



JNK

JURNAL NERS DAN KEBIDANAN
(JOURNAL OF NERS AND MIDWIFERY)

<http://jnk.phb.ac.id/index.php/jnk>



The Improvement of Reproductive Health Knowledge (Vaginal Discharge and Menstrual Pain) of Women



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Article Information

Abstract

History Article:

Received, 13/12/2020

Accepted, 03/01/2021

Published, 05/04/2021

Keywords:

Reproductive Health, Vaginal Discharge, Menstrual Pain, Health Education

Vaginal discharge and menstrual pain are problems that are often faced by women. Women should be able to distinguish between physiological and pathological vaginal discharge, physiological and pathological menstrual pain. Based on the results of previous studies, most women have insufficient knowledge about vaginal discharge and menstrual pain. Health education is an effort to overcome these problems. The purpose of this study was to determine reproductive health care habits, history of menstrual pain and vaginal discharge, differences in knowledge about reproductive health, especially vaginal discharge and menstrual pain before and after health education was given. This study was a quasi-experimental design with one group pre test-post test. The sample was 27 women in Setan Hamlet, Maguwoharjo, Depok, Sleman who were selected by purposive sampling. The instrument used a questionnaire. The data analysis used paired sample t-test. The results showed that 66.7% had carried out routine genital care, 29.6% routinely used feminine cleansing soap, 25.9% experienced menstrual pain, vaginal discharge as much as 37%. The mean knowledge before health education was 48.70 (SD 23.59), while the mean knowledge after health education was 87.59 (SD 6.84). There is a difference between knowledge about reproductive health before and after health education is given (p -value = 0.000). The conclusion is that health education increases knowledge about reproductive health.

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DOI: 10.26699/jnk.v8i1.ART.p055-063

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P-ISSN : 2355-052X

E-ISSN : 2548-3811

INTRODUCTION

Vaginal discharge is normal, most women and girls experience it. Vaginal discharge is the discharge or mucus that keeps the vagina clean and moisturised and protects it from infection. If the discharge changes in smell, color or texture, then this may be a sign of infection (NHS, 2018).

Based on the research of (Abrori et al., 2017), it is known that there is a significant relationship between knowledge of vulva hygiene and the incidence of pathological vaginal discharge ($p = 0.036$), there was a significant relationship between vaginal cleaning movements and the incidence of pathological vaginal discharge ($p = 0.025$), there was a significant correlation between the use of vaginal cleansers and the incidence of pathological vaginal discharge ($p = 0.002$), there was a significant relationship between the use of tight underwear and the incidence of pathological vaginal discharge ($p = 0.007$).

Based on the results of (Trisnawati, 2018) research, the proportion of respondents with less knowledge who experienced pathological vaginal discharge was 55.1% (27 respondents). Chi-square test results obtained p value = 0.009 (<0.05) which indicates that there is a significant relationship between knowledge and pathological vaginal discharge. From the analysis, it was also obtained that the OR value = 3.244, meaning that women of childbearing age with less knowledge had a 3.244 times chance of experiencing pathological vaginal discharge compared to women with good knowledge.

Menstruation/Period is normal vaginal bleeding that occurs as part of a woman's monthly cycle. Many women experience painful periods called dysmenorrhea. The most common pain is menstrual cramps, which are throbbing pain and cramps in the lower abdomen. You may also experience other symptoms, such as lower back pain, nausea, diarrhea, and headaches. Menstrual pain is not the same as premenstrual syndrome (PMS). PMS causes many different symptoms, including weight gain, bloating, irritability, and fatigue. PMS often starts one to two weeks before menstruation begins (MedlinePlus, 2016).

Menstrual pain affects a person's productivity because pain can interfere with daily activities. Menstrual pain is subjective so that each person has a different assessment. The degree of dysmenorrhea can be measured by measuring the

pain scale. Where each pain has a different level and the greater the pain intensity, the greater the score obtained so that it has the potential to interfere with daily activities (Fadila, 2015)

The results of the research by (Surmiasih & Priyati, 2018) showed that 44 (65.7%) of respondents had poor knowledge of dysmenorrhoea, 29 (43.3%) of respondents had poor knowledge of dysmenorrhoea because they treated dysmenorrhoea in less than 2 attempts. There was a relationship between knowledge about menstruation and efforts to treat dysmenorrhoea (p -value 0.001 <0.05).

