

## **THE EFFECTIVENESS OF HONEY GIVING AGAINST DYSMENORRHEA IN ADOLESCENT OF WOMEN YOUTH ORGANIZATION ( KARANG TARUNA) AT ANDAMUI VILLAGE, CIWARU, KUNINGAN REGENCY , WEST JAVA**

**Risna Apriani<sup>1</sup> , Risza Choirunissa<sup>2</sup> , Retno Widowati<sup>3</sup>**

<sup>1,2,3</sup>)Midwife Study Program, Applied Undergraduate Program National University  
Correspondence : risza.choirunissa@civitas.unas.ac.id, aprianirisna10@gmail.com

### **ABSTRACT**

Menstruation is periodic vaginal bleeding due to the shedding of the endometrial lining of the uterus, menstrual periods are normal for women every month, some women who experience menstruation usually have cramps, and there will be pain that can stop daily activities during menstruation or what is called dysmenorrhea. Dysmenorrhea can be treated with pharmacological therapy NSAIDs, and non-pharmacological one of them with the consumption of honey. This study to determine the effectiveness of giving honey to dysmenorrhea in adolescent coral cadets Andamui village ciwaru district Kuningan district west java. Quasi-experiment research with one group pretest-posttest design without control group. In this study researchers only intervened in one group. The sample in this study amounted to 17 adolescent aged 15-20 years. The sampling technique used purposive sampling that met the inclusion and exclusion criteria. The research instrument used a Numeric Rating Scale (NRS) pain measuring instrument questionnaire. The results of the Wilcoxon statistical test showed that there was an effect of giving acacia crassica honey to the decrease in the level of pain in dysmenorrhea with a significance value of Asymp Sig (2tailed) = 0.000 ( $\alpha < 0.05$ ). The results of this study showed that there was a decrease in the level of pain after giving acacia crassica honey. There is a significant effect on giving honey to reduce dysmenorrhea pain.

**Keywords** : Dysmenorrhea, Honey, Acacia crassica

### **INTRODUCTION**

Adolescence is a period of dynamic development in life A person , adolescents experience many changes both physically and mentally physiological . Adolescence will begin with puberty starting with the onset of secondary sex characteristics, at this stage adolescents experience a physical change, emotional, and social characteristics of puberty . Environmental conditions and Nutrition also affects the rapid growth of adolescents, in women , puberty is marked with the onset of menstruation . (Nuraisyah et al. , 2021).

Vaginal bleeding periodically due to the shedding of the uterine endometrial lining , period /menstrual cycle running normal occurs in women every 28-35 days where for Menstrual period (menstruation) lasts for 3 - 5 days with average blood loss of 30-80 milliliters , some women who Menstruation usually has cramps, and there will be pain that can stop daily activities during menstruation, which is usually called dysmenorrhea (Wijayanti, 2021).

Menstrual pain or dysmenorrhea is a characteristic pain that appears characterized by cramps in the area around the lower abdomen pelvis and the area around the vagina, sometimes girls will bow or crawling because they can't stand the pain, some even reach fainting, this is very disturbing women's daily activities (Nizam and Binti, 2020).

Dysmenorrhea also defined as disturbance during menstruation, this annoyance classified into two forms, namely primary dysmenorrhea and dysmenorrhea secondary. Primary dysmenorrhea is pain during menstruation without any anatomical abnormalities of the genitals while secondary dysmenorrhea is pain menstruation associated with obvious anatomical abnormalities (Nizam and Binti, 2020).

The onset of dysmenorrhea is often associated with increased levels of prostaglandins, prostaglandins produced by follicles will bind to receptors in the endometrium or myometrium, where it is known that prostaglandins have the power to increase contraction of the uterine muscle, prostaglandins also have a vasoconstrictive effect that can cause ischemia in the uterine muscle. which at the same time can cause pain (Nizam and Binti, 2020).

Dysmenorrhea also has an impact that can cause a number of problems for female students, including absenteeism from lectures, activity limitations, decreased academic achievement and psychological problems (lack of concentration, difficulty sleeping, sensitive, and irritable), in other words, dysmenorrhea can affect women's quality of life (Bustamam et al., 2021).

Based on WHO data (2016) obtained the incidence of dysmenorrhea is 1,769,425 people women in the world experience dysmenorrhea heavy, no dysmenorrhea events in Indonesia with 107,673 people consisting of 59,671 people with primary dysmenorrhea and 9,496 people with secondary dysmenorrhea, number The incidence of dysmenorrhea ranges from 45-95% in among women of reproductive age (Oktorika et al., 2020).

