THE EFFECT OF DISMENOREA CONCERNING THE REDUCTION OF PRIMARY AND SECONDARY MENSTRUAL PAIN INTENSITY ON ADOLESCENTS IN SMA TRISAKTI MEDAN NORTH SUMATERA

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ABSTRACT

Menstruation is a natural and natural process in a woman's life. Dysmenorrhoea is pain in the abdomen that comes from cramping of the uterine muscles and occurs during menstruation without signs of pelvic infection or disease. The intensity of dysminorrhea can decrease after pregnancy or at the age of about 30 years.

The research design used a quasi-experimental method (Quasi Experiment) with a one group pre-post test design. This research was conducted at SMA TRISAKTI Medan, North Sumatra Province from April to October 2020. The population in this study were 311 female adolescent students and 113 students as samples. in accordance with the research flow diagram that has been determined from planning to the outcome. The sample in this study were 113 adolescents at TRISAKTI Medan Senior High School, North Sumatra Province using the Simple Random Sampling Technique for adolescents with dysmenorrhea.

The results of univariate data show that the majority of female teenage students in class XII are 108 students (34.7) and a minority in class X are 100 (33%) and the majority of respondents are moderate pain as many as 53 students (46.9) and a minority of severe pain as much as 22 (19.5%). The results of the bivariate test used the Wilxocon test to determine the average difference between menstrual pain and the value (p-value = 0,000), namely that there was an effect of dysmenorrhoea exercise on decreasing menstrual pain intensity, there were teenage girls in SMA TRISAKTI Medan. Dysmenorrhoea exercise is a complementary therapy that can be used by health facilities and the community to reduce menstrual pain and reduce the use of pain relievers.

Keywords: Dysmenorrhoea Exercise, Menstrual Pain (Dysmenorrhea)

INTRODUCTION

World Health Organization (WHO) (2014), adolescents are the population in the age range 10-19, and adolescence is divided into early adolescence (early adolescence) aged 10-13 years, middle adolescence (middle adolescence) aged 14-16 years and late adolescence (late adolescence) aged 17-19 years. Menstruation is a natural and natural process in a woman's life. Dysminorrhea is pain in the stomach that comes from uterine cramps and occurs during menstruation. Dysminorrhea can also be defined as painful menstruation that occurs without signs of pelvic infection or disease. The intensity of dysmenorrhoea may decrease after pregnancy or at the age of about 30 years.

According to WHO data (2014), in Indonesia, the incidence of dysmenorrhoea is 55% among productive age, where 15% of them complain that their activities are limited due to dysmenorrhea. Women have experienced dysmenorrhea as much as 90%, this problem disturbs at least 50% of women during reproductive years and 60 - 85% in adolescence. Dysminorrhea results in many absences from school and office forcing sufferers to take a break, leaving work and their daily lifestyle.

According to the results of the Indonesian Demographic and Health Survey (IDHS) in 2017, the population

aged 10-19 years is 22.9% of the total population of Indonesia. The estimated number of menstruation incidence in Indonesia is as much as 55% of women of reproductive age who are tortured during menstruation. The incidence (prevalence) of menstrual pain is around 45.95%, among women of productive age.

Dysmenorrhoea exercise is a relaxation technique that can be used to reduce pain because during exercise, the brain and spinal cord will produce endorphins, a hormone that functions as a natural sedative and provides a sense of comfort (Rofli, 2013)

Dysmenorrhoea can be treated with pharmacological and non-pharmacological therapies. Pharmacological therapy includes analgesic drugs, hormonal therapy, prostaglandin nonsteroidal drugs, and cervical canal dilation (Prawiroharjo, 2009). Non-pharmacological therapies are warm compresses, exercise, Mozart therapy, and relaxation.

From the preliminary preliminary survey conducted at SMA TRISAKTI Medan in one month for each class, there were students who were absent (sick) on the grounds of experiencing pain during menstruation. Of the 10 female students who were interviewed when experiencing menstrual pain, the actions taken were sleeping to maintain the pain and taking pain relievers..

The problem of this research is the number of teenage girls who do not attend school and do not take part in learning because they experience menstrual pain. The research objective was to analyze the effect of dysmenorrhoea exercise on reducing the intensity of menstrual pain in female adolescents at SMA TRISAKTI Medan, North Sumatra Province.

MATERIAL AND METHODS

This type of research is descriptive analytic with research design using quasi-experimental method (Quasi Experiment) with one group pre-post test design in SMA TRISAKTI Medan, North Sumatra Province.

The population in this study were all female teenage students totaling 311 toddlers. Sampling with Simple Random Sampling, the total sample is 113.

Primary data is obtained directly from respondents.

RESULT

This study was to analyze the effect of dysmenorrhoea exercise on menstrual pain in young women at SMA TRISAKTI MEDAN in 2020. This study was conducted from April to November 2020. The subjects of this study were all female students of TRISAKTI MEDAN high school who had experienced menstruation with a population of 311. Adolescents then carried out the sampling technique so that the sample amounted to 113 young women. The samples were taken according to the inclusion criteria and were willing to be research respondents. Research Location SMA TRISAKTI MEDAN.

