

THE RELATIONSHIP OF ANXIETY LEVELS WITH THE EVENT OF DYSMENORRHEA IN NAPSI'AH PRIVATE VOCATIONAL SCHOOL STUDENTS, STABAT KAB. LANGKAT YEAR 2022

Siskawati Amri¹, Nanarita Tarigan², Siti Saodah³, Nurhasanah⁴

STIKes Putra Abadi Langkat

ARTICLE INFO

Keywords:

Anxiety Level
The Incidence Of Dysmenorrhea
In Students

ABSTRACT

The purpose of this study was to determine the relationship between anxiety levels and the incidence of dysmenorrhea in private vocational high school students Napsi'ah Stabat kab. Langkat in 2022. The research method used is a cross-sectional study design. The research objective is to determine the relationship between anxiety levels and the incidence of dysmenorrhea in female students. The sampling technique used was total sampling, namely the sampling technique based on the entire population. So the number of samples in this study were 30 people. Based on the results of research and discussion of the relationship between anxiety levels and the incidence of dysmenorrhea in private vocational school students Napsi'ah Stabat kab. Langkat in 2021 with a total of 30 respondents. The level of anxiety in private vocational school students Napsi'ah Stabat kab. In 2021, out of 30 respondents, the majority of mild anxiety were 12 people (40.0%). The incidence of dysmenorrhea in private vocational school students Napsi'ah Stabat kab. In 2021, out of 30 respondents, the majority did not occur, amounting to 17 people (56.7%). There is a relationship between the level of anxiety on the incidence of dysmenorrhoea in private vocational school students Napsi'ah Stabat kab. Langkat.

E-mail:

siskawatiamri@gmail.com

Copyright © 2022 Science Midwifery.

1. Introduction

Adolescence is a transition period marked by physical, emotional and psychological changes. Adolescence, which is between the ages of 10-19 years, is a period of maturation of the human reproductive organs, and is often called puberty. In adolescents as a sign of maturity of the reproductive organs is marked by the arrival of menstruation. (Rohan, 2017). Sooner or later a person's sexual maturity includes menstruation, and individual physical maturity, influenced by factors of taste or ethnicity, climatic factors, and the child's environment. The age of menarche usually occurs in adolescent girls aged 12 to 13 years in the age range of 10 to 16 years. Menstruation is a natural process in women. The length of the menstrual cycle is the distance between the start date of the last period and the date of the next menstruation. (Manurung, 2019).

The incidence of dysmenorrhea in the world is very large. On average, more than 50% of women in every country experience it. In the United States, the percentage is around 60% and in Sweden it is around 72%, while in Indonesia it is estimated that 55% of women of reproductive age are tormented by pain during menstruation. The incidence of primary type dysmenorrhea in Indonesia is around 54.89% while the rest are secondary types. In East Java, the incidence of dysmenorrhea is 64.25%, consisting of 54.89% primary dysmenorrhea and 9.36% secondary dysmenorrhea. (Rahayu, 2020).

In general, menstrual pain occurs as a result of dysrhythmic contractions of the myometrium and presents with one or more symptoms, ranging from mild to severe pain in the lower abdomen,

buttocks, and spasmodic pain on the medial side of the thigh. The causes of primary dysmenorrhea are: endocrine factors, organic disorders, psychological factors and psychological disorders, constitutional factors, allergic factors, psychological factors such as anxiety, depression, bad experiences such as sexual harassment in the past, and other psychosocial stressors believed to be one of the risk factors for dysmenorrhea. Menstrual pain is the most common gynecological complaint and is characterized by pain, cramping, and back pain that occurs during menstruation. Dysmenorrhea also affects the occurrence of psychological disorders such as depression, anxiety and somatisasi (Sukmiati et al, 2017)

Dysmenorrhea can have an impact on the activities or activities of women, especially teenagers, Dysmenorrhea makes women unable to carry out normal activities and requires medication, this condition causes a decrease in women's quality of life. These preventive steps are things that can be done by people with menstrual pain themselves, without the need for drugs, namely by paying attention to the pattern and menstrual cycle, then try not to be stressed, eat regularly, before menstruation as much as possible to avoid foods that tend to be acidic and acidic. spicy, adequate rest, adequate sleep, diligently drinking milk with high calcium, do regular exercise at least 30 minutes every day, do stretching (stretching), do not take anti-pain drugs, do not consume alcohol, cigarettes, coffee or chocolate, Listening to music can also reduce pain. There are many ways to treat menstrual pain including pharmacological and non-pharmacological treatment (Sukmiati et al, 2017).