Health is the result of the interaction of various factors, both internal and external. Broadly speaking, the factors that affect the health of individuals, groups, communities are environment, behavior, health services and heredity. These four factors influence each other. Education or health promotion is a form of intervention on behavioral factors (Notoatmodjo, 2010).

Low knowledge about vaginal discharge will have an impact on women's inability to recognize normal (physiological) and abnormal (pathological) vaginal discharge. Abnormal vaginal discharge mostly comes from infection. The causes of infection also vary, among others, originate from bacteria, fungi, and parasites. Apart from infection, symptoms of abnormal vaginal discharge can be a sign for a more serious uterine disease, such as cervical polyps, prolapsed submucous uterine myoma, even malignancies such as cervical cancer and so on. If pathological vaginal discharge does not get proper treatment, of course, it will have an impact on more serious health problems. Leucorrhoea has various causes that can cause fertility problems so that it needs to be considered (Nainggolan J, 2019).

Some women experience menstrual pain. Normal menstrual pain can usually be controlled with a heating pad, patch, or pain medication. Inadequate knowledge of menstrual pain can indicate a person's inability to distinguish between normal and abnormal menstrual pain. Whereas abnormal menstrual pain can be caused by the presence of endometriosis, fibroids, and pelvic inflammatory disease which will have an impact on fertility. A woman must be able to recognize signs of abnormal menstrual pain so that she can get proper treatment immediately (Afifah M, 2020).

Based on these problems, this study aims to determine reproductive health care habits, history of menstrual pain and vaginal discharge, differences in knowledge about reproductive health, especially vaginal discharge and menstrual pain before and after health education.

METHODS

The method of this study was a quasi experiment with a one group pre-testpost-test approach. The activity provided a pre-test before being given the treatment, after being given the treatment then it was given the final test (post test). The treatment was the provision of health education on reproductive health (vaginal discharge and menstrual pain). The health education method included lectures, interactive discussions using power point media templates and leaflets. This study was conducted on October 10, 2020. The sample was 27 women from Setan Hamlet who were selected by purposive sampling. The inclusion criteria in this study were being present at the time of the study, willing to be a respondent, follow health education to completion.

The instrument used a questionnaire. The knowledge questionnaire consisted 20 closed statements with the choices True, False, Don't Know. The knowledge of menstrual pain consisted of 10 statements about the meaning, causes, myths, and management of menstrual pain. Knowledge of vaginal discharge also consisted of 10 statements about the meaning, physiological and pathological characteristics of vaginal discharge, myths, prevention and treatment of vaginal discharge. The data analysis used paired sample t-test because the results of the data normality test were that the data were normally distributed. The data normality test with Shapiro Wilk showed the pre-test of knowledge ($p\text{-value} = 0.780 > 0.05$), and the post-test data for knowledge ($p\text{-value} = 0.076 > 0.05$).

RESULT

1. Characteristics of Respondents

Based on Table 1, it is known that the majority of respondents fall into the category of late adulthood (33.3%), secondary education (63%), and married (85.2%). Most of the respondents are not working or as housewives (70.4%).

Table 1 Characteristics of Respondents

No	Variable	Frequency	%
1	Age		
	Late Adolescence (17-25 years)	3	11.1
	Early Adulthood (26-35 years)	4	14.8
	Late Adulthood (36-45 years)	9	33.3
	Early Elderly (46-55 years)	7	25.9
	Late Elderly (56-65 years)	3	11.1
	Seniors (> 65 years)	1	3.7
2	Education		
	Basic	2	7.4
	Intermediate	17	63.0
	High	8	29.6
3	Marital status		
	Single	4	14.8
	Married	23	85.2
Total		27	100

