ORIGINAL ARTICLE

The Effectiveness of Stretch Exercise Cat Combination Techniques with Dismenore Sennes on Haid Pain Decrease in Adolescent in N 1 High School of Solok City In 2018

DEHARNITA, SEFRIZON
Padang Health Polytechnic, Jln. Laing Tembok Jaya, Solok 20445
Correspondence to Eeharnita, Email: deharnita@gmail.com ,

ABSTRACT

Menstruation is a natural process that occurs in women. Menstruation is regular bleeding from the uterus as a sign that the uterine organ is functioning properly. Pain during menstruation is called dysmenorrhea, one way to overcome dysmenorrhea is by exercising in the form of streth exercice paint techniques and dysmenorrhea exercises. The purpose of this study was to look at the Effectiveness of Combination Techniques of Cat Stretch Exercise and Gymnastics Dysmenorrhea on Decreasing Menstrual Pain in Young Women. The research method is Quasy experiment with the design of one group pretest-posttest design. Research carried out in SMA N 1 Solok City. The population is high school students 1 Solok experiencing menstrual pain. A sample of 33 people was taken by purposive sampling, data were collected by interview, data were processed and analyzed univariately and bivariately using the Wilcoxon test..The results showed a decrease in the scale of pain with a median value before intervention 6 to 3 with a standard deviation before 1.65 and after 1.30. Targeting statistical test There is the effect of the Combination Technique of Cat Stretch Exercise with Gymnastics Dysmenorrhea on the reduction of menstrual pain (dysmenorrhoea) in young women. Health workers and UKS staff can socialize and carry out the Combination Technique of Cat Stretch Exercise with Gymnastics Dysmenorrhea as one of the alternative measures to reduce menstrual pain (dysmenorrhoea) in young women.
Keywords: Dysmenorrhea, Cat Stretch Exercise, Gymnastics, girls

INTRODUCTION

Menstruation is regular bleeding from the uterus as a sign that the uterine organs are functioning properly. Generally, adolescents who experience menarche are at the age of 12 to 16 years (Kumalasari, 2012 : 65). During menstruation is not uncommon accompanied by discomfort in the lower abdomen and general weakness. As long as it does not interfere with the function of daily work, then the situation is reasonable (Yohana et al, 2011 : 177). Pain during menstruation is called dysmenorrhea. Dysmenorrhea is pain during menstruation caused by uterine muscle spasms. The cause is an excessive amount of prostaglandins in menstrual blood, which stimulates uterine hyperactivity. The main symptom is pain, starting during menstruation. Pain can be sharp, blunt, cyclic, or persistent, can last within a few hours to 1 day. Sometimes these symptoms can take longer than 1 day but rarely exceed 72 hours. Systemic symptoms that accompany the form of nausea, vomiting, diarrhea, headaches, and emotional changes (Price & Wilson, 2013 : 1288).

The prevalence of dysmenorrhea in the world is very large, with an average of more than 50% of women in each country experiencing it. The presentation of dysmenorrhea in the USA is around 90%, Sweden 72% (Lie, 2004). The incidence of menstrual pain in the world on average more than 50% of women in each country experience menstrual pain. The incidence (prevalence) of menstrual pain ranges from 45-95% among women of childbearing age. Often felt disturbing for women who experience it. The degree of pain and the degree of interference is certainly not the same for every woman (Proverawati, 2009 : 83).

Indonesia's dysmenorrhea is 64.25% which consists of 54.88% of primary dysmenorrhea and 9.36% of secondary dysmenorrhea. In Surabaya, 1.07% -1.31% of the number of dysmenorrhea sufferers came to the midwifery department (Proverawati, 2009: 86). In the short term pain during menstruation causes discomfort in daily physical activity. This complaint is related to repeated absence from school or workplace, which can interfere with productivity. 40% - 70% of women during reproduction experience menstrual pain, and as many as 10 percent experience it to disrupt daily activities. About 70-90 percent of cases of menstrual pain occur at the age of adolescents who experience menstrual pain will be affected by academic, social and sports activities (Puji, 2010 : 67).

