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Article

EFFECTIVENESS OF RELAXATION TECHNIQUE : DEEP BREATH AS PAIN RELIEF IN MENTRUATION

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A B S T R A C T

Dysmenorrhoea is a condition that disturbs the comfort of young women caused by abdominal pain during menstruation. One of the non-pharmacological treatments that can be done to reduce dysmenorrhoea is by deep breathing relaxation techniques. Deep breathing relaxation techniques are one of the conditions that can stimulate the body to release endogenous opoids so that a pain suppression system is formed which will eventually cause a decrease in pain intensity. This study aims to determine the effectiveness of deep breath relaxation techniques to reduce menstrual pain in students of SMK Pembina Bangsa Bukittinggi in 2018. The design used was a one group pretest posttest design with 15 respondents. The results showed that before doing deep breath relaxation techniques with an average of 4.37 and after doing deep breathing relaxation techniques with an average of 3.20. In the Paied t-Test, the results showed that p = 0.000, where p <0.05. So it can be concluded that the effectiveness of deep breath relaxation techniques to reduce menstrual pain in students of SMK Pembina Bangsa Bukittinggi in 2018. It is hoped that further researchers can examine other factors that can affect the decrease in the level of dysmenorrhoea for respondents.

I. INTRODUCTION

One of the menstrual disorders commonly experienced by women is pain during menstruation or also called dysmenorrhea. The term dysmenorrhea (dysmenorrhoea) comes from the word "Greek" which means dys (disturbance / severe pain / abnormality) -meno (month) -rhea ("flow" or flow) so that from this meaning, dysmenorrhea is a disturbance of menstrual blood flow or menstrual pain. (Judha, 2012).

Pain during menstruation or menstruation is often complained by a woman as an uncomfortable sensation, even because the onset of pain can interfere with activities that force sufferers to rest and leave work or routine activities for several hours or several days. This characteristic of pain is very characteristic because it appears regularly and periodically accompanying menstruation, namely a discomfort in the lower abdomen before and during menstruation following nausea due to increased uterine contractions.

Dysmenorrhea affects more than half of women who are menstruating, and the prevalence varies widely. According to WHO, it is estimated that almost 90% of women experience dysmenorrhea and 10-15% of them experience severe dysmenorrhea which causes them to be unable to carry out any activities (Journal of Occupation and Environmental Medicine, 2010). Based on data from various countries, the incidence of dysmenorrhea in the world is quite high. It is estimated that 50% of all women in the world suffer from dysmenorrhea in a menstrual cycle (Calis, 2011).

In Indonesia, the incidence of primary dysmenorrhea is 54.89% while the rest are secondary type sufferers. Dysmenorrhea causes 14% of adolescent patients often absent from school and do not undergo daily activities (Calis, 2011). The peak incidence of primary dysmenorrhea occurs in late adolescence (adolescence) and in the early 20s, the incidence of dysmenorrhea in adolescents (adolescence) is reported to be 92%. This incidence decreases with increasing age and increasing births (Anugroho, 2008).

Discomfort or pain no matter what the circumstances must be overcome, because comfort is a basic human need, as in Maslow's Hierarchy. A person who experiences pain will have an impact on daily activities and rest and sleep (Potter and Perry, 2006).

If the discomfort is not resolved, it will affect the mental and physical function of the individual so that it is urgent to take pharmacological or non-pharmacological action / therapy immediately. In the midwifery environment, non-pharmacological therapy is developed as an independent action.

In general, dysmenorrhea pain management is divided into two categories, namely pharmacological and non-pharmacological approaches. Pharmacologically, pain can be treated

with analgesic therapy which is the most commonly used method of pain relief. Although analgesics can relieve pain effectively, the use of analgesics will be addictive and will have side effects of drugs that are dangerous for the patient. And most adolescents today to cope with menstrual pain they take painkillers that are sold freely without consulting a health worker. In fact, pain relievers can only temporarily reduce menstrual pain, in the long run it has a negative impact on the kidneys and liver (Baziad, 2004). Meanwhile, non-pharmacological treatments include warm compresses, deep breath relaxation techniques and yoga (Potter & Perry, 2005). In this case the midwife plays a role in non-pharmacological handling, one of the actions is to use relaxation techniques such as deep breath relaxation techniques.

Relaxation is a technique of relaxing or releasing tension, for example: breathing deeply and slowly. Besides being able to reduce pain intensity, deep breath relaxation techniques can also improve lung ventilation and increase blood oxygen (Smeltzer & Bare, 2002). The principle underlying pain relief by deep breathing relaxation techniques lies in the physiology of the autonomic nervous system, which is the part of the peripheral nervous system that maintains the homoestasis of the individual's internal environment. Relaxation is generally the most effective method, especially in patients experiencing pain. (National Safety Council, 2003).

Based on the initial survey, the researchers decided to conduct research at SMK Pembina Bangsa Bukittinggi itself. This is also reinforced by the complaints of students, namely that they are not focused and even unable to carry out learning activities when experiencing dysminorrhea. And some of the students also use pharmacological drugs as pain relievers, and as we know pharmacological drugs have side effects such as nausea, dizziness and some even vomiting. Therefore the authors are interested in researching how the effectiveness of using deep breath relaxation techniques to reduce menstrual pain in students of SMK Pembina Bangsa Bukittinggi in 2018.

