

IMPLEMENTATION OF CAT STRETCH EXERCISE AND COUNTER PRESSURE TO REDUCE MENSTRUAL PAIN IN ADOLESCENT GIRLS AT THE ISLAMIC BOARDING SCHOOL OF CAHAYA MADINAH, SOUTH TANGERANG, BANTEN

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Abstract

Menstrual pain or dysmenorrhea is problem in adolescent girls. *Menstrual pain* also be a reason for the decreased activity of women during menstruation, including female students at the Pesantren Yatim Cahaya Madinah, South Tangerang, Banten. The objective of this community service is to address menstrual pain in adolescents through several methods including: 1) providing education on nonpharmacological therapy to reduce menstrual pain, addressing the lack of information, knowledge, and understanding related to menstruation; 2) implementing Cat Streth Exercise dan Counter Pressure for menstrual pain in adolescent girls; 3) adopting positive lifestyle changes to decrease menstrual pain, supervising, and reevaluating programs. Adolescents are able to remain productive during menstruation, implement Cat Streth Exercise dan Counter Pressure, and stay healthier and more productive even while menstruating. The results of this intervention have proven effective in reducing menstrual pain through non-pharmacological therapy, leading to healthier and more sustainable productivity for adolescent girls. Those who initially experienced severe pain (scale 6), causing distress and lower abdominal cramps during menstruation that often reduced their quality of life—along with discomfort affecting their physical and mental well-being, often accompanied by nausea, vomiting, abdominal pain, breast pain, rectal swelling, and diarrhea—reported a reduction in menstrual pain to a scale of 3 after this intervention.

Keywords: Efforts to Reduce Menstrual Pain, Cat Streth Exercise and Counter Pressure, Adolescent Girls

INTRODUCTION

The research that has been done with students is the basis for the need for *Cat Stress Exercise and Counter Pressure* in adolescent girls to reduce mental pain. The Cahaya Madinah Orphanage has many teenage girls who complain of menstrual pain/interfere with daily activities during menstruation. The results of interviews with the students and leaders at the Islamic boarding school, said that there have been efforts or interventions made to deal with

this problem with *abdominal stretching measures*, compressing with a bottle containing warm water and others. In addition, *intermittent fasting* is one of the interventions that is not only physical but also spiritual, emotional, and psychological. Currently, it is necessary to implement the latest interventions related to *Cat Stretch Exercise and Counter Pressure* as an effort to reduce pain.

The Cahaya Madinah Orphan Boarding School, Banten is an orphan boarding school in South Tangerang, Banten. It was found that there are still many students who are disrupted in their learning activities and daily lives due to menstrual pain. It was found that those who experienced menstrual pain were approximately 32% of the number of students. As a result of interviews with several students who experienced menstrual pain, they said that the pain they felt interfered with them in their learning activities and daily activities. Many feel uncomfortable and cannot focus while studying. The results of observations and interviews with students, the fulfillment of nutrition is still not optimal because they are only prepared with asarama with rice, while the side dishes are borne separately by the students. There is no supervision of nutrition and nutrition in adolescent girls from the Islamic boarding school.

Formulation of partner problems; The type of priority problem for the community group is non-productive students who are handheld in 2 ways, namely 1) efforts to meet the nutrition/nutritional needs of adolescent girls who are prone to anemia and, 2) efforts to reduce menstrual disorders (menstrual pain) that interfere with their concentration for learning and daily activities. Looking at the results of this situation analysis and discussions with partners, several major problems of partners were formulated, including; 1) the lack of optimal nutritional fulfillment of adolescent girls at the Yatim Cahaya Medina Islamic Boarding School and the prevention of the risk of anemia and hypotension.

2) the awareness and motivation of adolescent girls/students in the independence of attitude and healthy behavior to intervene as a result of the latest innovations in handling menstrual pain at the Yatim Cahaya Madinah Islamic Boarding School, Banten.

The priority of problems and the focus of service is in the health sector, the culture still likes to consume unhealthy foods such as *junk food* and *fast food*, the important thing is a full stomach because the average student is orphans, orphans, and poor people. The target is expected for adolescent girls/students to be aware of menstrual pain, anemia and hypotension in adolescents (especially during menstruation), so that they do not ignore nutritious nutrition, the risk of anemia and adolescent hypotension can be prevented and can independently intervene from the latest innovations to reduce menstrual pain.