There are several ways to overcome the symptoms that arise due to menstrual pain by pharmacological and non-pharmacological ways. Pharmacological methods, namely medical therapy by administering analgesic drugs, hormonal therapy, therapy with nonsteroidal anti-prostaglandin drugs, dilatation of the cervical canal can provide relief because it eases menstrual blood and prostaglandins in it (Mitayani, 2009 : 212). Besides pain can be treated with non-pharmacology that is safe to do with exercise, warm baths or saunas, warm compresses, meditation and can also be by supplementation, Japanese herbal medicine, horizon therapy, surgical therapy, acupuncture, and acupressure (Potter & Perry, 2006 : 1887).

One non-pharmacological method that can be used as an independent treatment for menstrual pain is the technique of streth exercice which is a simple movement that can help increase blood flow to the uterus and relax muscles in the uterus (Kusmiran, 2011). By strengthening the lower abdomen the blood circulation becomes smooth. Besides strengthening the stomach will produce endorphin hormones (Sugani & Priandarini, 2010).

Another way to deal with dysmenorrhea is to do special exercises which are dysmenorrhea exercises that focus on helping stretch around the abdominal muscles, pelvis and waist, besides these exercises can provide a relaxed sensation gradually and reduce pain if done regularly (Badriyah & Diati, 2004). When doing gymnastics, the body will produce endorphins. The higher endorphin hormone will reduce or alleviate the pain felt by a person so that someone becomes more comfortable, happy, and launches oxygen delivery to muscles (Sugani & Priandarini, 2010). This exercise or gymnastics does not require expensive costs, is easy to do and certainly does not cause side effects that are harmful to the body.

The results of Dewi Kartika Sari, et al, 2016's research on "stretch stretch exercise as an effort to reduce menstrual pain in young women". The results showed. stretch excercice paint significantly influences the level of menstrual pain in young women. Desti Ismarozi, et al, 2015's research on "Effectiveness of dysmenorrhea exercise on the management of primary menstrual pain in adolescents" The results showed there were significant differences between the average rates of primary menstrual pain in adolescents in the experimental group given dysmenorrhea exercises and the control group without giving dysmenorrhea exercises.

Based on a Preliminary Study conducted by researchers in February 2017 in one of the high schools in the city of Solok, namely: SMA N 1 Kota Solok on the grounds that SMA N 1 Kota Solok has a UKS Trustees teacher, has a UKS room with several UKS officers who have been trained. Preliminary study results found that there were two to three female students per class in one week who complained of menstrual pain and were unable to follow the learning process properly. Students permit to leave school or rest in the UKS room. The efforts made by female students mostly take pain medication. Based on this, researchers are interested in reducing or eliminating pain by non-pharmacological means by combining stretch exercise paint with dysmenorrhea as a solution for young women who experience menstrual pain.

MATERIALS AND METHOD

This type of research is conducted using a quasi experiment design research method with one group pretest-posttest design. The population in this study were students of SMAN 1 Solok City who experienced menstrual pain during the study. The sample in this study was young women who experience menstrual pain (dysmenorrhoea) in SMA N 1 Solok City during the study, using purposive sampling technique. With a total sample of 35 people while the sample that can survive until the study is completed as many as 33 people. Sample criteria in this study are willing to be respondents, domiciled in the city of Solok, cooperative, pain that arises 24 hours before or until 2 days of menstruation, regular menstrual cycles, do not get any other action or consumption of drugs, primary dysmenorrhea (menstrual pain not caused due to an abnormality), do not have a history of tauma in the spine and head, not in a state of pain during the intervention.

Research material in the form of a questionnaire containing a pain intensity scale. Data collection was carried out by interviewing twice using a questionnaire regarding the scale of pain before and after the technique of combination of paint stretching exercises and dysmenorrhea exercises. Data analysis was used to describe the characteristics of respondents, namely age, age of menarche, menstrual length, menstrual cycles, prettest-posttest pain with the combination of Cat Stretch Exercise and Dysmenorrhea Gymnastics in the respondents. The statistical test used is the Wilcoxon test.

RESULTS AND DISCUSSION

The frequency distribution of respondents in SMA N 1 Kota Solok based on age, age of menarche, menstrual length, and menstrual cycle is presented in table 1 as follows.

