# KNOWLEDGE OF STUDENTS ABOUT NON-PHARMACOLOGICAL THERAPY OF THE EFFECTIVENESS OF GREEN BETEL LEAF DECOCTION ON THE INCIDENCE OF VAGINAL DISCHARGE

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### **ABSTRACT**

Vaginal discharge is one of the problems that is still a problem for most women. Symptoms of vaginal discharge are most often found in gynecological patients; this symptom is known by the patient because of the presence of secret soiling in her pants. Betel leaf decoction can be used to wash the vagina in order to reduce vaginal discharge. The content of betel leaves is essential oil. The content contained in essential oils, one of which is the eugenol compound,. This study used a cross-sectional analytic survey method. The sample in this study were 88 students in the D-III Midwifery study program. Data analysis used in this study is univariate analysis, which describes the dependent variable and the independent variable in order to obtain a description or characteristic of the sample by making a frequency distribution table, and bivariate analysis is used for two variables that are suspected to be related or correlated. The results of the study were obtained from 88 respondents who experienced vaginal discharge, as many as 57 respondents with good knowledge (89.1%), while those who did not experience vaginal discharge were 14 respondents with poor knowledge (58.3%). The results of the Chi-Square statistical test showed that there was a significant relationship between the knowledge of college students about non-pharmacological therapy and the effectiveness of green betel leaf decoction against vaginal discharge, with a p value of 0.02. It is recommended that further research examine the extent of the effectiveness of betel leaf decoction water in treating vaginal discharge.

**Keywords**: knowledge, vaginal discharge, green betel leaf

## 1. INTRODUCTION

Vaginal discharge is one of the problems that is still a problem for most women. There are still many Indonesian women who do not know what vaginal discharge is or what causes it. Pathological vaginal discharge cannot be considered an ordinary problem; if it is not treated properly and continuously, it will have fatal consequences that can cause ectopic pregnancy (pregnant outside the womb), infertility, inflammation, pelvic disease, and sexually transmitted diseases such as chlamydia<sup>1</sup>.

Vaginal discharge characterized by the presence of discharge in addition to excess

blood through the vaginal opening<sup>2</sup>. The symptom of vaginal discharge is most often found in gynecological patients; the presence of this symptom is known by the patient because of the presence of secret soiling in her pants<sup>3</sup>.

Vaginal discharge is a common symptom that most women experience<sup>4</sup>. A condition known as vaginal discharge occurs when the vagina secretes mucus or pus that is thought to be germ-related. Vaginal discharge can occasionally be colored, smelly, and itchy.<sup>5</sup>.

The risk of vaginal discharge in women can be experienced at various ages, where women of childbearing age have a

higher risk of vaginal discharge than in adolescence. This happens because in women of childbearing age there is often a PID (pelvic inflammatory disease). The fertile period of women begins with menarche, or menstruation, until the cessation of menarche or menstruation (menopause)<sup>6</sup>.

Reproductive health, according to the World Health Organization (WHO), is a comprehensive healthy condition from various aspects, both mental, physical, and social, not only free from various diseases or weaknesses but also from various things related to reproductive organs, processes, and functions. According to Astuti et. al., reproductive organs are one of the most sensitive organs of the body and require special care. Reproductive organ health starts with maintaining personal hygiene, including vaginal hygiene, which aims to keep the vagina clean, healthy, normal, and free of disease. One of the reproductive health problems in adolescents is vaginal discharge, or Flour Albus<sup>7</sup>.

According to the WHO in 2018, about 75% of women in the world will experience vaginal discharge at least once in their lifetime, and as many as 45% will experience it twice or more, while women in Europe who experience vaginal discharge are 25% 8.

The incidence of vaginal discharge in Indonesia is increasing every year. Based on BKKBN data, in 2016, as many as 50% of Indonesian teenagers had experienced vaginal discharge; in 2017, it increased to 60%; and in 2018, it increased to 70% of Indonesian women having experienced vaginal discharge at least once in their lives<sup>9</sup>.

Based on data from the South Sumatra Provincial Health Office in 2015, the number of adolescent girls is 2.9, aged 15–24, of whom 45% have experienced Flour Albus. For patients who are sick at an advanced stage, this cervical cancer begins with flour albus, which is not treated for a long time.

Betel leaf decoction can be used to wash the vagina to reduce vaginal discharge. The content of betel leaves is essential oil. One of the contents contained in essential oil is the eugenol compound. The compound can kill the Candida albicans fungus, which is the fungus that causes vaginal discharge. In addition to the eugenol compound, there is a tannin compound, which is an astringent that can reduce fluid secretion in the vaginal canal<sup>10</sup>.

Based on data obtained randomly from students of the D-III Midwifery Study Program of STIKes Al Ma'Arif Baturaja in November 2022, it was found that there were 12 students who experienced vaginal discharge, while as many as 5 students experienced vaginal discharge (abnormal), and for the knowledge of students who experienced vaginal discharge about the benefits of green betel leaf decoction on vaginal discharge, as many as 8 students knew and 9 students did not know.

Based on the incidence of vaginal discharge found in the D-III Midwifery Study Program, the researcher is interested in conducting a study entitled The relationship between student knowledge about non-pharmacological therapy and the effectiveness of green betel leaf boiled water against vaginal discharge in D-III Midwifery Study Program students of STIKes Al-Ma'arif Baturaja.