Based on the results of the situation analysis and discussions with target partners, several problems were formulated;

1. Adolescent girls are prone to menstrual pain, this is physiological, However, if it is not handled, it will interfere with the activities of students.
2. Menstrual pain often interferes with learning activities and other activities
3. This menstrual pain has an impact on the productivity and future of Indonesian teenagers
4. Menstrual pain is closely related to the lack of nutritious nutrients of adolescent girls such as Fe, folate etc.
5. It is necessary to innovate the latest intervention results in reducing menstrual pain.

The solution for all the situation analysis at the Yatim Cahaya Medina Islamic Boarding School is

- 1) Counseling related to nonpharmacological therapy reduces menstrual pain in overcoming menstrual pain with the results of the latest research
- 2) Increased understanding of high-nutrient foods such as Fe, folic acid and others to overcome the lack of information, knowledge, and understanding related to myths of foods that are prohibited during menstruation
- 3) Training to apply *Cat Strecth Exercise and Counter Pressure*, against menstrual pain in adolescent girls,
- 4) *Supervise* and *re-evaluate* program activities to overcome menstrual disorders
- 5) Making *a positive lifestyle* in reducing menstrual disorders such as no longer consuming junk food and fast food
- 6) Follow-up and maintenance of a healthy lifestyle during menstruation and prevention of iron anemia and hypotension.

The methods in this community service include through activities to equalize the vision and mission by providing questionnaires, making educational media, forming a team of program actors, peer groups, conducting counseling, and *training Cat Strecth Exercise and Counter Pressure*, monitoring the implementation of *Cat Strecth Exercise and Counter Pressure* innovations which is carried out according to the period of the menstrual cycle of each student. It has been proven to improve muscle strength, endurance and flexibility, reduce muscle tension (cramps), reduce muscle pain, and reduce pain during menstruation. There was a significant difference between the intensity of menstrual pain in the adolescent girls of the intervention group after the intervention group was given *Cat Strecth Exercise and Counter Pressure exercises*, further coaching to maintain the results achieved and sustained. This is expected to expand the horizons of adolescent girls in overcoming dysmenorrhea through alternative therapies in the form of *Cat Strecth Exercise and Counter Pressure*, so that the academic achievement of adolescent girls is not disturbed due to dysmenorrhea.

The targets of the above solutions are:

1. Increased partner empowerment; knowledge, understanding, and skills/practices/healthy living skills of adolescent girls about the management of menstrual pain, prevention of anemia, hypotension, and insecurity during menstruation. This will be seen from the data of the pre and post test questionnaires for health counseling
2. Implementing the latest innovations of nursing interventions; *Cat Strecth Exercise and Counter Pressure*, will be seen from the measurement of pre- and post-intervention menstrual pain levels using VAS instruments.

Participation of students; following education, filling out questionnaires, and participating in menstrual pain reduction programs with *Cat Strecth Exercise and Counter Pressure* and measuring their menstrual pain before and after the intervention.

RESULTS

On Wednesday, June 11, 2025, at 09.00 WIB, FIKES lecturers and students successfully carried out Community Service activities. Chaired by Desmawati, SKp., M.Kep., Sp. Mat., PhD., this activity was held at the Tahfidz Al-Qur'an Nur Medina Islamic Boarding School, South Tangerang, with the achievement of 27 young women.

The activity, entitled "The Application of *Cat Stretch Exercise* and *Counter Pressure* Innovation in an Effort to Reduce Menstrual Pain in Adolescent Women", is expected that adolescents can understand the concept of dysmenorrhea, as well as how to relieve dysmenorrhea using the *Cat Stretch Exercise* and *Counter Pressure techniques* properly and correctly.

Table 1. Characteristics of Participating Participants/Students

Variabel	Frequency (n)	Percentage (%)
Age		
Adolescent	11	40,7
Adult	16	59,3
Total	27	100
Experiencing dysmenorrhea		
Yes	17	62.96
No/tendency	10	37.03
Total	27	100

The majority of participants in this health education are adolescent girls with an age range of 13 to 22 years. The students are in their teens and young adults. It is said that adolescents are in the age range of 10-18 years, and young adults starting from the age of 19 years (Regulation of the Minister of Health of the Republic of Indonesia Number 25 of 2014).

Dominant students (62.96%) reported experiencing dysmenorrhea or menstrual pain. This suggests that reproductive health problems, particularly menstrual pain, have a significant impact on the adolescent population of adolescent girls to young adults. Data from the Indonesian Health Profile in 2016 states that the prevalence of dysmenorrhea sufferers in Indonesia is 62.96% with the most cases found in adolescents, namely 17-24 years old. This condition can affect their overall life productivity, so it's important to understand more about their experience with dysmenorrhea and efforts to manage it effectively.

