

THE EFFECT OF GREEN COCONUT WATER CONSUMPTION ON THE LEVELS OF DYSMENORRHEA IN ADOLESCENTS IN MADRASAH ALIYAH MANARATUL ISLAM SOUTH JAKARTA

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ABSTRACT

Dysmenorrhea is pain during menstruation, usually marked by a feeling of cramps and centered in the abdomen, complaints of menstrual pain can vary from mild to severe. Green coconut water contains calcium and magnesium which can reduce muscle tension and Vitamin C which are natural anti-inflammatory substances that help relieve pain due to menstrual cramps by inhibiting *the cyclooxygenase enzyme*. This study aims to determine the effect of consuming green coconut water on the level of dysmenorrhea pain in adolescents at Madrasah Aliyah Manaratul Islam, South Jakarta in 2022. This study used a *quasi-experimental design with one group pretest and posttest design*. Sampling technique using *purposive sampling* with 30 respondents who experienced dysmenorrhea during menstruation. The instrument used is the NRS (Numerical Rating Scale) assessing pain using a scale of 1-10. Bivariate analysis using the *Wilcoxon test*. Based on the results of non-parametric statistical analysis, namely by using the *Wilcoxon test*, the *P-value* is $0.000 < 0.05$, which means that there is an effect of consumption of green coconut water on the level of dysmenorrhea pain in adolescents at Madrasah Aliyah Manaratul Islam, South Jakarta in 2022. There is a difference between the level of dysmenorrhea pain before and after consumption of green coconut water, so it can be concluded that there is also an effect of consumption of green coconut water on dysmenorrhea pain in adolescents at Madrasah Aliyah Manaratul Islam South Jakarta in 2022.

Keywords: *Green coconut water, Dysmenorrhea, Adolescents*

INTRODUCTION

Dysmenorrhea is pain during menstruation, usually marked by a feeling of cramps and centered in the abdomen, complaints of menstrual pain can vary from mild to severe. Discomfort in dysmenorrhea if left untreated will affect mental function and individual functions such as weakness, anxiety, depression, severe cramps, disturbances in the pelvic cavity.

Based on data from the World Health Organization in 2018, more than 50% of women in every country experience dysmenorrhea, from 60% in America to 72% in Sweden, while in Indonesia the incidence of dysmenorrhea is 64.25%, including the highest number, namely menstrual pain. primary 54.89% and secondary menstrual pain 9.36%. The incidence of dysmenorrhea in Jakarta in 2019 is around 86% and 92% of students are disrupted when their menstrual pain comes. Based on the incidence of dysmenorrhea, this must be resolved quickly so that it does not have an impact on young women (Wardani et al., 2021).

One of the non-pharmacological treatments that can be used to treat pain in dysmenorrhea is consuming green coconut water. Green coconut water contains calcium and magnesium which can reduce muscle tension and Vitamin C which are natural anti-inflammatory substances that help relieve pain due to menstrual cramps by inhibiting *the cyclooxygenase enzyme*.

Based on a preliminary survey conducted by researchers at Madrasah Aliyah Manaratul Islam South Jakarta in 2022, out of 10 young women who had been interviewed as many as 7 teenagers (70%) experienced dysmenorrhea and said dysmenorrhea interfered with daily activities and even some teenagers were unable to carry out activities. and only overcome by resting. Young women also do not know the effectiveness of green coconut water to reduce dysmenorrhea.

Based on the description above, the researchers are interested in conducting research on the effect of consumption of green coconut water on the level of dysmenorrhea pain in adolescents at Madrasah Aliyah Manaratul Islam, South Jakarta in 2022.

METHOD

This study used *a quasi-experimental design with one group pretest and posttest design* . The population in this study were 60 adolescents who experienced dysmenorrhea during menstruation. Sampling technique using *purposive sampling* with 30 respondents who experienced dysmenorrhea during menstruation . The instrument used is the NRS (Numerical Rating Scale) assessing pain using a scale of 1-10. Bivariate analysis using the *Wilcoxon test* . The independent variable (independent variable) in this study is Green Coconut Water Consumption and the dependent variable (dependent variable) in this study is Dysmenorrhea Pain

DISCUSION

Table 1 . Average Dysmenorrhea Pain Level Before and After Consumption of Green Coconut Water

Pain level	N	Min	Max	Median	mean	SD	Difference
Pre Test	30	2	8	5,50 __	5 , 20	1 , 789	
Posttest	30	0	6	1.00 __	1 , 30	1 , 622	3.90 __

Based on table 1, it shows that the average level of dysmenorrhea pain before consuming green coconut water in adolescents at Madrasah Aliyah Manaratul Islam, South Jakarta is 5.20 which is in the moderate pain scale interval with a median of 5.50 (moderate pain). Before being given the green coconut water consumption intervention, the mildest dysmenorrhea pain was on a scale of 2 (mild pain), the most severe pain level was on a scale of 8 (severe pain), with a standard deviation of 1.789. Likewise, the mean pain level of dysmenorrhea after consumption of green coconut water in adolescents at Madrasah Aliyah Manaratul Islam, South Jakarta is 1.30 which is in the mild pain scale interval with a median of 1.00 (mild pain). After being given the green coconut water consumption intervention, the mildest dysmenorrhea pain was felt on a scale of 0 (no pain), the level of pain felt was the most severe on a scale of 6 (moderate pain), with a standard deviation of 1,622.