Source: Primary Data

Table 2 Reproductive Health Care Habits

No	Variable	Frequency	%
1	Sports Habits		
	Never	1	3.7
	Not a routine	18	66.7
	Routine	8	29.6
2	History of VIA / Pap Smear test		
	Single	4	14.8
	Never	14	51.9
	Been and have been for more than 3 years	3	11.1
	Been and less than 3 years	6	22.2
3	Drying the genitalia after urinating		
	Never	1	3.7
	Sometimes	8	29.6
	Always	18	66.7
4	Regular use of feminine soap		
	Use	8	29.6
	Do not use	19	70.4
Total		27	100

Source: Primary Data

2. Reproductive Health Care Habits

Based on Table 2, it is known that the majority of respondents did not regularly exercise (66.7%), 51.9% had never made early detection of cervical cancer with the IVA / Pap Smear test, 66.7% had

performed genitalia treatment by drying the genitalia area after urinating with a towel or tissue before using the underwear. The respondents who routinely use feminine cleansing soap are 29.6%.

3. Menstrual and Vaginal Discharge History

Table 3 Menstrual and Vaginal Discharge History

No	Variable	Frequency	%
1	Menstrual Status		
	No Menstruation	9	33.3
	Menstruation	18	66.7
2	History of Menstrual Pain		
	No Pain	11	40.7
	Pain	7	25.9
	No Menstruation	9	33.3
3	History of Vaginal Discharge		
	Vaginal discharge	10	37.0
	No vaginal discharge	17	63.0
4	Made Vaginal Discharge Herb		
	Ever	4	14.8
	Never	23	85.2
5	Made Menstrual Pain Herb		
	Ever	13	48.1
	Never	14	51.9
Total		27	100

Source: Primary Data

Based on Table 3, it is known that 66.7% of respondents were still menstruating, and 25.9% experienced pain during menstruation. Respondents who experienced vaginal discharge were 37%. In addition, it is known that 85.2% of respondents have never made herb to prevent vaginal discharge, 48.1% have never made menstrual smoothing herbs.

4. Knowledge of Reproductive Health

Table 4 Knowledge about Menstrual Pain

Knowledge	Mean	SD	Min	Max
Before	41.85	29.61	0	90
After	85.18	10.87	50	100

Source: Primary Data

Based on Table 4, it is known that the mean knowledge of respondents before health education is 41.85 (SD 29.61) with a minimum value of 0 and

a maximum of 90, while the mean knowledge of respondents after health education is 85.18 (SD 10.87) with a minimum value of 50 and maximum of 100. The increase in the mean value of knowledge was 43.33.

Table 5 Knowledge about Vaginal Discharge

Knowledge	Mean	SD	Min	Max
Before	55.76	21.57	0	90
After	90	9.61	70	100

Source: Primary Data

Based on Table 5, it is known that the mean knowledge of respondents before health education is 55.76 (SD 21.57) with a minimum value of 0 and a maximum of 90, while the mean knowledge of respondents after health education is 90 (SD 9.61) with a minimum value of 70 and a maximum of 100. The increase in the mean value of knowledge was 34.24.

Table 5 Knowledge about Reproductive Health (Menstrual Pain and Leucorrhoea)

Knowledge	Mean	SD	t hitung	p-value
Before	48.70	23.59	-8.997	0,000*
After	87.59	6.84		

*paired samples t-test

Source: Primary Data

The mean of respondents knowledge before health education was 48.70 (SD 23.59), while the mean of respondents' knowledge after health education was 87.59 (SD 6.84). There is an increase in the mean value of knowledge by 38.89. From the results of the paired sample t-test, it is known that the t count is -8.997, indicating that the knowledge before health education is smaller than after health education. While a short reading is based on significance value (p), where the value of $p = 0.000$ (<0.05) then H_0 is rejected, meaning that there is an average difference between the value before health education and after health education.

