

# The Effectiveness Of Between Leaves Booked Water For Overcoming Leucorrhoea In Grade X Adolescents At Hafsyah Medan Health Vocational School In 2021

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## ABSTRACT

Reproductive organs are organs that are sensitive and require special care. The health of the reproductive organs begins with maintaining personal hygiene, including keeping the vagina clean, healthy, normal and free from disease. One of the reproductive health problems in young people is vaginal discharge (flour albus). The purpose of the study was to determine the effectiveness of betel leaf boiled water to treat vaginal discharge in class X adolescents at the Hafsyah Health Vocational School in Medan in 2021. This type of research was a pre-experimental design study with the one group pretest-post test method. The results of the study Before being given boiled water of betel leaf there were the majority of teenagers who experienced vaginal discharge with an abnormal scale of 20 Orang respondents (100%). After being given boiled water of betel leaf, there were the majority of teenagers with a normal scale of 20 respondents (100%). The T test was carried out in the control group before being given boiled water for betel leaves and after being given boiled water for betel leaves, there was a value of -2.517 with a p-value of 0.021. So it can be concluded that there is an effect of betel leaf boiled water to overcome vaginal discharge in class X adolescents at SMK Kesehatan Hafsyah Medan, with a T test result of -2.517 and a p value of 0.021.

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## 1. Introduction

Reproductive organs are organs that are sensitive and require special care. The health of the reproductive organs begins with maintaining personal hygiene, including keeping the vagina clean, healthy, normal and free from disease. One of the reproductive health problems in adolescents is vaginal discharge (Flour Albus). (Astuti et al 2018).

The supporting factors that cause vaginal discharge are (normal) and pathological (abnormal) factors. Physiological factors (normal) vaginal discharge which is influenced by ovulation, before menstruation, sexual and emotional stimulation. While the fatological factors (abnormal) are caused by infections, bacteria, parasites, fungi, and viruses, Trichomonas vaginalis, vaginal bacteria, syphilis, Candida albicans gonorrhoea (Andayani et al 2017).

According to the World Health Organization (2010) that around 75% of women in the world will experience vaginal discharge at least once in their lifetime, and as many as 45% will experience vaginal discharge twice or more, while European women experience vaginal discharge 25%.

WHO in Pusdantin (2012) the age range of adolescents is 10-19 years old, according to the Regulation of the Minister of Health of the Republic of Indonesia number 25 of 2014. Adolescents are the Population and Family Planning (BKKBN) range, the age range of adolescents is 10-24 years and is not married. According to the population census, the number of the 10-19 year age group in Indonesia is 43.5 million or 18% of the total population.

In Indonesia, 75% of women have experienced vaginal discharge at least once in their lifetime

and 45% of them have experienced vaginal discharge twice or more. Conditions like this are usually prevented by doing good vulvar hygiene. While this itself is a behavior that must be familiarized by each individual and accompanied by knowledge. Health workers have an important role to play in educating the public about the importance of good hygiene to prevent vaginal discharge through counseling. (Magfiroh, 2010)

The Ministry of Health of the Republic of Indonesia (2015), explains that vaginal discharge is a symptom or often experienced by women. Vaginal discharge (flour ablus, leukorhea, vaginal discharge) is a term for discharge from a woman's genitalia that is not blood. Under normal circumstances, the discharge is mucus or a clear, odorless and inconspicuous, and slightly sticky, liquid. In pathological conditions, there is a change in genital fluid in amount, consistency, color, and odor.

Many are done by the community to reduce the occurrence of vaginal discharge, including pharmacology (doctor's drugs), non-pharmacology such as: changes in behavior, personal hygiene, psychology, and consuming herbal products that achieve their efficacy. The use of natural ingredients as herbal medicines is considered safer, because of the side effects that are not harmful to the body than modern drugs (Sari, 2012).

The content of green betel leaf (piper betle.l) is very good for treatment, there are several ingredients contained in green betel leaf including astri oil, sugar and anti-fungal. Because of the very rich content, betel leaves are often used in traditional medicine to treat various diseases such as: swollen gums, vaginal discharge, canker sores, dengue fever, smooth menstruation, asthma, sore throat, eliminating armpit odor, and nosebleeds (Anderato, 2015).