Dysmenorrhea not only causes activity disorders but also has an impact on women around the world physically, psychologically, socially, and economically, for example tired quickly, and often angry. Adolescents with severe dysmenorrhea got low scores (6.5%), decreased concentration (87.1%) and absent from school (80.6%). Primary dysmenorrhea usually occurs in adolescence, which is 2-3 after the first menstruation. Pain in primary dysmenorrhea is thought to come from uterine contractions stimulated by prostaglandins, the pain is felt more intense when clots or pieces of tissue from the uterine lining pass through the cervix (neck of the uterus), especially if the cervical canal is narrow (Saraswati, 2016).

The impact of menstrual pain (dysmenorrhea) on adolescent girls is that it can interfere with learning activities at school and daily activities. If the pain is severe, the young woman in question does not go to school. Many young women do not know how to handle pain. menstruation, so problems can arise. However, for women who know how to deal with menstrual pain, they have several ways to reduce the pain they feel, including by taking pain medication, relaxation techniques, rest, and so on. To overcome anxiety during menstruation, you must often rest, exercise and do other activities (Sukmiati et al, 2017).

2. Research methods

2.1 Conceptual framework

The conceptual framework of this study, entitled "the relationship between anxiety levels and the incidence of dysmenorrhea in private vocational school students Napsi'ah Stabat kab. Langkat in 2022. The research variables to be studied are the independent variable and the dependent variable. The independent variable is the level of anxiety while the dependent variable is the incidence of dysmenorrhea. The conceptual framework of this research is as follows:

Independent Variables Dependent Variables

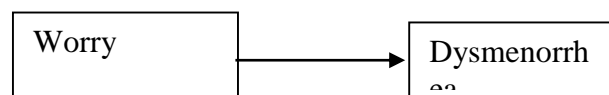


Figure 1.Conceptual framework

2.2 Research Hypothesis

1. Ha : There is a relationship between the level of anxiety and the incidence of dysmenorrhoea in private vocational high school students Napsi'ah Stabat kab. Langkat Year 2022.
2. Ho : There is no relationship between the level of anxiety and the incidence of dysmenorrhoea in private vocational school students Napsi'ah Stabat kab. Langkat Year 2022.

2.3 Types of research

Science Midwifery

journal homepage: www.midwifery.ioctscience.com

The type of research used is a research with a cross-sectional study design. The purpose of the research is to determine the relationship between anxiety levels and the incidence of dysmenorrhea in private vocational school students Napsi'ah Stabat kab. Langkat Year 2022.

2.4 Place and time of research

The research will be carried out at the private Vocational School of Napsi'ah Stabat kab. Langkat in 2022. The time of the study was carried out in January 2022.

2.5 Population and Sample

The population is a generalization area consisting of objects or subjects that have certain qualities and characteristics set by researchers to be studied and then drawn conclusions (Sugiyono, 2019). The population in this study were 30 students of class X and XI health SMK who attended SMK Napsiah Stabat Kab.Langkat. The sample is part of the number and characteristics possessed by the population (Sugiyono, 2019).The sampling technique used was total sampling, namely the sampling technique based on the entire population. So the number of samples in this study were 30 people.

The sample criteria include inclusion criteria and exclusion criteria, where these criteria determine whether or not the sample can be used.

The inclusion and exclusion criteria in this study are:

a. Inclusion Criteria

Inclusion criteria are criteria where research subjects can represent in research samples that meet the requirements as samples (Notoatmodjo, 2019), namely:

1. Teenage girls in grades X and XI
2. Willing to be a respondent

b. Exclusion Criteria

Exclusion criteria are criteria where the research subject cannot represent the sample because it does not meet the requirements as a research sample (Notoatmodjo, 2019). The exclusion criteria are

1. Teenage students who are not in class X and XI
2. Respondents did not fill out the questionnaire completely

2.6 Method of collecting data

Data collection is a process of approaching the subject and the process of collecting the characteristics of the subject needed in a study (Nursalam, 2016). The data collection method used in this research is to use a questionnaire or questionnaire. Arikunto (2019) states that the questionnaire is a number of written statements and questions that are used to obtain information from the response in the sense of reports about his personality, or things that he knows. The questionnaire used to refer to the method or instrument used is a questionnaire or questionnaire.

