

The Effect of Dismenorhoe Gymnastics on Decrease Dismenorhoe on Adolescent Principle in Surbakti Village, Simpang Empat District KaroRegency in 2019

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ABSTRACT

Dysmenorrhoea is defined as a symptom of recurrence, or the medical term is called catmenial pelvic pain, which is a condition of a woman who experiences menstrual pain which has a bad effect, causing disruption of daily activities because of the pain she feels. This study aims to determine the relationship of dysmenorrhoea exercise with the reduction of dysmenorrhoea in young women in Surbakti Village, Simpang Empat District, Karo Regency in 2019. As for the independent variable (free) is the effect of dysmenorrhoea exercise and the dependent variable is the decrease in dysmenorrhoea. This type of research uses analytic observational with cross sectional approach method. Where the population is 35 young women and the sample used is a total population of 35 young women. Types of data used are primary data taken directly from respondents using a checklist sheet, and secondary data obtained from the Office of the Village Head of Surbakti. The statistical test used is the Chi-Square test $\alpha = 0,000$. The results of the Chi-Square statistical test obtained p value = 0.000. This means that the p value is smaller than α (0.05) and thus H_0 is rejected and H_a is accepted, that is, there is a relationship between dysmenorrhoea and dysmenorrhoea exercise in female adolescents in Surbakti Village, Simpang Empat District, Karo Regency in 2019. It is hoped that adolescents will increase their knowledge about the effect of dysmenorrhoea exercise on reducing dysmenorrhoea from various information media, especially from health workers so that they can overcome dysmenorrhoea pain.

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1. Introduction

Adolescence is a stage between childhood and adulthood. This shows the period from the onset of puberty until maturity is reached. The reproductive organs at puberty have functioned (Proverawati, et al, 2017).

One of the characteristics that mark women's puberty is menstruation. The first menstruation (manarche) is usually experienced by women around 10 years, but can also be earlier or later (Laila, 2016).

Menstruation or menstruation is a physiological change that will be experienced by women every month, 12 times a year. During menstruation, the body often experiences menstrual pain (Dismenorhoe) which is disturbing (Khusen, 2014).

Dysmenorrhoea is defined as a symptom of recurrence, or the medical term is called catmenial pelvic pain, which is a condition of a woman who experiences pain during menstruation which has a bad effect causing disruption in carrying out daily activities because of the pain she feels (Afiyanti, 2016).

Many women have to go through some suffering during menstruation, especially on the first to second day. Apart from changes in mood, the majority of women experience pain and different health problems when menstruating (Khusen, 2014).

Management of pain due to dysmenorrhoea in mild to moderate types, can be done by doing deep breathing and relaxation techniques, and the use of warm compresses on the abdominal area is recommended to reduce pain due to uterine contractions and improve blood circulation in the uterus. Next, do exercises or yoga, rest that sufficient, and consumption of non-steroidal anti-pain drugs to inhibit pain (Afiyanti, 2016).

This movement can be done alone at home, do the exercises regularly and consistently to get the expected results, for example to relieve or at least reduce pain during menstruation (Laila, 2016).

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2. Theoretical Review

2.1 Dismenorhoe Gymnastics

Anti-menstrual pain exercise is a gymnastic movement to relieve pain during menstruation (Laila, 2016).

2.2 Dismenorhoe

Dysmenorrhoea is pain that is felt in the stomach, which comes from uterine cramps and occurs during menstruation (El manan, 2013).

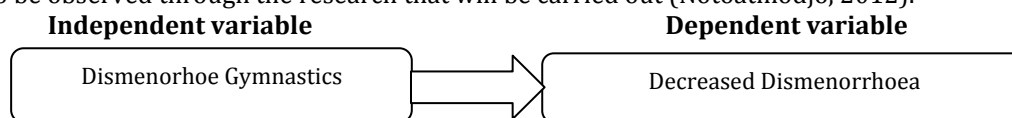
Dysmenorrhoea is pain that accompanies menstruation so that it can cause interruption of daily work (Manuaba, et al, 2013).

2.3 Youth

Adolescence or adolescence comes from the Latin word "adolescere" which means "to grow" or "to grow into adulthood". The term adolescence, which comes from English, currently has a fairly broad meaning including mental, emotional, social and physical maturity (Proverawati, et al, 2017).

2.4 Conceptual framework

The research concept framework is a framework for the relationship between the concepts to be observed through the research that will be carried out (Notoatmodjo, 2012).



The independent variable (free), namely dysmenorrhoeing exercise can affect the dependent variable (dependent), namely the decrease in dysmenorrhoea

2.5 Hypothesis

The hypothesis in this study is that there is an effect of dysmenorrhoea exercise on reducing dysmenorrhoea in young women.

