THE EFFECT OF SANYIJIAO POINT ACUPRESSURE THERAPY ON REDUCING THE INTENSITY OF DYSMENORREA PAIN IN ADOLESCENT FEMALES AGED 16-19 YEARS

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Abstract

Madolescence is a time of rapid changes in physical, emotional, mental, hormonal, psychological and social growth. This condition is called puberty, one of the signs of puberty in adolescent girls is menstruation. The first menstruation experienced by a woman is called menarche. During menstruation, the problems experienced by almost all women are discomfort to severe pain, this is often referred to as menstrual pain (dysmenorrhea). Dysmenorrhea is lower abdominal pain, the pain is felt like cramps and can spread to the thighs or lower spine. The type of research used is quasi-experimental with one group pre-test post-test. The subjects in this study were all adolescent girls aged 16-19 years totaling 30 respondents with the Accidental Sampling sampling technique. The statistical test used is the Wilcoxon Signed Ranks test. The results of this study indicate that there is an effect of Sanyinjiao Point Acupressure Therapy on Reducing the Intensity of Dysmenorrhea Pain in Adolescent Girls aged 16-19 years, p-value 0.000.

Keywords: Acupressure Therapy, Sanyinjiao Point, Reducing Dysmenorrhea Pain.

1. INTRODUCTION

Adolescence is a very important period of self-development, starting with the maturation of physical organs (sexual organs) so that they are later able to reproduce. During adolescence there are many changes that occur such as physical, hormonal,psychological, and social changes, this condition is called puberty. One of the signs of puberty in adolescent girls is the occurrence of menstruatio.[7]

Based on WHO (World Health Organization) data, the incidence of dysmenorrhea in the world is very large, on average 50% of women in each country experience menstrual pain. The prevalence of dysmenorrhea in Indonesia is 64.25% consisting of primary dysmenorrhea of 54.89% and 9.36% secondary dysmenorrhea.[14]

The causes of dysmenorrhea in adolescent girls can be caused by direct and indirect causes. Direct causes include endocrine and myometrial factors while indirect causes include age of menarche, nutritional status, family history and exercise habits.[12]

How to treat dysmenorrhea can be done by pharmacological and non- pharmacological methods, where pharmacological treatment includes administering drugs to prevent non-steroidal inflammation such as mefenamic acid, naproxen, and ibuprofen. While non-pharmacological treatment is treatment

without using drugs. One form of treatment in treating dysmenorrhea pain with traditional medicine is with acupressure of the sanyinjiao point.[11, 13]

Acupressure is known as one of the traditional Chinese therapy methods that has been known for thousands of years by applying pressure or massage and stimulating certain points in the body. The goal is to stimulate the body's natural ability to heal itself by restoring the body's positive energy balance.[13]

Acupressure therapy can be used to cure dysmenorrhea by using massage techniques on certain meridian points of the body. One of the points that can overcome dysmenorrhea is the sanyinjiao point or spleen 6 which is the spleen point where one of the functions of the spleen is to reduce pain during menstruation. One of the effects of pressing acupressure points can increase endorphin levels which are useful as pain relievers produced by the body in the blood of endogenous opioid peptides in the central nervous system.[13]

2. METHODOLOGY

This study uses quantitative research using an experimental design (quasy experiment) with one group pre-test post-test. Before being tested (intervention), measurements or assessments were first carried out on the group, then intervention was given, then re-assessed after the trial (intervention). This research will be carried out for one month, namely in June 2024. The place where this research was carried out was in RW 01, Jatiwaras Village, Tasikmalaya Regency.

The population is all female teenagers aged 16-19 years in Jatiwaras Village RW 01 as many as 97 people from six RTs. RT 01 as many as 14 people, RT 02 as many as 20 people, RT 03 as many as 16 people, RT 04 as many as 9 people, RT 05 as many as 19 people, RT 06 as many as 19 people. The sample in this study was 30 people, which is the minimum sample for quantitative research according to Nursahlan 2008. Sampling used Accidental sampling. With Inclusion Criteria Female teenagers who experienced injuries or burns on the limbs of the leg area and did not consume menstrual pain relievers when the study was conducted.

The data collection technique used in this study was to obtain information by conducting a survey by interviewing female adolescents aged 16-19 years whether they experienced dysmenorrhea pain. The instrument used was an observation sheet. The intensity of dysmenorrhea pain was measured using a behaviral sheet with a numeric rating scale to observe the level of pain before and after the sanyinijiao acupressure therapy intervention and analyzed with the Wilcoxon test.

3. RESULTS

Respondent characteristics are needed by researchers to provide information and testimony regarding the effect of Sanyinjiao acupressure therapy on reducing the intensity of dysmenorrhea pain in RW 01 Jatiwaras Village, which was conducted

through interviews and distribution of observation sheet surveys to 30 respondents in RW 01 Jatiwaras Village, Jatiwaras District, Tasikmalaya Regency.