The incidence of primary dysmenorrhea in Indonesia in 2018 reached 64.25%, consisting of 54.89% primary dysmenorrhea, and 9.36% experiencing secondary dysmenorrhea (Nurmawati, 2019). At this time it is estimated that the prevalence of clinically significant symptoms is 12.6% - 31% of women at the age of menarche (Marbun, 2022). The incidence of dysmenorrhea in West Java that is as much as 54.9% woman have dysmenorrhea consists of 24.5% mild category, 21.28% moderate category, and 9.36% experienced severe dysmenorrhea (Aisyah et al., 2022). The condition of pain during menstruation in adolescent girls that occurs in Andamui Village, Ciwaru Kuningan District, West Java, based on the results of a preliminary study of 30 teenage girls, 23 of them experience pain during menstruation, meaning that the prevalence rate of dysmenorrhea is still quite high at 76% of girls experiencing dysmenorrhea.

Possible risk factors Dysmenorrhea affects, among others, women under the age of 30 years, have never had give birth, have a history of dysmenorrhea in the family, a smoker, period puberty less than 11 years old or early puberty, low body mass index, low socioeconomic status, and physical activity (Oktorika et al., 2020).

Dysmenorrhea can treated with pharmacological techniques and non-pharmacological, pharmacological techniques namely NSAIDs (non-steroidal anti-inflammatory drugs) anti-inflammatory drugs) such as Naproxen, Ibuprofen,

Hydrocodone, Diclofenac, Acetaminophen, Meclofenamate Sodium and Ketoprofen . Non-technical Pharmacological treatment can be treated with warm compresses , music therapy, acupuncture, distraction, relaxation, consumption of herbal drinks (Nurfadilah, 2020) .

There is a tendency to use herbs and alternative treatments for primary dysmenorrhea, one of which is the use of honey (National Standardization Agency, 2021). Honey is a nutrient-rich food containing vitamins K, B1, E, and minerals Ca, Mg, Zn (Naz et al , 2020). The content of vitamin E in honey has the ability to inhibit the formation of prostaglandins, this is because vitamin E will inhibit the activity of the enzymes phospholipase A and cyclooxygenase, besides that it can also increase the production of prostacyclin and prostaglandin E2 which functions as smooth muscle relaxation (Suwanto et al , 2020). The results showed that drinking honey 1.2 g/kg body weight dissolved in 250 ml of water could reduce levels of thromboxane, prostaglandins in plasma after 1-3 hours, the decrease in levels of these substances in larger amounts was as much as 48%, 63%, and 50% occurred when the subject drank honey at a dose of 1.2 g/kg body weight every day for 14 days, thereby reducing dysmenorrhea pain (Naz et al , 2020).

Related research was also carried out by Sandiati (2015) who found that honey was able to reduce menstrual pain with the research title "The Effect of Giving Honey on Reducing Menstrual Pain in PSIK FIKES Students, University of Muhammadiyah Malang". This is also supported by the results of research conducted by Bustamam et al (2021) on University medical students. Jakarta Veterans National Development, honey can reduce pain intensity and dysmenorrhea level. In addition to reducing the degree of pain, honey can reduce the length of time menstrual pain. Honey can also reduce dysmenorrhea disorders in general activities, moods, ability to walk, work, relationships with other people, sleep and enjoy life (Bustamam et al , 2021). Based on this background , the author is interested in identifying the "Effectiveness of giving Acacia crassicarpa honey on the dysmenorrhea pain scale in young women youth organizations in Andamui Village, Ciwaru District, Kuningan Regency, West Java".

## RESEARCH METHODS

The research design in this study is quasi-experimental t with one group pretest-posttest design without control group. The population in this study were all young female members of the coral reef cadets aged 15-20 years totaling 27 teenagers. The sample in this study were 17 adolescents . The sampling technique in this study used purposive sampling. The instrument in this study used the NRS ( Numeric Rating Scale ) pain scale.

