

DESCRIPTION OF STRESS LEVELS AND MENSTRUAL DISORDERS IN D3 NURSING STUDENTS IN SIDOARJO

Risda Aprilia¹⁾, Alfi Maziyah²⁾, Loetfia Dwi Rahariyani³⁾.

¹ Sidoarjo D3 Nursing Study Program, Poltekkes Kemenkes Surabaya, Sidoarjo, Indonesia

email: risdaaprilias42@gmail.com

² Sidoarjo D3 Nursing Study Program, Poltekkes Kemenkes Surabaya, Sidoarjo, Indonesia

email: alfi.maziyah5@gmail.com

Abstrak

Kesehatan merupakan hal yang sangat penting bagi setiap manusia, karena tanpa kesehatan yang baik, setiap manusia akan sulit untuk melakukan aktivitas sehari-hari. Banyak masalah yang akan timbul akibat mengabaikan kesehatan reproduksi, salah satunya adalah gangguan menstruasi. Gangguan menstruasi dapat berupa polimenorea, oligomenorea, amenorea, disminorea, dan hipermenorea. Desain penelitian ini menggunakan pendekatan Cross Sectional yang bersifat deskriptif. Penelitian ini bertujuan untuk mengetahui gambaran tingkat stres dan gangguan menstruasi pada mahasiswa D3 Keperawatan Sidoarjo. Hasil penelitian terhadap 123 responden menunjukkan tingkat stres mahasiswa D3 Keperawatan Sidoarjo hampir setengahnya tidak mengalami gangguan (normal) sebanyak 54 mahasiswa (44%) sisanya mengalami stres yang terbagi menjadi stres ringan, stres sedang, stres berat, dan stres sangat berat. Gangguan menstruasi pada mahasiswa D3 Keperawatan Sidoarjo yang mengalami kejadian amenorahae sebanyak 4 mahasiswi (6%), kejadian polimenorea sebanyak 16 mahasiswi (23%), kejadian oligomenorea sebanyak 10 mahasiswi (14%), kejadian disminorea sebanyak 12 mahasiswi (17%), kejadian hipermenorea sebanyak 2 mahasiswi (3%). Dari hasil penelitian dapat disimpulkan bahwa tingkat stres pada mahasiswa D3 Keperawatan Sidoarjo hampir setengahnya dari 123 responden tidak mengalami stres (normal) sebanyak 54 mahasiswi (44%). Dan gangguan menstruasi pada mahasiswa D3 Keperawatan Sidoarjo paling banyak mengalami gangguan menstruasi.

Kata kunci: Tingkat stres, gangguan menstruasi

Abstract

Health is very important for every human being, because without good health, every human being will find it difficult to carry out daily activities. Many problems will arise due to neglecting reproductive health, one of which can cause menstrual disorders. Menstrual disorders can be in the form of polymenorrhea, oligomenorrhea, amonerrhea, dysminorrhea, and hypermenorrhea. This research design used "Descriptive" Cross Sectional approach. This study aims to describe the level of stress and menstrual disorders in D3 Nursing Sidoarjo students. The results of the study on 123 respondents showed the stress level of D3 Nursing Sidoarjo students almost half did not experience disorders (normal) as many as 54 students (44%) the rest experienced stress which was divided into mild stress, moderate stress, severe stress, and very severe stress. Menstrual disorders in D3 Nursing Sidoarjo students who experienced amenorahae events as many as 4 students (6%), polimenorrhea events as many as 16 students (23%), oligomenorrhea events as many as 10 students (14%), dysminorrhea events as many as 12 students (17%), hypermenorrhea as many as 2 students (3%). From the results of the study it can be concluded that the level of stress in female students of D3 Nursing Sidoarjo almost half of the 123 respondents did not experience stress (normal) as many as 54 female students (44%). And menstrual disorders in D3 Nursing Sidoarjo students are most numerous.