The service team helped participants fill out knowledge questionnaires before and after health education presentations. From the questionnaire, data was obtained as in table 2.

Table 2. Questionnaire Results Before and After Health Education

No	Question	Before		After	
		True (%)	False (%)	True (%)	False (%)
1	The meaning of the term dysmenorrhea is pain that occurs during menstruation	71,4	28,6	100	0
2	Primary dysmenorrhea usually occurs in adolescents and without physical abnormalities in the reproductive organs	64,3	35,7	100	0
3	Among the common causes of secondary dysmenorrhea are endometriosis and uterine myomas	50	50	57,1	42,9
4	Factors related to menstrual pain are alcohol consumption and a family history of dysmenorrhea	42,9	57,1	57,1	42,9
5	<i>Cat Stretch Exercise</i> helps relieve menstrual pain by reducing muscle tension	85,7	14,3	100	0
6	<i>Counter pressure</i> works by applying pressure at a specific point to interfere with the transmission of pain signals	71,4	28,6	85,7	14,3
7	One of the benefits of <i>Cat Stretch Exercise</i> is that it reduces the risk of back injury	64,3	35,7	85,7	14,3
8	The correct <i>counter pressure</i> technique is done with firm pressure but still comfortable on the pain area	71,4	28,6	92,9	7,1
9	The initial movement in the <i>Cat Stretch Exercise</i> is done with the position of hands and knees touching the floor	28,6	71,4	92,9	7,14
10	The purpose of <i>counter pressure</i> techniques in addition to reducing pain is to reduce muscle tension and improve blood circulation	85,7	14,3	100	0

After the presentation of the material containing an understanding of menstrual pain, the types of menstrual pain, the factors of menstrual pain, and how to relieve menstrual pain with the application of *Cat Stretch Exercise* and *Counter Pressure techniques*. Post-test work was carried out after the presentation of the material to measure the level of understanding of adolescent girls.

Results of *pre-test* that has been carried out shows that the average score of young women is at 62.58 with the lowest score of 40 (2 people) and the highest score of 100 (2 people). Then, for the results *post-test*, showing the average score of the mothers was at a score of 87.14 with the lowest score of 50 (1 person) and the highest score of 100 (5 people). It can be concluded that after the presentation of the material, the provision of educational media in the form of posters and PowerPoint, there was an increase in the average score of young women by 23.57%.

The results of the questionnaire before education showed that the majority of participants managed to answer seven out of ten questions correctly about women's reproductive health. Although most participants managed to answer most of the questions correctly, the pretest results showed that the participants' knowledge still needed to be improved.



Figure 1. Health counseling related to menstrual disorders and *Cat Stretch Exercise* and *Counter Pressure*

As for the results of the questionnaire after the education, it showed extraordinary achievements, with the majority of participants able to answer ten questions correctly. In fact, two of the ten questions were answered perfectly by all participants, reflecting a very high level of understanding of the material that had been presented beforehand.

Table 3. Results of Knowledge Analysis Before and After Health Education

Value of Knowledge	Answer true	Answer incorrect	P Value
Before	63,57	36.43	0,00
After	87,14	12.86	

It can be seen from the table that the average knowledge of students who answered correctly before health counseling was 63.57 and the average after counseling was 87.14. With an increase of 23.57 in a value range of 0-100.

After the counseling, the meeting continued with a re-demonstration demonstration of the *Cat Stretch Exercise* and *Counter Pressure techniques*.



Figure 2. Demonstration of *Cat Stretch Exercise* and *Counter Pressure* techniques to students

After everything is prepared both in terms of knowledge about menstrual disorders and *Cat Stretch Exercise* and *Counter Pressure* skills, the measurement of menstrual pain scale is carried out using a VAS instrument during the first day of menstruation (Pre-intervention) according to the menstrual cycle of each student. Therefore, the results of menstrual pain before implementing *Cat Stretch Exercise* and *Counter Pressure* are on average a scale of 6 (six).

After that, the students implemented *Cat Stretch Exercise* and *Counter Pressure* on the first and second days according to their respective menstrual cycles. They were controlled directly to meet at the Islamic Boarding School and supported by phone



Figure 3. Explanation of the measurement of the menstrual pain scale

After the implementation of *Cat Stretch Exercise* and *Counter Pressure*, the measurement of the menstrual pain scale was carried out in the students again on the first – second day of menstruation, then the scale of menstrual pain was obtained which dropped to a scale of 3 on average.



