

Health Counseling and Provision of Betel Leaves to Reduce Physiological Leucorrhoea among Adolescent Girls

Penyuluhan Kesehatan dan Pemberian Daun Sirih untuk Mengurangi Keputihan Fisiologis pada Remaja Putri

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Abstract:

In Indonesia, 75% of women have experienced vaginal discharge at least once, and half have experienced vaginal discharge twice or more. Vaginal discharge is a classic problem for most women. Ironically, most women do not know about vaginal discharge and the causes of vaginal discharge. If not handled properly, vaginal discharge can be fatal. Infertility and ectopic pregnancy (pregnancy outside the womb) can be one of the consequences of vaginal discharge. The early symptoms of uterine cancer usually start with vaginal discharge. This study's betel leaf (*Piper betel* Linn) belongs to the Peiperaceae family. The part used is the leaves. Betel leaf contains essential oils with compounds that have strong antibacterial properties, referred to as "kavikol" and "kavibetol". Anti-bacterial is also found in boiled betel in water. Betel leaf in traditional medicine is usually used for first aid in first-line treatment in daily medicine, especially as an antiseptic. This activity aims to increase young women's knowledge about the dangers of vaginal discharge and provide intervention in betel leaf boiled water to reduce physiological vaginal discharge. The activity results showed benefits for adolescents as evidenced by the decrease in the incidence of physiological vaginal discharge after being given counseling and betel leaf water.

Keywords: vaginal discharge; adolescent girls; betel leaf; boiled water.

Abstrak:

Di Indonesia, 75% wanita pernah mengalami keputihan setidaknya sekali dalam hidupnya dan setengahnya pernah mengalami keputihan dua kali atau lebih. Keputihan adalah masalah klasik bagi kebanyakan wanita. Ironisnya, kebanyakan wanita tidak mengetahui tentang keputihan dan penyebab keputihan. Jika tidak ditangani dengan baik, keputihan bisa berakibat fatal, kemandulan dan kehamilan ektopik (kehamilan di luar kandungan) bisa menjadi salah satu akibat dari keputihan. Gejala awal kanker rahim biasanya diawali dengan keputihan. Daun sirih (*Piper betel* linn) yang digunakan ini termasuk dalam famili Peiperaceae. Bagian yang digunakan adalah daunnya. Daun sirih mengandung minyak atsiri yang mengandung senyawa yang memiliki sifat antibakteri yang kuat, yang disebut sebagai "kavikol" dan "kavibetol". Anti bakteri juga terdapat pada sirih rebus dalam air. Daun sirih dalam pengobatan tradisional biasanya digunakan untuk pertolongan pertama pada pengobatan lini pertama dalam pengobatan sehari-hari, terutama sebagai antiseptik. Kegiatan ini bertujuan untuk meningkatkan pengetahuan remaja putri tentang bahaya keputihan dan memberikan intervensi berupa air rebusan daun sirih untuk mengurangi keputihan fisiologis. Hasil kegiatan menunjukkan manfaat bagi remaja yang dibuktikan dengan penurunan kejadian keputihan fisiologis setelah diberikan penyuluhan dan air daun sirih.

Kata Kunci: keputihan; remaja putri; air rebusan; daun sirih

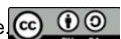
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INTRODUCTION

