

Reducing Visual Descriptor Scale (VDS) in Dysminorrhea on Adolescence by Giving Wood Secang Boiled Water (*Caesalpinia Sappan L*) in Megarezky University

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Abstract.

Dysmenorrhea is the pain experienced during menstruation that causes women to experience varying degrees of cramps. It presents as discomfort, while others suffer pain that can stop daily activities for some women. Therefore, to reduce the use of drugs, herbal methods are used, boiled water for the wood secang, so that side effects can minimize for the body. This research aims to analyze the reduction of Visual Descriptor Scale (VDS) of adolescence with dysmenorrhea in Makassar. This research lasted for one year with several stages, including the first stage; identify research samples based on criteria. The second stage, making informed consent and choice of respondents. The third stage, using a Quasi-Experimental design with a pretest and post-test approach in one treatment group, namely adolescents with dysmenorrhea, measured VDS before giving the boiled water for secang wood and after giving it. The fifth stage, assessing the decrease of VDS before and after treatment. This study indicated that the average intensity of the respondents' menstrual pain before giving the boiled water of secang wood was 4.5, where the lowest menstrual pain intensity was two. The highest was 8, while after giving secang wood boiled water was 3.0, where the pain intensity was the lowest menstrual period was 0, and the highest was 6. The Paired T-Test results obtained a p-value of 0.000 < 0.05 so that the boiled water of secang wood affects reducing pain intensity in young females.

Keywords : Secang wood, Adolescence, Visual Descriptor Scale (VDS)

1. INTRODUCTION

The reproductive health of young females is still a problem that needs to pay attention. The reproductive health of young females is a sexual problem. It involves all aspects of reproduction, especially for young females, including secondary sex development including soft voices, enlarged breasts, enlargement of the hip area, and menarche. Menarche or menstruation for the first time experienced by a woman is usually a disorder of cramps, pain, and discomfort associated with menstruation called

dysmenorrhea. Most women experience varying degrees of cramps. Some women present as discomfort, while others suffer from pain that can stop daily activities ⁽¹⁾.

Most women feel no symptoms at the time of menstruation, but a small proportion feels heavy in the shoulder or feel pain (dysmenorrhea). The age of adolescent girls at the time of their first menstruation (Menarche) varies but it usually occurs at 11-13 years ⁽²⁾.

Data from WHO found that the incidence of 1,769,425 people (90%) of women with dysmenorrhoea, 10-15% who experienced severe dysmenorrhoea. This is supported by research that has been carried out in various countries with astonishing results, where the incidence of primary dysmenorrhea in each country is reported to be more than 50% ⁽³⁾.

One of the chemical content of Secang wood is Brazilin. Brazilin is a class of compounds that give a red color to C₁₆H₁₄O₅ in a crystalline form. It is thought to have an anti-inflammatory effect that can reduce pain in people with dysmenorrhea and anti-bacteria (*Staphylococcus aureus* and *Escherichia coli*) ⁽⁴⁾.

The increasing incidence of dysmenorrhea and its treatment takes a long time and costs. Some adolescents do not want to take pharmacological drugs, so it is necessary to consider using a non-pharmacological approach to reduce pain. One of the non-pharmacological methods is boiling water for secang wood (*Caesalpinia Sappan L.*) ^(5,6).

II. METHODS

This research had been conducted on 03 July - 31 September 2020 at the Megarezky University of Makassar. Type of research used quantitatively in Quasi-experiment design and a one-group pretest & posttest approach. The sampling technique used purposive sampling with inclusion criteria, namely: Midwifery students of Megarezky University. These students experienced menstrual pain, and they became respondents to obtain a sample size of 30 respondents. Analysis of the data was processed by using analytical with the *T-Paired test* based on the normality test ⁽⁷⁾.

III. RESULT AND DISCUSSION

The subjects in this study were 30 students of midwifery at Megarezky University and had filled in the respondents' willingness form. The next stage was pretest by giving a pain assessment questionnaire, and then passing 300 ml of boiled wood water, drunk three times a day. For one week. After the treatment was done, then fill out a pain assessment questionnaire.

Tabel 1: The reducing result of Visual Descriptor Scale (VDS) in Dysminorrhea on Adolescence with Giving Wood Secang Boiled Water (*Caesalpinia Sappan L*) In Megarezky University

Intensity of pain	Frequency (n)	Percentage (%)
Decreased	27	90
Normal	3	10
Total	30	100
	$p=0,000$	$\alpha=0,05$

Based on table 1, it was known that the *Paired T test* results Statistical results obtained by the p-value = 0.000 mean that the p-value was smaller than the value (α) 0.05, So H_0 was rejected, and H_a was accepted. Interpretation: There was a decrease in the Visual Descriptor Scale (VDS) in Disminorhea by giving boiled water of wood secang (*Caesalpinia Sappan L*) to students of Midwifery.

Dysmenorrhoea or painful menstruation is the most frequent symptom. Dysmenorrhoea is divided into primary dysmenorrhoea (essential, enstrixic, idiopathic)⁽⁷⁾. There is no association with gynecological anxiety. Gynecologic abnormalities cause secondary (extrinsic oequired) dysmenorrhoea. Menstrual pain is a muscle cramp that is felt in the lower abdomen that appears before or during menstruation. The problem that you can sometimes be quite severe and spreads to your back and thighs to interfere with daily activities. This pain can be ended for two to three days^(9,10)

Drinking water can be used as therapy in several diseases such as hypertension, cataracts, dysmenorrhoea, cancer, obesity, and vascular diseases such as diabetic retinopathy⁽⁴⁾. The presence of anticancer and anti-inflammatory effects on secang wood (*Caesalpinia Sappan L.*) is due to the presence of polyphenols that function as antioxidants in secang wood, such as flavonoids and tannins. The flavonoid compounds contained in secang wood are brazilin, sappanchalcone, and brazilin. It is known that flavonoid compounds with their antioxidant properties play an essential role in antiangiogenesis⁽¹²⁾.

According to Yohana, 2008, Secang wood has compounds as a high source of antioxidants. Based on the research results on the effects of secang wood extract, it shows that secang wood extract has the most significant antioxidant ability compared to vitamin C and vitamin E and can increase SAT from 2.39 mmol / L to 4.38, 7.58 mmol / L^(13,14).

Secang wood decoction is used to stop postpartum bleeding, and in the form of an ointment or paste, it is used for wound medicine in China and the Philippines. *C. sappan* is also officially registered in Chinese Pharmacopoeia. It is used in traditional Chinese medicine for menstrual disorders, as an analgesic or pain reliever, as an anti-inflammatory drug. In contrast, the wood is utilized to heal wounds or hemorrhoids. In Thailand and the Philippines, *C. sappan* wood is used for menstrual release, an expectorant or expectorant, and tonic. Likewise, in Vietnam, this plant is used for a

menstrual laxative. In Korea and Japan, this plant is also used to treat hemorrhoids and diarrhea^(13,15).

IV. CONCLUSION

From the statistical analysis test using the Paired Test, there are still 10% of respondents who always felt the pain after being given boiled water of secang wood because there are still students who do not follow the researchers themselves instructions.

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