

The Effect of Combination of Endorphin Massage and Murottal Therapy on Reduction of Menstrual Pain in Adolescent Girls at Al Azhaar Islamic High School Tulungagung

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ARTICLE INFO

Keywords:

Adolescent Girls,
Endorphin Massage,
Menstrual Pain,
Murottal Therapy

ABSTRACT

Background: Menstrual pain can be reduced by pharmacological and non-pharmacological measures. Non-pharmacological treatments to reduce menstrual pain include endorphin massage and murottal therapy. This study aimed to determine the effect of endorphin massage and murottal therapy on reducing menstrual pain in adolescent girls at Al Azhaar Islamic High School Tulungagung.

Methods: This study uses an observational analytical research design with an experimental approach. With purposive sampling technique, 18 respondents obtained a sample, the independent variable is endorphin massage and murottal therapy and the dependent variable is menstrual pain in adolescent girls before and after being given a combination of endorphin massage and murottal therapy. The Wilcoxon test statistic was used to determine the effect of the two variables.

Results: Analysis using the Wilcoxon statistical test showed that $p = 0.000 < 0.05$, then H_0 was rejected and H_1 was accepted, which means that there is an effect of a combination of endorphin massage and murottal therapy on reducing menstrual pain in adolescent girls at Al Azhaar High School Tulungagung.

Conclusion: Endorphin massage technique combined with murottal therapy can stimulate the body to release and increase the production of endorphins and enkephalins which function to reduce menstrual pain, improve the mental system to reduce violent behavior showing body chemistry.

I. Introduction

The high number of young women who experience menstrual pain is feared to interfere with the activities of teenagers who are in the learning process at school (Desriani, 2013). Menstrual pain (dysmenorrhea) that often occurs in adolescents is usually primary dysmenorrhea, namely menstrual pain without biologic abnormalities (Atikah & Siti, 2009).

Menstrual pain that occurs in young women causes young women to find it difficult to concentrate because of the discomfort they feel when experiencing menstrual pain (dysmenorrhea). Menstrual pain can be reduced by pharmacological and non-pharmacological measures. Non-pharmacological treatments to reduce menstrual pain include relaxation, hypnotherapy, acupuncture and others. One effective way to prevent menstrual pain is relaxation in the form of a light touch (Rahayu et al, 2017).

According to WHO (World Health Organization) (2012), the incidence of 1,769,425 people (90%) of women who experience menstrual pain with 10%-15% of them experience severe dysmenorrhea, resulting in the emergence of activity limitations that 15% of adolescent girls complain about. have dysmenorrhea. In Indonesia, more women who experience menstrual pain do not report or visit a doctor. It is said that 90% of Indonesian women have experienced dysmenorrhea (Rahayu et al, 2017). The incidence of dysmenorrhea in East Java is 64.25% consisting of 54.89% primary dysmenorrhea and 9.36% secondary dysmenorrhea (Sophia, Muda & Jemadi, 2013). Meanwhile, in Tulungagung Regency from the results of interviews with students at Al Azhaar Islamic High School Tulungagung there were 17 students experiencing primary dysmenorrhea.

Menstrual pain is cramps that occur during menstruation and is one of the gynecological problems in women of all ages and races. One of the symptoms is pain in the pelvis. Estimates of the prevalence of menstrual pain vary widely (16.8% to 81.3%), and as high as 90% have been recorded. Menstrual pain is considered primary in the absence of an underlying pathology. Symptoms are usually six to 12 months after menarche, with peak prevalence occurring in the late teens or early twenties. Secondary menstrual pain if there is a specific pelvic pathology (Osayande and Mehulic, 2014). Risk factors related to menstrual pain such as young age menarche, long menstrual periods, heavy menstrual flow, smoking, family history of dysmenorrhea (Judge, 2016).

Menstrual pain can be reduced by pharmacological and non-pharmacological measures. Treatment with pharmacological actions include taking anti-pain medications, such as acetaminophen, mefenamic acid, aspirin, and others. Non-pharmacological treatments to reduce menstrual pain include relaxation, hypnotherapy, acupuncture and others. One effective way to prevent dysmenorrhea pain is relaxation in the form of light touch (Rahayu et al, 2017).