Keywords: Stress levels, menstrual disorders

1. INTRODUCTION

Health is very important for every human being, because without good health,

every human being will find it difficult to carry out their daily activities. A healthy life is characterized by physical, mental / soul and

social health that allows humans to live productively. Especially maintaining reproductive health is very important, because at this time the sexual organs are active. Many problems will arise due to ignoring reproductive health, one of which is that it can cause menstrual disorders (Senja et al., 2020)

According to (Manggul & Syamsudin, 2016) menstruation is bleeding due to the shedding of the endometrial layer that occurs periodically. The distance between one menstruation and the next is called the menstrual cycle, which is ideally said to be regular if each month has a range of between 21-35 days, with an average cycle of 28 days. Generally, less than 15% of women of reproductive age with regular menstrual cycles and exactly 28 days. Menstrual disorders can be in the form of polimenorrhea, oligomenorrhea, amonorrhea, dysminorrhea, and hypermenorrhea. One of the causes of menstrual disorders in women is stress, which is a universal phenomenon that everyone can experience that affects physical, social, emotional, intellectual, and spiritual. Stress itself is a condition where the state of the body is disturbed due to psychological pressure. Experts state that 70-75% of all diseases are related to stress. The impact of untreated menstrual disorders can lead to diseases such as infertility / fertility disorders and anemia (Anggraeni et al., 2022). A disrupted ovulation process will make it difficult for women to find a fertile period, so there is little chance of getting pregnant (Baadiyah et al., 2021).

Data obtained by WHO recorded the incidence rate in 2018 stated that 80% of women in the world experience irregular menstruation. According to Basic Health Research Data (Ministry of Health of the Republic of Indonesia, 2018) where as many as 11.7% of adolescents in Indonesia experience irregular menstruation, in urban areas in Indonesia experience menstrual irregularities where irregular presentations reach 15.8%, and in East Java experience irregular menstruation as much as 13.3% (Ambarita & Butarbutar, n.d.)The results of a preliminary study (preliminary survey) conducted on January 11, 2023 at D3 Nursing Sidoarjo study program students found that 8 out of 10 female students experienced irregular menstruation.

From the description above, the research problem is that the incidence of menstrual

disorders is still high, so the authors are interested in examining "An overview of stress levels and menstrual disorders in D3 Nursing Sidoarjo students".

2. RESEARCH METHOD

According to (Creswell, 2014) in (Sugiyono, 2019) research methods are a process of activities in the form of data collection, analysis and providing interpretations related to the objectives and uses of research. This research design aims to provide an overview of stress levels and menstrual disorders in D3 Nursing Sidoarjo students.

Thus, this research design uses a "Descriptive" research design that aims to see the picture that occurs in a particular population and how it relates to the description of stress levels and menstrual disorders in D3 Nursing Sidoarjo students. The approach used is a Cross Sectional approach. This study aims to describe or describe the level of stress and menstrual disorders in D3 Nursing Sidoarjo students.

According to (Sugiyono, 2019) the population is the whole object to be measured. The population in this study were all D3 Nursing Sidoarjo students. The number of D3 Nursing Sidoarjo students in 2023 was 177 students.

Sample is a large part of the number and characteristics possessed by the population. The sample of this study was part of the population sampled, which amounted to 123 D3 Nursing Students in Sidoarjo. One method used to determine the number of samples is to use the Slovin formula.

Sampling technique is a way to take samples and to determine the samples to be used in research. The technique used in this study is non-random sampling, namely purposive sampling, which is research conducted based on certain considerations made by researchers based on the characteristics / characteristics of the population by fulfilling the following inclusion criteria :

1. Inclusion Criteria:

- 1) D3 Nursing Sidoarjo students who are still active.
- 2) Aged 18-24 years
- 3) Willing to become a respondent
- 4) Who have experienced menstruation

2. Exclusion Criteria

According to (Notoatmodjo, 2018) exclusion criteria are eliminating or removing subjects who do not meet the

exclusion criteria for reasons so that they cannot become research respondents.

The exclusion criteria in this study are:

- 1) College students who are not willing to become respondents
- 2) College students who already have reproductive disorders.

This research was conducted at the D3 Nursing program in Sidoarjo. This research was conducted on March 20, 2023.

Data collection is a process of approaching the subject and the process of collecting the characteristics of the subject needed in a study. The type of data collected in this study is primary data where primary data is data taken directly from respondents using a questionnaire. This questionnaire is data collection through testing several question items or statements to research subjects and the answers are given via google form. Data collection procedures by identifying respondents according to the inclusion criteria. Then give informed consent to conduct research. The questionnaire that has been made is distributed to respondents and explains how to fill out the questionnaire sheet. After the questionnaire is filled in by the respondent, the questionnaire will be automatically saved in the researcher's google form. The researcher will check and assess the answers to the questionnaire that has been filled in by the respondent.