How to collect data using a questionnaire that was distributed to respondents, then waited for approximately 30 minutes in it, including distributing questionnaire sheets, explaining the purpose and how to fill out and filling out questionnaires from respondents, after the time was up the researchers took and corrected whether all the questions on the sheet have been filled in by the respondent.

2.7 Research Instruments

Instruments are tools used for data collection or research measuring tools (Arikunto, 2019). The instrument used in this research is a questionnaire with a number of written questions that are used to obtain information from respondents in terms of reports about their personal matters or things they know (Arikunto, 2019). The two questionnaires were not tested for validity and reliability tests because the HARS questionnaire was standardized and was in accordance with the theory contained in the book. give a value or scoring on each answer for the independent and dependent variables.

2.8 Data processing

After all the data is collected, the researchers manage the data through several stages, namely:

1. *editing*, is to evaluate the completeness and consistency of all respondents' answers to the questionnaire, so that there are no empty answers from respondents.
2. *coding*, is the result of the answers to each question coded according to the instructions to facilitate researchers in data processing.
3. *Scoring* is to assign a score to the observation sheet. This is intended to give weight to each answer, making it easier to calculate

4. *Tabulation*, is to facilitate data analysis, processing and drawing conclusions, the results of data collection are entered into the frequency distribution table.
5. *entry*, enter all data into the computer by processing using computerized techniques.

2.9 Data analysis

After all the data on the questionnaire was collected, then the data analysis was carried out through several stages. First, review the completeness of the respondent's identity and data and ensure that all answers have been filled in. Then the researcher classified the data by tabulating the data that had been collected. In this study, data processing using a computer program.

Data analysis in this study used several techniques, namely:

a. Univariate Analysis

Data analysis was carried out on each variable from the results of the study which was only used to produce the distribution and percentage of each variable.

b. Bivariate Analysis

Data analysis was carried out to determine whether the two variables suspected to be related or correlated, this study used the chi square test with a significance level of 95% ($P < 0.05$) so that it was known whether there was a statistically significant relationship using the SPSS for windows program. Furthermore, it is concluded that if P is smaller than alpha ($P < 0.05$), then H_0 is rejected and H_a is accepted which indicates a significant relationship between the dependent and independent variables. Indicators that the data can be tested using the formula χ^2 with hypothesis criteria:

- a. If $\chi^2 \text{ count} > \chi^2 \text{ table}$ then H_0 is rejected, H_a is accepted
- b. If $\chi^2 \text{ count} < \chi^2 \text{ table}$ then H_0 is accepted, H_a is rejected.

3. Research Result

3.1 Univariate Analysis

Univariate analysis is an analysis carried out to analyze each variable from the research results. Univariate analysis serves to summarize the data set of measurement results so that the data set turns into useful information. Based on the results of the research conducted, the aim was to determine the relationship between anxiety levels and the incidence of dysmenorrhoea in private vocational high school students Napsi'ah Stabat kab. Langkat in 2022 with a total of 30 respondents.

3.2 Anxiety Level

Based on the research, the frequency distribution of the level of anxiety in students is as follows

TABLE 1
FREQUENCY DISTRIBUTION OF ANXIETY LEVELS IN NAPSI'AH PRIVATE VOCATIONAL SCHOOL STUDENTS, STABAT KAB. LANGKAT 2022

No	Anxiety Level	Frequency (f)	Percentage(%)
1	No anxiety	10	33.3
2	Mild anxiety	12	40.0
3	Moderate anxiety	6	20.0
4	Severe anxiety	2	6.7
Total		30	100.0

Based on table 1, it is known that of the 30 respondents the majority of mild anxiety levels are 12 people (40.0%) and the minority with severe anxiety are 2 people (6.7%).

