

MANAGEMENT OF DISMENORE PAIN WITH EXERCISE STRETCH PAIN IN SMAN KOTA TASIKMALAYA

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ABSTRACT

Dysmenorrhoe is a state of pain in the pelvis and the lower abdomen (suprapubic) that happened before or during menstruation. The symptoms of dysmenorrhoea are unpleasant, individually, and subjectively. It happens to teenagers more frequent, menstrual disturbances disorder often experienced, irregular menstrual among others have less and painful menstruation and have more often and affected to their learning process and absences at school because of the prolonged pain. Cat stretch exercise is one of a non-pharmacology kind. The purpose of the activities is to give training to students in reducing pain in SMUN of Tasikmalaya. Quantitative methods approach used one group pretest-posttest—the samples from 20 students with purposive sampling. Results obtained the average before intervention 2,10 and after 1,70 using the Numeric Rating Scale (NRS). T Independent result p 0,002 means cat stretch exercise can reduce dysmenorrhoea. Recommended for teenage girls to apply to do this exercise when experiencing dysmenorrhea.

Keyword: Dysmenorrhoe, Management, Cat stretch exercise

Background

Every woman every month will experience menstruation except those who experience abnormalities so that they do not experience menstruation. Menstruation is bleeding periodically and cyclic from the uterus, accompanied by discharge/desquamation of the endometrium (Greenspan, 1998 dalam Sukarni, 2013). In menstruating women, some symptoms can attend before or during menstruation, known as Pre-Menstrual Syndrome (PMS), one of which often occurs and is experienced by many women today is pain during menstruation (dysmenorrhea). Pain during menstruation is an unpleasant symptom that is individual and subjective; pain during menstruation sometimes occurs in the menstrual cycle that is not accompanied by egg release, especially when menstrual blood clots in the uterus. The pain you feel occurs when the clots are pushed out of the uterus. Pain is an essential sign of physiological disturbances.

Menstrual periods in women often have problems, this is because the process and menstrual cycle can experience ups and downs and change every month. In adolescents, exceptionally high school students, menstrual disorders are more frequent; disturbances are often experienced, including irregular menstruation, less and very heavy menstruation, painful menstruation and more frequent menstruation. School-age teenagers who experience menstrual disorders will affect the implementation of the teaching and learning process they are undergoing. This is due to menstrual disorders, which can be in the form of menstrual pain, which has a prolonged, painful effect causing high school absenteeism (Yuanita, 2018).

Menstrual pain management consists of two types, namely pharmacological and non-pharmacological, pharmacological, namely: sedative and analgesic, one of which is non-pharmacological management is stretch paint exercise. Cat Stretch Exercise is compared with other non-pharmacological techniques because stretch paint exercise is a safer physical exercise and does not contain side effects because it uses physiological processes that affect changes in vital signs through the HPA-axis system; in this system,

the hypothalamus releases the Corticotropin-Releasing hormone. Factor (CRF) stimulates the adrenal medulla to increase the production of proopiomelanocortin (POMC) so that the formation of enkephalin also increases, the pituitary gland produces endorphins, which can affect a person's mood to be more relaxed, increased endorphins and enkephalin reduce sympathetic nerve activity, decreased sympathetic nerve activity causes decreased cardiac output which in turn causes a decrease in blood pressure, peripheral resistance, pulse and respiratory rate (Salbiah, 2015). This technique has been used in previous studies on menstrual pain and has been shown to reduce pain during menstruation. The difference with this study was that the different sites and performed simultaneously were not observed in the length of time during menstruation.

WHO reports, STDs have a higher prevalence in Western countries. The results of a study by the American College of Obstetricians and Gynecologists (ACGOS) in Sri Lanka in 2012 reported that around 65.7 young women experienced PMS symptoms. In Mahin Delara, Iran, in the same year, 98.2% of girls aged 18-27 years were found (Surmiasih, 2016). In Indonesia, based on reports from several regions, such as in South Jakarta, 45% of vocational school students experience PMS, in Padang 51.8% of high school students experience PMS, while in Purworejo it is 24.6%, Semarang the prevalence is 24.9% (Pratita & Margawati, 2013). In Tasikmalaya, based on data obtained from Mitra Citra Remaja (MCR), one of the consultations on adolescent problems in Tasikmalaya in 2019, 23 people with premenstrual syndrome and 12 of them can interfere with activities, especially for a student.