3. Research methods

3.1 Types of research

The type of research used is analytic observational with a cross sectional approach, which is a study to study the dynamics of the correlation between risk factors and effects, by approaching, observing or collecting data at once (point time approach) (Notoatmodjo, 2016).

Where this research will examine whether there is an effect of dysmenorrhoea exercise on the reduction of dysmenorrhoea in young women in Surbakti Village, Simpang Empat District, Karo Regency in 2019. Measuring the effect of dysmenorrhoeic exercise with a decrease in dysmenorrhoea in young women was carried out at the same time.

3.2 Location and Time of Research

This research was conducted in Surbakti Village, Simpang Empat District, Karo Regency in 2019. The research time needed to complete this research was from April to August 2019.

3.3 Population and sample

The population in this study were all young women in Surbakti Village, Simpang Empat District, Karo Regency in 2019, as many as 35 people. The samples in this study were all 35 young women in Surbakti Village, Simpang Empat District, Karo Regency in 2019.

3.4 Data Analysis Techniques

a) Univariate analysis

Explain or describe the distribution of respondents and describe the independent variable and the dependent variable so that the variation of each variable is known.

b) Bivariate Analysis

Bivariate see the relationship between the two independent variables and the dependent variable. Data testing was performed using the Chi squared test by comparing the count with the table: χ^2

If the table counts, H_0 is rejected, it means that it is significant. $\chi^2 \geq \chi^2$

If the table htung then H_0 is accepted, meaning it is not significant. $\chi^2 \leq \chi^2$

The chi-square formula used is as follows:

$$X^2 = \left[\frac{\sum (f_o - f_e)^2}{f_e} \right]$$

information :

X^2 : kolerasichi-square

f_o : expected frequency

f_e : frequency obtained / diamati

4. Results and Discussion

4.1 Research result

After conducting research on "The Effect of Dismenorhoe Exercise on the Decrease of Dismenorhoea in Young Women in Surbakti Village, Simpang Empat District, Karo Regency in 2019", the following results were obtained.

a) Univariate Data Analysis

Univariate data analysis was used to see the frequency distribution and percentage of the research variable "the effect of dysmenorrhoeic exercise on the reduction of dysmenorrhoea in female adolescents in Surbakti Village, Simpang Empat District, Karo Regency in 2019", namely:

1) Distribution of Respondents Based on Characteristics

After conducting research on 35 respondents who did dismenorhoe exercise to reduce dismenorrhoeic pain, the researchers obtained results that describe the characteristics of young women in doing dysmenorrhoeic exercise, namely age and education.

Table 1

Distribution of Dismenorhoeic Gymnastics Characteristics Against the Decrease of Dismenorhoea in Young Women in Surbakti Village, Surbakti District, Karo Regency in 2019

Characteristics	Category	amount	Percentage
Age	Early age (11-13 years)	8	22.9
	Middle age (14-16 years)	18	51.4
	Final age (17-20 years)	9	25.7
Total		35	100
Education	Elementary (SD-SMP)	15	42.8
	Intermediate (SMA)	20	57.2
Total		35	100

From table 1 above shows the characteristics of the majority of respondents are in middle age (14-16 years), namely 18 people (51.4%). Whereas in education the majority have secondary education (SMA), namely as many as 20 people (57.2%).

2) Distribution of Respondents by Dismenorhoe

The effect of dysmenorrhoeic exercise on young women in Surbakti Village, Simpang Empat District, Karo Regency in 2019, can be seen in the following table:

Table 2

Distribution of Dismenorhoea for Young Women in Surbakti Village, Simpang Empat District, Karo Regency in 2019

Dismenorhoe	Number of people)	Percentage (%)
Light	5	14.3
Moderate	6	17.1
Weight	24	68.6
Total	35	100

Based on table 4.2 above, it can be seen that of the 35 respondents the majority experienced severe dysmenorrhoea as many as 24 people (68.6%).

3) Distribution of Respondents by Decreasing Dismenorhoea

The decrease in dysmenorrhoea in young women in Surbakti Village, Simpang Empat District, Karo Regency in 2019, can be seen in the following table:

Table 3

Distribution of Decreased Dismenorhoea among Young Women in Surbakti Village, Simpang Empat District, Karo Regency in 2019

Decreased Dismenorhoea	Number of people)	Percentage (%)
Decreased	19	54.3
Not decreasing	16	45.7
Total	35	100

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Based on table 3 above, it can be seen that of the 35 respondents the majority were categorized as having decreased dysmenorrhoe after doing dismenorrhoe exercise, namely as many as 19 people (54.3%).

b) Bivariate data analysis

Bivariate data analysis was used to see the significance of the relationship between the independent variable and the dependent variable, which was carried out by using the chi-square (χ^2) statistical test.