Endorphin massage is a light touch method that was first developed by Constance Palinsky and is used to manage pain. This technique can be used to reduce discomfort and increase relaxation by triggering a feeling of comfort through the skin surface (Putra, 2016). With massage, the formation of endorphins and blood circulation will improve, and many complaints will heal on their own. Humans have 31 pairs of spinal nerves. This nerve pathway starts from each vertebral column, then spreads throughout the body to the periphery when something goes wrong in any part of the body, even in the outermost part of the body, even the brain, the brain will receive reports through the nerves (Haruyama, 2014).

While the chanting of the Qur'an physically contains elements of the human voice. Sounds sung to a rhythm can reduce stress hormones, activate natural endorphins, increase relaxation, distract from fear, anxiety, and tension and improve the body's chemical system so that it lowers blood pressure, heart rate, pulse, brain wave activity, and slows breathing. This deeper or slower breathing rate is very good for reducing tension (Sari, 2015).

Based on data from a preliminary study at Al Azhaar Islamic High School Tulungagung, it was found that a sample of teenage girls in grades X, XI and XII, totaling 75 students, some of them complained of lower abdominal pain just before menstruation or during menstruation which could interfere with student activities, so they cannot participate in learning activities

II. METHODS

This type of research is analytic observational with an experimental approach. The population is all young women in this study. The population in this study were all 75 female students of SMA Islam Al Azhaar Tulungagung. The sample in this study was some 18 female students of Al Azhaar Islamic High School Tulungagung who experienced menstrual pain. The sampling technique used is purposive sampling.

Measurement of independent variables, namely endorphin massage and murottal therapy. The dependent variable is the level of menstrual pain for adolescent girls before and after being given a combination of endorphin massage and murottal Al-Qur'an therapy from the letter Ar-Rahman with an Ordinal scale using an observation sheet by measuring menstrual pain directly.

The analysis used was the Wilcoxon test to analyze the difference in menstrual pain between before and after treatment. To determine the level of significance between variables in the measurement of a significant effect with a significance level of $p < 0.05$, meaning that H_1 is accepted, it means that there is an influence or difference between variables.

III. RESULTS

Frequency Distribution of Respondents Characteristics by Age

Table 1 Distribution of Respondents Characteristics by Age at Al Azhaar Islamic High School Tulungagung

Age	Frequency (f)	(%)
16 years	7	38.9
17 years	8	44.4
18 years	3	16.7
Total	18	100

Based on the table above, it shows that from 18 respondents, most of them were 8 respondents (44.4%) aged 17 years.

Distribution of the frequency of menstrual pain before the combination treatment of endorphin massage and murottal therapy

Table 2 Distribution of menstrual pain before the combination treatment of endorphin massage and murottal therapy at Al Azhaar Islamic High School Tulungagung

Menstrual Pain	Frequency (f)	(%)
Severe Pain	3	16.7
Moderate Pain	15	83.3
Mild Pain	0	0
Total	18	100

Based on the table above, it shows that from 18 respondents before the combination treatment of endorphin massage and murottal therapy, almost all respondents, namely 15 respondents (83.3%) experienced menstrual pain in the moderate category.

Distribution of the frequency of menstrual pain after treatment with a combination of endorphin massage and murottal therapy

Table 3 Distribution of menstrual pain after treatment with a combination of endorphin massage and murottal therapy at Al Azhaar Islamic High School Tulungagung

Menstrual Pain	Frequency (f)	(%)
Moderate Pain	0	0
Mild Pain	4	22.2
No Pain	14	77.8
Total	18	100

Source: research primary data

Based on the table above, it shows that from 18 respondents after the combination treatment of endorphin massage and murottal therapy, almost all respondents, namely 14 respondents (77.8%) experienced a decrease in menstrual pain in the painless category.