Based on a preliminary study at two high schools in Tasikmalaya, out of 112 female students, 15 said that when menstrual pain occurs, they cannot participate in total school activities (not going to school, going home during school hours, or resting in the School Health Unit (UKS) and not participating in school activities). The rest said pain interfered with concentration when participating in school activities. Of the total number of students who experienced pain, 6 of them said they overcome it by taking medication; the

rest said they used distraction techniques such as relaxation and mobilization. From the pain management method above, nine students said that the pain did not go away at all. The rest said the pain went away with varying grace periods. Based on the situation analysis and the problems obtained from the survey results, the aim of this study was to determine the management of stretch paint exercises in reducing pain during dysmenorrhoea for high school students in Tasikmalaya City.

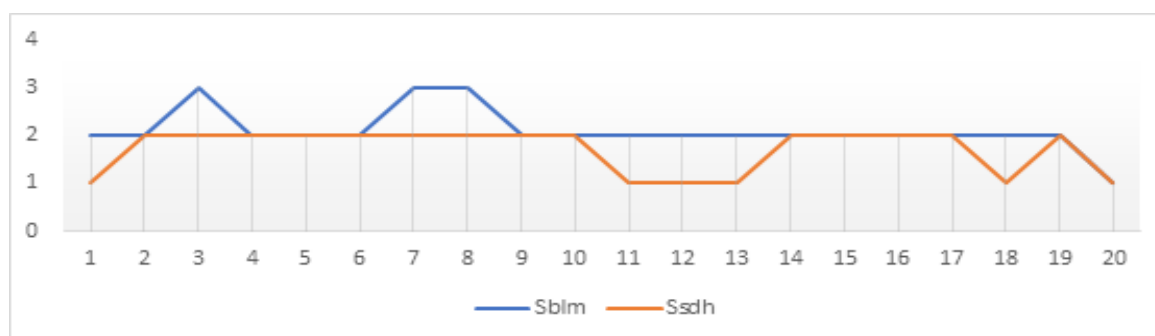
Method

The method used is quantitative with a one group pretest-posttest design approach. The total population of 75 female students who experienced menstruation and a sample of 20 people with inclusion criteria at the time of the study, prospective respondents were experiencing menstrual pain, we're willing to participate in the study. These 20 people

came from 2 high schools in Tasikmalaya. For its implementation, each place has a different time. Menstrual pain measurements were measured using the NRS pain scale (Numeric Rating Scale) 0-10 before and after the intervention. All participants were gathered in one room after taking pain measurements, doing demonstrations, and doing stretch paint exercises for approximately 30- 40 minutes, namely; 10 minutes later, the pain scale was measured again. To test bivariate variables using the dependent T-test. This test is used to determine whether there is an effect before and after the stretch paint exercise.

Result

The results of the pain scale before and after the intervention of each respondent can be seen in the graph.



Graph 1 Pain Scale Before and After Intervention

Table 1 Average pain scale before and after intervention

	Mean	Min	Max	SD
Nyeri sebelum CSE	2,10	1	3	0,447
Nyeri sesudah CSE	1,70	1	2	0,470

The result of the dependent T-test showed the result of p 0.002, which means that stretch paint exercise can reduce the pain of dysmenorrhea.

Table 2 The results of the stretch exercise paint test on dysmenorrhea

Intervention	N	Mean	SD	SE	t	p-value
Nyeri sebelum CSE-nyeri sesudah CSE	20	0,400	0,503	0,112	3,559	0,002