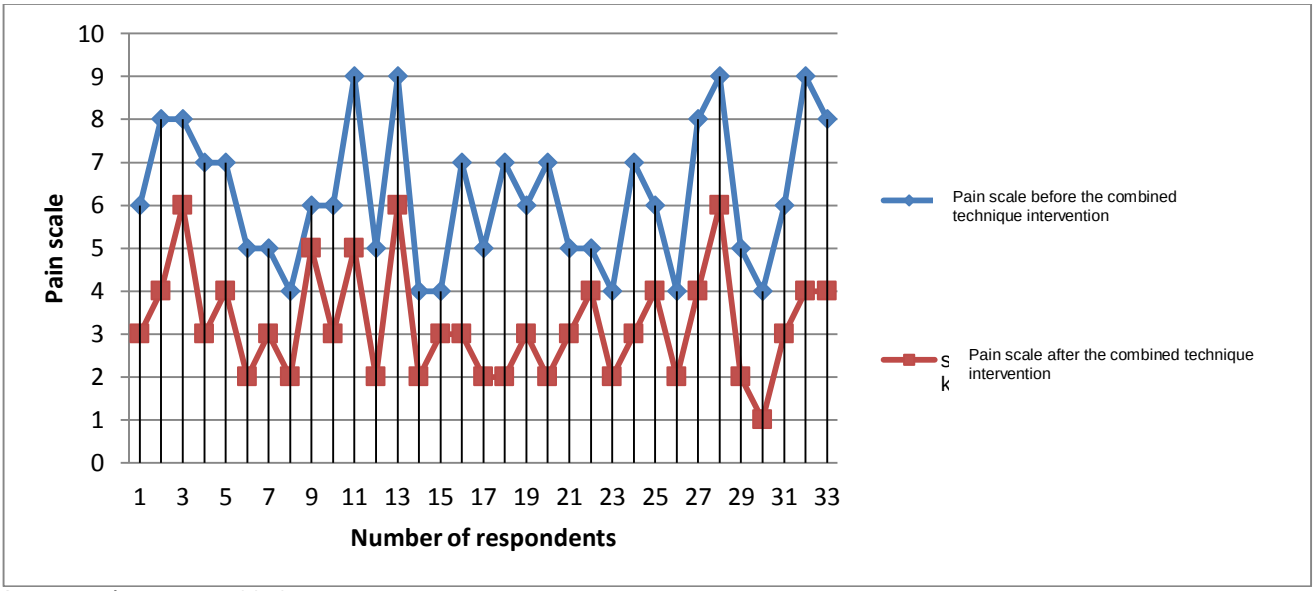
Table 1. Frequency Distribution Based on Age, Age of menarche, menstrual length, menstrual cycle in young women experiencing menstrual pain (dysmenorrhoea)

Variable	Frequency	%age
Age		
15 Years	6	18,2
16 Years	12	36,4
17 Years	11	33,3
18 Years	3	9,1
19 Years old	1	3,0
Menarche age		
10 Years	1	3.0
11 Years Old	5	15,2
12 Years Old	11	33,3
13 Years Old	11	33,3
14 Years	3	9,1
15 Years	2	6,1
Long Period		
5 Days	2	6,1
6 Days	11	33,3
7 Days	18	54,5
8 Days	2	6,1
Menstrual Cycle		
28 Days	28	84,8
29 Days	3	9,1
30 Days	2	6,1

Source: Primary Data 2018

Of 33 teenage girls who experience menstrual pain (dysmenorrhoea) in SMA N1 Solok City 12 people (36.4%) are in the age group of 16 years, 11 people (33.3%) menarche age are 12 years, and as many as 18 people (54.5%) the duration of menstruation is 7 days, 28 students have 28 days of menstrual cycles.Graph of respondents in SMAN 1 Kota Solok based on pain scale before and after intervention is presented in graph 1.