One of the plants that is often used as an alternative to parse vaginal discharge is betel leaf, in addition to many around the home environment, green betel leaf is often used because of the risk of harmless side effects. In general, the content of betel leaf has active chemical compounds such as polyphenols, alkaloids, steroids, saponins, and tannins (Hanayani 2017).

Based on research by Eykman (1885, in the 2010 edition), one-third of these essential oils consist of phenol and most of it is kavikol. Kavikol is what gives the betel leaf its distinctive smell and has five times the bacteria-killing power of ordinary phenol. In addition, betel leaf can also relieve itching, while euganol can kill the fungus that causes vaginal discharge and is analgesic.

Based on the results of an initial survey conducted by researchers at the Hafsyah Health Vocational School in Medan, researchers conducted direct interviews with young women, it was found that 20 class X students experienced vaginal discharge, and some of them used pantyliners when experiencing vaginal discharge.

Based on the above background, the authors are interested in conducting research on "The Effectiveness of Betel Leaf Boiled Water To Overcome Leucorrhoea in Class X Teenage Girls at Hafsyah Health Vocational School Medan in 2021".

## 2. Method

This type of research is *"pre-experimental design"*, because this design is not yet a real experiment. Because there are still external variables that also influence the formation of the dependent variable. The population in this study is 20 students who have vaginal discharge problems. The sampling technique used total sampling technique.

## 3. Results and Discussion

### Research result

#### Univariate Analysis

Characteristics of respondents from 20 female students who became respondents at the Hafsyah Health Vocational School in Medan.

TABLE 1  
FREQUENCY DISTRIBUTION BASED ON CHARACTERISTICS OF RESPONDENTS

No	Characteristics	F	%
1	Age		
	16 years	9	45
	17 years	6	30
	18 years	5	25

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	<b>Amount</b>	<b>20</b>	<b>100</b>
2	Education		
	SMK	20	100
	<b>Amount</b>	<b>20</b>	<b>100</b>

Based on the data above, it is known that there are 9 respondents aged 16 years (45%), respondents aged 17 years are 6 people (30%), and respondents aged 18 years are 5 people (25%), and all respondents are 20 people (100%) are students of the Hafsyah Health Vocational School in Medan and have the status of a student

TABLE 2  
FREQUENCY DISTRIBUTION OF RESPONDENTS EXPERIENCING VAGINAL DISCHARGE

Experiencing Leucorrhoea	Frequency	Percentage
Yes	20	100
Not	-	-
<b>Amount</b>	<b>20</b>	<b>100</b>

Based on the data above, the majority of 20 respondents stated that they had vaginal discharge (100%).

TABLE 3  
FREQUENCY DISTRIBUTION OF VAGINAL DISCHARGE CATEGORY BEFORE AND AFTER INTERVENTION

No	Intervention	Category	F	%
1	Before	Normal	0	0
		Abnormal	20	20
	<b>Amount</b>	<b>20</b>	<b>100</b>	
2	After	Normal	20	100
		Abnormal	0	0
	<b>Amount</b>	<b>20</b>	<b>100</b>	

Based on the data above, it is known that before using betel leaf decoction therapy, the majority of respondents experienced vaginal discharge in the abnormal category as many as 20 people and after being given vaginal discharge in the normal category.

## Bivariate Analysis

TABLE 4  
BIVARIATE ANALYSIS OF VAGINAL LEVELS CATEGORY BEFORE AND AFTER BEING GIVEN THE INTERVENTION

Intervention	mean	N	SD	SE	Pvalue
Before	1.50	20	0.44	0.099	0.021
After	1,750	20			

Based on the data above, it is known the mean value of each variable. Where this value is obtained by adding up all the data on each variable and then dividing by the number of data, which is 20. It is known that the average value before using betel leaf stew is 1.50 and after using betel leaf stew it is 1.75. The output above shows the results of the correlation test or the relationship between the two. The resulting significance value for this test is 0.021. Because the value of Sig. < probability 0.05, it can be said that there is a relationship between before using betel leaf stew and after using betel leaf stew.