DISCUSSION

1. Reproductive Health Care Habits

At the time of the pre-test, data was collected about reproductive health care habits and it was

known that 51.9% of women had never had early detection of cervical cancer with the VIA / Pap Smear test. According to (Darmawati, 2010), signs and symptoms of cervical cancer in the form of fluoralbus (vaginal discharge) are a symptom that is often found, the sap that comes out of the vagina will smell foul due to infection and tissue necrosis. Early detection that can be done in cervical cancer, among others, is done by means of a Pap smear and examination with a VIA (Visual Inspection of Acetic Acid). The results of this study were also supported by (Wantini & Indrayani, 2019), where as many as 92.3% of women did not take VIA tests in the last 3 years. Based on these data, it can be concluded that it is very important for a woman to be able to differentiate between normal and abnormal vaginal discharge and to carry out early detection of cervical cancer regularly.

The results of this study showed that 66.7% had done genitalia treatment by drying the genitalia area after urinating with a towel or tissue before using underwear. However, there are still 33.7% of respondents who have not carried out optimal genetic care. In fact, one of the efforts to prevent vaginal discharge is to maintain genitalia cleanliness. As the results of (Arismaya et al., 2016), show that there is a significant relationship between genitalia care and the incidence of vaginal discharge in students of Al ImanSumowono Islamic Boarding School with a p value ($0.012 < 0.05$). This is in line with (Purnasari, 2018)research, which shows that most respondents have unhygienic reproductive behavior (66.04%) and experience pathological vaginal discharge (75.58%). Chi square correlation test shows p-value 0.03276 and PR 1.491, which means that unhygienic hygiene genetals have a 1.5 times greater risk of experiencing pathological vaginal discharge compared to subjects with hygienic hygiene genitalia behavior.

The respondents who routinely use feminine cleansing soap are 29.6%. Inappropriate use of feminine cleansing soap will have a negative impact on genitalia. This is in accordance with the results of research by (Mariza et al., 2015), which states that there is a relationship between the cleanliness of female organs and the incidence of vaginal discharge ($p = 0.002$, $OR = 13.490$), the use of feminine cleansing soap and the incidence of vaginal discharge ($p = 0.000$, $OR = 22,000$). Respondents who still routinely use feminine cleansing soap for practical reasons or easy to obtain. This could be

due to the respondents' lack of knowledge regarding the impact of using feminine cleansing soap. Such as the results of research by (Shanti & Desy, 2018), which show that the knowledge of young women is in the poor category (53.3%). The influencing factor is the lack of information sources about the impact of using feminine cleansing soap. Young women think that the use of feminine cleansing soap can be used daily to be free from vaginal discharge and unpleasant odors in female organs without thinking about the long-term impact. The impact is that it can kill good bacteria and erode doderlein bacteria and other bacteria will more easily enter the vagina.

Based on Table 2, it is known that the majority of respondents did not regularly exercise (66.7%). This is very unfortunate, because regular exercise has benefits in reducing menstrual pain. Based on the research results of (Cahyaningtias & Wahyuliati, 2007), it is shown that exercise has an effect in reducing the degree of pain in women with dysmenorrhea. There was a significant reduction in the degree of pain where women who did not exercise experienced greater pain than those who did sports, and after exercising, the degree of pain in women who did not exercise had a very significant decrease with p value = 0.001 (0.05) . This is also clarified by the research results of (Sugiharti & Sumarni, 2018)which show that there is a relationship between exercise habits and the incidence of primary menstrual pain in adolescents which is indicated by a p value of 0.02.

2. Menstrual and Vaginal Discharge History

Based on Table 3, it is known that 66.7% of respondents were still menstruating, and 25.9% experienced pain during menstruation. The results of the study by (Grandi et al., 2012)showed that menstrual pain was reported by 84.1% of women, with 43.1% reporting that pain occurred during each period, and 41% reported that pain occurred over multiple periods. According to (Larasati, T. A. & Alatas, 2016), dysmenorrhea is abdominal pain that comes from uterine cramps that occur during menstruation. Dysmenorrhea is divided into primary dysmenorrhea and secondary dysmenorrhea. Primary dysmenorrhea is menstrual pain that is not based on a pathological condition, while secondary dysmenorrhea is menstrual pain that is based on a pathological condition such as the discovery of endometriosis or ovarian cysts. In some literature the risk factors that are often associated with

dysmenorrhea are early age menarche, family history of dysmenorrhea complaints, abnormal body mass index, habit of eating fast food, duration of bleeding during menstruation, exposure to cigarette smoke, coffee consumption and alexythimia.

