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The Effect of Betel Leaf Decoction on Reducing Vaginal Discharge Symptoms in Adolescent Girls at Mts Madinatunnajah, Cirebon City

Laily Rachmawati[1], Nana Fitriana[1], Aprilya Tunggo Dewi[2]
[1]*Politeknik Kesehatan Bhakti Pertiwi Husada, Cirebon, Indonesia*
[2]*Akademi kebidanan Ar-Rahma Pasuruan, Pasuruan, Indonesia*

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Corresponding Author :
Nana Fitriana
E-mail :
nanafitriana1996@gmail.com

ABSTRACT

Background & Objectives: Vaginal discharge in adolescent girls is often considered a normal health issue. However, if not treated properly, it can interfere with health and comfort. One natural remedy used to treat vaginal discharge is boiled betel leaf water, which is known to have antifungal and antibacterial properties. The purpose of this study was to determine the effect of boiled betel leaf water on reducing vaginal discharge symptoms in adolescent girls at MTs Madinatunnajah in Cirebon City. **Methods:** This study used a pre-experimental design with a pre-post test approach. The sampling technique used in this study was total sampling. The population in this study consisted of 17 female adolescents in the ninth grade at MTs. Paired test was used for data analysis. **Results:** The results of this study showed a p-value of 0.000<0.05, which indicates that boiled betel leaf water has an effect on reducing vaginal discharge symptoms in adolescent girls at MTS Madinatunnajah in Cirebon City. **Conclusion:** Giving boiled betel leaf water can reduce vaginal discharge because its antiseptic, antifungal, and antibacterial properties can help kill germs and bacteria that cause vaginal discharge.

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Introduction

Vaginal discharge is one of the problems faced by adolescents with their reproductive health (Baety et al., 2019). Vaginal discharge is defined as the discharge of fluid from the vagina other than blood. Vaginal discharge often appears normal in individuals, but it can also cause disease if not treated properly. A transparent fluid called vaginal discharge is secreted from the vagina. There are two types of vaginal discharge: normal (physiological) and abnormal (pathological). Women often

experience normal vaginal discharge before and after their menstrual period, during sexual arousal, ovulation, pregnancy, and in stressful situations (Permatasari & Suprayitno, 2021).

In West Java province, 27.60% of the 11.36 million women in West Java experience vaginal discharge, and the majority of those who experience it are adolescent women and women of childbearing age between 10 and 24 years old (Trisnawati, 2018). Vaginal discharge can cause itching in the vaginal area, which is one of the causes of infection or inflammation due to using unclean water to clean the vagina, performing incorrect internal examinations, and using too much rinse. The impact of vaginal discharge is that women will feel uncomfortable and inferior because of their discharge (Baety et al., 2019).

Betel leaf is a plant that has many benefits, one of which is treating vaginal discharge. Betel leaf contains carvacrol, which has antiseptic and antifungal properties. Thus, it can also be used as an antibacterial agent to treat vaginal discharge and unpleasant odors (Hidayanti & Pascawati, 2021).

Preliminary studies conducted by researchers at MTs Madinatunnajah in Cirebon City through interviews with 10 adolescent girls found that these adolescents experienced vaginal discharge. Eight of the adolescents left the discharge untreated. The other two adolescents also left it untreated but changed their underwear when they had discharge.

Based on the above description, the researcher was interested in conducting a study entitled "The Effect of Betel Leaf Decoction on Reducing Vaginal Discharge Symptoms in Adolescent Girls at MTs Madinatunnajah in Cirebon City."

Objective

The objective of this study was to determine whether boiled betel leaf water had an effect on reducing vaginal discharge symptoms in adolescent girls at MTs Madinatunnajah in Cirebon City.

Method

This study was a pre-experimental study using a pre-post test approach. The population of this study consisted of 17 ninth-grade adolescent girls at MTs Madinatunnajah in Cirebon City. The sampling technique used was total sampling. The instrument used in this study was an observation sheet. This study was conducted at MTs Madinatunnajah in Cirebon City in April 2025. The bivariate analysis used was a paired test statistical test.

Results

1. **Before the use of boiled betel leaf water to reduce vaginal discharge symptoms.**

Table 1. Frequency Distribution Based on Before the Use of Betel Leaf Decoction at MTs Madinnatunnajah in Cirebon City

Vaginal Discharge Symptoms	**N**	%
Small amount of discharge	1	5.9
Foul-smelling	4	23.5

Vaginal Discharge Symptoms	N	%
Yellowish-white in color	3	17.6
Itching	6	35.3
Large amount of discharge	3	17.6
Total	**17**	**100.0**

Based on Table 1, it can be seen that before being given boiled betel leaf water, almost all respondents experienced pathological vaginal discharge, namely 16 respondents (94.1%) with the most common symptom being itching (6 respondents). Only a small number, namely 1 respondent (5.88%), experienced physiological vaginal discharge.

