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Pilates Exercises on Mental Control of Dysmenorrhea Patients

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Abstract: *Dysmenorrhea is a pain or pain in the pelvic area due to an increase in prostaglandin during menstruation. The pain that arises results in disrupted activities and can reduce the quality of life in every sufferer. Disruption of activity and decreased quality of life have an impact on mental decline, namely anxiety and confidence in completing work. Pilates movement forms the muscles of the waist, strengthens the back, exercises the muscles of the abdomen, lower back, around the pelvis, and buttocks. Pilates movement can supply oxygen to each organ so that the prostaglandin hormone can come out at the same time during menstruation and have an impact on reducing the onset of pain in the pelvis. Reduced pain or dysmenorrhea can control the mental as an effort to eliminate anxiety and increase self-confidence when doing activities. A person who is menstruating can do pilates exercise as a physical exercise to control mental anxiety and confidence to stay in good condition.*

Keywords: *Pilates, Mental, Dysmenorrhea*

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I. Introduction

Dysmenorrhea is pain in the pelvic area through an increase that occurs in the hormone prostaglandin during menstruation. Pain arising from the uterine muscles that contract and relaxation is stronger due to prostaglandins in the body (Yatim, 2001: 15). Menstruation occurs in children who experience puberty as early as sexual maturation and visible changes in physical, hormonal, and sexual. Menstruation is part of a regular process that is controlled by hormonal interactions then released by the hypothalamus, glands under the forebrain, and ovaries, so that it will make pain if you experience menstruation (Proverawati and Misaroh 2009: 26).

Dysmenorrhea occurs between the ages of 15-25 years and then disappears at the end of the age at the beginning of 30 years. The pain usually occurs a few hours before the menstrual period and can continue for up to 48-72 hours. Pain during menstruation causes disrupted activity and difficulty moving optimally. Other abnormalities occur in 60-70% of women in Indonesia with 15% of them complaining that their activities become limited due to dysmenorrhea (Proverawati and Misaroh, 2009: 83).

Menstrual pain is divided into two parts, namely primary pain defined as recurrent cramping pain that occurs during menstruation, secondary menstrual pain is defined as menstrual pain that occurs due to gynecologic abnormalities such as endometrosis. The incidence of primary menstrual pain in Indonesia is around 54.89%, while the rest are sufferers with secondary types. The United States of America is estimated that almost 90% of adolescents experience menstrual pain 10-15% of them experience severe menstrual pain, which causes them to be unable to do any activities and this will reduce the quality of life for each individual (Andira, 2013: 40).

Dysmenorrhea situation or menstrual pain is a condition that causes physical disruption and impact on discomfort during activity. Disturbed comfort results in decreased mental state that is the emergence of anxiety and decreased self-confidence, making it difficult to regulate yourself to return to normal activities. Anxiety is a subjective experience of disturbing mental tension as a general reaction and inability to deal with problems or the presence of security. Unpleasant feelings generally cause physiological symptoms such as trembling, sweating, and increased heart rate (Sandjaja, Bachelor, and Jusup, 2017: 236).

Self-confidence is a mental optimal attitude of the child's ability to self-ability to resolve everything and the ability to make adjustments in situations that occur. faced (Surya, 2007: 56). Mental conditions namely anxiety and decreased confidence due to menstrual pain (dysmenorrhea) have an impact on a person's decreased ability to move. Management of pain during menstruation needs to be done to restore and control mental disorders in patients with dysmenorrhea. Conditions of anxiety and self-control that are controlled can help a person in carrying out various activities and increase work productivity. The study of motion in handling dysmenorrhea can provide mental control solutions to improve fitness naturally.

II. Methods

Data collection tools

The data collection tool uses study material in the form of material consisting of journals, articles, and textbooks as well as theoretical analysis in the field of Pilates, mental exercises, and dysmenorrhea research.

Methods

Research using diagnostic survey methods is used in research together with in-depth analysis of piltes in the form of books and articles as well as research conducted on mental and dysmenorrhea in journal form. A systematic review of research on dysmenorrhea sufferers based on the following principles this research focuses on the study of books and articles published in scientific journals, monographs, and research results related to pilates and dysmenorrhea exercises.

III. Results And Discussions

Menstruation or menstruation is a condition of blood decay in the lining of the uterine lining of the body caused by reduced levels of the hormones estrogen and progesterone so that the body experiences pain. The process of menstruation is a relationship that occurs between the hypothalamus, pituitary, and ovary (hypothalamic-pituitary-ovary axis) which oversees the secretion of the gonaditropin hormone by adenohiposis through the secretion of neurohormones that are transmitted to adenohipofisis cells through special portal circulation. The hypothalamus produces a factor that has been isolated and is called Gonadotropin Releasing Hormone (GnRH) because it can stimulate the release of Lutenizing Hormone (LH) and Follicle Stimulating Hormone (FSH) from the pituitary will increase so that it stimulates the formation of sexual hormones (Proverawati and Misorah 2009: 35).