## RESEARCH RESULTS AND DISCUSSION

### Univariate Analysis Results

Table 1. Frequency Distribution of Respondents Characteristics

| Characteristics | Amount | %    |
|-----------------|--------|------|
| <b>Age</b>      |        |      |
| 15 years        | 3      | 17.6 |
| 16 years        | 3      | 17.6 |
| 17 years        | 6      | 35.3 |
| 18 years        | 2      | 11.8 |
| 19 years old    | 1      | 5.9  |

|                                   |    |      |
|-----------------------------------|----|------|
| 20 years                          | 2  | 11.8 |
| <b>Menstruation</b>               |    |      |
| Regular                           | 15 | 88.2 |
| Irregular                         | 2  | 11.8 |
| <b>Menstruation Length</b>        |    |      |
| < 7 Days                          | 14 | 82.4 |
| > 7 Days                          | 3  | 17.6 |
| <b>Change Pads</b>                |    |      |
| 2 Times a Day                     | 13 | 76.5 |
| 3 Times a Day                     | 2  | 11.8 |
| <b>Dysmenorrhea pain duration</b> |    |      |
| 1 day                             | 6  | 35.3 |
| 2 days                            | 5  | 29.4 |
| 3 days                            | 4  | 23.5 |
| 4 days                            | 1  | 5.9  |
| 5 days                            | 1  | 5.9  |

Based on table 1 above, the age of respondents between 15 years is 3 people or (17.6%), the age of 16 years is 3 people or (17.6%), the age of 17 years is 6 people or (35.3%) , age 18 years as many as 2 people or (11.8%), age 19 years as many as 1 person or (5.9%), while age 20 years as many as 2 people or (11.8%).

Respondents who experienced regular menstruation as many as 15 people or (88.2%) and respondents who experienced irregular menstruation as many as 2 people or (11.8%) . Respondents who experienced the length of menstruation less than a week were 14 people or (82.4%) and respondents who experienced the length of menstruation more than a week were 3 people or (17.6%). Respondents who change sanitary napkins 2 times in a day as many as 13 people (76.5%), changing sanitary napkins 3 times a day as many as 2 people (11.8%) and respondents changing sanitary napkins 4 times a day as many as 2 people (11.8 %). The number of respondents who experienced pain duration of dysmenorrhea 1 day was 6 people (35.3%), duration of pain of dysmenorrhea 2 days was 5 people (29.4%), duration of pain of dysmenorrhea 3 days was 4 people (23.5%) , 1 person (5.9%) of 4 days of dysmenorrhea pain and 1 person (5.9%) of 5 days of dysmenorrhea pain.

Table 2. Frequency of Dysmenorrhea Pain Levels Before and After Drinking Honey

| Menstrual Pain Level | Drinking Honey Acacia Crassiparva Jenis |            |           |            |
|----------------------|-----------------------------------------|------------|-----------|------------|
|                      | Before                                  |            | After     |            |
|                      | Frequency                               | Percentage | Frequency | Percentage |
| No Pain              | 0                                       | 0          | 4         | 23.5       |
| Mild Pain            | 0                                       | 0          | 12        | 70.6       |
| Moderate Pain        | 9                                       | 52.9       | 1         | 5.9        |
| Severe Pain          | 8                                       | 47.1       | 0         |            |
| <b>Total</b>         | 17                                      | 100.0      | 17        | 100.0      |

Based on table 2 above, it is known that the level of dysmenorrhea pain before drinking honey, as many as 52.9% of respondents experienced moderate pain, and 47.1% of respondents experienced severe pain. Unlike the case after drinking Acacia crassiparva honey , there were no respondents who suffered from severe pain. Mild pain that was not originally there became 70.6% and no pain as much as 23.5% .

## Bivariate Analysis Results

Table 3. Data Normality Test

| Normality test                        |            |    |       |
|---------------------------------------|------------|----|-------|
| Shapiro-Wilk                          |            |    |       |
|                                       | Statistics | df | Sig.  |
| Before                                | 0.642      | 17 | 0.000 |
| After                                 | 0.703      | 17 | 0.000 |
| a. Lilliefors Significance Correction |            |    |       |

Based on table 3, it can be seen that the data normality test using the Shapiro Wilk test showed that the average intake of *Acacia crassicaarpa* honey before and after had a p value <0.05, which means that the data was not normally distributed .

Table 4. The Effectiveness of Giving Honey Against Dysmenorrhea in Adolescent Girls

| Treatment    | N  | Mean Rank | Z      | Asymp Sig. (2-tailed) | Conclusion |
|--------------|----|-----------|--------|-----------------------|------------|
| After before | 17 | 9.00      | -3.758 | 0.000                 | mean       |

## Discussion

### 1. Dysmenorrhea Pain Level Before Giving Honey Type *Acacia Crassicaarpa*

The results of this study illustrate that the level of dysmenorrhea pain before drinking *Acacia crassicaarpa* honey was mostly in the moderate pain category, as many as 52.9% of respondents and 47.1% in the severe pain category .Based on a study conducted by Suwanto (2021) with the title "Reduction of Primary Dysmenorrhea Pain With the Provision of a Combination of Red Ginger and Honey" shows that the degree of dysmenorrhea pain also varies from mild to severe, the probability of primary dysmenorrhea is more than 50% and 15% has severe pain. . Several risk factors that cause a dysmenorrhea response are the first menstruation (menarche) at an early age (less than 12 years), women who have never given birth to a live child (nulipara), heavy menstrual blood or long menstruation, a family history of dysmenorrhea, as well as factors such as women's health, nutrition, body weight relative to height.