Based on the research conducted, it is known that as many as 7 people who experience dysmenorrhoea are distributed in the late adolescence (28.6%), early adulthood (42.9%), late adulthood (14.3%) and early elderly (14.3%). It can be concluded that the older a person is, the less incidence of dysmenorrhoea. Based on marital status, it is known that out of 4 unmarried people, 3 (75%) have dysmenorrhoea. Meanwhile, of the 14 people who were married and still menstruating, there were 4 people (28.57%) who had dysmenorrhea. The results of this study are in line with the research of (Novia & Puspitasari, 2008) show that the variables that affect the incidence of primary dysmenorrhea are age and marriage. The incidence of primary dysmenorrhea is very much influenced by the age of the woman. The pain that is felt a few days before menstruation and during menstruation is usually due to increased secretion of the hormone prostaglandin. The older a person is, the more frequent menstruation and the wider the cervix, the less secretion of prostaglandin hormones will be. Marriage and having had sexual intercourse have a risk of 8,409, which means that women who have been married (have sex) are 8.409 times less likely to develop primary dysmenorrhea than women who are not married and have never had sex. The decrease in the incidence of primary dysmenorrhea in those who have been married is caused by the presence of the husband's sperm in the reproductive organs which has natural benefits to reduce the production of prostaglandins or hormone-like substances that cause the uterine muscles to contract and stimulate pain during menstruation. So marriage, marked by sexual intercourse and sperm entering the uterus, can inhibit the increase in prostaglandins to reduce menstrual pain. In addition, another reason is because during sexual intercourse the uterine muscles contract, which causes the cervix to become wide.

Based on the results of the study, it was found that 48.1% had never made menstrual smoothing ingredients. Even though based on a literature study conducted by (Widiatami et al., 2018), it is known that to reduce complaints during menstrual pain, what can be done is to consume herbs or herbal

medicine, namely tamarind turmeric drink consumed during menstruation, 2 times a day as much as 1 cup in morning and evening after meals. Sour turmeric drink is a drink that is processed with the main ingredients of turmeric and tamarind. Naturally, turmeric is believed to contain active ingredients that can function as analgesics, anti-pyretics and anti-inflammatory properties, as well as tamarind (tamarind) which has active ingredients as anti-inflammatory, antipyretic and sedative. This is reinforced by the research of (Wulandari et al., 2018), which states that herbal products or phyto-pharmacy can be used as the main alternative for women who want to reduce dysmenorrhoea pain without getting side effects, one of which is turmeric-based drinks. To treat dysmenorrhoea you can use turmeric or the Latin name *Curcuma Longa* Linn. The content of phenolic compounds in turmeric is believed to be used as an antioxidant, analgesic, anti-microbial, anti-inflammatory. More specifically, the curcumine content in turmeric can inhibit the cyclooxygenase (COX) reaction so that it can inhibit and reduce inflammation and will reduce and inhibit uterine contractions that cause menstrual pain.

The results of this study showed that women who experienced physiological vaginal discharge were 37%. According to (Marhaeni, 2016), vaginal discharge in women can be divided into 2 types, namely physiological and pathological vaginal discharge. Physiological vaginal discharge occurs according to the menstrual cycle and pathological vaginal discharge caused by microorganisms, both bacteria, fungi and parasites. The impact that arises from vaginal discharge is discomfort in women and a serious consequence is infertility.

The results of this study also showed that 85.2% of respondents had never made a potion to prevent vaginal discharge. In fact, many native Indonesian medicinal plants can be used as traditional medicines. According to Peraturan Badan Pengawas Obat Dan Makanan Nomor 32 Tahun 2019 concerning safety and quality requirements for traditional medicines, it is known that traditional medicines are ingredients or ingredients in the form of plant ingredients, animal ingredients, mineral substances, galenic preparations or a mixture of these ingredients that have been passed down from generation to generation used for treatment, and can be applied in accordance with the norms prevailing in society. According to the Kementerian Kesehatan

RI (2015), boiled water with warm betel leaves is used to clean vaginal discharge by splashing it into the female area and doing it twice a day until it heals.

