

Original Research

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The Effect Of Hypnotherapy To Reduce Dysmenorrhea PainSherly Amelia¹, Ratna Dewi², Wiwit Febrina³¹Senior Lecturer of Nursing, Faculty of Health, Fort De Kock University, Bukittinggi, Indonesia²Senior Lecturer of Nursing, Faculty of Health, Fort De Kock University, Bukittinggi, Indonesia³Senior Lecturer of Nursing, Faculty of Health, Fort De Kock University, Bukittinggi, Indonesia

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ABSTRACT

The Incidence of primary dysmenorrhea in Indonesia is around 54.89%, the remaining 45.11% is secondary dysmenorrhoea. Dysmenorrhoea in Parabek high school students out of 35 students, 25 students experience dysminor when menstruation. One of the non-pharmacological dysmenorrhoea treatments is hypnotherapy. Hypnotherapy is an easy, fast, effective, and efficient way to reach the subconscious mind. This study aims to determine the effect of hypnotherapy on dysmenorrhoea in high school students. The research method used was pre-experimental with are search design *one group pre-test post-test*. The total population obtained was 117 people and the number of samples taken was 20 people, with a *purposive sampling technique*. Data collection was obtained directly from respondents using the measuring instrument *Verbal Descriptor Scale (VDS)*. Data analysis was carried out in two stages, namely univariate and bivariate using the dependent t-test. The results showed that the average value of the dysmenorrhoea scale before the intervention was given was 6.50 and the average value after intervention was 1.35, there was an effect of hypnotherapy on dysmenorrhoea ($t = 17.596$, $p\text{-value} = 0.001$). Hypnotherapy can be suggested to be applied as a non-pharmacological measure to treat dysmenorrhea.

Introduction

Dysmenorrhoea is menstrual pain which is a symptom and not a disease. Dysmenorrhoea is pain during or immediately before menstruation which is one of the most common gynecologic problems in women of all ages (Lowdermilk, 2010). Dysmenorrhoea is divided into two, namely primary dysmenorrhoea secondary dysmenorrhoea (Baziad, 2008). The incidence of dysmenorrhoea in the United States is 30-50% of women of reproductive age. About 10-15% of them are forced to lose their opportunities for work, school and family life. Sweden found that the incidence of dysmenorrhoea in women aged 19 years was 72.42%.

The incidence of primary dysmenorrhoea in Indonesia is around 54.89%, the remaining 45.11% is secondary (Proverawati & Maisaroh, 2009), however very few who come to see a doctor are only 1-2% (Baziad, 2008). In 2002 a study was conducted in 4 junior high schools in Jakarta to find the incidence of primary dysmenorrhoea, from 733 people who were accepted as research subjects, 543 people experienced dysmenorrhoea from mild to severe degrees (74.1%), while as many as 190 people (25.9 %) do not have dysmenorrhoea.

West Sumatra there is no definite figure regarding the number of dysmenorrhoea. However, it is estimated that 30% –70% of women experience menstrual problems, including abdominal pain or stomach cramps and about 10% –15% of them are forced to lose opportunities for work, school and family life (Baziad, 2008). The impact of dysmenorrhoea on adolescent girls includes: disrupted comfort, decreased activity, disturbed sleep patterns, disturbed appetite, disturbed interpersonal relationships, difficulty concentrating on work and studying. Pain also affects the emotional

status of feelings, irritability, depression and anxiety (Kozier, 2010).

Adolescents who experience dysmenorrhoea during menstruation limit their daily activities, especially learning activities at school. Learning activities are very important principles or principles in learning interactions that not only involve physical activity but also mental activity (Dimyati, 2002). A teenager who experiences dysmenorrhoea, disrupting their learning activities at school and often this makes them miss school. In addition, the quality of life decreases, for example a student with dysmenorrhoea cannot concentrate on learning and learning motivation will decrease due to dysmenorrhea that is felt during the teaching and learning process (Ningsih, 2011). Knowing the impact of primary dysmenorrhoea on adolescents, it is necessary to seek treatment to overcome these problems.

