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Acupressure Effectiveness and Yoga Exercises To Reduce Menstrual Pain

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ABSTRACT

Women of reproductive age, more frequent use of pharmacological therapy to overcome Dismenorhea, but non Therapy Pharmacological use is safer because it does not cause side effects like drugs. The purpose of this study was to analyze the acupressure therapy *sanyinjiao (SP6) and Hegu (L14)* with yoga exercises to reduce primary dysmenorrhea. The data used in this study is the scale of menstrual pain experienced by a student involving 40 respondents, Definition in this study using two intervention groups, namely group therapy techniques and Huge Sanyinjiao acupressure and yoga exercise group. The results of the statistical test showed that the acupressure group experienced a significant decrease in pain scale, namely 3.35 compared to the yoga exercise group, which only experienced a decrease of 2.05 while the average value of the difference after acupressure and yoga exercise was -1.3 and thetest *MannWhitney* obtained p value = 0.001. So it was found that there was an average difference in group 1 and group 2 after the intervention where the Yoga Gymnastics Action was more effective than Acupressure in reducing dysmenorrhea. The study was conducted to analyze the acupressure therapy *sanyinjiao (SP6) and Hegu (L14)* with yoga exercises in reducing menstrual pain which was proven to reduce menstrual pain experienced by students of Universitas Nahdlatul Ulama Surabaya.

Keywords: Acupressure, Yoga Exercise, Menstrual Pain

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BACKGROUND

Menstrual pain is a problem that often occurs before menstruation and can last up to 2-3 days, this problem is experienced by almost all women of reproductive age. The incidence of primary menstrual pain in adolescents in Indonesia is around 54.89%, this pain can interfere with learning concentration, decrease learning motivation and be the cause of absenteeism at school. (Anisa, Oswati & Rismadefi, 2018)

Pharmacological therapy is more often used to treat menstrual pain because it can function as an analgesic but this is very risky if used for a long time because the side effects of these drugs vary if used freely without doctor's supervision (Nurwana, Yusuf & Sabilu, 2017). while non-pharmacological therapy is safer to use because it does not cause side effects like drugs. According to Judha et al (2012) non-pharmacological therapy can be done with warm compresses or warm baths, massage, physical exercise (exercise), adequate sleep, hypnotherapy, distractions such as listening to music and relaxation such as yoga and deep breathing, doing physical activities such as exercise. exercise, cycling and aerobic exercise, acupressure.

Several previous studies have analyzed measures to treat menstrual pain, including Manurung, (2015) analyzing the effectiveness of yoga on dysmenorrhea pain in adolescents and the study found that yoga is effective in reducing dysmenorrhea pain besides Kaumalahayati, (2018) analyzing the Effect of Giving Ginger and Temulawak Herbs on the Reduction of Menstrual Pain by using the paired t-test found that on average there was a decrease in pain in the intervention group who were given ginger and temulawak concoctions at a dose of 15-15 grams of 1.654,. R.Khairiyatul (2019) also analyzed the effectiveness of massage at the acupuncture points of Guanyuan (RN 4) and Qihai (RN 6) against dysmenorrhea in students of SMA 1 Surabaya. It was found that massage at the acupuncture points of Guanyuan (RN 4) and Qihai (RN 6) was effective against reduction in menstrual pain. Although there have been many studies on how to reduce menstrual pain using non-pharmacological therapy,acupressure therapy *sanyinjiao (SP6) and Hegu (L14)* with yoga exercises to reduce menstrual pain has never been done. The purpose of this study was to analyze theacupressure therapy *sanyinjiao (SP6) and Hegu (L14)* with yoga exercises to reduce menstrual pain in female students.

METHODS

Respondents used in this study were all female students who experienced dysmenorrhea in the Midwifery Study Program, Universitas Nahdlatul Ulama Surabay, respondents were selected using *simple random sampling technique* so that 40 respondents were obtained. In this study, respondents will be divided into two intervention groups, namely the Sanyinjiao and Huge acupressure therapy technique group and the yoga exercise group. The provision of acupressure therapy is carried out by massaging or pressing clockwise for 30 rounds for 3-5 minutes at LI 4 and SP 6 points (Yuniati, 2019) as well as yoga exercises given a combination of yoga interventions for 45 minutes 3 times with 5 minutes rest (Manurung, Sri & Siti, 2015).