Tabel 4.1. Distribution of Respondent Characteristics at TRISAKTI High School in 2020

No	Variable	Total	Percentage (%)
	Class		
1.	**X**	**100**	**33**
2.	**XI**	**103**	**33.1**
3.	**XII**	**108**	**34.7**
		311	**100**
	Pain		
1.	**Severe Pain**	**22**	**19,5**
2.	**Moderete Pain**	**53**	**46,9**
3.	**Mild Pain**	**38**	**33,6**
	Total	**113**	**100**

Based on Table 4.1 the frequency distribution of respondents by class, it can be seen that of the 311 respondents the majority in class XII were 108 students

(34.7) and the minority in class X were 100 (33%).

The frequency distribution of respondents based on pain can be seen that of the 113 respondents the majority of moderate pain were 53 students (46.9) and the minority of severe pain was 22 (19.5%).

Tabel 4.2 The results before and after dysmenorrhoea exercise in young women of TRISAKTI high school in 2020

No	Variable	Mean	p-value
1.	Post Test	50,90	0,000
2.	Pre Test	26,70	

Based on the results of the calculation of each statement item, it was found that the total score at the initial test was higher than the final test. The results showed that there was a difference between dysminorrhea pain before doing exercise, and after exercising, the results of this hypothesis test using the Dependent T-test showed that the value of p = 0.00 (p <0.05). The results of this study indicate that dysminorrhea is effective in reducing the pain scale during menstruation.

Mild sports exercises are highly recommended to reduce dysmenorrhea. Exercise / gymnastics is a relaxation technique that can be used to reduce pain. This is because when doing sports / gymnastics the body will produce endorphins. Endorphins are produced in the brain and spinal cord. This hormone can function as a natural sedative produced by the brain, causing a feeling of comfort. The purpose of dysmenorrhea exercises is to increase the tension of the muscles and blood vessels which can rarely reduce high blood pressure. With the administration of cold water compresses, an increase in the volume of blood flowing throughout the body, including the reproductive organs. With regular exercise or gymnastics, there is an increase in the volume of blood flowing throughout the body, including the reproductive organs, thereby facilitating the supply of oxygen to blood vessels that experience vasocontraction, so that menstrual pain can be reduced.

This dysminorrhea is influenced by physical and psychological factors such as stress and the influence of the hormone prostatglandin. Therefore, by doing dysminorrhea exercises, the body will produce the hormone β-endorphin which functions as a natural tranquilizer in the human body which is produced by the brain which can reduce stress, produce a sense of comfort and reduce pain during menstruation. Increased levels of endorphins in the body can reduce pain during contractions. The dysminorrhea exercise can increase the endorphin level 4-5 times in the blood, so the more exercise it will be, the higher it will be.also levels of endorphins in the blood (Puji, 2012).

Adolescents with dysminorrhea will experience cramps and pain, especially in the abdominal part that is cyclic due to strong and long contractions in the uterine wall resulting in muscle fatigue and physical inactivity, it is necessary to exercise in the form of dysminorrhea exercises to relieve these cramps

One way to get rid of the cramps and pain is to do dysminorrhea exercises which are done with several movements. Muscle stretching or stretching is an exercise to maintain or develop flexibility or flexibility. Besides stretching the muscles or stretching can also improve posture and avoid pain that occurs in the neck, shoulders and back. The purpose of stretching is to help increase oxygenation or the exchange of oxygen and carbohydrates in cells and stimulate the drainage of the lymph system, thereby increasing muscle flexibility at its natural length and maintaining tissue flexibility and reducing muscle cramps and soreness. the gymnastic movements should be done systematically

The results of this study are also supported by the results of research

conducted by Sorman (2014), where in his research with the intervention group using the paired T test p = 0.00 (p <0.05), while in the control group using the alternative test Wilocxon found a value p = 0.276 (p <0.05), which means that dysminorrhea has an effect on reducing pain during menstruation.

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Dysmenorrhea exercise is a powerful way to reduce menstrual pain, besides that dysmenorrhea also has several benefits. The following are some of the benefits of dysmenorrhea exercise according to Wirakusumah (2004) in Laili (2012), the benefit is that research shows that women who exercise regularly and regularly can increase the secretion of hormones, especially estrogen. Regular exercise for young women releases beta endorphins (natural painkillers) into the bloodstream so that it can reduce dysmenorrhea, besides making the body feel refreshed and can cause feelings of pleasure. Regular exercise can increase the number and size of blood vessels, which supply blood to the body. the whole body including the reproductive organs so that blood flow is smooth and this can reduce the symptoms of dysmenorrhea. Increasing the volume of blood flowing throughout the body including the reproductive organs, this can facilitate the supply of oxygen to blood vessels that are experiencing vasoconstriction, so that menstrual pain can be reduced. Regular exercise makes the muscles much stronger because keratin, a chemical element contained in muscles, is activated, so that muscle growth is triggered, this is very good for supporting adolescent growth. Exercise can increase the brain's ability to function optimally in adolescents, because sixth can stimulate blood circulation, so it can bring more oxygen to the brain, besides that neurotransmitter production will be triggered so that brain function can be maintained. Streamline body metabolism and help reduce the number of fat particles in the blood and slow down atherosclerosis (Laili, 2012).

CONCLUSION

The results of the identification of dysminorrhea pain that were felt during menstruation before doing dysminorrhea exercise were found to be severe pain by 17 respondents (56.7%), after doing dysminorrhea exercise, the average dysminorrhea pain was moderate pain 15 respondents (50.0%) and on mild pain 12 respondents (40.0%).

Based on the results of the study, the results obtained p = 0, 000 smaller than p value 0.05, so it can be concluded that there is an effect of dysminorrhea exercise on reducing pain during menstruation.

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