II. METHODS

Research conducted using this type of quantitative analysis with a Quasi Experiment research design, one group pre-post test, This study only used one sample group without using a control group. The sample group is subjected to a pre-test and then given treatment and then a final test (Post-test). The population in this study were all students of class 11st of SMK as many as 35 students with non-random sampling technique, namely purposive sampling, found a sample of 15 respondents. The measuring instrument used was the menstrual pain observation sheet with a numeric rating scale. Analyzed by using the Shapiro

Wilk normality statistical test with the results of normally distributed data and using the Paired T-Test with a significance level of p <0.05 in bivariate analysis.

III. RESULT

Table 1. Average Intensity of Menstrual Pain Before Intervention in Breath Relaxation Technique

Pain Scale	f	%	mean	n	Min-Max
No pain	0	0	4,37	15	3-7
Mild	2	13,3			
Moderate	11	73,3			
Severe	2	13,3			

Based on table 1, 11 of 15 student experience “moderate” of menstrual pain before intervention, and the mean of mentrual pain before intervention was 4.37

Table 2. Average Intensity of Menstrual Pain after Intervention in Breath Relaxation Technique

Pain Scale	f	%	mean	n	Min-Max
No pain	0	0	3,20	15	1-6
mild	12	80			
Moderate	3	20			
Severe	0	0			

Based on table 2, 12 of 15 student experience “mild” of menstrual pain after breath relaxation technique intervention, and the mean of mentrual pain before intervention was 3.20

Table 3. Distribution of Average Intensity of Menstrual Pain Before and After a Deep Breath Relaxation Technique

Variabel	mean	SD	P valuen	
Pre-test	4,37	1,223	0,000	15
Post-test	3,20	1,424		

the average pain scale before the intervention was 4.37, with a standard deviation of 1.223. In comparison, the pain scale after being given intervention was 3.20 with a standard deviation of 1.424. The Paired T-test statistical test results showed that the value of p = 0.000 (0.000 <0.05)

showed the effect of deap breath relaxation technique on reducing the level of dysmenorrhea pain.

IV. DISCUSSION

Dysmenorrhea is a state of intense pain and can interfere with daily activities. Dysmenorrhea is a symptomatic phenomenon including abdominal pain, cramps, and back pain (Kusmiran, 2012). The theory is supported by the theory of Robert and David (2004), dysmenorrhoea is normal, but can be exaggerated if it is influenced by physical and psychological factors such as stress and the influence of the hormones prostaglandins and progesterone. During dysmenorrhoea there is contraction of the uterine muscles due to an increase in prostaglandins, causing vasopasm from the uterine arterioles which causes ischemia and cramps in the lower abdomen which will stimulate pain during menstruation (Nofitri and Suri, 2014).

Non-pharmacologically, to reduce pain, deep breath relaxation techniques can be used (Bare & Smeltzer, 2002). According to Huges et al (2001). Which states that deep breath relaxation techniques can reduce the intensity of pain, because in certain circumstances the body is able to release endogenous opoids, namely endorphins and encephalins. These substances have morphine-mirif properties with analgesic effects that form a "pain suppression system". Deep breathing relaxation techniques are one of the conditions that can stimulate the body to release endogenous opoids so that a pain suppression system is formed which will eventually cause a decrease in pain intensity. This is what causes the difference in the decrease in pain intensity before and after the breathing relaxation technique is carried out in a decrease in pain intensity.

The principle underlying pain relief by relaxation techniques lies in the physiology of the autonomic nervous system, which is part of the peripheral nervous system that maintains the homeostasis of the individual's internal environment. When there is release of chemical mediators such as bradykinin, prostaglandins and substances, it will stimulate the sympathetic nerves, causing vasoconstriction of muscle tone which causes various effects such as auto spasm which eventually compresses blood vessels, reduces blood flow and increases the speed of muscle metabolism which results in the delivery of painful implants from the spinal cord. to the brain and perceived as pain (Smeltzer & Bare, 2002)

Deep breath relaxation techniques have benefits when performing deep breath relaxation techniques for students who experience dysmenorrhea. The provision of deep breath relaxation techniques that are applied for 15 minutes can have an effect in the form of comfort, reduce

uterine tension and improve blood circulation so that the pain that is felt during menstruation can be reduced and gradually disappeared (Bobak, 2005)

Deep breath relaxation techniques that are done repeatedly will cause a sense of comfort. This feeling of comfort will ultimately increase a person's tolerance for pain. People who have good tolerance will be able to adapt to pain and will have a good coping mechanism as well. In addition to increasing pain tolerance, the feeling of comfort that is felt after doing deep breathing relaxation techniques can also increase the pain threshold so that by increasing the pain threshold, the pain that occurs is on a scale of 2 (moderate) to scale 1 (mild) after deep breathing relaxation techniques (Kozier , 2004). This is in accordance with the researchers' observers that respondents who perform deep breath relaxation techniques well and are supported by a calm environment will have an effect on reducing pain intensity.

Based on the results of research from 15 respondents, the overall experience decreased pain. This happens because deep breath relaxation techniques are used which can reduce the intensity of pain, because in certain circumstances the body is able to release endogenous opoids, namely endorphins and encephalins. These substances have morphine mirif properties with analgesic effects that form a pain suppression system, so that the respondents feel that there is a change in the reduction of dysmenorrhea pain before and after deep breathing relaxation techniques.

V. CONCLUSION

pain relief by relaxation techniques lies in the physiology of the autonomic nervous system, which is part of the peripheral nervous system that maintains the homeostasis of the individual's internal environment. It can be advised to the student who experiences dysmenorrhea to apply deep breath relaxation as one of the non-pharmacologic methods of pain relief.

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