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The Effect of Giving Cinnamon Drink on Reducing Menstrual Pain (Dysminorea) in Adolescents

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ABSTRACT

In adolescents who experience dysmenorrhea, the most common complaint is abdominal pain. Cinnamon can help reduce menstrual bleeding, nausea, and can reduce dysmenorrhea pain. The purpose of this study was to determine the effect of giving cinnamon drinks on reducing menstrual pain (dysmenorrhea) in adolescents in Gayaman Village, Mojonyar District, Mojokerto Regency. This study used a quasi-experimental method with a pre-test-post-test design in two groups (the two group pre-post test design). The population was 30 teenagers in Gayaman Village, Mojoanyar District, Mojokerto Regency with a random sampling method. The sample used was 28 teenagers. The instruments used were observation sheets and Standard Operating Procedures. Data analysis used the T test. The results of the data analysis of this study were obtained in the control group, the Asymp Sig value (2-tailed) was 0.451 > (0.05) so H0 was accepted and H1 was rejected, the intervention group, the Sig value (2-tailed) was 0.000 <0.05, so H0 was rejected and H1 was accepted and in the analysis of the influence of the control and intervention groups, the sig value (2-tailed) was 0.06 > 0.05 so H0 was accepted and H1 was rejected. The results of this study were that in the control group there was no influence, in the intervention group there was an influence and in the post-control and post-intervention groups there was no difference between the decrease in menstrual pain in the post-test control and post-test intervention.

Keywords: Cinnamon; Honney; Menstrual Pain; Adolescent

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INTRODUCTION

During adolescence, there are biological changes, physiological changes, and emotional changes. Physiological changes are marked by menstruation.[1] Complaints experienced by teenagers during menstruation include sore breasts, back pain, acne, headaches, constipation, stomach aches and mood swings.[2] The phenomenon that exists in teenagers in Gayaman Village, Mojoanyar District, Mojokerto Regency, through a research survey, the provision of cinnamon drinks reduces menstrual pain (dysmenorrhea) in health problems that can be experienced by teenagers, which are often complained about by teenagers, namely stabbing pain, back pain.[3] In adolescents, some treat pain with pharmacology (ibuprofen and diclofenac) and some treat it with herbal medicines.

Based on the results of observations in Gayaman Village, Mojoanyar District, Mojokerto Regency, the phenomenon that exists is that 9 out of 10 respondents stated that the complaints experienced during menstruation were pain in the stomach, breasts and waist. Of the 10, 6 of them stated that they treated the pain with pharmacological drugs to reduce the pain, the drugs used included ibuprofen and diclofenac, while 4 of them stated that when they had pain during menstruation they used herbal medicines to reduce the pain, namely cinnamon, respondents stated that after drinking it the pain decreased.

In adolescents in Gayaman Village, Mojoanyar District, Mokokerto Regency, menstrual pain (dysmenorrhea) is a problem that occurs today, factors that influence dysmenorrhea; Early menarche, History of dysmenorrhea in the family, Abnormal body mass index (BMI), Habits of eating fast food, duration of menstruation, Exposure to cigarette smoke, cigarette consumption, Physical activity.[4] The effects of dysmenorrhea include decreased interest in activities and appetite. Complaints experienced by teenagers during menstruation include sore breasts, sore backs, acne, headaches, constipation, abdominal pain, and mood swings.[5]

Efforts that can be made to overcome acute pain, non-steroidal anti-inflammatory drugs (NSAIDs) analgesic group (paracetamol, aspirin, mefenamic acid, etc.) can reduce menstrual pain. But continuous use of drugs causes gastrointestinal problems, cardiovascular, and the risk of bleeding.[6] In addition, people also deal with it by consuming drinks from traditional ingredients. These traditional ingredients include turmeric, tamarind, ginger, green coconut water, cinnamon and cloves.[3]

Cinnamon can help reduce menstrual bleeding, nausea, pain, and vomiting. In addition to cinnamon, honey can also be used as an alternative treatment for menstrual pain relief.[7]

METHOD

This study used a quasi-experimental research design with the research design used being the

pre-test-post-test design in two groups (the two group pre-post test design). In this design, the experimental group was given treatment while the control group was not. In both groups, it began with a pre-test, and after the treatment was completed, a re-measurement was carried out (post-test. In this study, the researcher used 28 samples divided into 2 groups, namely group 1 experiment (treatment group) and group 2 (control group). The experimental group will receive a pretest, cinnamon administration (intervention) post-test, while the control group only pretest and post-test. The population of all adolescents in Gayaman Village, Mojoanyar District, Mojokerto Regency who experience dysmenorrhea is 30 adolescents, the sample using random sampling is 28 adolescents who experience dysmenorrhea. The inclusion criteria are adolescents who live in Gayaman Village, Mojoanyar District, Mojokerto, adolescents who experience dysmenorrhea. The exclusion criteria are adolescents who are not willing to be respondents. The independent variable is cinnamon, the dependent variable is menstrual pain (dysmenorrhea).