From the research conducted, it can be obtained data about the relationship of dysmenorrhoea exercise with a decrease in dysmenorrhoea in young women in Surbakti Village, Simpang Empat District, Karo Regency in 2019, as follows:

Table 4

Cross Tabulation of the Effect of Dismenorrhoe Gymnastics on the Decrease of Dismenorrhoea in Young Women in Surbakti Village, Simpang Empat District, Karo Regency in 2019

Dismenorrhoe	Decreased Dismenorrhoea				Total		Chi-Square Test
	Decreased		Not Decreasing		N	%	
	N	%	N	%			
Light	0	0	5	14.3	5	14.3	$p = 0,000$
Moderate	0	0	6	17.1	6	17.1	
Weight	19	54.3	5	14.3	24	68.6	
Total	19	54.3	16	45.7	35	100	

Based on table 3 above, it can be seen that of the 5 respondents who experienced mild dysmenorrhoea, the majority did not experience a decrease in dysmenorrhoea, namely 5 people (14.3%), of the 6 respondents who experienced dysmenorrhoea, the majority did not experience a decrease in dysmenorrhoea, namely 6 people (17.1 %), and of the 24 respondents who experienced severe dysmenorrhoea, the majority experienced a decrease in dysmenorrhoea, namely 19 people (54.3%).

The results of the Chi-Square statistical test obtained p value = 0.000. This means that the p value is smaller than α (0.05) and thus H_0 is rejected and H_a is accepted, that is, there is a relationship between dysmenorrhoea and dysmenorrhoea exercise in female adolescents in Surbakti Village, Simpang Empat District, Karo Regency in 2019.

4.2 Discussion

a) Characteristics of age and education

The results of the analysis showed that the majority of respondents with the majority of respondents' characteristics were in middle age (14-16 years), namely 18 people (51.4%). Whereas in education the majority have secondary education (SMA), namely as many as 20 people (57.2%) who influence doing dismenorrhoeic exercise to reduce dysmenorrhoea pain experienced. This shows that at this age, teenagers should ideally have their own mindset in solving complex problems and their possible consequences or results, including dysmenorrhoea pain.

This is not in accordance with the theory put forward by Proverawati in 2016, namely that one of the women's health problems is menstruation disorder. Menstrual disorder is an irregular menstrual period. Usually, the first menstrual period (menarche) occurs around the age of 12 or 13, or sometimes more. early or later. Irregular periods are usually for the first or two years. For some women, menstruation is like a specter whose presence makes you feel anxious when there is unexplained pain when menstruation arrives. This condition is known as menstrual pain or dysmenorrhoea, which is painful menstrual cramps. women to rest or result in decreased performance and reduced daily activities.

b) Effects of Dismenorrhoe Gymnastics

The results of the analysis showed that of the 35 girls who experienced dysmenorrhoea, the majority of severe dysmenorrhoea were 24 (68.6%), 6 (17.1%) moderate dysmenorrhoea, while 5 (14.3%) mild dysmenorrhoea.

Dysmenorrhoea is defined as a symptom of recurrence, or the medical term is called catmenial pelvic pain, which is a condition of a woman who experiences menstrual pain which has a bad effect causing disruption of daily activities due to the pain she feels (Afiyanti, 2016).

Research conducted (Rofli, et al, 2013) entitled "The Effect of Dismenorrhoe Exercise on the Decrease of Dismenorrhoea in Adolescent Girls in Sidoharjo Village, Pati District" shows that

from the results of research on 30 respondents, bivariate analysis results showed a p-value of 0.041 and because value $0.041 < (0.05)$, then H_0 is rejected, which means that there is an effect of dysmenorrhoeic exercise on the reduction of dysmenorrhoea in adolescent girls. α

The results of the study are in line with Afyanti's (2016) theory, that this dysmenorrhea exercise is a relaxation technique. Exercise or physical exercise can produce endorphin hormones. This hormone can function as a natural sedative produced by the brain which creates a sense of comfort and to reduce pain in during contraction. Exercise has been shown to increase β -endorphin levels four to five times in the blood. The more exercise / exercise, the higher the β -endorphin levels. For someone who does exercise / gymnastics, the β -endorphin will come out and be captured by the receptors in the hypothalamus and the limbic system which functions to regulate emotions. Increased levels of prostaglandins balanced with exercise that produces endorphins are expected to reduce pain.

c) Decreased Dysmenorrhoea

The results of the analysis showed that out of 35 female teenagers who did exercise, the majority experienced a decrease in dysmenorrhoea, namely 19 people (54.3%). The results of this study indicate that the decrease in dysmenorrhoea is influenced by dysmenorrhoeic exercise. Meanwhile, it was found that young women who did dysmenorrhoea did not experience a decrease in dysmenorrhoea, namely as many as 16 people (45.7%).