One of the reproductive health problems in adolescents is a vaginal discharge or Flour Albus (Astuti et al., 2018). According to the World Health Organization (WHO), health problems regarding poor female reproduction have reached 33% of the total burden of diseases affecting women worldwide. This figure is greater than reproductive problems in men, which only reach 12.3% at the same age as women (Wright, Schieve, Renold & Jeng, 2005). The cause of leucorrhea, according to WHO, based on its prevalence, is 25% -50% candidiasis, 20-40% bacterial vaginosis, and 5% - 15% trichomoniasis. The weather factor that causes vaginal discharge in Europe is only 25%. Factors that cause vaginal discharge are fungi, bacteria, and parasites; increased vaginal discharge is also caused by women's behavior in maintaining genital hygiene (Firmanila, Dewi & Kristiani, 2016). In Indonesia alone, 75% of women have experienced vaginal discharge at least once, and half of them have experienced vaginal discharge twice or more. This is related to the humid weather, which makes it easier for Indonesian women to experience leucorrhea, where the humid weather can facilitate fungal development. The Candidiosis Vulvovaginitis bacteria cause many incidents of vaginal discharge because many women do not know how to clean their vaginal area; other causes are Bacterial Vaginitis and *Trichomonas vaginalis* (Firmanila et al., 2016). Based on data from the National Population and Family Planning Agency (BKKBN) in 2012, in Indonesia, as many as 75% of women have experienced vaginal discharge at least once and 45% of them usually experience vaginal discharge twice or more. In Indonesia, Central Maluku is an area with a tropical climate which causes the skin to be prone to sweating, thus making the vaginal condition moist. High humidity causes heat in the female area and irritates the vagina, so bacteria easily multiply (Abrori, 2017).

Leucorrhea is a classic problem for most women. Ironically, most women don't know about vaginal discharge and the causes of vaginal discharge. If not handled properly, vaginal discharge can be fatal; infertility and ectopic pregnancy (pregnancy outside the womb) can be one of the results of vaginal discharge. Early symptoms of uterine cancer usually start with vaginal discharge (Gunardi & Susilo, 2021). Factors supporting the cause of vaginal discharge are physiological (normal) and pathological (abnormal) factors. Physiological factors (normal) vaginal discharge is influenced by ovulation before menstruation, sexual arousal, and emotions.

Meanwhile, pathological factors (abnormal) are caused by infection, bacteria, parasites, fungi, *trichomonas vaginalis* virus, vaginal bacteria, syphilis, and *candida albicans* gonorrhoea (Andayani et al., 2017). Factors that trigger the development of the *candida albicans* fungus include body temperature that changes according to the cycle; it could also be due to food, especially sugar and carbohydrates, or the use of unsuitable soap products, and not keeping the genital area clean. *Candida albicans* are a member of the normal flora on the skin, mucous membranes, and digestive tract (Brooks, 2005 in Maytasari, 2010).

The community is doing much to reduce the occurrence of leucorrhoea, including pharmacologically (medicines from doctors) and non-pharmacologically, such as through changes in behavior, personal hygiene, and psychology, and consuming herbal products that are trusted for their efficacy. Using natural ingredients as herbal medicines is considered safer because the side effects are more harmless to the body than modern medicines (Dewi, 2014). One of the plants often used as an alternative to reduce leucorrhoea is betel leaf; in addition to many around the house, green betel leaf is often used because of the risk of harmless side effects. In general, the content of betel leaves has active chemical compounds such as polyphenols, alkaloids, steroids, saponins, and tannins (Handayani, 2017). This study's betel leaf (*Piper betel* Linn) belongs to the Peiperaceae tribe. The part used is the leaves. Inside the betel leaf is an essential oil containing compounds with strong antibacterial properties, known as "kavikol" and "kavibetol". The anti-bacterial is also found in betel leaf in water. Betel leaves in traditional medicine are usually used for first aid in daily medicine, especially as an antiseptic (Koensoemardiyah, 2010).

This community service activity is planned to be carried out at Muhammadiyah Mamala High School because from the results of a preliminary study in the form of interviews conducted on December 7, 2021, by researchers, it was found that 10 students interviewed experienced vaginal discharge, 6 of the students who experienced vaginal discharge resolved it by using soap or certain products to female area purchased from shops or stalls around the residence, and 4 of the female students who experienced vaginal discharge did not take any treatment because they thought vaginal discharge was a normal thing for women. In addition, 10 of the students interviewed had known that betel leaf had properties for treating leucorrhea but had never tried it. This activity is important because the health of the female reproductive organs is the main thing that must be considered; besides that, herbal treatment is considered more economical and rarely causes side effects. This research was conducted at SMA Muhammadiyah Mamala because it is the only school in Mamala village. This activity is also intended as a preventive and promotive effort in utilizing and developing plants as herbal medicine.