## 2. METHOD

This study used a cross-sectional analytic survey method. The population in this study was 88 students in the D-III Midwifery study program. Research samples that are studied and considered representative of the entire population are called research samples. The sample in this study were all students of the midwifery D-III study program at STIKes Al Ma'Arif Baturaja in 2022, totaling 88 people. The location of this research was carried out at STIKes Al Ma'Arif Baturaja in 2022, conducted in November 2022. Data

collection techniques were obtained from all female students of STIKes Al Ma'Arif Baturaja using research instruments in the form of questionnaire sheets.

The data analysis used in this study, namely, univariate analysis, describes the dependent variable and the independent variable in order to obtain an overview or sample characteristics by making a frequency distribution table, and bivariate analysis is used for two variables that are suspected of being related or correlated. Data analysis was carried out using the Statistical Package for Social Science (SPSS) program. So that it is meaningful if the p value is  $\leq 0.05$  and not meaningful if the p value is > 0.05.

#### 3. RESULTS

The research results are presented in the table below:

Table. 1: Incidence of Vaginal Discharge of Student in the D-III Midwifery Study Program of STIKes Al Ma'Arif Baturaja

No	Vaginal Discharge	frequency	%
1	Yes	71	80.7
2	No	17	19.3
Total		88	100.0

The results in Table. 1 above show that of the 88 respondents who experienced vaginal discharge, there were 71 (80.7%), while respondents who did not experience vaginal discharge were 17 (19.3%).

Table. 2: Knowledge of college students about non-pharmacological therapy and the effectiveness of green betel leaf decoction in overcoming vaginal discharge

No	Knowledge	frequency	%	
1	Good	64	72.7	
2	Less	24	27.3	
Total		88	100.0	

Based on Table. 2, of the 88 respondents whose level of knowledge is good, there are 64 (72.7%) and those with less knowledge are 24 (27.3%).

Table. 3: Student's Knowledge about Nonpharmacological Therapy for the Effectiveness of Green Betel Leaf Decoction on Vaginal Discharge

	Knowledge		Vaginal Discharge				%	p value
No		Yes			No			
		F	%	F	%	_		
1.	Less	14	58.3	10	41.7	24	100	
2.	Good	57	89.1	7	10.9	64	100	0.02
Jumlah		71	80.7	17	19.3	88	100	

According to Table 3, of the 88 respondents who disclosed vaginal discharge, 57 (89.1%) had good knowledge of those who did not disclose vaginal discharge, while 14 (58.3%) had poor knowledge. A significant correlation (p = 0.02) has been observed between college students' knowledge of the efficaciousness of green betel leaf decoction as a non-pharmacological therapy for vaginal discharge and their knowledge of the Chi-Square statistical test results.

#### 4. DISCUSSION

From the results of the research that has been carried out, it was found that out of 88 respondents who experienced vaginal discharge, there were 71 (80.7%), while respondents who did not experience vaginal discharge were 17 (19.3%). The results of the Chi-Square statistical test show that there is a significant relationship between the knowledge of college students about non-pharmacological therapy and the effectiveness of green betel leaf boiled water against vaginal discharge, with a p value of 0.02.

Knowledge is the result of human sensing, or is the result of someone knowing the object of his senses. Naturally, knowledge will be influenced by how often people receive objects, both from attention and from perception. Seseornag's knowledge can be obtained through the senses of sight and hearing<sup>11</sup>.

Vaginal discharge is one of the reproductive health disorders, especially in women. Vaginal discharge is characterized by discharge other than blood from the vaginal opening out of habit, including odor or not, and itching in the vaginal area. The presence of white fluid, and if a laboratory examination does not show any Physiological abnormalities. vaginal discharge basically does not require treatment, but if you experience vaginal discharge continuously, you must immediately consult a health worker discharge can be traditionally using materials that are easy to obtain, one of which is betel leaf cooking water<sup>12</sup>.

Betel leaf decoction can be used to wash the vagina to reduce vaginal discharge. The content of betel leaves is essential oil. One of the contents contained in essential oil is the eugenol compound. The compound can kill the Candida albicans fungus, which is the fungus that

causes vaginal discharge. In addition to the eugenol compound, there is a tannin compound, which is an astringent that can reduce fluid secretion in the vaginal canal<sup>10</sup>.

Darma, M., Yusran, S., & Fachlevy, A.F. 2017 research on betel leaf decoction revealed a significant correlation between knowledge and the incidence of vaginal discharge (p value = 0.009)<sup>13</sup>. Baety, D.N., Rivanti, E., & Astutiningrum, D. In 2019, in his research, it was found that washing with green betel leaf decoction water helped overcome vaginal discharge<sup>7</sup>. Research conducted by Widayati, T.E., and Wulandari, P. In 2021, it was found that betel leaf decoction was effective in reducing vaginal discharge<sup>14</sup>. Likewise, research conducted by Oktova, R. In 2016, it was found that there was a significant relationship between knowledge and the attitude of adolescent girls about betel leaf decoction in overcoming vaginal discharge  $(p value = 0.002)^{15}$ .

The frequency with which someone is familiar with the information offered or frequently encounters it affects their level of knowledge. It is evident from the lack of information regarding non-pharmacological treatment of vaginal discharge that adolescents know less about using decoctions made from green betel leaves to treat the condition. An individual will find it easier to absorb and apply knowledge the more frequently they are exposed to it.

## 5. CONCLUSION

There is a significant relationship between student knowledge about non-pharmacological therapy and the effectiveness of green betel leaf decoction against vaginal discharge, with a p value of 0.02. It is recommended that further research examine the extent of the

effectiveness of betel leaf decoction water in treating vaginal discharge.

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