3.3 Incidence of dysmenorrhea

Based on the research, the frequency distribution of dysmenorrhoea in female students is as follows

TABLE 2
FREQUENCY DISTRIBUTION OF THE EVENT OF dysmenorrhoea in NAPSI'AH PRIVATE VOCATIONAL SCHOOL STUDENTS, STABAT KAB. LANGKAT 2022

No	IncidentDysmenorrhoea	Frequency (f)	Percentage(%)
1	Not occur	17	56.7
2	Occur	13	43.3
Total		30	100.0

Based on Table 2 shows that of the 30 respondents, the majority did not have dysmenorrhea, amounted to 17 people (56.7%) and the minority had dysmenorrhoea, amounted to 13 people (43.3%).

3.4 Bivariate Analysis

Analysis bivariate analysis was conducted to determine the relationship between the independent variable and the dependent variable. The analysis was carried out using the Chi-Square test at a 95% confidence level, so that if the results of statistical analysis were found to be p .value < 0.05 , the variable was stated to be significantly related.

3.5 The relationship between the level of anxiety and the incidence of dysmenorrhoea in private vocational high school students Napsi'ah Stabat kab. Go in 2022

Based on the results of the study, it was found that the relationship between anxiety levels and the incidence of dysmenorrhea in private vocational school students Napsi'ah Stabat kab. Langkat in 2022 with the number of respondents as many as 30 people in the following table

TABLE 3
DISTRIBUTION OF THE RELATIONSHIP OF ANXIETY LEVEL WITH THE EVENT OF DYMENOROREA IN NAPSI'AH PRIVATE VOCATIONAL SCHOOL STUDENTS, STABAT KAB. LANGKAT 2022

No	Anxiety Level	Incidence of dysmenorrhea				Total		df	P value
		Not occur		Occur		n	%		
		n	%	n	%				
1.	No anxiety	10	33.3	0	0	10	33.3	3	0.005
2	Mild anxiety	4	13.3	8	26.7	12	40.0		
3	Moderate anxiety	3	10.0	3	10.0	6	20.0		
4	Severe anxiety	0	0	2	6.7	2	6.7		
Amount		17	56.7	13	43.3	30	100		

Based on table 3, it is known that of the 30 respondents the majority with no anxiety and no dysmenorrhea occurred as many as 10 people (33.3%). Based on the results of the chi square test, the relationship between student knowledge and awareness with a significance degree (α) 5% = 0.05 and $df = 1$ was obtained by calculating the statistical test that the p .value = 0.005 $< (\alpha) = 0.05$, then the hypothesis H_0 was rejected and H_a was accepted. . This means that there is a significant relationship between the level of anxiety and the incidence of dysmenorrhea in Napsi'ah Stabat private vocational school students in 2022.

3.6 Discussion

3.6.1 Univariate Analysis

1. Anxiety Level

Based on the results of the study, it was found that of the 30 respondents the majority of mild anxiety levels amounted to 12 people (40.0%) and the minority level of severe anxiety amounted to 2 people (6.7%). According to the theory revealed by Hawari (2018) which states that generalized anxiety disorder is characterized by excessive anxiety and worry about something big or small that persists for at least six months. This type of anxiety disorder often begins at an early age and women are more likely than men to be diagnosed with an anxiety disorder.

This study is in line with Helmi's research (2018) which found that of the 219 female adolescent respondents who experienced dysmenorrhea studied at SMUN 3 Medan, the majority experienced mild anxiety as many as 150 respondents (68.5%) and the minority experienced severe anxiety as many as 69 respondents (31, 5%). According to researchers, these findings indicate that more than half of young women experience anxiety. this is possible because young women are still in a transitional mass which is emotionally unstable, this will affect emotional stress and tension related to multifactorial problems, not only problems at school but more complex.

This anxiety occurs because of increased emotional tension resulting from physical and hormonal changes. At this time emotions are often very intense, out of control and seem irrational. The anxiety condition of respondents at the Napsiah private vocational school is still within tolerable limits. To reduce the level of anxiety in adolescent girls, it is necessary to carry out psychoeducation both at home and at school and introduce a good social environment.