Cross tabulation of menstrual pain between before and after the combination treatment of endorphin massage and murottal therapy

Table 4 Cross-tabulation of menstrual pain between before and after the combination treatment of endorphin massage and murottal therapy at Al Azhaar Islamic High School Tulungagung

			Nyeri Haid Sesudah		Total
			Nyeri ringan	Tidak nyeri	
Nyeri Haid Sebelum	Nyeri berat	Count	3	0	3
		% within Nyeri Haid Sebelum	100.0%	.0%	100.0%
		% of Total	16.7%	.0%	16.7%
	Nyeri sedang	Count	1	14	15
		% within Nyeri Haid Sebelum	6.7%	93.3%	100.0%
		% of Total	5.6%	77.8%	83.3%
Total	Count	4	14	18	
	% within Nyeri Haid Sebelum	22.2%	77.8%	100.0%	
	% of Total	22.2%	77.8%	100.0%	

Based on the table above, it shows that there were 14 respondents (77.8%) who before the combination of endorphin massage and murottal therapy experienced menstrual pain in the moderate category, after the combination of endorphin massage and murottal therapy experienced a decrease in menstrual pain in the painless category.

Analysis of Research Statistical Test Results

Test Statistics^b

	Nyeri Haid Sesudah - Nyeri Haid Sebelum
Z	-4.146 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

The results of the research analysis on the effect of the combination of endorphin massage and murottal therapy on the reduction of menstrual pain in adolescent girls at Al Azhaar High School Tulungagung based on statistical tests using Wilcoxon signed rank obtained $p = 0.000 < 0.05$ then H_0 is rejected and H_1 is accepted which means there is a combination effect. Endorphin massage and murottal therapy to reduce menstrual pain in adolescent girls at Al Azhaar High School Tulungagung

IV. DISCUSSION

Menstrual pain on days 1 and 2 of menstruation before the combination of endorphin massage and murottal therapy

Based on the results of the study, from 18 respondents before the combination treatment of endorphin massage and murottal therapy, almost all respondents, namely 15 respondents (83.3%) experienced menstrual pain in the moderate category.

Menstruation is blood that comes out of the uterus periodically through the vagina due to the shedding of the uterine wall as a result of the absence of fertilization. This process generally occurs when women enter the age of 10-12 years (Andriyani, 2011). Pain is a condition in the form of an unpleasant feeling. It is very subjective because the feeling of pain is different for each person in terms of the scale or level, and only that person can explain or evaluate the feeling of nyari he is experiencing (Uliyah and Hidayat, 2009).

Dysmenorrhea or menstrual pain is one of the most common gynecological complaints in young women who come to the clinic or doctor. Almost all women experience discomfort during menstruation such as pain and discomfort in the lower abdomen and usually accompanied by nausea, dizziness, and even fainting.

The level of pain is said to be moderate pain if the adolescent girl subjectively says moderate pain and objectively the client hisses, grins, can show the location of the pain, can describe it, can follow well. Based on the Bourbanis scale, severe pain includes a pain scale of 4 to 6. If menstrual pain is not treated immediately, it can result in long-term pain that will interfere with the activities of young women. Based on the Bourbanis scale, severe pain includes a pain scale of 4 to 6. If low back pain is not treated

immediately, it can lead to long-term low back pain, increasing the tendency for postpartum low back pain and chronic low back pain which will be more difficult to treat or cure.

Menstrual pain on days 1 and 2 of menstruation after a combination of endorphin massage and murottal therapy

Based on the results of the study, from 18 respondents after the combination treatment of endorphin massage and murottal therapy, almost all respondents, namely 14 respondents (77.8%) experienced a decrease in menstrual pain in the painless category.

Endorphin massage means massage endorphin. That means, massage aimed at increasing endorphins in the body. Endorphin massage is a light touch method that was first developed by Constance Palinsky and used to manage pain. Because endorphins are produced by our own bodies, they are considered the best and natural painkillers. (Putra, 2016).

In the management of menstrual pain, it aims to reduce menstrual pain in adolescent girls so that it does not cause great pain. Endorphin massage is one way to reduce pain during menstruation.

In obstetrics, Constance Palinsky developed endorphin massage as a light touch technique during her research on pain management and relaxation. This technique can be used to reduce feelings of discomfort and promote relaxation by triggering feelings of comfort through the skin's surface. Light touch techniques can also normalize heart rate and blood pressure. A light touch includes a very light massage that can make the fine hairs stand on end. Research has shown that this technique increases the release of oxytocin, a hormone that facilitates labor (Aprilia, 2011).