Research instruments are tools used to collect data to make it easier to process with good results. In this study, the DASS 42 questionnaire used by (Lovibond, 1995) in (Lam et al., 2005) and the menstrual disorders questionnaire (Harzif et al., 2018). The questionnaire is divided into 3 parts as follows:

1. The first part is about general data on the respondent's identity including: name, level, age, and age of menarche.
2. The second part about the level of stress that aims to find out how the level of stress experienced by D3 Nursing Sidoarjo students. The measurement uses the DASS 42 Scale by (Lovibond 1995) in (Lam et al., 2005) and modified into 14 points. This questionnaire contains 14 statements
3. The third section on menstrual disorders aims to determine the menstrual disorders experienced by D3 Nursing Sidoarjo students. Menstrual disorders include amenorrhoea, polimenorrhoea,

oligomenorrhoea, dysminorrhoea, and heavy menstrual bleeding / hypermenorrhoea.

The data analysis technique used in this study is to calculate the average answer based on the scoring of each answer from the respondent. The total number of answers obtained from respondents is calculated on average (mean) then in percentage and presented in tabular form (Nursalam, 2017).

Ethics is a science or knowledge that discusses humans, related to their behavior towards other humans or fellow humans (Notoatmodjo, 2018) Nursing research ethics is a very important issue in research, considering that nursing research is directly related to humans, so the ethical aspects of research must be considered.

1. Informed Consent

Informed Consent is a form of agreement between researchers and respondents. The purpose of giving Informed Consent is so that respondents understand the purpose and purpose of this case study.

2. Anonymity

Anonymity is the provision of assurance in the use of the subject. In this case study by not including the name of the respondent and only using the respondent code in data collection and case study results.

3. Confidentiality

Confidentiality is the provision of guarantees for the results of case studies both information and other problems. All information obtained and collected will be guaranteed confidentiality by the author.

4. Ethical Clearance

Ethical Clearance is a written statement given by the research ethics commission for research involving living beings (humans, animals and plants) stating that a research proposal is suitable for implementation after fulfilling certain conditions.

3. RESULT AND DISCUSSION

1) Result

Table 1. Characteristics of research respondents in D3 Nursing Study Program Sidoarjo

No	Indicator	N	(%)
1	Age		
	18-19 year	35	28
	20-22 year	88	72
	23-24 year	0	0
2	Age of Menarche		
	9-11 year	14	11
	12-14 year	100	81
	> 14 year	9	7
	Total	123	100

Table 2. Frequency distribution based on stress level in D3 Nursing Study Program Sidoarjo

No	Stress Level	Skor	N	(%)
1	Normal	0-14	54	44
2	Mild Stress	15-18	35	28
3	Moderate Stress	19-25	22	18
4	Severe Stress	26-33	10	8
5	Very severe stress	>34	2	2
Total			123	100

Table 3. Frequency distribution of amenorrhea in D3 Nursing Sidoarjo students based on stress level

No	Stress Level	Incidence of Amenorrhea					
		Yes		No		Total	
		N	%	N	%	N	%
1	Mild Stress	2	3	33	48	35	51
2	Moderate Stress	2	3	20	29	22	32
3	Severe Stress	0	0	10	14	10	14
4	Very severe stress	0	0	2	3	2	3
Total		4	6	65	94	69	100

Table 4. Frequency distribution of polymenorrhea in D3 Nursing Sidoarjo students based on stress level

No	Stress Level	Incidence of Polimenorrhea					
		Yes		No		Total	
		Σ	%	Σ	%	Σ	%
1	Mild Stress	5	7	30	43	35	51
2	Moderate Stress	8	12	14	20	22	32
3	Severe Stress	3	4	7	10	10	14
4	Very severe stress	0	0	2	3	2	3
Total		16	23	53	77	69	100

Table 5. Frequency distribution of oligomenorrhea in D3 Nursing Sidoarjo students based on stress level

No	Stress Level	Incidence of Oligomenorrhea					
		Yes		No		Total	
		Σ	%	Σ	%	Σ	%
1	Mild Stress	3	4	32	46	35	51
2	Moderate Stress	4	4	18	26	22	32
3	Severe Stress	3	4	7	10	10	14
4	Very severe stress	0	0	2	3	2	3
Total		10	14	59	86	69	100

Table 6. Frequency distribution of dysmenorrhea in D3 Nursing Sidoarjo students based on stress level