1.1 The age of adolescent girls who experience menstruation is 16-19 years old

1.2

Table 1 Respondent Characteristics Based on Age

Age (Years)	Frequency	Percentage (%)
16	15	50%
17	3	10%
18	5	16.7%
19	7	23.3%
Total	**30**	**100%**

Based on the frequency data in Table 4.1, it is known that the age of respondents aged 16 years was 15 people (50%), for respondents aged 17

years were 3 people (10%), for respondents aged 18 years were 5 people

(16.7%) and for respondents aged 19 years were 7 people (23.3%).

1.3 Education for adolescent girl who experience menstruation aged 16-19 years

For the characteristics og the last education taken from high school and work education. Then the results of the distribution of respondents' education are obtained as follows:

Table 2 Respondent Characteristics Based on Education

Education	Frequency	Percentage (%)
SENIOR HIGH SCHOOL	23	76.67%
WORK	7	23.33%
Total	**30**	**100%**

Based on Table 4.2, it is known that 23 respondents (76.67%) had a high school education and 7 respondents (23.33%) had a working education.

1.4 Age of Menarche

The age of menarche is the age of first menstruation in adolescent girls which usually occurs between the ages of 10 and 16 years. Then the results of the distribution of respondents' menarche ages were obtained as follows:

Table 3 Respondent Characteristics Based on Age of Menarche

Age of Menarche (Years)	Frequency	Percentage (%)
10	1	3.33%
11	6	20%
12	13	43.33%
13	8	26.67%
14	1	3.33%
15	1	3.33%
Total	**30**	**100%**

The age of menarche of respondents 10 years old was 1 person (3.33%), the age of menarche of respondents 11 years old was 6 people (20%), the age of menarche of respondents 12 years old was 13 people (43.33%), the age of menarche of respondents 13 years old was 8 people (26.67%), while the age of menarche of respondents 14 years old was 1 person (3.33%) and the age of menarche of respondents at the age of 15 years old was 1 person (3.33%).

1.5 Duration of Menstruation

The duration of menstruation is the menstrual cycle at a certain time interval that usually occurs in women. Then the results of the frequency distribution of the duration of respondents' menstruation are obtained as follows:

Table 4 Respondent Characteristics Based on Menstrual Duration

Menstrual Period Length (Days)	Frequency	Percentage (%)
5	2	6.67%
5-7	2	6.67%
5-10	1	3.33%
7	17	56.67%
7-10	1	3.33%

7-12	2	6.67%
8	3	10%
8-10	1	3.33%
10	1	3.33%
Total	30	100%

There were 2 respondents with a menstrual period of 7-12 days (6.67%), while 3 respondents with a menstrual period of 8 days (10%), 1 person (3.33%) with a period of 8-10 days and 1 person (3.33%).

1.6 Menstrual Pain

Based on research conducted on 30 respondents, menstrual pain on a particular day often occurs on the first or second day of menstruation. Then the results of the frequency distribution of menstrual pain on the respondent's day are as follows:

Table 5 Respondent Characteristics Based on Menstrual Pain

Menstrual Pain	Frequency	Percentage (%)
Day 1	29	96.67%
Day 2	1	3.33%
Total	**30**	**100%**

The menstrual pain that respondents felt the most was on day 1, as many as 29 people (96.67%), while menstrual pain on day 2 was only felt by 1 person (3.33%).

1.7 Work

The characteristics of the respondents' jobs are 2 types, namely working in the convection sector and some are still in school. Then the results of the frequency distribution of respondents' jobs are obtained as follows:

Table 6 Respondent Characteristics Based on Occupation

Work	Frequency	Percentage (%)
School	23	76.67%
Convection	7	23.33%
Total	**30**	**100%**

It is known based on Table 4.6 that the respondents' dominant occupation was school, with 23

people (76.67%) and 7 people (23.33%) had jobs in the garment industry.

1.7 The Effect of Sanyinjiao Point Acupressure Therapy on Reducing the Intensity of Dysmenorrhea Pain in Adolescent Girls Aged 16-19 Years

Table 7. Wilcoxon Test ResultsPain Scale Before and After Sanyinjiao Point Acupressure Therapy

Pain Scale	N	Max	Min	Mean	Std. Deviation	P value
Before intervention	30	2	10	6.17	1,967	0,000
After the intervention	0	1	8	3.73	1,741	

Based on the test results above, the average value of the pain scale before treatment was 6.17 with a standard deviation of 1.967 and the pain scale after treatment was 3.73 with a standard deviation of 1.741, meaning that there is an Effect of Sanyinjiao Point Acupressure Therapy on Reducing the Intensity of Dysmenorrhea Pain in Adolescent Girls in Jatiawaras District. With a p-value of 0.000 <0.05, it can be concluded that there is an Effect of Sanyinjiao Point Acupressure Therapy on Reducing the Intensity of Dysmenorrhea Pain in Adolescent Girls in Jatiawaras District.