2. Incidence of dysmenorrhea

Based on the results of the research, it is known that from 30 respondents there was no dysmenorrhoea, 17 people (56.7%) and a minority with dysmenorrhea, 13 people (43.3%). Dysmenorrhea is pain that occurs during menstruation caused by an increase in the hormone prostaglandin. Dysmenorrhea is felt in the lower abdomen which can radiate to the lower back and legs. Dysmenorrhea consists of primary and secondary, primary dysmenorrhea is caused without any gynecological problems that occur after menarche until the age of 25 years and secondary dysmenorrhea is caused by gynecological disorders experienced above the age of 25 years (Anisa et al, 2018)

According to the researcher, the findings of the research on the incidence of dysmenorrhea in the private Vocational School of Napsiah may be related to the growth process and the work of the hormonal system that is not yet perfect and is primary dysmenorrhea. Where the cause is multifactorial. However, the incidence of primary dysmenorrhea is related to developmental and psychological factors, this is in accordance with the theory that the factors thought to play a role in the emergence of premenstrual syndrome, especially dysmenorrhea in adolescents are psychological and social factors, such as anxiety, experiencing conflict in their environment, as well as family and community culture towards women who menstruation.

To reduce the incidence of dysmenorrhea, it is necessary to provide reproductive health education and counseling to adolescent girls to increase mental readiness, which is very necessary to prevent the incidence of dysmenorrhea due to psychological factors (anxiety). So education about reproductive health is an important issue that needs attention from all parties. Given the many effects that occur both physiologically and psychologically when experiencing dysmenorrhea, young women need to get support from their families, one of which is informational support that can be obtained from the family and school environment.

3.6.2 Bivariate Analysis

1. The Relationship between Anxiety Levels and the Incidence of Dysmenorrhea

Based on the results of the study, it can be seen that of the 30 respondents the majority with no anxiety and no dysmenorrhea occurred as many as 10 people (33.3%). Based on the results of the chi square test, the relationship between student knowledge and awareness with a significance degree (α) 5% = 0.05 and $df = 1$ was obtained by calculating the statistical test that the p -value = $0.005 < (\alpha) = 0.05$, then the hypothesis H_0 was rejected and H_a was accepted. . This means that there is a significant relationship between the level of anxiety and the incidence of dysmenorrhea in Napsiah Stabat private vocational school students in 2021.

According to the theory proposed by Anita (2016) states that the impact of anxiety can affect mental and physical health. One of the effects of anxiety on health is dysmenorrhea. Due to anxiety, a neuroendocrine response occurs, causing corticotrophin releasing hormone (CRH) in the hypothalamus to stimulate the secretion of adrenocorticotrophic hormone (ACTH). ACTH increases adrenal cortisol secretion. These hormones cause the secretion of follicle stimulating hormone (FSH) and luteinizing hormone (LH) causing the synthesis and release of progesterone to be disrupted. Low progesterone levels increase the synthesis of prostaglandins $F2\alpha$ and E2. The imbalance of prostaglandins $F2\alpha$ and E2 with prostacyclin (PGI2) causes an increase in $PGF2\alpha$ activation.

This study is in line with Anita's research (2016) which found that the results of the chi-square statistical test showed that there was a significant relationship between anxiety in adolescent girls and the incidence of dysmenorrhea (p -value 0.000) and the results of the OR analysis (odds ratio) of 4.90 95% CI (2.24-10.64) which means that respondents who are anxious have a risk of experiencing dysmenorrhea 4.90 times greater than respondents who are not anxious.

The findings of this study are in line with the theory about the cause of dysmenorrhea, namely the factors that play a role as the cause of dysmenorrhea is a psychological factor (anxiety) which is emotionally unstable in adolescents, if they do not get good information about the menstrual process, it is easy for dysmenorrhea to occur.

According to the researcher's assumptions, the anxiety that arises in respondents at the Napsiah Private Vocational School which is thought to be a factor that plays a role in the emergence of premenstrual syndrome, especially dysmenorrhea is psychological and social factors that are interrelated. Because in adolescence there is a transitional change both mentally and physically so that they experience conflict in their environment, as well as family culture. Because it is a transition period from childhood to adulthood which is marked by the acceleration of ongoing physical, mental,

Science Midwifery

journal homepage: www.midwifery.iocspublisher.org

emotional and social development. physical and psychological changes in adolescents, the tendency of which adolescents will experience problems in adjustment. This is thought to trigger dysmenorrhea.