No	Stress Level	Incidence of Dysmenorrhea					
		Yes		No		Total	
		Σ	%	Σ	%	Σ	%
1	Mild Stress	9	13	26	38	35	51
2	Moderate Stress	1	1	21	30	22	32
3	Severe Stress	1	1	9	13	10	14
4	Very severe stress	1	1	1	1	2	3
Total		12	17	57	83	69	100

Table 7 Frequency distribution of hypermenorrhea in D3 Nursing Sidoarjo students based on stress level

No	Stress Level	Incidence of Hypermenorrhea					
		Yes		No		Total	
		Σ	%	Σ	%	Σ	%
1	Mild Stress	1	1	34	49	35	51
2	Moderate Stress	0	0	22	32	22	32
3	Severe Stress	1	1	9	13	10	14
4	Very severe stress	0	0	2	3	2	3
Total		2	3	67	97	69	100

2) Discussion

In this section, the results of research on the description of stress levels and menstrual disorders in D3 nursing students in Sidoarjo will be described, which was conducted on March 20, 2023. The number of respondents was 123 D3 nursing students in Sidoarjo. In this discussion, it will be explained about the description of stress levels and menstrual disorders in D3 nursing students in Sidoarjo.

1. Age of Menarche

Based on the results of the research conducted, it can be seen that the average age of female students is 20 years old and the age of menarche of D3 Sidoarjo Nursing students is mostly 13 years old (34%) which is a sign that a woman shows hormone production.

This is in accordance with the statement according to (Yang et al., n.d.), hormones that affect the age of menarche are the hormones estrogen and progesterone. The hormone estrogen functions to regulate the menstrual cycle,

while progesterone affects the uterus, which can reduce contractions during menstruation (Novita, 2018). (Rummy Islami Zalni, 2023) Factors that can affect the age of menarche are internal factors in the form of the mother's menarche status (genetic) related to the acceleration and deceleration of menarche events, namely between the mother's menarche status (genetic) and the incidence of her daughter's menarche. And external factors in the form of nutritional status, food consumption, environment, socioeconomic status, physical activity, audiovisual stimuli, and lifestyle (Octavia, 2023).

According to (Alam et al., 2021), the age of early menarche is influenced by nutritional status, adolescents who experience menarche earlier have a higher body mass index (BMI) than adolescents who have a smaller BMI. At the same age, in addition to nutritional factors, genetics is one of the factors that affect the slow or rapid occurrence of menarche age. This can affect menstrual disorders due to poor nutritional status or lower BMI, a woman who has poor nutritional status has a risk of menstrual disorders that affect the growth of organ function and will cause disruption of reproductive function.

The age of menarche varies but is said to be normal if it occurs at the age of 12-14 years. This is in accordance with research conducted by researchers that the average age of menarche of D3 Nursing Sidoarjo students is 13-14 years old.

2. Stress Level

Based on the results of research conducted on D3 Nursing Sidoarjo students, almost half of the 123 respondents did not experience disorders (normal) the rest experienced stress which was divided into mild stress, moderate stress, severe stress and very severe stress.

Stress itself is a condition that can be experienced by all humans. In psychology, stress is a feeling of pressure and mental tension (Hidayati & Harsono, 2021). According to (Chasanah et al., 2022) several things that can affect stress levels are environmental, cognitive, personality, and socio-cultural.

According to the researcher, the average respondent is 20 years old which is late adolescence (18-24 years old) (Diananda, 2019), age is related to a

person's tolerance to stress, in late adolescence it is often vulnerable to stress and very strong emotions, but if from the early adolescent stage to late adolescence there is an improvement in emotional behavior, then they will be better able to control stress so that it can prevent more severe stress.

In the research conducted, almost half did not experience interference (normal), the rest experienced stress which was divided into mild stress, moderate stress, severe stress and very severe stress. This may occur due to socialization between friends, family support, and good stress management for each individual. According to the researcher, what causes mild, moderate, severe and very severe stress is personality as evidenced by most respondents answering question number 5 "I feel I have spent a lot of energy feeling anxious" and question 6 "I find myself impatient". Everyone has a different personality which has their own characteristics such as optimistic and pessimistic personalities. Optimistic individuals have a good mind and a good point of view in seeing a problem and tend to use strategies to solve the problem at hand. Conversely, individuals who have pessimistic thoughts tend to react with negative feelings to the situation or problem at hand and tend to blame themselves. This can cause stress in individuals and it depends on the individual to place his mind to always think optimistically or pessimistically.