Dysmenorrhea pain were at the age of 17 years as many as 6 people (35.3%). At that age there is an optimization of uterine nerve function so that prostaglandin secretion increases and causes pain. Prostaglandins will stimulate the smooth muscles of the uterine wall to contract. The higher the levels of prostaglandins, the stronger the contractions, so the pain you feel is also getting stronger. On the first day of menstruation, prostaglandin levels are very high. On the second and subsequent day, the lining of the uterus will begin to shed, and prostaglandin levels will decrease. The pain and tenderness of dysmenorrhea will decrease along with the decreasing levels of prostaglandins. This is in accordance with Badziad's opinion that pain usually occurs at the age of 16-25 years because at that age the hormones are still unstable. Other factors such as the length of menstruation can also affect menstrual pain. The results of this study showed that most of the 82.4% respondents experienced an average menstrual period of 7 days, this is not in accordance with research conducted by

Astriani (2016) which stated that there was a significant relationship between the length of menstruation and the incidence of menstrual pain.

According to researchers from the results of research that has been carried out on the level of dysmenorrhea pain in Young Women Members of Karang Taruna Andamui Village, Kuningan Regency, West Java, the most experienced moderate and severe pain, because the presence of dysmenorrhea pain can interfere with the activities of Young Women Members of Karang Taruna Andamui Village. in the learning process or other activities that require concentration. In addition, some of the factors described above such as age, regularity, duration of dysmenorrhea, changing pads and length of pain can affect a person's pain level, where each person's perception of pain is also very subjective so that it can affect pain response. dysmenorrhea which varies as well.

### ***2. Dysmenorrhea Pain Level After Giving Honey Acacia Crassicarpa Jenis***

The results of this study illustrate that the level of dysmenorrhea pain after giving honey drink Acacia crassicarpa mostly in the category of mild pain, as many as 70.6% of respondents and some respondents in the category of moderate pain, as many as 5.9% of respondents and in the category of no pain as much as 23.5%. Respondents who experienced pain in the category of severe and moderate pain experienced a decrease in the pain scale to mild pain and no pain. This indicates a decrease in the level of pain. This research is in line with research conducted by Harahap (2020) on "The Effect of Giving Pineapple Juice and Honey to Reduction of Menstrual Pain in Young Women at YP Singosari Delitua Junior High School". Where the results of the study of students who consume honey tend to experience mild menstrual pain which was previously severe and moderate pain, this is because honey is useful as an analgesic that can reduce menstrual pain.

According to several studies, honey is used in various modern medicine because it has A therapeutic effect, which has high viscosity, has a low pH, contains antioxidants, anti-inflammatory substances, growth stimulants, amino acids, vitamins, and minerals. Honey contains various kinds of enzymes (amylase, diastase, investase, catalase, peroxidase, lipase) that facilitate chemical reactions of various metabolisms in the body, and contain flavonoids.

### ***3. The Effectiveness of Giving Acacia Crassicarpa Honey to the Pain Level of Dysmenorrhea***

The results of the Wilcoxon statistical test showed that there was an effect of giving Acacia crassicarpa honey to decrease the level of dysmenorrhea pain with a significance value of Asymp Sig (2tailed) = 0.000 ( $\alpha < 0.05$ ). The results of this study showed a decrease in pain levels after administration of Acacia crassicarpa honey .

research is in line with Harahap (2020) on "The Effect of Giving Pineapple Juice and Honey to Reduction of Menstrual Pain in Young Women at Yp Singosari Delitua Junior High School". p obtained is 0.000 which means  $p < 0.05$  or there is an effect of pineapple juice and honey on decreasing pain scale in primary dysmenorrhea. The severe pain scale became moderate and the mild pain scale became no pain.

The same research was also conducted by Sari (2020) regarding "Increasing Knowledge of the Efficacy of Grated Turmeric and Honey to Relieve Dysmenorrhea Pain in Students at the Pancasila Islamic Boarding School in Bengkulu City in 2020, the research was conducted on 17 respondents with  $p = 0.000$ , which means  $p < 0.05$ ,

this shows that grated turmeric and honey can reduce the level of severe and moderate pain to become painless against dysmenorrhea .