Discussion

Dysmenorrhea is a condition of pain in the pelvis. It lowers part of the abdomen (supra pubis) that occurs before or coincides with the onset of menstruation and is colicky (Reeder, 2011). There are two types of dysmenorrhoea, namely primary and secondary dysmenorrhoea. Primary dysmenorrhoea is menstrual pain that arises without an identifiable cause, while secondary dysmenorrhea is menstrual pain caused by an apparent abnormality in the utensils. Usually, in adolescent girls, that often occurs is primary dysmenorrhea. The results showed that the pain felt by the participants started from the lower abdomen and then spread to the waist that occurred before and during menstruation. This is by Reeder (2011) and Bobak (2004) that dysmenorrhoea is a condition of pain in the pelvis and lower abdomen (supra pubis) that occurs before or coincides with the onset of menstruation and is colic in nature. The efforts made are usually they take medicine, herbal medicine, or just let the impact, sometimes because they cannot endure the pain until someone fainted. They are absent from teaching and learning activities, unable to concentrate. This is in line with Dewi Lestari (2013) and Yuliani (2011), saying that dysmenorrhea will affect the actions or movements of women. (a) The mean of the respondent's menstrual pain scale before the intervention was 2.10, including mild pain. Although the pain was mild, according to respondents, the impact felt from menstrual pain in students was not concentrated because the pain reached the waist, the feeling of flatulence. According to Sukarni & Wahyu (2013), dysmenorrhea pain has a distinct characteristic of recurrent seizures but is limited to the lower abdominal area and spreads to the blood in the waist and thighs. The pain is accompanied by nausea, vomiting, headaches, diarrhea, irritability, and so on. After doing the Cat Stretch Exercise, the average pain was 1.70. This shows a decrease in the pain scale felt by the respondent, although not a significant reduction, but with this exercise it can suppress the pain felt by the respondent because of the pulling of the abdominal muscles, it feels comfortable so that the pain in the lower abdomen decreases

due to increased blood flow in the pelvis and stimulates hormones—endorphins in the body. Interventions were carried out for 30-40 minutes, and then after 10 minutes, the pain measurements were taken. During the intervention, three movements were repeated 2-3 times, according to sources from Thermacare (2010). Three actions 1) kneel on your knees and legs, knees and hands slightly apart and your spine straight parallel to the floor, inhale and at the same time, bend your back up and lower your head in a position or curved line with your back, When you inhale, it will stimulate and cause peristalsis in the intestine to clean up further the waste of metabolism or food that has been past and prevent constipation and cramps and make oxygenation of the whole brain that was tense smooth. 2) Do a slow exhale and bend your back down, at the same time lifting your head as far as possible, look up and maintain that position for 5 seconds, when the air is exhaled slowly, the breath pushes and compresses the lungs - the lungs, thus, free it from the stagnant air and also massage the heart and free it from distractions. 3) Then end with the fetal position, repeated for \pm 15 minutes, this position is done as a relaxation of the two previous classes.

According to Sukarni & Wahyu P (2013) stated that during normal menstruation, women, on average, contract their uterus for 15-30 seconds at a frequency of 1-4 contractions every 10 minutes, while during dysmenorrhoea on moderate contractions for 90 seconds and occur less than 15 seconds so that the intervention is carried out for 30-40 minutes. The results of statistical tests showed the effect of Cat Stretch Exercise in reducing dysmenorrhea. This is because the Cat Stretch Exercise is a stretching exercise in the abdominal and pelvic muscles that are used to distribute oxygen to all parts of the power, so that muscle recovery takes place faster; stretching has the same mechanism as massage techniques, namely re-relaxing stiff muscle fibers, stretching. Muscles increase oxygenation or the process of air exchange within cells and stimulate the lymph system. Relaxation acts on the muscles can be seen as mental and physical relief from pressure and stress, with relaxation, clients can change their perception of pain, their

ability to exercise physical relaxation can cause mental relaxation, relaxation has a direct effect on body functions, such as a decrease in blood pressure, pulse, and breath frequency, decrease muscle tension, increase concentration ability and reduce attention to pain stimulation (Thermacare, 2010).

In addition, stretching is also a physical action taken for pain management with the aim of increasing comfort, improving physical dysfunction, changing physiological responses, reducing anxiety related to immobilization due to pain or limiting activity. This stimulation can provide an excellent decreasing effect; this action distracts the client so that the client focuses on tactile stimuli or movements and ignores pain sensations, which in turn can reduce pain perception; this stimulation is also believed to increase the release of endorphins, which block the transmission of pain stimuli (Salbiah, 2015). Fazdria's research (2018), suggests that stretching the abdominal muscles can reduce pain. This is due to the increased levels of endorphins produced by the brain due to exercise. So that this physical exercise acts as a specific analgesic for short-term pain relief. The results of Ermiati's research (2019) say that physical activity does not have a sampling effect when done regularly with a frequency of 3-5 times a week for 15-60 minutes can affect the pituitary hormone to release endorphins to reduce pain during dysmenorrhea in the menstrual cycle. Respondents after conducting the intervention felt satisfied and happy because this action was an effort if they felt menstrual pain who had been using drugs, herbal medicine so that they could not participate in learning at school.