4. CONCLUSIONS

a. Based on Respondent Characteristics

Based on the average age of respondents 16-19 years and this age is included in late adolescence with high school education level. These

ages are indeed vulnerable to reproductive disorders, such as menstrual disorders.[4] This is in line with the theory that adolescence is a transition period both physically and psychologically. Hormonal changes during adolescence cause adolescents to experience pain during menstruation.[1]

The average complaint felt by 30 respondents was lower abdominal pain, including dizziness and weakness. This is in accordance with the theory (Utami, 2021) that dysmenorrhea is characterized by lower abdominal pain and dizziness.[9]

Based on age, the average age of menarche of respondents ranges from 10-15. Menarche is a menstrual period that occurs in a woman which is marked by the shedding of the uterine wall (endometrium) in the form of blood discharge from the genitals. Menarche occurs due to an increase in the hormones FSH and LH combining with receptors which will then work by increasing the rate of secretion, growth and cell proliferation. The ideal age of menarche ranges from 12 to 14 years. Menarche for each woman is different, this is in accordance with the hormone levels in the body.[8]

b. **Acupressure Therapy for Reducing the Intensity of Dysmenorrhea Pain Scale**

Based on research conducted by researchers, the results of the analysis of the decrease in pain scales pre-test and post-test after the intervention showed significant changes. This is evident from the results of pain scale measurements where the Mean Rank before acupressure therapy was 0.00 and the Mean Rank after acupressure therapy was 15.50, which means there was a decrease in the intensity of dysmenorrhea pain.

Based on the theory that pain is generally described as an uncomfortable state, resulting from

forced tissue injury. Pain is an unpleasant sensory and emotional experience due to actual and potential tissue damage that is allocated to a part of the body, tissue such as being stabbed, burning, twisting, such as emotions, feelings of fear, nausea.

There are several ways to overcome the symptoms that arise due to dysmenorrhea, namely with medical and non-medical therapy. Medical drugs that are often used are analgesics and anti-inflammatories such as mefenamic acid, ibuprofen and calcium antagonists, such as verapamil and nifedipine which can reduce uterine activity and contractility. In addition, pain can be treated with safe non-medical therapy with exercise, warm baths, using warm bottles, meditation, and can also be given supplements, Japanese herbal medicine, horizon therapy, surgical therapy, acupuncture and acupressure.[5]

Acupressure at the Sanyinjiao point (SP6) is a massage technique using the thumb in a clockwise circular pattern on certain body parts (meridians) or points located 4 fingers above the inner ankle. 5 Acupressure will affect the release of bradykinin, serotonin, prostaglandin and mest cell hormones located in afferent nerves I, II. The release of bradykinin, serotonin, prostaglandin and mest cell hormones to stimulate the spinal cord and central nerve cells which aim to activate the hypothalamus-pituitary and pituitary, all three of which are activated to release endorphin hormones so that homeostasis occurs in the organs which results in the loss of pain.

The effect of pressure on acupressure points is related to its impact on the production of endorphins in the body. Endorphins are pain killers produced by the body itself, the release of endorphins is controlled by the nervous system, nerves sensitive to pain stimuli from outside so triggered by using acupressure techniques will instruct the endocrine system to release a certain amount of endorphins according to the body's needs.

Acupressure plays a role in the process of reducing the scale of dysmenorrhea, this is in line with another study entitled "Effects of SP6 acupressure on pain and menstrual distress in young women with dysmenorrhea" (2010) explains that according to Chinese medicine, the uterus is one of the organs connected to the heart and kidneys through special channels, and the blood supply to the liver is supplied to the uterus. If the blood supply to the liver is low, then the blood supplied to

the uterus is also low, this is what is considered to be the cause of Sdysmenorrhea pain. Based on the principles of Traditional Chinese Medicine (TCM), acupressure at the Sanyinjiao point functions to strengthen the spleen, and restore the balance of Yin and blood, liver, and kidneys, so that it can strengthen the blood supply and smooth blood circulation, thus acupressure at the Sanyinjiao point can reduce dysmenorrhea pain.[1,5]

The same thing is also explained by Hartono (2012), that empirically acupressure therapy has been proven to help the production of endorphin hormones in the brain which can naturally help relieve pain during menstruation. Pressing acupressure points can affect the production of endorphins in the body. Endorphins are pain killers produced by the body itself. Endorphins are peptide or protein molecules made from a substance called betalipotropic which is found in the pituitary gland. Based on the results of statistical tests using the Wilcoxon Signed Ranks test using SPSS, comparing the Sig value and the alpha value produced from the calculation, the Asymp value is obtained. Sig. (2-tailed) is 0.000

<0.05, it can be concluded that there is an Effect of Sanyinjiao Point Acupressure Therapy on Reducing the Intensity of Dysmenorrhea Pain in Adolescent Girls in Jatiawaras District.

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