The treatments that can be used by adolescents to reduce dysmenorrhoea are pharmacological and non-pharmacological. Pharmacological therapy with drugs that inhibit prostaglandin synthesis, but these drugs can cause side effects from use in the form of irritation of the gastric mucosa and the risk of stomach ulcers, on prolonged use or in high doses there is blood damage, liver and kidney damage (Tjay, 2010). Therefore, non-pharmacological ways can be done with stress management, adequate rest and regular exercise (Baziad, 2008), physical handling or physical stimulation including: skin stimulation, electrical stimulation, acupuncture, placebo and cognitive behavior including relaxation, hypnosis, biological feedback, distraction and guided imagination (Kozier, 2010). A study found an interesting fact. About 75% of all the physical ailments that many people suffer from are actually mental and emotional. However, unfortunately, most

treatments or therapies find it difficult to reach the source of this problem, namely the mind, or more precisely, the subconscious mind (Gunawan, 2010).

Hypnotherapy is a very easy, fast, effective and efficient way to reach the subconscious mind, re-educate, and heal sick thoughts. However, based on my experience, it turns out that hypnotherapy is able to provide a faster and permanent solution (Gunawan, 2010). Regulation of the Minister of Health of the Republic of Indonesia Number 1109/MENKES/PER/IX/2007 concerning the implementation of complementary-alternative medicine in health care facilities states in article 3 that complementary-alternative medicine is carried out as a continuous service effort starting from improving health (promotive), preventing disease (preventive), cure disease (curative) and restore health (rehabilitative). Article 4 that the scope of complementary - alternative medicine which is based on biomedical knowledge includes interventions of body and mind. *The National Center for Complementary and Alternative Medicine* (2012) said that hypnotherapy is a type of complementarytherapy *mind and body intervention*. Hypnosis is the penetration of critical factors in the conscious mind followed by acceptance of a thought or suggestion. Hypnotherapy is a hypnosis application in curing mental disorders in relieving physical disorders. In practice in the field of hypnosis it has been medically proven to be able to overcome various kinds of psychological and physical disorders (Anam, 2010).

Parabek High School is a private school with A accreditation, and the school has never been given health education, especially adolescent reproductive health. The school has a UKS but it has never been used. Based on a preliminary study on 4 September 2016, it was

found that during the last 3 months there were 2-3 students who did not attend school every month because of menstruation. The results of interviews with 35 female students regarding primary dysmenorrhea, there were 25 students who experienced menstrual pain every menstrual period. Pain is felt the day before menstruation until the second day of menstruation. 15 students said that dysmenorrhoea interfered with school activities so that students did not concentrate during the teaching and learning process, they only took breaks in class and 10 students said they did not go to school when they experienced dysmenorrhoea. Of the 25 students who experienced dysmenorrhoea, 5 said that they had experienced dysmenorrhoea while on daily exams so they did not concentrate on answering the exam questions so that their exam results were low. When asked about how to deal with primary dysmenorrhoea pain, among them 10 people said they took over-the-counter pain relievers, 10 people took herbal medicine and it usually decreased, but these drugs and herbs made them addicted, and 5 people said they were getting enough rest. Of the 25 students said that they had never used hypnotherapy as a treatment for their dysmenorrhoea. Based on the description above, the authors were interested in conducting research on the effect of hypnotherapy on dysmenorrhoea at Parabek High School.

Method

Research Design

This type of research is a *Quasy Experiment* with approach *one group pre test post test design* which examines the effectiveness of hypnotherapy to treat dysmenorrhea pain.

Population and Sample

The population in this study were all 70 students who experienced dysmenorrhea pain. The sample was taken by using *purposive sampling technique*. In this study, researchers took a sample of 20 female students who experienced primary dysmenorrhoea.