4. Conclusion

Based on the results of research and discussion of the relationship between anxiety levels and the incidence of dysmenorrhea in private vocational school students Napsiah Stabat kab. Langkat in 2021 with a total of 30 respondents. The level of anxiety in private vocational school students Napsiah Stabat kab. In 2021, out of 30 respondents, the majority of mild anxiety were 12 people (40.0%). The incidence of dysmenorrhea in private vocational school students Napsiah Stabat kab. In 2021, out of 30 respondents, the majority did not occur, amounting to 17 people (56.7%). There is a relationship between the level of anxiety on the incidence of dysmenorrhoea in private vocational school students Napsiah Stabat kab. Langkat in 2021 is obtained by calculating the chi square statistical test that the p value = $0.005 < 0.05$

References

- Arikunto (2019). *Prosedur Penelitian Suatu Pendekatan Praktik*, Rineka Cipta, Jakarta
- Anisa Wulandari, Oswati Hasanah, Rismadefi Wofers (2018). *Jurnal. Gambaran Kejadian Dan Manajemen Dismenorea Pada Remaja Putri Di Kecamatan Lima Puluh Kota Pekanbaru*. JOM FKp, Vol. 5 No. 2 (Juli-Desember)
- Anita (2016). *Jurnal. Hubungan Kecemasan Dengan Kejadian Dismenorea Pada Remaja Putri Di Sma Al Huda Jatimulyo Kecamatan Jati Agung Lampung Selatan*. *Jurnal Kesehatan Holistik*
- Hastono, (2018). *Statistik Kesehatan*. Jakarta : Rajawali Pers
- Hawari. (2018). *Manajemen Stres Cemas dan Depresi*. Jakarta. FKUI
- Helmy Apreliasi¹, Nanda Masraini Daulay (2018). *Jurnal. Hubungan Pengetahuan Dengan Tingkat Kecemasan Remaja Puteri Tentang Dismenorhea*. *Jurnal Kesehatan Ilmiah Indonesia (Indonesian Health Scientific Journal)*
- Jaya. (2021). *Keperawatan Jiwa*. Tangerang Selatan. Binarupa Aksara Publish
- Lestari T. (2015) *Kumpulan Teori Untuk Kajian Pustaka Penelitian Kesehatan*, Yogyakarta, Nuha Medika
- Manurung Melva & Manurung Marenta, (2019), *Jurnal. Tingkat Kecemasan dan Tingkat Pengetahuan Remaja Putri Tentang Dismenorea di Yayasan Parulia 4 Porsea Kabupaten Toba Samosir*, *Jurnal Keperawatan Priority* vol. 2, no. 1
- Manurung. (2016). *Terapi Reminscence*. Jakarta : CV Trans Info Medika
- Nursalam, (2016). *Metodologi Penelitian Ilmu Keperawatan*. Jakarta : Salemba Medika
- Oktavianto Eka, (2018) *Jurnal. Nyeri dan Kecemasan Berhubungan dengan Kualitas Hidup Remaja Dismenorea'*, *jurnal Health Sciences and Pharmacy*, vol. 2, no. 1
- Rahayu Septiana, (2020). *Jurnal. Analisis Kejadian Dismenorea Pada Siswi Wanita di SMAN Kelekar*, *Jurnal Masker Medika*, vol. 8, no. 1
- Sukmiati Eti, Khoirunnisa Marjani & Rahayu D, (2017) Skripsi. *Hubungan Kecemasan Remaja Putri Kelas VII 7 dengan Kejadian Dismenorea di SMPN 27 Bandung*, *Jurnal Kesehatan Aeromedika*, vol. III, no. 1
- Sugiyono. (2019). *Metode Penelitian Kuantitatif kualitatif dan R&D*. Bandung. CV Alfabeta
- Yolanda Fitria Imasari (2017). Skripsi. *Hubungan Tingkat Kecemasan Dengan Siklus Menstruasi Pada Remaja Putri Kelas X dan XI di MAN Madiun*. Prodi Keperawatan STIKes Bhakti Husada Mulia Madiun
- Yohana Theresia Hasibuan (2018). Skripsi. *Hubungan Pengetahuan Dengan Sikap Tentang Dismenorea Pada Remaja Putri Di Sma Negeri 10 Medan*. Prodi Kebidanan Politeknik Kesehatan Kemenkes Medan
- WHO (2016). *Kesehatan Jiwa dan Mental mengganggu produktivitas*