Figure 4. Supervision by the *Cat Stretch Exercise* and *Counter Pressure* service team during the program

DISCUSSION

The provision of health counseling is the most important thing and needs to be repeated to refresh the knowledge of adolescent girls about menstrual pain. The average knowledge score of participants was 63.57 who answered yes. After going through the education session, their average knowledge score increased to 87.14 with a P Value of 0.00 meaning that there was a significant increase in the participants' knowledge. This change shows that health counseling has a significant positive impact on increasing participants' understanding and knowledge about reproductive health and about menstruation and pain management.

Analysis of results reported that the program of implementing non-pharmacological interventions *Cat Stretch Exercise* and *Counter Pressure* had a significant impact on improving adolescent girls' knowledge. It seems that the importance of the role of providing science through health counseling is very important in increasing public understanding and awareness of the topic of overcoming menstrual pain. It was conveyed that the results of this analysis provide strong support for the sustainability of similar programs to improve the knowledge and welfare of adolescent girls during their menstruation, so as not to interfere with daily activities as students and memorizers of the Quran. Regular educational programs by paying attention to various aspects relevant to the needs of adolescent girls are highly recommended in order to alleviate all problems they find during menstruation. In addition, the use of counseling or interactive education methods, as well as conveying in a fun method can strengthen the

involvement of adolescent girls and facilitate deeper understanding and skills among adolescents.

Lifestyle education; Eating, exercising, sleeping in adolescent girls is very helpful in the process of reducing menstrual pain, because a healthy diet, regular exercise, and enough sleep help relieve discomfort during menstruation. Eating a lot of Fe, folate such as avocado, dates etc. can prevent anemia and hypotension, exercise can eliminate menstrual stiffness and pain, and get enough sleep to reduce headaches, strained eyes and so on. This is in accordance with the results of previous service research on 1000 HPK where adolescent reproductive health needs to be continuously coached about their reproductive health, including problems during menstruation (Desmawati & Agustina, 2020). In addition, efforts to integrate non-pharmacological menstrual pain management in adolescent girls can also be done with abdominal stretching which is also carried out on students in Serang Banten proven to reduce menstrual pain (Desmawati, 2021).

Regarding the innovations that have been obtained by students to reduce menstrual pain at the Yatim Cahaya Medina Islamic Boarding School, Banten, which covers psychological, physical, spiritual areas, this is based on previous research by devotees, namely the handling of menstrual pain such as; traditional by drinking natural rhizomes according to the results of research that are proven to reduce menstrual pain such as turmeric acid, ginger, turmeric, as well as massage or massage, the administration of compresses, distractions with positive imagery and muscle relaxation (Desmawati, 2021). In addition, the spiritual and physical areas with *Intermittent Fasting (16:8)* have been reported to reduce menstrual pain in FIKES UPNVJ students (Aulia Azzahra & Desmawati, 2023; Desmawati, 2024)

The latest research by the head of service and students related to *Cat Stretch Exercise* and *Counter Pressure* reported that the innovation of the results of this study was recorded to be able to reduce menstrual pain in adolescent girls by significantly pre and post pain after being measured with the VAS instrument. This devotional research is the basis for this community service to be implemented because it is proven that with *this Cat Stretch Exercise* and *Counter Pressure*, it can reduce menstrual pain in adolescent girls (Meuthia & Desmawati, 2024).

The implementation of this activity involved students/young women and pesantren administrators. Students who experience discomfort during menstruation, especially menstrual pain, are studied, as well as those at risk such as anemia and hypotension during menstruation. They were asked for a contact number, to easily follow up, ask when menstruation came, because they must always be monitored to measure menstrual pain and innovate *Cat Stretch Exercise* and *Counter Pressure*. Making a WAG for questions and answers if there is anything discussed and an appointment if it is necessary to provide direct service, then the devotees immediately go down to the pesantren in order to provide excellent service.

CONCLUSION

The Stretch Exercise and *Counter Pressure* paint that have been done by the students, help their menstruation be less painful and their bodies are comfortable during menstruation, not tired or fragile. The increase in the knowledge of the students after counseling and the reduction of the scale of menstrual pain (from an average of 6 to an average of 3), reported that this community service was successful in implementing/implementing the results of previous

research that underpinned this service by using the application of *Cat Stretch Exercise* and *Counter Pressure innovations*.

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