Graph 1. Pain scale before and after the Technique Combination of Cat Stretch Exercise with Dysmenorrhea Gymnastics to Reduce Menstrual Pain in Adolescent Girls



Source: Primary Data 2018

Graph 1 shows that prior to the combination technique of Combination Paint Stretch Exercise with Dysmenorrhea Gymnastics, less than half experienced pain on a scale of 4-6 and after the Combination Technique for Cat Stretch Exercise with Dysmenorrhea Gymnastics, the pain scale decreased between one to three. The distribution of menstrual pain pre-test and post-test in young women who experience menstrual pain in SMA N 1 Kota Solok is presented in table 2.

Table 2. Statistical distribution of pain scale before and after the combination of Cat Stretch Exercise with Dysmenorrhea Gymnastics against the Reduction of menstrual pain (dysmenorrhoea) in young women.

variable	Mean	Median	SD	Min-Max
Pain scale prior to the combination of Paint Stretch Exercise Technique with Dysmenorrhea Gymnastics	6,21	6.00	1,65	4 - 9
Pain scale after a combination of stretch stretch paint and dysmenorrhea exercises	3,24	3.00	1,30	1 - 6

Source: Primary Data 2018

Table 2 shows the mean pain scale before using the Stretch Stretch Technique with Dysmenorrhea Gymnastics in young women who experience menstrual pain (dysmenorrhoea) is 6.21 with a standard deviation of 1.65, the lowest value 4 and the highest value 9. After the Cat Combination Technique Stretch Exercise with Dysmenorrhea Gymnastics in young women who experience menstrual pain (dysmenorrhoea) obtained a mean value of 3.24 with a standard intersection of 1.30, the lowest value of 1 and the highest value of 6. According to Smeltzer, SC bare (2007) the pain scale can be ranked starting from no pain to the unrestrained with the category 0 = no pain, 1-3 = mild pain, 4-6 = moderate pain, 7-9 = severe pain and 10 = very severe pain. The frequency distribution based on the categories of pre-test and post-test pain interventions is presented in table 3.

Table 3. Frequency distribution by Pain category Before and after the Technique Combination of Cat Stretch Exercise with Dysmenorrhea Gymnastics to Reduce Menstrual Pain (dysmenorrhoea) in young women.

Variable	Frequency	%age
Before Intervention:		
Moderate Pain (Scale 4 - 6)	19	57,6
Severe pain (Scale 7 - 9)	14	42,4
After Intervention:		
Mild Pain (Scale 1 - 3)	21	63,6
Moderate Pain (Scale 4 - 6)	2	36,4

Source: Primary Data 2018

Table 4. Statistical distribution of pain scale before and after the combination of Cat Stretch Exercise with Dysmenorrhea Gymnastics against the Reduction of menstrual pain (dysmenorrhoea) in young women.

Variable	n	Median Minimal-maksimal	Average + sb
Pain scale before the technique of Combination Paint Stretch Exercise with Dysmenorrhea Gymnastics	33	6 (4 – 9)	6,21 + 1,65
Pain scale after a combination of stretch stretch paint and dysmenorrhea exercises	33	3 (1 –6)	3,24+ 1,30

Source: Primary Data 2018, P value 0.000

Table 3 shows that before the Combination Technique of Cat Stretch Exercise with Gymnastics Dysmenorrhea of 3 girls who experienced menstrual pain (dysmenorrhoea) more than 19 people (57.6%) were in the moderate pain category and 14 people (42.4%) in the weight category. After the combination of Paint Stretch Exercise with Dysmenorrhea Gymnastics there was an increase in the category of mild pain by 21 people (63.6%) where previously it was in the moderate and severe categories. The statistical distribution of pre-test and post-test pain interventions is presented in table 4.

Table 4 shows the median value of pain scale measurement before the combination of stretch stretching and dysmenorrhea gymnastic techniques for young women who experience menstrual pain (dysmenorrhoea) is 6 with a minimum value of 4 and a maximum value of 9 with a mean value of 6.21 and a standard deviation of 1.65 . Whereas after the Technique Combined Paint Stretch Exercise with Dysmenorrhea Gymnastics the median value was 3 with a minimum value of 1 and a maximum value of 6 with a mean value of 3.24 and a standard intersection of 1.30.