For this reason, some things that can be done in order not to fall into greater stress are always thinking positively, always maintaining a balanced state in oneself, and individuals must have the ability to filter emotions and choose positive emotion management strategies.

3. The incidence of amenorrhea in D3 Nursing Sidoarjo students based on stress levels

Based on the results of research in table 4.3 conducted on D3 Nursing Sidoarjo students that female students who experienced amenorrhoe events based on stress levels showed a small proportion of female students with mild stress and moderate stress as many as 4 students (6%).

According to (Nathalia, 2019) Stress is a physiological, psychological and behavioral response from women who try to adapt and regulate both internal and external pressures or often called stressors. That stressors can affect all parts of a person's life, which causes mental stress, behavioral changes, problems in interactions with others and physical complaints, one of which is menstrual disorders.

According to Wiknjosastro (2012) in (Ningrum et al., n.d.) amenorrhea is a state of not having menstruation in 3 consecutive months. Amenorrhea is divided into primary amenorrhea and secondary amenorrhea. Primary amenorrhea is an event that occurs in women aged > 18 years who have never experienced menstruation. While secondary amenorrhea is a woman who has previously experienced menstruation, but did not get menstruation for 3 consecutive months or more.

According to researchers, 4 respondents who experienced amenorrhea menstrual disorders were included in secondary amenorrhea. Because respondents did not experience menstruation for 3 months or more, this was also supported by respondents experiencing mild and moderate stress so that it could affect amenorrhea menstrual disorders.

Some things that can be done is to change lifestyle. This condition is usually handled by maintaining ideal body weight, controlling stress by always thinking positively, and exercising regularly.

4. The Incidence of polymenorrhea in D3 Nursing students Sidoarjo based on stress level

Table 4.4 the incidence of polimenorhae shows that almost half of female students experience menstrual disorders (polimenorrhea) with mild, moderate and severe stress as many as 16 students (23%).

Polimenorrhea can be caused by psychological factors such as stress or depression, physical factors such as excessive weight (obesity), fatigue, taking certain drugs that can affect hormonal imbalances. Hormonal imbalances can cause disturbances in the ovulation process (egg release) or shorten the time

required for a normal menstrual cycle to take place so that more frequent menstruation is obtained (Novitasari, 2023).

From the results of research conducted by researchers that respondents who experienced polymenorrhea menstrual disorders on average were not obese, other factors that could affect menstrual disorders were psychological factors such as stress that was being experienced by respondents with an average answer of moderate stress (Fitriana Puteri Zebua et al., n.d.). Stress stimulates the hypothalamus-pituitary-adrenal cortex axis to produce the hormone cortisol. The hormone cortisol causes hormonal imbalances including reproductive hormones, thus affecting the menstrual cycle faster.

From the explanation above, the researcher argues that the higher a woman's stress level, it will cause a surge in LH and FSH hormones in her body, which results in a series of menstrual cycle processes to be faster than normal so that the menstrual cycle can shorten. Some things that can be done are controlling ideal body weight, avoiding stress and depression, living a healthy lifestyle by doing regular exercise and implementing a healthy diet, consulting a doctor if you experience a menstrual cycle (polymenorrhea) if it lasts continuously to prevent complications such as anemia and fertility disorders.

5. The incidence of oligomenorrhea in D3 Nursing students in Sidoarjo based on stress levels

Table 4.5 shows that a small proportion of female students experienced menstrual disorders (oligomenorrhea) with mild, moderate and severe stress as many as 10 female students (14%).

The cause of oligomenorrhea is hormonal imbalance in the hypothalamus-pituitary-ovarian axis. The disorder causes the length of the normal menstrual cycle to be elongated, so menstruation rarely occurs. Oligomenorrhea can occur from prolongation of the follicular stage, prolongation of the luteal stage, both stages become long. There are many factors that can cause hormone regulation to be disrupted, including stress.

From the results of the study, respondents who experienced

oligomenorrhea were with mild, moderate and severe stress, which can affect the menstrual cycle, causing menstrual disorders. This can also be caused by low estrogen hormone which is normally produced during the fertile period. The function of the estrogen hormone itself is to influence the development of reproductive organs, egg maturation, egg release and menstruation. If the hormone is produced less and supported by respondents experiencing stress, this can affect the menstrual cycle to be longer.