The results of research by (Suwanti & Koto, 2016) show that before consuming soursop, all respondents with vaginal discharge, after consuming soursop as many as 23 people (76.7%) recovered from leucorrhoea with the fastest time on day 5 and the longest day 14. This shows that Soursop leaves affect the incidence of vaginal discharge. The results of this study are in line with the research of (Fitria et al., 2020), which showed that there was a significant difference in the reduction of vaginal discharge between giving boiled manjakani seeds and red betel stew which was statistically significant with a value of $p = 0.001$ ($p < 0.05$). The decrease in median percentage of vaginal discharge complaints in the treatment group of Manjakani leaves was higher than that of the red betel group (80% vs 66.7%).

3. Knowledge of Reproductive Health

The results showed that the mean knowledge of respondents before health education was 48.70 (SD 23.59), while the mean knowledge of respondents after health education was 87.59 (SD 6.84). From the results of the paired sample t-test, it is known that the t count is -8.997, indicating that the knowledge before health education is smaller than after health education. While the value of $p = 0.000$ (< 0.05), then H_0 is rejected, meaning that there is an average difference between the values before health education and after health education. The results of this study are in line with the research of (Ningsih et al., 2017), which shows that there is an increase in knowledge of 10,267, where the t-count is $-12,641 > t\text{-table}(1,699)$, the significance value of $p = 0.001$. There is an effect of health promotion on dysmenorrhea on increasing knowledge of young women. This research is also in line with (Yulfitria, 2017) research, which shows that health education through leaflet media and power point slide media can increase knowledge about the prevention of pathological vaginal discharge.

In this study, health education was conducted using lectures and interactive discussions using power point media and leaflets. According to Notoatmodjo (2012), based on research by experts, the senses that transmit the most knowledge into the brain are the eyes. Approximately 75% to 87%

of human knowledge is obtained and transmitted through the eye. While the other 13% to 25% are channeled through other senses. From this, it can be concluded that the leaflet and power point slide media are good health promotion supporting media to be used and proven to be able to increase knowledge.

The increase in knowledge before and after health education is of course also influenced by the characteristics of respondents, including age and education. This is in accordance with the theory of Notoatmodjo (2012), which states that the higher a person's education, the easier it is to receive information. The more old enough someone will be more mature in thinking. The results showed that the majority of respondents were secondary education (63%) and were in the late adulthood category (33.3%).

The results of this study are also in line with the research of (Rahman, 2018), it is known that there was an increase in the average value after counseling, the average value before counseling was 8.93 and after counseling was 11.37 and the $p\text{-value} = 0.000$ ($p\text{-value} < 0.05$), it can be concluded that there is a significant difference between the pre-test and post-test knowledge values for counseling on increasing the knowledge of students about vaginal discharge.

CONCLUSION AND SUGGESTION

CONCLUSION

The majority (51.9%) of women had never had early detection of cervical cancer with VIA / Pap Smear test, 66.7% had undergone genitalia hygiene care, but 29.6% of women still routinely used feminine cleansing soap. Women who experienced vaginal discharge were 37%, and experienced menstrual pain as much as 25.9%. In addition, it is known that 85.2% of respondents have never made a potion to prevent vaginal discharge, 48.1% have never made a menstrual smoothing ingredient. Health education is effective in increasing reproductive health knowledge. There is an increase in the mean value of knowledge by 38.89.

SUGGESTION

Setan Hamletwoman are expected to routinely detect cervical cancer with VIA / Pap Smear test, be more selective in choosing and reduce routine use of feminine cleansing soap. It is recommended

for women to make herbal concoctions that are proven to be efficacious in improving reproductive health. Health education can then be applied to skills improvement programs in the use of natural materials for reproductive health.

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