2. **After using boiled betel leaf water to reduce vaginal discharge symptoms**

Table 2. Frequency Distribution Based on After Using Boiled Betel Leaf Water at MTs Madinnatunnajah, Cirebon City

Vaginal Discharge Symptoms	N	%
No odor	2	11.76
Clear white color	4	23.53
No itching	4	23.53
Small amount of discharge	3	17.65
Yellowish-white color	1	5.89
Itching	1	5.89
Total	**15**	**88.25**

Based on Table 2, it shows that most respondents, namely 15 adolescent girls (88.24%), experienced a decrease in vaginal discharge symptoms to physiological vaginal discharge. Only a small number, namely 2 other adolescent girls (11.76%), remained in a condition of pathological vaginal discharge symptoms, namely yellowish-white in color.

3. **The Effect Before and After the Use of Betel Leaf Decoction at MTs Madinnatunnajah in Cirebon City**

Table 3. Frequency Distribution Based on Cross Tabulation Before and After the Use of Betel Leaf Decoction at MTs Madinatunnajah in Cirebon CityCirebon

Examination	Criteria	Before	%	After	%
Vaginal Discharge	Decreased	1	5.88%	15	88.24%
	Unchanged	16	94.12%	2	11.76%
Total		**17**	**100%**	**17**	**100%**
Paired Test Result	p = 0.000				

Based on Table 3, it shows the results before and after using boiled betel leaf water. Most respondents before using boiled betel leaf water experienced pathological vaginal discharge symptoms, totaling 16 respondents (94.12%). A small number of others, namely 1 adolescent girl (5.88%), experienced physiological vaginal discharge.

Most respondents after using betel leaf decoction experienced a decrease in pathological vaginal discharge symptoms to physiological symptoms, namely 15 respondents (88.24%). A small number, namely 2 other adolescent girls (11.76%), remained in a condition of pathological vaginal discharge symptoms. It was also found that the paired test results showed a p-value of pre-test-post-test = 0.000, indicating that betel leaf decoction has an effect on reducing vaginal discharge symptoms in adolescent girls at MTs Madinatunnajah in Cirebon City.

Discussion

Most respondents experienced pathological vaginal discharge before using boiled betel leaf water, with 16 respondents (94.12%) reporting this symptom. A small number of respondents, namely 1 adolescent girl (5.88%), experienced physiological vaginal discharge. After using boiled betel leaf water, most respondents experienced a decrease in pathological vaginal discharge symptoms to physiological symptoms, totaling 15 respondents (88.24%). A small number, namely 2 other adolescent girls (11.76%), remained in a state of pathological vaginal discharge symptoms.

Based on the statements from these 2 adolescent girls, they said that they did not regularly use boiled betel leaf water. The paired test results also showed a pre-test-post-test p-value of 0.000. Thus, the p-value was < 0.05, so H0 was rejected and Ha was accepted, meaning that betel leaf decoction had an effect on reducing vaginal discharge symptoms in adolescent girls at MTs Madinatunnajah in Cirebon City.

Betel leaves contain eugenol, which can kill fungi and has analgesic properties (pain relief). In addition, the leaves also contain tannins, which are useful for reducing vaginal fluid secretion (Ismawan, 2012). Sadewo's (2013) research also shows that the efficacy of red betel leaves is used to reduce fluor albus and maintain female organs, because one of the properties of red betel leaves is as an antiseptic.

According to Andareto (2015), the content of green betel leaves (piper betle.l) is very good for medicinal purposes. There are several substances contained in green betel leaves, including astiri oil, hydroxycavicol, cavicol, kavibetol, allyprocatechol, eugenol, caryophyllene, cineole, candinene, diastase, starch, terpenene, sesquiterpene, phenylpropane, tannin, sugar, and antifungal agents. Due to its rich content, betel leaf is often used in traditional medicine to treat various diseases such

as: swollen gums, vaginal discharge, thrush, dengue fever, menstrual problems, asthma, sore throat, underarm odor, and nosebleeds.

Betel leaves contain phytochemical compounds, namely essential oils, alkaloids, saponins, tannins, and flavonoids, which are believed to have antimicrobial properties (Candrasari, 2012). Flavonoids work by forming complex compounds with extracellular proteins that disrupt the integrity of bacterial cell membranes. Similarly, alkaloids have antibacterial properties (Saraswati, 2016).