RESULTS

Based on the research, the result obtained:

Table 1. Distribution of Research Result Frequency

No.	Variable	Total	
		N	**%**
1	**Length of menstrual cycle**		
	1-7 day	24	85,7
	>7 day	4	14,3
	Total	28	100
2	**Education level**		
	Elementary School	12	42,9
	Junior High School	16	57,1
	High School	0	0
	Total	28	100
3	**Giving cinnamon drink for menstrual pain**		
	pre-test control group	135	100
	post-test control group	144	100
4	**Normality test of cinnamon drink administration**		
	cinnamon drink pre test kelp control	0,780	0,020
	cinnamon drink post test kelp control	0,857	0,030

DISCUSSION

1. Giving cinnamon drink to reduce menstrual pain (dysmenorrhea) in adolescents with pre-test and post-test control groups

Based on the statistical test output, the Asymp Sig (2-tailed) value is 0.451 > (0.05), so H0 is accepted and H1 is rejected. So it can be concluded that there is no significant difference/influence between the results of menstrual pain pre-post test in the control group. These traditional ingredients are turmeric, tamarind, ginger, green coconut water, cinnamon and cloves.[8] Cinnamon can help reduce menstrual bleeding, nausea, pain, and vomiting. In addition to cinnamon, honey can also be used as an alternative treatment for menstrual pain relief. One of the contents of cinnamon, namely tannin, is a natural compound found in certain foods and drinks. Tannin is an antioxidant and is believed to maintain body health, as well as prevent various types of diseases and as an anti-inflammatory. Anti-inflammatory So, it can overcome menstrual cramps. Flavonoids are natural substances contained in plants (phytonutrients) that are antioxidants to ward off free radicals in the body. namely substances that can inhibit the production of cyclooxygenase, so they can be used to reduce dysmenorrhea.[9] How to make Mix cinnamon sticks into 220 ml of warm water Consumed 1 time a day for 3 days until menstrual pain disappears. 3. The pain felt during menstruation is pain due to thickening of the uterine wall which later during menstruation the layer on the uterine wall falls off which causes contractions in the uterine muscles causing pain, severe pain felt by respondents did not change significantly because in this control group there was no treatment given by researchers to respondents to reduce menstrual pain as a result the level of pain felt at the severe pain level was still relatively high. Pain decreased in the control group meaning that pain decreased physiologically not caused by external factors or supporting factors such as medical or herbal drugs.[5]

Dysmenorrhea is pain in the abdomen that occurs at the start of menstruation for several hours or even several days during menstruation.[4] In addition, there is also another definition of dysmenorrhea, namely the pain felt by women when they menstruate, where this is the result of excessive uterine muscle contractions that cause low oxygen levels in the myometrium cells which ultimately causes dysmenorrhea. Dysmenorrhea felt by almost all women when menstruating feels like stomach cramps.[10] When menstruation occurs, the uterine lining is damaged which will then be removed and replaced with a new layer and prostaglandins are also released. These prostaglandins can cause the uterine muscles to contract. When the uterine muscles contract, the blood supply to the endometrium narrows, this process can cause menstrual pain.[2]

The level of pain in the pre-test and post-test experienced significant changes due to the treatment or administration of cinnamon drinks. Cinnamon has content to reduce menstrual pain (dysmenorrhea).

And in adolescents who experience menstrual pain with a severe level, it is normal because at this age it is influenced by many factors that cause the level of pain during menstruation to be severe, namely due to psychological factors, adolescents assume that the pain they feel has never felt the pain of giving birth so according to them menstrual pain is already very severe.