Conclusion

Cat Stretch Exercise that is carried out can reduce the level of dysmenorrhoea pain. The exercises obtained are expected to be able to be applied not only to oneself but can be conveyed to friends, relatives, or anyone who is experiencing dysmenorrhea pain.

References

Andersen (2008). Effect of the cat stretch

exercise for menstrual pain and vital sign, <http://www.eerp.usp.br/rlae>

Alafiyah,P. (2017). Hubungan antara nyeri haid (dismenore) terhadap aktivitas belajar pada Siswi Kelas XI SMA Negeri 52 Jakarta. <http://journal.um.ac.id/index.php/preventia/article/download/10013/4756>

Anjelina, N. (2013). Perbedaan Efektifitas Teknik Yoga (Cat Strech Exercise) Dengan Senam Dismenore Terhadap Penurunan Nyeri Haid (Dismenorhea Primer) Pada Mahasiswa Psik Muhammadiyah Malang <http://eprints.umm.ac.id/28417/1/jiptummpg-gdl-novianjeli-31929-1-pendahul-n.pdf>

Bobak, I.M.,Lowdermilk, D.L & Jensen, M.D (2004). Buku Ajar Keperawatan Maternitas. Edisi 4. EGC: Jakarta

Dewi Lestari. 2013. Pengaruh Dismenore pada Remaja, Prosiding Seminar Nasional FMIPA UNDIKSHA III. <https://ejournal.undiksha.ac.id/index.php/semnasmipa/article/view/2725/2305>

Ermiati, Puspitasari, Restuningtyas dkk. (2019). How to deal with menstrual problem?. Journal of Nursing care. Vol 2 No 3. <http://jurnal.unpad.ac.id/jnc/article/view/22302/10680>

Fazdria,F. (2018). Perbandingan Efektivitas Abdominal Stretching Exercises Dan Metode Kompres Hangat Kering Terhadap Intensitas Disminore Primer Pada Mahasiswi.

Novia, Ika dan Nunik. (2013). Faktor resiko yang Mempengaruhi kejadian Dismenore Primer. Jurnal Ilmu Kesehatan. [http://www.journal.unair.ac.id/filerPDF/Naskah%204%20\(h96-103\).pdf](http://www.journal.unair.ac.id/filerPDF/Naskah%204%20(h96-103).pdf).

Pillitteri, A. (2003). Maternal & child nursing. 2nd ed. Philadelphia : J. B Lippincott

Reeder, Martin & Griffin. (2011). Keperawatan maternitas;kesehatan wanita, bayi dan keluarga. Alih bahasa; Afiyanti, Nur Rachmawati dkk (2003/2011). Edisi 18. Volume 1. Jakarta: EGC.

Salbiah. (2015). Penurunan Tingkat Nyeri Saat Menstruasi Melalui Latihan Abdominal Stretching. Jurnal Ilmu Keperawatan. ISSN 2338-6371. <http://www.jurnal.unsyiah.ac.id/JIK/article/download/5131/4310>

Sari,W & Rahmasari. (2016). Cat Stretch Exercise Sebagai Upaya Mengurangi Nyeri Haid Pada Remaja Putri. Gaster .Vol. XIV No. 1 Februari 2016. <https://www.jurnal.stikes-aisyiyah.ac.id/index.php/gaster/article/view/103/97>

Sukarni, I & Wahyu. (2013). Buku Ajar; Keperawatan Maternitas. Nuha Medika: Yogyakarta.

Thermacare. (2010). Abdominal Stretching excercise for menstrual pain. <http://www.chiromax/Media/abstretch.pdf>

Yuliani,Pungkas dan Nur. (2011). Hubungan antara Dismenorea dengan Aktivitas Belajar Siswa SMP negeri 4 Boyolali. Jurnal Kebidanan. <http://jounal.stikeseub.ac.id/index.php/jkeb/article/view/91>.

Yuliana, I.(2013). Pengaruh Abdominal Stretching excercise terhadap Dysmerrhoe Primer Siswi MAN 1 Surakarta. http://eprints.ums.ac.id/27053/9/NASKAH_PUBLIKASI.pdf