Research Instruments

The instrument used was the observation sheet measuring the pain scale using the Numerical Rating Scale instrument with a value of 0 - 10. The pain scale was measured before and after hypnotherapy was performed. Hypnotherapy is carried out with 6 stages of hypnotherapy, namely pre interview, suggestibility test, induction stage, deepening stage, suggestion, and termination.

Data Analysis

Based on the prerequisite test results, it is known that the distribution of research data is normal, fulfills the requirements for parametric statistical analysis so that n parametric statistical analysis is used, in this case using the *Paired T test* with a limit of $\alpha = 0.05$. The hypothesis is accepted if the probability is $p \leq 0.05$ and the hypothesis is rejected if the probability value is $p > 0.05$.

Results

Table 1. Average Dysmenorrhea Scale before Hypnotherapy in Parabek High School Students

Variabel	Mea n	S.D	Minimal- Maksimal	95% CI
Before Hypnotherap y	6,50	1,60 6	3-9	5,75-7,25

Dysmenorrhoea scale before hypnotherapy action Based on table 1, the results of the data analysis above show that the average dysmenorrhoea scale for Parabek high school students before hypnotherapy action was

performed was 6.50 and the overall pain scale was between 5.75. - 7.25 with the scale between 3 until 9.

Table 2. Average Dysmenorrhea Scale after Hypnotherapy in Parabek High School Students

Variabel	Mea n	S.D	Minimal- Maksimal	95% CI
After Hypnotherap y	1,35	1,04 0	0-3	0,86-1,84

Based on table 2 above data analysis results obtained average scale of dysmenorrhoea at SMU after action hypnotherapy is on a scale of 1.35. The average dysmenorrhoea scale among high school students after hypnotherapy. The results of data analysis on the dysmenorrhoea scale for students after intervention were 1.35 with the lowest dysmenorrhoea scale of 1 while the highest dysmenorrhoea scale was 3.

Table 3. The Effect of Hypnotherapy on Primary Dysmenorrhea in Parabek High School Students

Variabel	Mean Different	SD	SE	Sig	N
Dysmenore Scale Before & after	4,15	1,606	0,359	0,001	20
		1,040		0,233	

Discussion

The results of data analysis showed that before hypnotherapy, the average pain level of students with dysmenorrhoea was 6.50 with the lowest pain scale of 3 and the highest pain scale 9. This is in line with research conducted by Kartika (2012) that a student with dysmenorrhoea experienced an average dysmenorrhoea scale of 4.48. Before the intervention group, there was still a high pain scale because this group had not received hypnotherapy treatment.

The corpus luteum will regress if pregnancy does not occur. This will result in a decrease in

progesterone levels and result in lysosomal membrane labilization, so that it breaks easily and releases the enzyme phospholipaseA2. Phospholipase A2 will hydrolyze phospholipid compounds present in the endometrial cell membrane and produce arachidonic acid. Arachidonic acid together with endometrial damage will stimulate the arachidonic acid cascade and produce prostaglandins PGE2 and PGF2 alpha. Increased PGE2 and PGF2 alpha in the endometrium. The result is an increase in uterine contractions and dysrhythmias, resulting in decreased blood flow to the uterus and resulting in ischemia resulting in primary dysmenorrhea.

Dysmenorrhoea occurs during menstruation and is more common in adolescents. Menstruation is a natural process that occurs in women. During menstruation, women sometimes experience pain. The nature and level of pain varies, from mild to severe. This condition is called dysmenorrhoea (Kusmiran, 2012). Dysmenorrhea experienced by adolescents is very influenced by many factors. However, in this study the implementation of these factors have been homogenized so that the level of pain that is obtained has a standard deviation that is not too flashy

The results of data analysis on the dysmenorrhoea scale for students after intervention were 1.35 with the lowest dysmenorrhoea scale of 1 while the highest dysmenorrhoea scale was 3. This is in line with previous research conducted by Galih (2009) regarding the effect of hypnotherapy on pain reduction in intranatal mothers during the first period. at RB Kharisma Husada Kartasura from the results of the study, it was found that 78% of respondents experienced mild pain after giving the intervention.