Endorphin massage technique, it can stimulate the body to release and increase the production of endorphins and enkephalins which function to inhibit pain. By adding a little massage at a certain point, it will accelerate blood circulation and reduce menstrual pain.

Meanwhile, through the research of Dr. Al-Qadhi at a large clinic in Florida, United States, Dr. Al-Qadhi succeeded in proving that only by listening to the recitation of the verses of the Qur'an, a Muslim, whether speaking Arabic or not, can feel a very large physiological change. In the results of the study, it was concluded that there was a decrease in depression, sadness, the soul became more wary of various diseases. These results are the general influence felt by the people who are the objects in the study (Haviva, 2015).

In the management of menstrual pain, it aims to reduce menstrual pain in adolescent girls so that it does not cause great pain. Murottal therapy is one way to reduce pain during menstruation. The benefit of murottal (listening to the reading of the holy verses of the Qur'an) is that listening to the reading of the verses of the Qur'an with tartil will get peace of mind. Recitation of the Qur'an physically contains elements of the human voice, the human voice is an amazing healing instrument and the most accessible tool.

Differences in menstrual pain on days 1 and 2 of menstruation before and after the combination of endorphin massage and murottal therapy

Based on the results of the study, there were 14 respondents (77.8%) who before the combination of endorphin massage and murottal therapy experienced menstrual pain in the moderate category, after the combination of endorphin massage and murottal therapy experienced a decrease in menstrual pain in the painless category.

The results of the research analysis on the effect of the combination of endorphin massage and murottal therapy on the reduction of menstrual pain in adolescent girls at Al Azhaar High School Tulungagung based on statistical tests using Wilcoxon signed rank showed $p = 0.000 < 0.05$ then H_0 was rejected and H_1 was accepted, which means there is a combination effect. Endorphin massage and murottal therapy to reduce menstrual pain in adolescent girls at Al Azhaar High School Tulungagung. Endorphin massage means massage endorphin. That means, massage aimed at increasing endorphins in the body. Endorphin massage is a light touch method that was first developed by Constance Palinsky

and used to manage pain. Because endorphins are produced by our own bodies, they are considered the best and natural painkillers. (Putra, 2016).

The body produces at least 20 endorphins which have different benefits and uses. Beta-endorphins appear as endorphins that seem to have the most influence on the brain and body during exercise a type of peptide hormone formed largely by tyrosine, an amino acid.

In the Endorphin massage technique, it can stimulate the body to release and increase the production of endorphins and enkephalins which function to inhibit pain. By adding a little massage at a certain point, it will accelerate blood circulation and reduce menstrual pain.

As for murottal therapy that sound can reduce stress hormones, activate natural endorphins, increase feelings of relaxation, and distract from fear, anxiety and tension, improve the body's chemical system so that it lowers blood pressure and slows breathing, heart rate, pulse, and brain wave activity. This deeper or slower breathing rate is very good for causing calm, emotional control, deeper thinking and better metabolism (Sari, 2015).

Murottal Al-Qur'an therapy is a natural endorphin hormone so that by providing audio therapy with Murottal Al-Qur'an it increases feelings of relaxation and diverts attention from the Qur'an to adolescent girls who experience menstrual pain, improves the mental system to reduce violent behavior showing chemistry body.

The limitation in this study is that there is no screening of respondents whether they are classified as primary or secondary dysmenorrhea

V. CONCLUSION

Before the combination treatment of endorphin massage and murottal therapy, almost all respondents, namely 15 respondents (83.3%) experienced menstrual pain in the moderate category.

After the combination treatment of endorphin massage and murottal therapy, almost all respondents, namely 14 respondents (77.8%) experienced a decrease in menstrual pain in the painless category.

There is an effect of a combination of endorphin massage and murottal therapy on reducing menstrual pain in adolescent girls at Al Azhaar High School Tulungagung where the Wilcoxon signed rank statistical test results obtained $p = 0.000 < 0.05$.

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