 2012. Indian Moves Towards Menstrual Hygiene: Subsidized Sanitary Napkins for Rural Adolescent Girls — Issues and Challenges. *Matern Child Health J* (2012) 16: 767–774 DOI 10.1007 / s10995-011-0798-5
- Hurlock, E. B. 2011. Psikologi Perkembangan : Suatu Pendekatan Sepanjang Rentang Kehidupan. Jakarta : Erlangga
- Irianto, K. (2015). Kesehatan Reproduksi (Reproductive Health) Teori dan Praktikum. Bandung : Alfabeta
- Indah, FTN. 2010. *Kejadian Pruritus Vulvae Saat Menstruasi Pada Remaja Puteri*. Website: [Http://Journal.Unair.Ac.Id/Filerpdf/Prutitus%20vulvae.Pdf](http://Journal.Unair.Ac.Id/Filerpdf/Prutitus%20vulvae.Pdf)
- Ministry of Health, Republik Indonesia. 2016. Basic Health Research. RISKESDAS. Jakarta: Balitbang
- Musriani, Suharni A. Fachrin, and Samsualam. 2019. Faktor Prediktor Yang Berpengaruh Terhadap Kejadian Pruritus vulva Mahasiswi Pada Akper Anging Mammiri Makassar. *Window of Health : Journal Kesehatan*, Vol. 2 No. 1
- Luthfiani. 2011. Pengaruh Pendidikan Kelompok Sebaya Terhadap Pengetahuan dan Sikap Remaja Tentang Resiko Penyalahgunaan Narkoba di SMA Kecamatan Helvetia Kota Medan : *Jurnal Fkm Universitas Sumatera Utara*
- Maulana, HDJ. 2014. Promosi Kesehatan. Jakarta : ECG.
- Misery, L. Ständer, S. 2010. Pruritus. London: Springer
- Notoatmodjo, S .2007. Promosi Kesehatan & Ilmu Perilaku. Jakarta : Rineka Cipta
- Notoatmodjo, S .2010. Promosi Kesehatan Teori & Aplikais Edisi Revisi 2010. Jakarta : Rineka Cipta
- Nursalam. 2011. Konsep dan Penerapan Metodologi Penelitian Ilmu Keperawatan. Jakarta: Salemba Medika
- Pythagoras, KC. 2015. Personal Hygiene for Young Women When Menstruation. Department of Public

- Health Promotion, Faculty of Public Health, Retnowuni, A, Devy, SR, Triyoga, RS. 2017. The Effect of Health Education on Hygiene During Menstruation and Personal Hygiene of Santriwati (Female Student) at Boarding School. *Health Notions*, Volume 1 Issue 4 (October-December 2017).
- Rofi'ah, S, Widatiningsih, S, Vitanigrum, D. 2017. Efektivitas Pendidikan Kesehatan Metode Peer Group Terhadap Tingkat Pengetahuan Dan Sikap Personal Hygiene Saat Menstruasi. *Jurnal Ilmiah Bidan*, Vol.II, No.2, 2017
- Airlangga University: Surabaya.
- Sarwono. 2011. Psikologi Remaja, Edisi Revisi. Jakarta : Rajawali Press
- Tony, D. 2011 Penatalaksanaan Pruritus Anogenital. Surabaya : 22 – 23
- UNICEF. 2014. Menstrual Hygiene Management in Schools. [<http://menstrualhygieneday.org/project/infographic-mhm-andsdgs>]
- Wolf K. Johnson RA. Fitzpatric's. (2009). Color atlas and synopsis of clinical dermatology. 6th edition. New York: McGraw Hill; 73-86.