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THE EFFECTIVENESS OF *WET CUPPING THERAPY* AGAINST MENSTRUAL PAIN (DYSMENORRHEA) ON COLLEGE STUDENT NURSING OF STIKES SURYA GLOBAL YOGYAKARTA

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ABSTRACT

Dysmenorrhea is a physical disorder during menstruation that causes decreased activity, enthusiasm, and attention to learning. The complaint consists of pain, headaches, and fatigue. Dysmenorrhea needs to be overcome with the wet cupping therapy. The study aims to determine Wet Cupping Therapy's effectiveness on menstrual pain (dysmenorrhea) in nursing students. This study used a pre-experimental research design with a pre-post test design model with 15 respondents. The instrument in this study used a Numeric Rating Scale for pain measurement. The research analysis used a normality test using Shapiro-Wilk and Wilcoxon test analysis. The analysis results show that there is a significant difference with a p-value of 0.001. So it can be concluded that wet cupping (cupping) effectively reduces the intensity of menstrual pain (dysmenorrhea) in nursing students.

Keywords: *Wet Cupping ,* Dysmenorrhea, Pain.

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1. INTRODUCTION

Humans are creatures that grow and develop. One of the stages of growth and development is entering adolescence which is marked by the first menstruation (menarche). The prevalence of dysmenorrhea in the world is extensive. Dysmenorrhea is the most common menstrual disorder, which is around 73.83%. The incidence of dysmenorrhea in Indonesia reached 64.25%, consisting of 54.89% primary dysmenorrhea and 9.36% secondary dysmenorrhea. In the Special Region of Yogyakarta (DIY), the incidence of dysmenorrhea experienced by students of productive age is 52%. Bantul Regency is one of the cities with the highest number of women, namely 60,449 (35.9%) out of 168,261 people.[1]

Menstruation is expelling blood, mucus, and cellular debris from the uterine mucosa accompanied by periodic desquamation of the endometrium and a cycle that begins about 14 days after ovulation. The disorders experienced also vary, can occur during, before or after menstruation, including premenstrual syndrome, dysmenorrhea, amenorrhea, hypermenorrhea, etc. Menstrual pain or dysmenorrhea is a very prominent physical disorder in students who are menstruating in the form of abdominal pain/cramping disorders. Dysmenorrhea makes a person difficult to sleep and feel restless, resulting in complaints such as pain, headache, fatigue, nausea, vomiting, diarrhea, and cold sweats. For students who experience dysmenorrhea, it will cause many changes, such as being moody, irritable, unable to interact effectively, decreased enthusiasm for learning, decreased attention while studying, and some are unable to attend lectures on campus.[2]

Dysmenorrhea can be treated with various methods to help reduce annoying menstrual pain. There are two kinds of methods, namely pharmacological therapy and non-pharmacological therapy. One of the non-pharmacological therapies for those who experience dysmenorrhea is using a complementary approach therapy. One of the complementary therapies that can be used is wet cupping. In Islam, wet cupping (cupping), known as " Hijama," is one of the treatments recommended by the Prophet Muhammad and is used as a preventive, curative, and rehabilitative effort.[3]

Wet cupping (cupping) is a treatment method by suctioning the skin in certain parts to remove toxins and oxidants in the body through thin incisions that hit the capillaries in the epidermis. Cupping plays a role in releasing prostaglandin substances that are formed due to cell inflammation. Prostaglandins are substances that function to send pain signals to the brain. Cupping stimulates the release of endorphins and enkephalins, which play a role in reducing sensitivity (sensitivity) to pain.[4] These two substances are released due to mild pain due to suction and puncture of the cupping tool.[5]

It was found that the ten respondents experienced dysmenorrhea with different pain scales. 2 respondents said the pain scale was 8, 2 respondents said the pain scale was 7, 4 respondents said the pain scale was 5, and 2 respondents said the pain scale was 4. All respondents said the pain was in the lower abdomen and radiated to the hips. Eight of them said the pain they experienced interfered with activities such as difficulty sleeping, difficulty

concentrating while studying, and decreasing appetite. The severest dysmenorrhea pain is experienced on days 1-3 of menstrual bleeding, and then some overcome the pain by compressing warm water, walking, resting, and drinking warm water. Based on the above background, researchers are interested in researching the effectiveness of Wet Cupping Therapy for menstrual pain (dysmenorrhea). This study aimed to determine the effectiveness of Wet Cupping Therapy in reducing menstrual pain (Dysmenorrhea).

2. METHODS

This research is a *pre-experimental study* with a *pre-post test approach* . The population in the study was Yogyakarta global solar stikes nursing students with inclusion criteria, namely primary menstrual pain (dysmenorrhea), experiencing dysmenorrhea on day 1-3 menstruation, unconsumed pain medication for dysmenorrhoea during the study and were willing to be respondents and could follow the research procedures to completion. The number of samples is 15 respondents. Sampling technique is utilizing incidental sampling technique.