The stages of data collection in this study were as follows: Data on the degree of menstrual pain was obtained through the VDS (assessment *Verbal Descriptor Scale)* using observation sheet. Observations were made twice, namely before the intervention (*Pretest*) and measured again after the intervention (*Post Test*). The analysis used in this study used the *Maan-Whitney* test and thetest *Wilcoxon.*

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RESULT

Characteristics of Respondents	Group 1 (Gymnastics Yoga)	(n = 20)	Group 2 (Akupresure)	(n = 20)	Total	
		f%		F%		f%
Age						
Young Beginning	2	10	2	10	4	10
Teenager Mid	10	50	10	50	20	50
Youth Weekend	8	40	8	40	16	40
Total	**20**	**100**	**20**	**100**	**40**	**100**
Age ofMenarche						
Early	1	5	1	5	2	5
Normal	13	65	14	70	27	67.5
Tarda	6	30	5	25	11	37.5
Total	**20**	**100**	**20**	**100**	**40**	**100**
Time of Dysmenorrhea						
Days 1	11	55	12	60	23	57.5
Days 1 to 2	7	35	7	35.5	14	35
Days 1 to 3	2	10	1	5	3	7.5
Total	**20**	**100**	**20**	**100**	**40**	**100**

Table 1. Characteristics of Respondents

Table 1 shows that in group 1 half (50.0%) of the respondents are in their mid-teens, most of the menarche age (65.0%) are in the normal category and most of the time for dysmenorrhea (55.0%) are in the middle age group. first day. In group 2, it was found that half (50.0%) of the respondents were in their mid-teens, most of the age of menarche (70.0%) were in the normal category and most of the time for dysmenorrhea (60.0%) was on the first day.

Table 2. Effect of Acupressure with Dysmenorrhea

Acupressure	Pain Scale						Total	
	Mild		Moderate		Severe			
	n	%	n	%	n	%	n	%
Pre Test	2	10	15	75	3	15	20	100
Post Test	13	65	7	35	-	-	20	100
***Wilcoxon Sign Rank Testρ*= 0.000**								

Table 2. Based on the results of statistical tests before and after akupresure obtained significance value ρ = 0.000 where ρ <0.05, which means that there is an influence on the pain scale disminore akupresure

Table 3. the effect of yoga exercises withDismenorhea

yoga Gymnastics	pain scale						Total	
	Light		Moderate		Weight			
	n	%	n	%	n	%	n	%
Pre Test	3	15	13	65	4	20	20	100
Post Test	18	90	2	10	-	-	20	100
***Wilcoxon Sign Rank Testρ*= 0.000**								

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Table 3. Based on statistical test results using *WilcoxonSign Rank test* before and after yoga Gymnastics obtained significance value ρ = 0.000 where ρ <0.05, which means that there is the influence of yoga exercises against menstrual pain scale

Table 4. difference Akupresure and Gymnastics yoga to decrease menstrual pain

Vari abel	Group of	Post-Test Mean	Δ	N	p*(MannWhitney)*
Dysmenorrhea	1 (Gymnastics Yoga)	2.1	-1.3	20	0.001
	2 (Akupresure)	3.4		20	

Table 4 shows that a group of experienced akupresure a significant decrease in pain scale that is equal to 3.35 compared to the yoga exercise group which only experienced a decrease of 2.05 while the average value of the difference after acupressure and yoga exercise was -1.3 and thetest *Mann Whitney* obtained p value = 0.001. So it was found that there was an average difference in group 1 and group 2 after the intervention where the Yoga Gymnastics Action was more effective than Acupressure in reducing dysmenorrhea in respondents

DISCUSSION

The effect of acupressure therapy on reducing menstrual pain levels in adolescent girls showed the results of statistical tests before and after When acupressure was performed, the significance value of = 0.000 was obtained, where <0.05, which means that acupressure has an effect on the menstrual pain scale. Research that supports acupressure therapy for menstrual pain is a study conducted by Efriyanthi et al (2015), with the final results showing a significant change between the pretest and posttest pain scales in the acupressure therapy group, namely the measurement results before acupressure therapy were 5.73 and the average The average pain scale after acupressure therapy is 2.73 This is because the effect of pressure on acupressure points is related to its impact on the production of endorphins in the body.