The average value of the dysmenorrhoea scale after the intervention was lower than the

mean value of the dysmenorrhoea scale before the intervention. This is because the group after the intervention has been given action in the form of hypnotherapy. Hypnotherapy is one of the non-pharmacological interventions that can be done to reduce pain experienced by adolescents with dysmenorrhoea, this action is currently used by many people to overcome both psychologically and physically (Anam, 2010).

When hypnotherapy is done, the patient is guided to do relaxation. This relaxation response occurs through a significant decrease in the body's need for oxygen, then the muscles of the body relax causing a feeling of calm and comfort. The blood flow will be smooth, the calming neurotransmitters will be released and the nervous system will work properly, and after the relaxation condition is reached, naturally the gates of the subconscious mind will open, so that it will be easier to accept the suggestions of healing given, in this condition the gate of pain is called *substantia gelatinosa* (*kornudorsalis medulla spinalis*) will be closed and the impulses transmitted to the brain are reduced or slightly so that the perception of pain is lost or reduced (Benson, 1975; Potter & Pery, 2005). Changes in the number of respondents toward lower pain scale was made possible due to the intervention given that hypnotherapy

According to Roy's (1991) adaptation theory, when a person is given a stimulus, there will be an adaptation process of cognition and regulators. Regulatory system intermediaries are called chemical, nervous, or endocrine and cognitive system intermediaries are called perception or information processing, decision making, and emotions. In maintaining a person's integrity, regulators and cognators work simultaneously. Hypnotherapy that is carried out will affect the work of the *cerebral cortex* in cognitive and emotional aspects, resulting in positive perceptions and relaxation, so that it will

indirectly help in maintaining the balance of the body's homeostasis. Through the HPA Axis, to produce *Coticitropin Releasing Factor* (CRF). Furthermore, CRF stimulates the pituitary gland to reduce ACTH production so that endorprin production increases which then reduces the production of cortisol and other stress hormones so that pain decreases (Setiyo, 2007).

According to Schulz-Stubner, the main point of their findings, where MRI was first used to study brain activity during hypnosis to suppress pain, was that they saw decreased activity in areas of the pain network (pain perception centers) and increased activity in brain other areas during hypnosis. This increase may or may not be specific but clearly does something that reduces or inhibits pain signals from entering the cortical structure (Setiyo, 2007).

The pain network functions like a relay system. Input pain signals originate from the peripheral nerves in the area where the pain stimulus is given, then enter the spinal cord where the information is processed and transmitted into the brainstem. From here the signals travel to the midbrain area and eventually enter the brain cortex which is associated with conscious perception of external stimuli such as pain. The process that occurs in the lower part of the pain network looks the same between hypnosis or not, but in hypnosis the activity decreases in the upper area (cortex) which plays a role in pain perception (Setiyo, 2007).

The results of the above research indicate that hypnotherapy has an effect on reducing the pain scale. This is because during hypnosis, brain activity decreases in the pain perception area which includes the *primary sensory cortex*. In the other two brain structures: the *cortex cingulated* left anterior and the basal ganglia, a different picture is seen with increased activity in these two brain areas which are part of an inhibitory pathway that breaks signals from being picked

up by higher cortical structures that are in charge of perceiving pain (Setiyo, 2007).

Conclusions

It can be concluded that hypnotherapy can affect dysmenorrhoea pain. Based on the research, it is recommended that the school provide counseling on efforts to reduce dysmenorrhoea for students by considering the use of hypnotherapy as a modality that can be done to reduce dysmenorrhea. Other alternatives can also be used to reduce dysmenorrhoea, such as taking medication as recommended by a doctor, warm compresses, and relaxation techniques.

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Author Contributions

The first author contributed to propose the preparation of reports on research articles that were to be published. The second author was to make data available for analysis. Moreover, the third author was to assist data collection.

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