2. Analysis of the effect of giving cinnamon drinks on reducing menstrual pain (dysmenorrhea)

In adolescentsFrom the results of the homogeneity test for reducing menstrual pain (post-test) in both research groups, a significant value (Sig) of 0.785 was obtained. Because the significant value (Sig) of 0.785 > (0.05), it can be concluded that the variance. The data on the results of reducing menstrual pain (post-test) in both research groups were the same or homogeneous. From the results of the data normality test using the Shapiro-Wilk test, a significant value was obtained for reducing menstrual pain (post-test) in both research groups (control group and research group) of 0.231 because the significant value of 0.231> (0.05) then it was concluded that the residual value was normally distributed so that the independent sample t test could be used. It is known that the Sig. (2 tailed) value is 0.060> 0.05, then H0 is accepted and H1 is rejected, it can be concluded that there is no difference between reducing menstrual pain in the control post-test and intervention post-test .When menstruation occurs, the uterine lining is damaged which will then be removed and replaced with a new layer and prostaglandins are also released. These prostaglandins can cause the uterine muscles to contract. When the uterine muscles contract, the blood supply to the endometrium narrows, this process can cause menstrual pain.[1]

One of the contents of cinnamon, namely tannin, is a natural compound found in certain foods and drinks. Tannin is an antioxidant and is believed to maintain body health, as well as prevent various types of diseases and as an anti-inflammatory. Anti-inflammatory So, it can overcome menstrual cramps. Honey contains flavonoids. The mechanism of action of flavonoids functions as an antibacterial by forming complex compounds against extracellular proteins that disrupt the integrity of bacterial cell membranes. The mechanism of action is by denaturing bacterial cell proteins and damaging cell membranes beyond repair..[8] Flavonoids are natural substances contained in plants (phytonutrients) that are antioxidants to ward off free radicals in the body. namely substances that can inhibit the production of cyclooxygenase, so they can be used to reduce dysmenorrhea.[7]

There is no difference between the decrease in menstrual pain in the post-test control and post-test intervention because the control group was not given any treatment like the one given to the intervention group. In the control group, the pain caused by menstruation (dysmenorrhea) was only observed or assessed. If the pain decreased in the control group, it means that the pain decreased physiologically and was not caused by external factors or supporting factors, such as the intervention

group which was given cinnamon and maju drinks so that it could reduce the pain experienced by the respondents.

CONCLUSION

In adolescents when experiencing menstrual pain, efforts that can be made to overcome acute pain are not only using anti-inflammatory drugs or analgesics that can reduce menstrual pain with side effects that are not good for the body. Adolescents can also handle it by consuming drinks from traditional ingredients. These traditional ingredients such as cinnamon. Cinnamon can help reduce menstrual bleeding, nausea, pain, and vomiting.

REFERENCES

1. Irianti B. Faktor-Faktor yang Mempengaruhi Kejadian Dismenore pada Remaja. *Menara Ilmu J Penelit dan Kaji Ilm*. 2018;12(10).
2. Rustam E. Gambaran pengetahuan remaja puteri terhadap nyeri haid (dismenore) dan cara penanggulangannya. *J Kesehat Andalas*. 2015;4(1).
3. Fatmawati S, Kamil I, Ratnasari F. Pengaruh Pemberian Aromaterapi Kayu Manis Terhadap Derajat Dismenore Pada Usia Remaja Di Desa Sukamantri Tangerang. *Nusant Hasana J*. 2021;1(7):1-6.
4. Lestari NMSD. Pengaruh dismenorea pada remaja. In: *Prosiding Seminar Nasional MIPA*. ; 2013.
5. Evi EH. Mengurangi Nyeri Dismenorhoe Remaja dengan Aromaterapi Kayu Manis: indonesia. *J Pendidik Dan Teknol Kesehat*. 2023;6(2):158-161.
6. Khotimah H, Lintang SS. Terapi non-farmakologi untuk mengatasi nyeri dismenore pada remaja. *Faletehan Heal J*. 2022;9(03):343-352.
7. Saras T. *Kayu Manis: Sejarah, Budidaya, Manfaat, Dan Penggunaan*. Tiram Media; 2023.
8. Nurrahmaton N, Harahap NR, Mayori E. Efektivitas Aromaterapi Kayu Manis Pada Nyeri Haid Primer Remaja Di Smp Amanah 1 Deli Serdang. *JIDAN J Ilm Kebidanan*. 2025;5(1):181-192.
9. Maharianingsih NM, Poruwati NMD. Pengaruh pemberian aromaterapi kayu manis terhadap intensitas nyeri dismenore primer pada remaja. *J Ilm Medicam*. 2021;7(1).
10. Putra AS, Saputra NPK, Noviardi N, Ismawati I. Analisis Faktor Risiko Dismenore Primer Dan Dismenore Sekunder Pada Mahasiswi. *Media Penelit dan Pengemb Kesehat*. 2024;34(1):166-176.