

The Effect of Honey on The Level of Dysmenorrhea Pain in Nursing Students of Muhammadiyah University Tasikmalaya

Ida Herdiani¹, Nia Restiana¹, Hana Ariyani¹, Ria Febriyani¹

¹Universitas Muhammadiyah Tasikmalaya, Tasikmalaya, Indonesia

Article Information

Revised: September 2024

Available online: October 2024

Keywords

Dysmenorrhea, Honey, College Student

Correspondence

E-mail : ida.herdiani@umtas.ac.id

ABSTRACT

Dysmenorrhea is the most common gynecological disorder among women of all ages and races. Dysmenorrhea is defined as pain during menstruation that is accompanied by cramping and centered in the lower abdomen. Dysmenorrhea can cause a number of problems, including activity limitation, decreased academic performance, and difficulty sleeping so that it can interfere with life activities. Currently, there is a need for the use of herbs and alternative medicine to overcome dysmenorrhea, one of which is using honey which can reduce menstrual pain. The purpose of this study was to determine the effect of honey on the level of dysmenorrhea pain in nursing students at Muhammadiyah Tasikmalaya University. This research method uses Quasi Exsperimen research method with Pre-Experimental design with one group pre-test and post-test design approach. This research was conducted at the University of Muhammadiyah Tasikmalaya. Respondents measured pain levels during dysmenorrhea before and after honey administration. The results showed that giving honey had an effect on reducing menstrual pain or dysmenorrhea in nursing students as indicated by a value of $P = 0.000$. The conclusion is that there is a change in the intensity of menstrual pain before and after giving honey. Suggestions are expected that the results of this study can be implemented by further researchers as an alternative to dysmenorrhea pain.

INTRODUCTION

Reproductive health is a state of complete physical, mental and social well-being, not only free from disease or disability, but in all matters relating to the reproductive system and its functions and processes. One important aspect of women's reproductive health is menstrual health. Menstrual disorders can be in the form of bleeding pattern disorders, ovarian function, menstrual pain (dysmenorrhea) and other disorders associated with menstruation. Dysmenorrhea is a gynecological disorder that

It is most common in women of all ages and races.

Dysmenorrhea is defined as pain during menstruation that is accompanied by cramping and centered in the lower abdomen (Putri et al., 2020). The prevalence of dysmenorrhea varies widely, ranging from 16-91 percent and 2-28 percent of them experience interference with daily activities. In reproductive age, the prevalence of dysmenorrhea is estimated to range from 45-95 percent and 10-25 percent of them are classified as severe primary dysmenorrhea (menstrual pain without pathological conditions in the pelvis).

The incidence of dysmenorrhea in the world is quite large, on average more than 50% of women in each country experience menstrual pain. In America, the percentage is around 60%, in Sweden around 72%, while in Indonesia alone it reaches 55%. The prevalence of dysmenorrhea ranges from 45-95% among women of productive age (Proverawati & Misaroh, 2010).

Dysmenorrhea can cause a number of problems for female students, including

missed classes, activity limitation, decreased academic performance and psychological problems (lack of concentration, sleeplessness, sensitivity, and irritability). In other words, dysmenorrhea can affect women's quality of life (Saalino et al., 2023).

One way to manage dysmenorrhea is by using pharmacological and non-pharmacological strategies (Chen et al., 2018). Pharmacological therapies include analgesic drugs, hormonal therapy or nonsteroidal prostaglandin drugs. Non-pharmacological therapy is done with exercise, warm compresses, music therapy, relaxation and herbal drinks. One of the non-pharmacological treatments that people usually do is drinking herbs that can reduce pain. The herbal product used is honey. At this time there is a trend towards the use of herbs and alternative medicine for primary dysmenorrhea, one of which is the use of honey. Honey is a nutrient-rich food because it contains sugars, vitamins, minerals, amino acids, enzymes and a number of substances known to be beneficial for dysmenorrhea (Bustamam et al., 2023)

The results of a study Bustamam et al., 2023 on female students of the Faculty of Medicine of the National Development University Veteran Jakarta showed that honey can reduce pain intensity ($p=0.000$) and dysmenorrhea grade ($p=0.001$). In addition to reducing the degree of pain, honey can reduce dysmenorrhea interference with general activity, mood, ability to walk, work, relationships with others, sleep and enjoy life ($p < 0.001$).

The results of preliminary studies conducted in nursing students from 10 students who experienced dysmenorrhea to

reduce pain, 8 people usually used warm water compresses, while the use of honey as and the use of honey has never been done.

The use of footnotes is not permitted. Symbols/symbols are written clearly and consistently. Foreign terms are written in italics. Abbreviations must be written in full the first time they are mentioned, after that you can write the abbreviated word.

METHOD

This study used Quasi Exsperimen research method with Pre-Experimental design with one group pre-test and post-test design approach. This research was conducted at the University of Muhammadiyah Tasikmalaya. Respondents measured pain levels during dysmenorrhea before and after giving honey.

The population used in this study were all nursing students. The sample used in this study was 75 respondents with stratified sampling techniques with inclusion criteria willing to be respondents, active students and experiencing dysmenorrhea and not experiencing secondary dysmenorrhea.

Measurement of dysmenorrhea pain levels in respondents was carried out twice before and after the intervention using an observation sheet. The intervention of giving honey is done by giving 25 ml of honey, consumed for 2 days during menstruation and observations are made on day 2, 3 hours after drinking honey.