The release of endorphins is controlled by the nervous system, nerves are sensitive to pain from external stimuli and once triggered using acupressure techniques, will instruct the endocrine system to release a number of endorphins according to the body's needs. In addition, other studies explain that according to Chinese medicine, the uterus is one of the organs connected to the heart and kidneys through a special channel, and the blood supply to the liver is supplied to the uterus. If the blood supply to the liver is small, the blood supplied to the uterus is also small, this is considered to be the cause of the pain of dysmenorrhea. This research is focused onpoints *Hoku/he-qu* (L14) and *Sanyinjiao* , based on the principle of According to the principle of Traditional Chinese Medicine (TCM), acupressure at thepoint *Sanyinjiao* serves to strengthen the spleen, and restore the balance of Yin and blood, liver, and kidney, so that it can strengthen blood supply and promote blood circulation, thus acupressure at the Sanyinjiao point can reduce pain. dysmenorrhea in addition, emphasis on the *Hoku/he-qu* (L14) point can provide energy intake to the reproductive organs and relieve pain in general (Widyaningrum, 2013).

The effect of yoga exercise on decreasing the level of primary menstrual pain in adolescent girls shows the results of statistical tests before and after acupressure have a significance value of = 0.000 where <0.05, which means that there is an effect of yoga

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exercise on the dysmenorrhea pain scale. Yoga exercise is one of the physical exercises that can increase the levels of b-endorphins four to five times in the blood. So, the more you do exercise or exercise, the higher the levels of b-endorphins. When a person does sports or exercise, b-endorphins will come out and be captured by receptors in the hypothalamus and limbic system which function to regulate emotions. An increase in b-endorphins has been shown to be closely related to reducing pain, improving memory, improving appetite, sexual ability, blood pressure and breathing so that exercise or exercise will be effective in reducing pain problems, especially dysmenorrhea pain (Yulina, 2020).

The difference in the effectiveness of acupressure therapy and yoga exercise on reducing the level of primary menstrual pain (dysmenorrhea) in adolescent girls, it was found that the yoga exercise group experienced a significant decrease in pain scale of 3.35 compared to the acupressure group which only decreased by 2.05 while the the average difference after acupressure and yoga exercise was -1.3 and the test *Mann Whitney* obtained p value = 0.001. So it was found that there was an average difference in group 1 and group 2 after the intervention where the Yoga Exercises were more effective than Acupressure in reducing menstrual pain in respondents.

Bobak (2004) stated that menstrual pain is caused by excessive release of PGF2a which increases the amplitude and frequency of uterine contractions which causes uterine arteriolar vasospasm, resulting in ischemia and cyclic lower abdominal cramps. Yoga exercises that are carried out regularly and regularly can cause pain intensity to decrease because the number and size of blood vessels will increase and blood flow throughout the body, including to the reproductive organs, so that menstrual pain can be reduced. Most of these studies did exercise three times a week in the afternoon. Dysmenorrhea exercise is recommended to be done in the afternoon because the highest concentration of endorphins is found in the afternoon (Wlanda, 2020).

Adolescents who rarely exercise have a 1.2 times greater risk of experiencing dysmenorrhea than adolescents who always exercise. When doing sports, the body will produce *endorphins.* This hormone can function as a natural sedative and will reduce pain during contractions (Yulina, 2020).

CONCLUSION

Research conducted to analyze acupressure therapy *sanyinjiao (SP6) and Hegu (L14)* with yoga exercise in reducing menstrual pain was proven to reduce menstrual pain experienced by students of Universitas Nahdlatul Ulama Surabaya. Therefore, it is hoped that the use of non-pharmacological therapy will be prioritized to overcome menstrual pain.

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