Essential oils act as antibacterial agents by disrupting the formation of cell membranes or walls so that they are not formed or are formed imperfectly (Saraswati, 2016). Due to the completeness of these beneficial substances or chemical compounds, betel leaves have a wide range of benefits as herbal medicine, one of which is for vaginal discharge (Yanti, 2014). The above theory is consistent with the reality in the field, namely the reduction of vaginal discharge symptoms after using betel leaf decoction.

The results of this study are in line with Tuti et al. (2018) on the Effect of Betel Leaf Decoction on Kustanti Adolescents in Canden Village, Yogyakarta, which states that betel leaf decoction can be used to treat vaginal discharge. with a statistically significant difference observed after administering boiled betel leaf water to adolescents for approximately 7 days (p= 0.001 p (= 0.05)). The results of this study are also in line with Pulungan's (2018) study entitled "The Effectiveness of Green Betel Leaves and Red Betel Leaves in Overcoming Pathological Vaginal Discharge in Adolescents at Taman Siswa High School in Pematang Siantar," which states that before the betel leaf decoction intervention, the respondents experienced pathological vaginal discharge, and after the betel leaf decoction intervention, it was very effective in overcoming vaginal discharge. The results of this study are also in line with Widayati's (2021) research, which found that before being given betel leaf decoction therapy, respondents often experienced vaginal discharge to the point that they felt uncomfortable. After being given betel leaf decoction therapy, the vaginal discharge in respondents decreased.

This is similar to the results of Suyenah's (2022) study, which found changes in vaginal discharge in adolescent girls at the Al-Kahfi Integrated Islamic Boarding School in Bogor in 2022 before and after being given green betel leaf decoction. This is the same as the results of Yovita's study, which showed that green betel leaf decoction had an effect on reducing the symptoms of vaginal discharge in adolescents. Saparinto also stated that betel leaves are used to wash the vagina and can reduce physiological and pathological vaginal discharge. Betel leaves contain carvacrol, which has disinfectant and antifungal properties, so they can be used as an antiseptic to reduce vaginal discharge. The eugenol compound in betel leaves can also kill Candida albicans fungus, which causes vaginal discharge, while tannins are astringents that reduce secretion vaginal discharge.

Conclusion

The results of the paired test showed a pre-test-post-test p-value of 0.000. Thus, the p-value was less than 0.05, indicating that betel leaf decoction had an effect on reducing vaginal discharge symptoms in adolescent girls at MTs Madinatunnajah in Cirebon City. It is hoped that future researchers can develop studies to address vaginal discharge complaints in adolescent girls with other more complex complementary treatments.

References

Anggita, Imas Masturoh. 2018. *Metodologi Penelitian Kesehatan.* Jakarta

Andareto, Obi. 2015. Apotik Herbal di Sekitar Anda. Jakarta: Pustaka Ilmu Semesta.

Arikunto. 2018. *Prosedur Penelitian : Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta.

Baety, D. N., Riyanti, E., & Astutiningrum, D. (2019). Efektifitas Air Rebusan Daun Sirih Hijau dalam Mengatasi Keputihan Kelas XI SMA Muhammadiyah 1 Gombong. Proceeding of The URECOL, 2(1), 48–58.

Hidayanti, D., & Pascawati, R. (2021). Rebusan Sirih Merah Mengurangi Fluor Albus Pada Remaja Putri.*Jurnal Riset Kesehatan*

Notoatmodjo, S., 2018. *Metodologi Penelitian Kesehatan*. Jakarta : Rineka Cipta. Novemi, Asriah, & Isra, Z. 2023. *Pengaruh Pemberian Air Rebusan Daun Sirih Terhadap Kejadian Keputihan Patologi Pada Remaja.* Jurnal Ners.

Sugiyono. 2019. *Metodologi Penelitian Kuantitatif dan Kualitatif.* Bandung : Alfabeta.

Suyenah, Meinasari.(2022).Efektivotas Penggunaan Rebusan Daun Sirih Hijau Terhadap Kejadian Keputihan Pada Remaja. *SIMFISIS Jurnal Kebidanan Indonesia.* Vol I (04).

Trisnawati, I. (2018). Faktor-faktor yang Berhubungan Dengan Keputihan Patologis Pada Wanita Usia Subur yang Bekerja di PT Unilever Cikarang Bejasi. Jurnal Penelitian Kesehatan Suara Forikes, 9(1), 45–50

Widayati dkk. 2021. *Penerapan Rebusan Daun Sirih Dalam Mengatasi Keputihan Pada Remaja Di Perum Manunggal Kelurahan Kauman Kota Salatiga.* Jurnal Ners Widya Husada. *Vol 8(3)*

Yovita Y (2020). Tanaman Obat Plus Pengobatan Alternatif. Setia Kawan