IMPLEMENTATION METHOD

Community service activities to improve Farmers' Adaptive Coping in the Post-Covid 19 Period were carried out on Sunday, October 23, 2022, at 09.00 with lecturers and students of FKep University of Jember and attended by 30 sugar cane farmers. This health education activity was conducted at the Gucialit Village Hall, Lumajang Regency. Health education begins with lecturers asking elderly farmers to convey their experiences with stress. Counseling on improving Farmers' Adaptive Coping was conducted for 60 minutes using leaflets, x-banners, and banners as media. Submission of material to sugar cane farmers using the lecture method is carried out for 30 minutes, followed by discussion and question and answer for 30 minutes. Evaluation of health education for

elderly farmers is carried out by asking elderly farmers to explain the action plans to be taken to improve Adaptive Coping. The material delivered to sugar cane farmers is a Mental Health Media Kit titled "Maintaining Our Mental Health" from the Ministry of Health of the Republic of Indonesia (Kemenkes RI. 2017). The community service activity ended with the distribution of groceries to sugarcane farmers.

The selection of the location for the implementation of Community Service was determined based on the interests of Muhammadiyah Mamala High School in July 2022. The form of this service activity is lecturing and giving betel leaves to make a decoction and use for vulva hygiene in order to reduce complaints due to physiological changes in adolescents, namely vaginal discharge. The tools needed to make betel leaf boiled water and provide counseling include presentation tools (notebook, LCD), papers/brochures, banners, camera, leaflets, betel leaf, water, filter, pot, and stove. How to process red betel leaves:

1. Prepare 7-10 pieces of fresh betel leaves.
2. Put the betel leaves into the pot and then add the 2.5 liters of water provided.
3. Boil betel leaves over medium heat until boiling.
4. The boiled betel leaves are allowed to warm, then filtered. In warm conditions, boiled water is given to the respondent to wash the female area.

RESULT AND DISCUSSION

Table 1. The Effect of Red Betel Leaves

Variable	Mean	SD	n	p-value
Pre-test leucorrhoea	12.93	1.680	30	0.000*
Post-test leucorrhoea	7.90	1.845		

*Wilcoxon test with $\alpha=0.05$

Based on Table 1, it was found that the average value of leucorrhoea experienced before being given treatment was 12.93, with a standard deviation of 1.680. After being given treatment 2 times a day a week, the average value of vaginal discharge experienced was 7.90 with a standard deviation of 1.845. by using a non-parametric test, which was Wilcoxon with a p-value=0.000 at $\alpha=5\%$, which means that the $p < \alpha$, and it can be concluded that there is an effect in giving betel leaf boiled water on leucorrhoea in female students.

Leucorrhoea or flour albus is a vaginal condition when germs cause discharge or mucus resembling pus. Sometimes vaginal discharge can itch, smell bad, and have a greenish color (Karaz & Anderson, 2003). Betel leaf (*Piper betle* L) is a type of vine that rests on other tree trunks. Betel leaves contain an essential oil, chavikol, which causes betel leaves to have a distinctive odor and has properties to kill bacteria. This plant is useful for preventing various diseases such as diabetes,

overcoming nosebleeds, burns, asthma, throat infections, bronchitis, and leucorrhoea (Suparni & Wulandari, 2012). This research was conducted by giving betel leaf boiled water twice a day by washing the female area of the respondent, namely in the morning at 07.00 WIB and the afternoon at 17.00 WIB for one week. Betel leaf decoction was prepared and provided by the researchers themselves so that all respondents received the same betel leaf boiled water treatment with the same dosage and method of boiling without any difference. The betel leaves used in this study were obtained from one place so that the composition and types of betel leaves did not vary.

Research by Sari (2011) in the Work Area of the Umban Sari Health Center, Pekanbaru, concluded that there was a significant difference in the change in vaginal discharge values in the experimental group after being given betel leaf decoction by washing the female area three times a day for a week, the difference was that the research researchers have done at the Poltekkes Kemenkes Riau campus not using a control group and giving betel leaf boiled water is by drinking. The dosage and method of processing betel leaf boiled water also have differences, the characteristics and place of the respondents in the study and the time of administration of betel leaf boiled water which is given twice a day for one week.