Table 2. Shapiro-Wilk Data Normality Test

Pain level	N	Means	<i>Difference</i>	<i>asympt. Sig. (2-tailed)</i>
Pre Test	30	5 , 20		
Posttest	30	1 , 30	3.90 _ _	0.000 _

Based on table 2, the results of the analysis of the data normality test using the Shapiro-Wilk test with 30 respondents where before consumption of green coconut water, they obtained $p = 0.056$, which means that the sig value is $0.056 > 0.05$ and after giving green coconut water, they get $p = 0.000$, which means sig value of $0.000 < 0.05$, which means that the two variables are categorized as data not normally distributed. Then the Wilcoxon test is carried out.

Table 3. The Effect of Green Coconut Water Consumption

Pain level	N	Means	<i>Difference</i>	<i>asympt. Sig. (2-tailed)</i>
Pre Test	30	5 , 20		
Posttest	30	1 , 30	3.90 _ _	0.000 _

Based on table 3 of the Wilcoxon test results, the statistical test results obtained p value = 0.000 ($p < 0.05$) so it can be concluded that H_0 is rejected and H_a is accepted, which means that there is an effect of consumption of green coconut water on the level of dysmenorrheal pain in adolescents at Madrasah Aliyah Manaratul Islam, Jakarta South in 2022.

The results of the research test showed that the average level of dysmenorrhea pain before consumption of green coconut water in adolescents at Madrasah Aliyah Manaratul Islam, South Jakarta was 5.20 which was on the moderate pain scale interval. While the mean level of dysmenorrhea pain after consumption of green coconut water in adolescents at Madrasah Aliyah Manaratul Islam, South Jakarta is 1.30 which is in the mild pain scale interval. Based on the results of non-parametric statistical analysis, namely by using the Wilcoxon test, the P-value is $0.000 < 0.05$, which means that there is an effect of consuming green coconut water on the level of dysmenorrhea pain in adolescents at Madrasah Aliyah Manaratul Islam, South Jakarta in 2022. So it can be concluded that there is also an influence consumption of green coconut water on the level of dysmenorrheal pain in adolescents at Madrasah Aliyah Manaratul Islam South Jakarta, 2022.

These results are in line with research conducted by Nabillah et al in 2021 the results of non-parametric statistical analysis, namely by using the Wilcoxon test, the P-value is $0.000 < 0.05$, which means that there is a difference between the consumption of green coconut water for pretest and posttest so that it can also be concluded There is an effect of consumption of green coconut water on dysmenorrheal pain in adolescents in Ampera Hamlet, Teluti District, Central Maluku Regency, Maluku Province in 2020.

The same previous research was conducted by Amiritha in 2017, reducing dysmenorrhea pain in students of the nursing science study program with a P value of $0.000 < 0.05$. The results of this statistical test show that H_0 is rejected and H_a is accepted. Effect of consumption of green coconut water which contains a number of electrolyte fluids that can prevent dehydration and dysmenorrheal pain.

Effective non-pharmacological pain management is by consuming green coconut water. Consumption of green coconut water besides not taking up time, can be done anywhere and anytime so it is very easy for every woman to do, the principle is giving 200 cc of green coconut water to be drunk 2 times a day 1 glass and consumed in the morning and evening, or afternoon and evening for 2 days in a row. Coconut water that has been removed from the fruit can last for 4 hours at room temperature, and up to 24 hours if stored in a cooler or refrigerator (Kristina and Syahid, 2014). The decrease in the intensity of menstrual pain experienced is due to the presence of calcium and magnesium contained in coconut water which can relax the uterine muscles due to increased prostaglandins which cause myometrial ischemia and uterine muscle hypercontractivity causing dysmenorrhea pain and green coconut water also contains vitamin C which is a substance -A natural anti-inflammatory substance that helps relieve pain due to menstrual cramps by inhibiting the cyclooxygenase enzyme which has a role in encouraging the process of forming prostaglandins (Amiritha, 2017).

However, according to the researchers' assumptions, the pain intensity of each individual varies depending on the individual's description of pain, perception and experience of pain. Everyone gives different perceptions and reactions to each other about the pain that everyone feels. This is because pain is a subjective feeling that only the individual himself knows the level of pain he feels. Meanwhile, the researchers only depended on the instrument used to measure the respondent's pain.

CONCLUSION

Based on the results of the discussion described earlier research that carried out on young people at Madrasah Aliyah Manaratul Islam South Jakarta in 2022 , then you can concluded as follows :

1) mean level of dysmenorrhea pain before consumption of green coconut water in adolescents at Madrasah Aliyah Manaratul Islam, South Jakarta is 5.20 which is in the moderate pain scale interval.

2) Level average The level of dysmenorrhea pain after consumption of green coconut water in adolescents at Madrasah Aliyah Manaratul Islam, South Jakarta is 1.30 which is in the mild pain scale interval.

3) There is a significant effect of consumption of green coconut water on the level of dysmenorrheal pain in adolescents at Madrasah Aliyah Manaratul Islam, South Jakarta, in 2022 .

Suggestion :

1) For Respondents

It is expected that adolescents who experience dysmenorrhea pain will often consume green young coconut water independently to reduce dysmenorrhea pain during menstruation in a non-pharmacological way .

2) For Researcher

Results study this add knowledge and outlook about handling in a manner non medical for reduce and resolve painful menstruation.

3) For The place Study

Information about benefit consume green coconut water as handling painful menstruation need optimized To use give extensive knowledge for students.

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