Based on the statistical test results obtained p value = <0.000, it can be concluded that there is a significant difference in pain scale before and after the Technique Combination Paint Stretch Exercise with Dysmenorrhea Gymnastics. After the Cat Stretch Exercise Combination Technique with Dysmenorrhea Gymnastics for 3 days before menstruation for 30 minutes every day there is a decrease in pain scale, where previously the median pain scale 6 became a scale 3. According to Smeltzer, SC bare (2007) the pain scale can be ranked starting from no pain until the unbearable right with the category 0 = no pain, 1-3 = mild pain, 4-6 = moderate pain, 7-9 = severe pain and 10 = very severe pain, the results of the study can be concluded that there is a decrease in the category pain from moderate to mild pain where respondents said it felt more comfortable.

The stretching exercise paint technique is one of the non-medical measures with muscle relaxation techniques which emphasizes the muscles in the abdominal area so that the pain can be felt after giving stretching exercise paint (Gui et al, 2013). By strengthening the lower abdomen the blood circulation becomes smooth. Besides strengthening the stomach will produce endorphin hormones. Endorphins are produced in the brain and spinal cord. This hormone can function as a natural sedative produced by the brain that causes a sense of comfort (Harry, 2007).

Another way to deal with dysmenorrhea is to do special exercises which are dysmenorrhea exercises that focus on helping stretch around the abdominal muscles, pelvis and waist, besides these exercises can provide a relaxed sensation gradually and reduce pain if done regularly (Badriyah & Diati, 2004) . Dysmenorrhea is a physical activity that can be used to reduce pain. When doing gymnastics, the body will produce endorphins. The higher endorphin hormone will reduce or alleviate the pain felt by a person so that someone becomes more comfortable, happy, and launches oxygen delivery to muscles (Sugani & Priandarini, 2010).

The results of this study are in line with the results of the study of Dewi Kartika Sari, et al, 2016 about "stretch stretch exercises as an effort to reduce menstrual pain in young women". The results showed. stretch excercice paint significantly influences the level of menstrual pain in young women. The results of Desti Ismarozi, et al, 2015's research on "Effectiveness of dysmenorrhea gymnastics in the management of primary menstrual pain in adolescents" results of the study showed that there were significant differences between the average age of primary menstrual pain in the experimental group given dysmenorrhea exercises and the control group without giving dysmenorrhea exercises. . While research conducted by Siagian (2015) on "Differences in Menstrual Pain Levels (Dysmenorrhoea) Before and After Gymnastics Dysmenorrhoea in Adolescent Girls" states before dysmenorrhea gymnastic levels of pain scale is as much as 57.9%, after dysmenorrhoea exercises are performed routinely 3 times in a week with a duration of 30 minutes mild pain scale level of 37%, and there is a significant difference between the menstrual pain scale before and after gymnastics with P value = 000.

The results of this study indicate that there is a decrease in the pain scale from the moderate pain category (57.6%) and the severe pain category (42.4%) to the mild pain category (63.4%) and still in the moderate category (36.4%). The decrease in pain from moderate to mild pain and moderate to mild pain, this shows that by doing this combination technique the body will produce endorphins. The higher endorphin hormone will reduce or alleviate the pain felt by a person so that someone becomes more comfortable, happy, and launches oxygen delivery to muscles (Sugani & Priandarini, 2010).

CONCLUSION

The results of the study concluded that prior to the combination of Cat Stretch Exercise with Dysmenorrhea Gymnastics, respondents experienced pain on a scale of 7-9 (severe pain) of 42.4% and a scale of 4-6 (moderate pain) of 57.6%. After the combination of the Paint Stretch Exercise Technique with Dysmenorrhea Gymnastics, the pain scale decreased between scales 1-3. A total of 63.6% and a scale of 4-6 (moderate pain) 36.4%. It can be concluded that there is an effect of the Combination Technique of Cat Stretch Exercise with Dysmenorrhea Gymnastics to Reduce Menstrual Pain (dysmenorrhoea) in young women. Based on the results of the study, it is expected that health workers will conduct socialization and training on the implementation of the Combination Cat Stretch Exercise Technique with Dysmenorrhea Gymnastics in each school, especially for junior and senior high school levels through supervisors and UKS officers in order to reduce menstrual pain (dysmenorrhoea) in young women.

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