RESULTS AND DISCUSSION

1. Univariate Analysis

Table 1 Frequency distribution of dysmenorrhea pain levels before and after honey intervention

Variabel	N	Mean	SD	SE	Min - Max	Median
Nyeri dismenore Pre Test	75	5,23	1,547	0,179	3 – 10	5,00
Nyeri dismenore Post Test	75	2,16	1,443	0,167	0– 6	2,00

Based on table 1, it is known that the average level of dysmenorrhea pain before being given honey intervention in respondents with a standard deviation of 1.547, SE 0.179, min - max value 3-10 and median 5.23, then the level of dysmenorrhea pain after being given honey intervention in respondents with a standard deviation of 1.443, SE 0.167, min - max value 0-6 and median 2.16.

2. Bivariate Analysis

Table 2. Frequency distribution based on the effect before and after giving honey to the level of dysmenorrhea pain of nursing students

Variabel	N	Mean	SD	SE	t	p-value
Tingkat nyeri dismenore sebelum dan setelah pemberian intervensi madu	75	3.067	1.212	0.140	21,916	,000

It is known from table 2 above that the results of the paired t-test statistical test obtained a p-value of 0.000, so the hypothesis Ha is accepted, which means that there is an effect of giving honey on reducing the level of menstrual pain (dysmenorrhea) in respondents.

Nursing students 5.23, standard deviation 5.23 t 21.916.

Based on the results of research and data processing, it was found that there was a decrease in the level of menstrual pain after being given honey intervention to respondents. Where it can be seen that the level of menstrual pain before the intervention is given an average value of 5.23 with a standard deviation of 1.547 and the average pain level after drinking honey is 2.16 with a standard deviation of 1.443. The results of the statistical test obtained a p-value of $0.000 <$ from the alpha value (0.05) can be concluded that there is an effect of honey on reducing the level of dysmenorrhea pain so that H_0 is rejected and H_a is accepted.

Dysmenorrhea can be felt because due to a drastic decrease in the hormone progesterone, it causes the formation of prostaglandins so that pain occurs on the first day to the third day of menstruation.

This is in line with research conducted by Bustaman (2021) entitled the effect of honey on the level of dysmenorrhea pain and quality of life of students of the Faculty of Medicine, National Development University Veterans Jakarta, the results of his research show that honey can reduce pain intensity ($p = 0.000$) and grade dysmenorrhea ($p = 0.001$) in addition to reducing the degree of pain honey can reduce duration. Wilcoxon test results also showed that honey can reduce dysmenorrhea interference with general activity, mood, ability to walk, work, relationships with others, sleep, and enjoy life ($p \leq 0.001$).

Giving honey can reduce the dysmenorrhea experienced by respondents because honey has a therapeutic effect, namely having a high viscosity, having a low pH, containing antioxidants, anti-inflammatory, growth stimulant substances, aminovitamin acids and minerals. Honey contains various kinds of enzymes (amylase, diastase, investase, catalase, peroxidase, lipase) which facilitate chemical reactions of various metabolisms in the body and contain flavonoids. Flavonoids are

substances that can inhibit the production of cyclooxygenase, so they can be used to relieve pain (Astriani, 2016).

CONCLUSIONS AND RECOMMENDATIONS

The conclusion of this study is that there is an effect of honey administration on reducing dysmenorrhea pain from moderate pain intensity to mild pain intensity in nursing students at Muhammadiyah Tasikmalaya University.

BIBLIOGRAPHY

- Astriani, H. G. (2016). *Pengaruh Pemberian Madu Terhadap Penurunan Intensitas Nyeri Haid (Dysmenorrhea) pada Remaja Putri di SMA N 1 Sedayu Bantul*. Sekolah Tinggi Ilmu Kesehatan Jenderal Achmad Yani.
- Bustaman, N., Fauziah, C., & Bahar, M. (2023). Pengaruh Madu Terhadap Tingkat Nyeri Dismenore Dan Kualitas Hidup Mahasiswi Fakultas Kedokteran Universitas Pembangunan Nasional Veteran Jakarta. *Jurnal Kesehatan Reproduksi*, 12(1), 39–50. <https://doi.org/10.58185/jkr.v12i1.6>
- Chen, C. ., Draucker, C. ., & Carpenter, J. . (2018). What women say about their dysmenorrhea: a qualitative thematic analysis. *BMC Women's Health*, 18(1).
- Proverawati, A., & Misaroh, S. (2010). *Menarche: Menstruasi Pertama Penuh Makna*. Nuha Medika.
- Putri, N. E., Wilson, & Putri, E. A. (2020). Hubungan Regulasi Emosi Terhadap Intensitas Nyeri Haid (Dismenore) Pada Siswi Sekolah Menengah Pertama Negeri 8 Pontianak. *Jurnal Nasional Ilmu Kesehatan*, 3(2), 51–61.

Saalino, V., Sampe, L., Rante, R., Tinggi, S., Kesehatan, I., & Toraja, T. (2023). Pengaruh Nyeri haid (Dismenorhea) terhadap aktivitas belajar pada remaja

putri di SMAN 4 Toraja Utara Abstrak (Indonesia). *Jurnal Kesehatan Ilmiah Promotif*, 8(1), 26–39.