## Discussion

### The Effectiveness of Betel Leaf Decoction in Overcoming Leucorrhoea in Teenagers

The results of the T-test, where the P value is  $0.021 < 0.05$ . This means that the incoming hypothesis ( $H_0$ ) is rejected and  $H_a$  is accepted, which means that there are changes experienced by respondents before drinking betel leaf stew and after drinking betel leaf stew. According to the theory Koensoemardiyah (2010) states that in the betel leaf there is an essential oil that contains compounds that have strong anti-bacterial properties, which are referred to as "kavikol" and "kavibetol". Anti-bacterial is also found in betel stew in water. Betel leaf in traditional medicine is usually used for first aid in first aid in daily medicine, especially as an antiseptic.

This betel leaf decoction is efficacious against vaginal discharge caused by the betel leaf content, namely kavikol, phenol, eugenol, and astrigen. Kavikol has the power to kill bacteria five times that of ordinary phenol, astrigen can reduce vaginal secretions, while eugenol can kill the fungus that causes vaginal discharge (Isti, 2010).

This study has similarities with the research conducted by Nora Hesvita Sari (2011) in the Work Area of the Umban Sari Health Center, Pekanbaru, with a quasi-experimental research design with a "nonequivalent control group" design. The number of samples in this study were 30 people, namely 15 experimental group and 15 control group using the Wilcoxon test. times a day for a week, the difference is that the research that researchers have done at the Poltekkes campus of the Riau Ministry of Health does not use a control group and the betel leaf boiled water is given by drinking.

This research is also supported by the research that has been carried out previously by Septriana Putri, Aziz Djamal, Rahmatini and Cimi Ilmiwati (2015) in Padang, to determine the comparison of the inhibitory power of Povidone Iodine Antiseptic Solution with Betel Leaf Extract against *Candida albicans* which causes vaginal discharge problems internally. *Vitro*. The study was conducted on five isolates of *Candida albicans* fungus with aquadest control solution. It was found that Povidone iodine Antiseptic Solution had an inhibitory effect on the fungus *Candida albicans*. Betel leaf extract with a concentration of 20% also has an inhibitory power against the fungus *Candida albicans*. Statistical analysis with Anova test followed by Post-hoc test showed a significant difference between the inhibitory power of povidone iodine solution and 20% betel leaf extract against the control ( $p < 0.05$ ). From this study it can be concluded that a solution of povidone iodine and 20% betel leaf extract can inhibit the growth of the fungus *C. albicans* that causes vaginal discharge *in vitro*.

Other research that is in line with this research has also been carried out by Wayan Mustika, Putu Susi, Ni Putu Yuniarti (August, 2012) in Denpasar, with the type of experimental research using a pre-post design is an experimental method without using a control group with one group pre and one group. post test with a sample of 20 respondents with inclusion criteria who were then given treatment by applying betel leaf boiled water to the female area and observed. Of the 20 respondents who experienced vaginal discharge after being given the treatment and observed the results showed that those who did not experience vaginal discharge were 95% (19 respondents) and 5% (1 respondent) still experienced vaginal discharge.

According to research I did at the Hafsyah Health Vocational School in Medan, before being given boiled water for betel leaves, on average, 20 women experienced vaginal discharge. And after being given boiled water, the young betel leaves no longer experience vaginal discharge. So, the research that has been carried out at the Hafsyah Health Vocational School Medan Class X is by giving betel leaf decoction to treat vaginal discharge.

## Conclusion

From the results of research on "Effectiveness of Betel Leaf Decoction Against Leucorrhoea in Adolescents at Hafsyah Health Vocational School in Medan", then the data processing of answers from questionnaires that have been filled out by respondents was carried out, using the paired T-test, the following results were found Before Using Betel Leaf Decoction The majority of respondents experienced vaginal discharge as many as 20 people (100%). After Using Betel Leaf Boiled Water The majority of respondents who did not experience vaginal discharge were 20 people (100%) The Effect of Using Betel Leaf Boiled Water To Overcome Leucorrhoea The results of the statistical t-test, where the P value is  $0.021 > 0.05$ . This means that the hypotitis that enters  $H_0$  is rejected and  $H_a$  is accepted which means that it is cloudy between using betel leaf boiled water to treat vaginal discharge.

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