The researcher measured the pain scale using the Numeric Rating Scale followed by data collection (pre-test). In this case a research assistant assisted the researcher. Pre-test data collection was carried out 5-10 minutes before the wet cupping (cupping) process was carried out. Wet cupping (cupping) intervention was carried out once for each respondent at the al -kahil and al - warik points by a cupping therapist who already had a certificate in the field with a period of 15-30 minutes for each respondent. Then the post-test data collection was carried out 15-20 minutes after the wet cupping process was given to the respondents. Data analysis using the Wilcoxon test. Study this has got permission study with the ethical number No. 4.21./KEPK/SSG/III/2022.

3. RESULTS

Table 1 shows that the average respondent experienced dysmenorrhea on the 1st day of menstruation totaling 7 respondents (46.7%), duration of dysmenorrhea <7 7 respondents (46.7%), do not have reproductive diseases as many as 15 respondents (100%), the majority of respondents take a break during dysmenorrhea as many as 13 respondents (86.7%), and the majority of respondents feel the effects of dysmenorrhea as many as 9 respondents (60.0%).

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Table 1. Frequency Distribution Characteristics of Respondents

No	Characteristics of Respondents	Frequency (f)	Percentage (%)
1	**Menstruation to**		
	a. Day 1	7	46.7
	b. Day 2	6	40.0
	c. 3rd day	2	13.3
2	**Dysmenorrhea duration:**		
	a. >7 days	8	53.3
	b. <7 days	7	46.7
3	**Diseases of the reproductive system:**		
	a. Exist	0	0
	b. There is no	15	100.0
4	**What to do when dysmenorrhea:**		
	a. Rest	13	86.7
	b. Take medicine	0	0
	c. be active	2	13.3
5	**The impact of dysmenorrhea in activities:**		
	a.Annoying	9	60.0
	b. Less enthusiastic	6	40.0
	c. Do not disturb	0	0
	Total	15	100

Table 2. Normality Test Results Using the *Shapiro-Wilk . Test*

Variable	*P value*	*Min*	*max*	*mean*	*Std. Dev.*
Pre test	0.060	3.00	8.00	5.66	1,799
Post test	0.001	1.00	4.00	1.66	0.899

Table 2 shows that the results of the normality test using the *Shapiro Wilk test,* obtained a p value > 0.001. This shows that the data in this study are not normally distributed, then statistical testing will use a nonparametric test (*Wilcoxon).*

Table 3. *Wilcoxon . Test Results*

Variable	N	*Wilcoxon mean*	Z	*Sig. (2-tailed)*
Pre test and post test	15	8.00	-3,438	,001

Table 3 shows that the results of the *Wilcoxon test* are there are differences in the level of menstrual pain (dysmenorrhea) in respondents after being given an intervention in the form of *wet cupping* (cupping) at STIKes Surya Global Yogyakarta. After the cupping intervention was given, the *p value was* 0.001. This shows that there is a significant effect between before and after *the intervention of wet cupping therapy* (cupping) on nursing students who experience menstruation (dysmenorrhea) at Stikes Surya Global Yogyakarta.

4. DISCUSSION

The research in Young Women in Kradenan Village, Kec. Kaliwungu Kab. Semarang stated that 15 dysmenorrhea respondents, the first day of menstruation because prostaglandin production will continue to decrease for 48 hours, so more than 48 hours primary dysmenorrhea may decrease or disappear.[6]

Based on Kusniyanto research about The Effect of Menarche and Length of Menstruation on the Increase in the Incidence of Primary Dysmenorrhea, women with more extended menstrual periods can increase the incidence of primary dysmenorrhea. Women with long menstrual periods, large amounts of bleeding, and irregular menstrual cycles can risk dysmenorrhea.[7]

Based on previous research regarding "An Overview of Dysmenorrhea Pain Management in Young Women in Kradenan Village, Kec. Kaliwungu Kab. Semarang," stated that 17 (73.9%) adolescent girls chose to sleep to cope with the pain of dysmenorrhea they felt.[6] The Relationship between Dysmenorrhea and Student Learning Activities of the Midwifery Study Program, Poltekkes Kemenkes Kendari" which was conducted on 64 female students using a questionnaire, it showed that 47 (73.4%) female students were disturbed in their learning activities due to the impact caused by dysmenorrhea.[8]

Menstrual pain (dysmenorrhea) is a very prominent physical disorder in women who are menstruating in the form of pain or cramps in the abdomen. Dysmenorrhea is caused by increased hormone prostaglandin F2 and muscle hormones secreted by the uterine endometrium. The performance of prostaglandin F2 is to stimulate uterine contractions. Dysmenorrhea pain needs to be treated because menstrual pain (dysmenorrhea) can cause

learning activities to be disrupted, less enthusiastic, and concentration decreases. The material delivered during learning cannot be appropriately received, even though some do not attend college.[9]