Based on the explanation above, the researcher assumes that betel leaf affects leucorrhoea, good for preventing, reducing, or treating leucorrhoea. This is because betel leaf contains essential oils useful as antifungal, antiseptic and reduce vaginal secretions. The researcher's suggestion is for respondents who have been exposed to be able to apply and inform about the benefits of betel leaf boiled water. For research sites to become information material and input in overcoming leucorrhoea, it is necessary to find out what percentage of betel leaf extract is effective against leucorrhoea and other factors that cause leucorrhoea. Overall, the benefits of this activity were felt by teenagers, especially counseling about reproductive health. They admit that they have never received information on properly caring for the reproductive organs to avoid disease.

CONCLUSION AND SUGGESTION

There is an effect of giving betel leaf boiled water to reduce physiological vaginal discharge in young women. Young women admitted that this activity was very useful in counseling about reproductive health and interventions by giving betel leaf boiled water. The results of this activity are expected to provide information or input for schools to continue to increase adolescents' knowledge about reproductive health through outreach activities at schools or in collaboration with local health centers.

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REFERENCES

- Astuti, H., Wiyono, J., & Candrawati, E. (2018). Hubungan Perilaku Vaginal Hygiene Dengan Kejadian Keputihan Pada Mahasiswa Di Asrama Putrid Psik Unitri Malang. *Nursing News: Jurnal Ilmiah Keperawatan*, 3(1), 595-602.
- Firmanila, F., Dewi, Y. I., & Kristiani, D. (2016). Pengaruh penggunaan air rebusan daun sirih merah terhadap keputihan pada wanita usia subur (WUS) di wilayah kerja Puskesmas Rawat Inap Tenayan Raya. *Jurnal Ners Indonesia*, 6(1), 9-18.
- Gunardi, E. R., & Susilo, S. A. (2021). Menstrual Pattern and Characteristics of One-Rod and Two-Rod Levonorgestrel Implant Users. *Obstetrics and Gynecology International*, 1-7.
- Handayani, S., Cahyo, K., & Indraswari, R. (2017). Faktor-Faktor Yang Berhubungan Dengan Perilaku Personal Hygiene Remaja Putri Dalam Penanganan Dan Pencegahan Keputihan Pada Siswi SMK Negeri 11 Semarang. *Jurnal Kesehatan Masyarakat*, 5(3), 629-636. <https://doi.org/10.14710/jkm.v5i3.17406>
- Karasz, A., & Anderson, M. (2003). The vaginitis monologues: women's experiences of vaginal complaints in a primary care setting. *Social Science & Medicine*, 56(5), 1013-1021.
- Irianto, K. (2014). *Kesehatan Reproduksi*. Alfabeta.
- Koensomardiyah, S. (2010). *A to Z Minyak Atsiri*. Lily Publisher.
- Maytasari, G. M. (2010). Perbedaan Efek Antifungi Minyak Atsiri Daun Sirih Hijau, Minyak Atsiri Daun Sirih Merah dan Resik-V Sabun Sirih Terhadap Pertumbuhan Candida Albicans Secara In Vitro. *Thesis*. Fakultas Kedokteran Universitas Sebelas Maret.
- Sari, N.H. (2011). Efektifitas Rebusan Daun Sirih Untuk Mengurangi Keputihan pada Wanita. *Undergraduate thesis*. Fakultas Keperawatan UNRI
- Dewi, A. K. (2018). Hubungan pengetahuan dan perilaku remaja putri dengan kejadian keputihan di kelas XII SMA Negeri I Seunuddon Kabupaten Aceh Utara Tahun 2012.
- Suparni, I., & Wulandari, A. (2012). *HERBAL NUSANTARA: 1001 Ramuan Tradisional Asli Indonesia*. Rapha Publishing.
- Wright, V. C., Schieve, L. A., Reynolds, M. A., & Jeng, G. (2005). Assisted reproductive technology surveillance—United States, 2002. *Morbidity and Mortality Weekly Report: Surveillance Summaries*, 54(2), 1-24.