The normal menstrual cycle is divided into three phases, namely the follicular phase, the ovulation phase, and the luteal phase. Each phase changes hormone levels throughout the menstrual cycle caused by a feedback mechanism between the gonadotropin hormone. The main place of feedback on hormoneegonadotropin occurs in the hypothalamus and in the early follicular phase. Some follicles will develop due to increased FSH (Proverawati and Misorah 2009: 37).

Menstrual cycles occur periodically every 28 days or occur every 21 days and 30 days. Menstrual cycles, which occur on days 1 to 14, occur in the growth and development of primary follicles which are stimulated by the hormone FSH. Primary oocyte cells will divide and produce haploid ova. The follicles develop into mature de Graaf follicles, these follicles also produce estrogen hormone which stimulates the release of LH from the pituitary. Estrogen that comes out functions to stimulate repair of the uterine wall, which is the endometrium which is exfoliated during menstruation, in addition to estrogen which exfoliates during menstruation, FSH formation occurs and instructs the pituitary to produce LH which functions to stimulate mature de Graf follicles to hold an ovalusion that occurs on day-to-day 14 LH stimulates follicles which have the function of thickening the endometrial lining which is rich in blood vessels to prepare for the arrival of the embryo, this period is called the luteal phase, besides that progesterone also functions to inhibit the formation of FSH and LH, as a result the corpus luteum shrinks and disappears, the formation of progesterone stops so that the supply of nutrients to The endometrium stops, the endometrium dries up and will then peel off and bleeding will occur (menstruation) on the 28th day. This phase is called the bleeding phase or menstrual phase, because there is no progesterone, the FSH begins to form again and the oogenesis process returns (Andira 2013: 42).

Pilates exercises are exercises that have movements associated with primary dysmenorrheal. Pilates Gymnastics was created by Joseph Pilates since 1920 which consists of movements by combining flexibility, strength, breathing, and relaxation. The main principles of Pilates exercises include precision control in doing movements, isolation of muscles that are routinely trained by using a series of controlled movements and breathing. Pilates exercises are designed to strengthen the inner postural muscles and build corset muscles around the trunk that protect the back from possible injury, aches, and pain during menstruation. Light movements in Pilates exercises are designed as physical exercises that refresh while at the same time forming body posture and improving blood circulation, respiratory system, and lymph system (Kelly, 2012: 33).

Pilates exercises focus on the strength of the abdominal muscles and the muscles of the waist, strengthening the back, around the pelvis, and buttocks (core muscle) so as to reduce the onset of low back pain during menstruation. Pilates exercises also train deep muscles (deep muscle) to have an impact on muscle strength and better flexibility. Physiological studies of dysmenorrhea that experience menstrual pain will experience muscle cramps especially in the lower abdomen are cyclic caused by strong and long contractions in the uterine wall resulting in muscle fatigue and physical inactivity, so in Pilates exercises that exercise a lot in the hip area can help to get rid of the cramps. Increased abdominal muscle elasticity affects the level of oxygen that supplies to each organ, so that the decrease in pain occurs because the oxygen supply in each organ, especially the abdomen is fulfilled to the maximum and also when the hormone prostaglandin comes out simultaneously during menstruation also results in reduced pain. Mental control in patients with dysmenorrhe is

an effort to eliminate anxiety and restore confidence carried out by way of exercise. A good exercise to use is Pilates exercise as a form of movement that is influential to relieve pain in patients with dysmenorrhe (Sari, 2017: 171).

Pilates exercises are exercises to relieve menstrual pain with several forms of activities such as walking, running, and sports. Pilates exercises are one of the relaxation techniques that can be used to reduce pain because when doing gymnastics, the brain and spinal cord will produce endorphins, hormones that function as natural sedatives and cause a sense of comfort.

IV. Conclusions

Pilates exercises are exercises that focus on the strength of the abdominal muscles, are designed to strengthen the inner postural muscles, and help create muscle flexibility. Pilates movements will shape the waist muscles, strengthen the back, train the abdominal muscles, lower back, around the pelvis, buttocks and reduce the onset of low back pain before menstruation. Muscle empowerment in the body on Pilates exercises will have an impact on mental control to eliminate anxiety and restore confidence that is disrupted during menstruation. Mental control can be done by doing Pilates exercises properly and structured, so that the activities carried out can achieve maximum results.

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