### **CONCLUSIONS AND SUGGESTIONS**

Based on the results of data analysis and discussion that has been stated, it can be concluded that: The level of menstrual pain before drinking *Acacia crassicaarpa* honey was 52.9% of respondents in the moderate pain category. The level of menstrual pain after drinking *Acacia crassicaarpa* honey was 70.6% of respondents in the mild pain category. There is a significant effect on reducing dysmenorrhea pain in adolescent girls who drink *Acacia crassicaarpa* honey . The results of the Wilcoxon test showed that the Asymp Sig (2tailed) = 0.000 ( $\alpha < 0.05$ ) showed a significant difference in the level of dysmenorrhea pain before and after drinking *Acacia crassicaarpa* honey. *Acacia crassicaarpa* honey drink can be used as a way to reduce dysmenorrhea pain as safe and easy non-pharmacological method. Can support and facilitate *Acacia crassicaarpa* honey to reduce dysmenorrhea pain.

### **BIBLIOGRAPHY**

- Aisyah., Jayanti., R., and Dwimawati, E. (2022). The Relationship Between Stress Levels in Distance Learning during the Covid-19 Pandemic and the Incidence of Dysmenorrhea in Adolescent Girls at Islamic High School Hasmi Boarding School Bogor Regency, *Promoter of Public Health Student Journal* , 5(2), 126-134.
- Bustamam . N . , Fauziah , C . , Bahar , M. (2021). Effect of honey on the level of dysmenorrhea pain and quality of life of students of the Faculty of Medicine, Universitas Pembangunan Nasional Veterans Jakarta. *Journal of Reproductive Health* , 12(1 ) , 39-50.
- BSN , (2021), SNI to guarantee the quality of honey, National Standardization Agency , Jakarta.
- Harahap, ES, Zuliawati., Siregar, CA, (2020). The Effect of Pineapple Juice and Honey on Reduction of Menstrual Pain in Young Women at YP Singosari Junior High School, Delitua. *Journal of Obstetrics & Health Research* , 3(1), 19-16.
- Marbun., U., & Purnamasari., L., (2022). Research Article Effectiveness of Acupressure Therapy on Reduction of Dysmenorrhea in Midwifery DIII Students, *Scientific Journal of Health Sandi Husada* , 11(1), 64-69.
- Nuraisyah., W., Yustanta., BF., Kostania. G., Argaheni., NB, et al., (2021 ). Midwifery Care during the Covid-19 Pandemic Period 3rd Edition , CV of the Indonesian Smart Writer, Malang, 243-260.
- Nizam., A., & Binti., NAA (2020). Intensity of Dysmenorrhea and Analgesic Treatment used in Students of the Faculty of Medicine, Hasanudin University, Thesis, Faculty of Medicine, Hasanuddin University, Makassar.
- Nurfadilah, A., (2020), Non-Pharmacological Management to Reduce Dysmenorrhea Pain in Young Women, *Scientific Writing , Midwifery Study Program*, Bhakti Kencana University, Bandung.
- Naz . , M. S. \_ G . , Kiani . , Z, Fakari . , F . R, Ghasemi . , V . , Abed . , M . , Ozgoli . , G.(2020).The Effect of Micronutrients on Pain Management of Primary

- Dysmenorrhea ., a Systematic Review and Meta Analysis. *J Caring Science* . 9(1 ) , 47–56 .
- Oktorika., P., Indrawati., and Sudiarti., PE, (2020). Relationship between Body Mass Index and Dysmenorrhea Pain Scale in Adolescent Girls at SMA Negeri 2 Kampar. *Journal of Ners*, 4(2), 122-129.
- Suwanto., Rahmawati. House. K., Mashito. K., (2021). Reduction of Primary Dysmenorrhea Pain by Giving a Combination of Red Ginger and Honey. *Journals Of Ners Community* , 12(2), 268-275.
- Sari, LY, Putri, Y., Rossita, T., Yulianti, S., Umami, DA, (2020). Increasing Knowledge of Grated Turmeric and Honey to Relieve Dysmenorrhea Pain in Students at the Pancasila Islamic Boarding School in Bengkulu City. *Journal of Service and Community Service* , 4(2), 84-90.
- Wijayanti, ES (2021). The Effect of Stress on Menstrual Cycle in Young Women. *Health Science Communication Media*, 13(02), 183–190 .