The results are in line with the research by Aprilya Puspita Sari (2015) entitled "The Effect of Dysmenorrhoeic Exercise on the Decrease in Dysmenorrhoea Pain in Adolescents at SMAN 6 Kediri" indicating that the results of the study on 21 students showed that the bivariate analysis showed a p-value of $0.017 < (0.05)$, then H_0 is rejected, which means that there is an effect of dysmenorrhoeic exercise on reducing dysmenorrhoeic pain in adolescents at SMAN 6 Kediri. That the decrease in dysmenorrhea after doing dysmenorrhoeic exercise occurs because by doing exercise, the β -endorphin levels will be higher so that it is very effective in reducing pain. This is because dysmenorrhoea can increase β -endorphin levels four to five times in the blood. α

d) Analysis of the Relationship between Dysmenorrhoeic Gymnastics and Decreased Dysmenorrhoea

Judging from the results of research conducted on 35 young women in Surbakti Village, Simpang Empat District, Karo Regency in 2019 who experienced a decrease in dysmenorrhoea, namely 19 people (54.3%), and of the 6 teenage girls who did dysmenorrhea exercise the majority did not experience a decrease in dysmenorrhea, namely as many as 6 people (17.1%) and out of 5 young women who did dysmenorrhoeic exercise did not experience a decrease in dysmenorrhoea, namely 5 people (14.3%).

Dysmenorrhoeic exercise affects the decrease in dysmenorrhoea, where the more routine dysmenorrhoeic exercise is, the greater the possibility of decreasing dysmenorrhoea. The results of the Chi-Square statistical test obtained p value = 0.000. This means that the p value is smaller than α (0.05) and thus H_0 is rejected and H_a is accepted.

The results of this study are in line with the research conducted (Rofli, et al, 2013) entitled "The Effect of Dysmenorrhoeic Exercise on the Decrease of Dysmenorrhoea in Adolescent Girls in Sidoharjo Village, Pati Subdistrict." 0.041 and because the p-value is $0.041 < (0.05)$, H_0 is rejected, which means that there is an effect of dysmenorrhoea exercise on reducing dysmenorrhea in young women. α

This result is also confirmed by research by Aprilya Puspita Sari (2015) entitled "The Effect of Dysmenorrhoeic Exercise on the Decrease in Dysmenorrhoea Pain in Adolescents at SMAN 6 Kediri" shows that from the results of the study on 21 students, the bivariate analysis showed a p-value of $0.017 < (0.05)$, then H_0 is rejected, which means that there is an effect of dysmenorrhoeic exercise on reducing dysmenorrhoeic pain in adolescents at SMAN 6 Kediri. α

Thus it can be concluded that in this study there is a relationship between dysmenorrhoea and decreased dysmenorrhoea in young women, which means that the more routine dysmenorrhoea exercise is, the lower the dysmenorrhoea will be. This is because doing dysmenorrhoeic exercises can increase β -endorphin levels four to five times in the blood. The higher levels of β -endorphins are very effective in reducing dysmenorrhoea pain. So, from the results of this study, there was no gap between the results of the research and the theory stated above.

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5. Conclusions and suggestions

5.1 Conclusion

- a) Of the 35 girls who experienced severe dysmenorrhea, the majority were 24 (68.6%), 6 (17.1%) moderate dysmenorrhoea, while 5 (14.3%) had mild dysmenorrhoea.
- b) The decline in dysmenorrhoea in young women in Surbakti Village, Simpang Empat District, Karo Regency in 2019 decreased to 54.3% and did not decrease, namely 45.7%.
- c) There is a significant relationship between doing dismenorrhoeic exercise with a decrease in dysmenorrhoea in young women in Surbakti Village, Simpang Empat District, Karo Regency, with a value of $p = 0.000$.

5.2 Suggestion

- a) It is hoped that adolescents will increase their knowledge about the effect of dysmenorrhoea exercise on reducing dysmenorrhea from various information media, especially from health workers so that they can overcome dysmenorrhoea pain.
- b) It is hoped that health workers who are in Surbakti Village will further improve services in providing counseling and health education to the community, especially young women, regarding the effect of dysmenorrhoea exercise on reducing dysmenorrhoea in young women.
- c) It is hoped that the next researchers will conduct research on the effect of dysmenorrhoea exercise on reducing dysmenorrhea in adolescents with different variables.

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