In a study conducted by researchers, it was found that there was a decrease in pain levels in patients with dysmenorrhea after cupping therapy with a p-value of <0.05. This is following research conducted by Putri et al., (2020) on " The Difference between Cupping Therapy and Warm Compresses on Low Back Pain in the Elderly" the results showed an effect of cupping therapy on pain levels before and after being given an intervention.[10]

Cupping has a role in reducing levels of prostaglandins which aim to reduce uterine contractions and reduce sensitivity to pain. Based on the Pain-Gate Theory (PGT) describes how pain is transmitted from the starting point to the brain, it is reported that local damage to the skin and capillaries acts as a nociceptive stimulus. Cupping can reduce pain caused by the strong suction of the cupping tool, which plays a role in busying the nerve pathways that transmit pain signals to the brain. There is a stimulus or other taste signal that reaches the brain so that the brain does not feel the pain anymore or feel the pain is reduced because the cupping process affects pain by changing the signal process at a reasonable level in the spinal cord and brain.[11]

Cupping can reduce pain in dysmenorrhea disorders. Trauma to the skin due to cupping and nicks will stimulate hormone secretion of endorphins, which will have an anti-pain effect and an anxiolytic (anti-anxiety) effect.[12] Cupping is very beneficial for blood circulation disorders and the pain decrease. Cupping increases the elasticity of the erythrocyte wall through the capillary gap to deliver O^2. Cupping increases natural antioxidants; glutathione peroxidase, and catalase. It also stimulates erythropoiesis (production of red blood cells) in the bones/kidneys. Cupping increases the number of macrophages and increase natural killer cells; CD8+ T lymphocytes, and reduces free radicals.[5]

5. CONCLUSION

There was a decrease in pain intensity in nursing students experiencing dysmenorrhoea, as evidenced by the mean value before the wet cupping intervention was 5.66. Then after the wet cupping intervention, the mean value was 1.66. Thus, there is a significant difference in the mean value of dysmenorrhoea. It can be concluded that wet cupping therapy (cupping) effectively reduces pain intensity in nursing students experiencing menstrual pain (dysmenorrhea) at Stikes Surya Global Yogyakarta.

REFERENCES

1. Tsamara G, Raharjo W, Putri Ea. The Relationship Between Life Style With The Incidence Of Primary Dysmenorrhea In Medical Faculty Female Students Of Tanjungpura University. *J Nas Ilmu Kesehat*. 2020;2(3):130-140.
2. Anjasmara S. Penerapan Senam Dismenore Untuk Pemenuhan Kebutuhan Aman Nyaman Pada Remaja Yang Mengalami Dismenore Di Wilayah Kerja Puskesmas Sewon Ii. Published Online 2018.
3. Purwaningrum Vp. Efektivitas Terapi Bekam Terhadap Penurunan Intensitas Dismenore Dan Tanda-Tanda Vital. Published Online 2019.
4. Parawansa N, Pertiwi Na, Hasyati F, Quddusi Tr, Septadina Is. The Effect Of Cupping Therapy On Low Back Pain Literature Review. *Int J Islam Med*. 2020;1(2):71-76.
5. Kurniawati I. Efektifitas Terapi Bekam Terhadap Penurunan Skala Nyeri Dismenore Pada Mahasiswi Program Studi S1 Keperawatan Universitas Muhammadyah Jember. Published Online 2016.
6. Illiyun Ta. Gambaran Penanganan Nyeri Dismenore Pada Remaja Putri Di Desa Kradenan Kec. Kaliwungu Kab. Semarang. Published Online 2019.
7. Kusniyanto Re, Suiyarti W. Pengaruh Menarche Dan Lamanya Haid Terhadap Peningkatan Kejadian Dismenorea Primer. In: *Prosiding Seminar Nasional Universitas Indonesia Timur*. Vol 1. ; 2019:278-282.
8. Amaliya Alimuddin P, Asi M. Hubungan Dismenorea Dengan Aktivitas Belajar Mahasiswa Prodi Div Jurusan Kebidanan Poltekkes Kemenkes Kendari. Published Online 2017.
9. Larasati Ta, Alatas F. Dismenore Primer Dan Faktor Risiko Dismenore Primer Pada Remaja. *J Major*. 2016;5(3):79-84.
10. Putri Ra, Hasina Sn. Perbedaan Terapi Bekam Dan Kompres Hangat Terhadap Tingkat Nyeri Punggung Bawah Pada Lansia. *J Keperawatan*. 2020;12(1):33-40.
11. Perdana Tsr, Sutysna H. Efek Terapi Bekam Basah Terhadap Skala Nyeri Dan Kualitas Hidup Pada Penderita Nyeri Kepala Tension Type Headache Di Rumah Bekam Kota Medan Tahun 2020. *J Ilm Maksitek*. 2021;6(2):41-45.
12. Setyawan A, Hasnah K. Efektivitas Wet Cupping Therapy Terhadap Kecemasan Pada Pasien Hipertensi. *J Kesehat Kusuma Husada*. Published Online 2020:212-217.

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