Some things that can be done by consuming balanced nutritional foods, consuming lots of fruit vegetables, meat, fish, and vitamin foods, starting regular exercise, always thinking about positive things to reduce stress.

6. Incidence of dysmenorrhea in D3 Nursing students Sidoarjo based on stress level

Table 4.6 shows that a small proportion of female students experience menstrual disorders (dysmenorrhea) with mild, moderate, severe and very severe stress as many as 12 female students (17%).

(Larasati & Alatas, 2016) Dysmenorrhea is abdominal pain stemming from uterine cramps that occur during menstruation. The pain occurs with the onset of menstruation and lasts from several hours to several days until it reaches a peak. Dysmenorrhea is divided into primary and secondary dysmenorrhea. Primary dysmenorrhea is menstrual pain that is not based on pathological conditions, while secondary dysmenorrhea is menstrual pain that is based on pathological conditions such as the discovery of endometriosis or ovarian cysts.

This is in accordance with the theory (Syaiful & Naftalin, 2018) dysmenorrhea is pain during menstruation caused by muscle tone spasms caused by increased amounts of prostaglandins. Prostaglandins are made in the uterine wall and control uterine contractions. Pain usually occurs just before menstruation begins, as prostaglandin levels increase in the uterine wall.

According to the researcher, dysmenorrhea is a natural thing during menstruation, the dysmenorrhea felt by the respondents is primary dysmenorrhea, because the pain is felt like squeezing

before and during menstruation in the lower abdomen and can radiate to the waist, the pain felt is usually before menstruation and the first day of menstruation. The symptoms felt are usually a very uncomfortable feeling that causes irritability, irritability, nausea, vomiting, back pain, headaches, acne, tension, and stress.

Some things that can be done to reduce dysmenorrhea are according to (Muthohharoh et al., n.d.) there are non-pharmacological treatments for dysmenorrhea, namely warm water compresses, controlling stress by doing exercise, herbal treatment of menstrual pain is overcome by drinking herbal medicine, massage or massage, adequate rest, knee chest position, guided imagery techniques, and deep breath relaxation techniques.

7. Incidence of hypermenorrhea in D3 Nursing students Sidoarjo based on stress level

Table 4.7 the incidence of hypermenorrhea shows that a small proportion of female students experience menstrual disorders (hypermenorrhea) with mild stress and severe stress as many as 2 female students (3%).

Hypermenorrhea itself is defined as a condition when the duration of the period or duration of menstruation > 7 days and blood loss > 80 mL (using ≥ 5 pads). Although it does not cause high mortality, this condition can cause disruption in the quality of life of an adolescent both in terms of physical, mental, social, and material. The amount of blood loss that occurs can lead to the high possibility of anemia in adolescents. Many factors can cause hypermenorrhea, possibly due to uterine myoma, endometrial polyps or endometrial hyperplasia.

Some things that can cause hypermenorrhea are age, weight, too much exercise and stress. Judging from this research, respondents are at mild and moderate stress levels where mild stress can last a few minutes or a few hours, and severe stress can last several weeks.

For this reason, efforts that can be made are to find out the cause first to be able to overcome the problem of hypermenorrhea, some things that can be done are eating balanced nutritious foods,

managing stress wisely, getting enough sleep, maintaining ideal body weight.

5. CONCLUSION AND SUGGESTION

Based on the results of research on "Overview of Stress Levels and Menstrual Disorders in D3 Nursing Student Sidoarjo" it can be concluded that, stress levels in D3 Nursing student Sidoarjo almost half of the 123 respondents did not experience stress (normal) as many as 54 students (44%). And the most experienced menstrual disorders are polymenorrhea menstrual disorders which show that almost half of female students experience menstrual disorders (polymenorrhea) with mild, moderate and severe stress as many as 16 students (23%).

For young women, especially students of D3 Nursing Sidoarjo to be more active and understand information about stress and menstrual disorders. And adolescents or female students of D3 Nursing Sidoarjo are also expected to have openness in experiencing problems faced as a trigger for stress so that it does not have an impact on health and education that is being undertaken.

5. REFERENCE

- Alam, S., Syahrir, S., Adnan, Y., & Asis, A. (2021). Hubungan Status Gizi dengan Usia Menarche pada Remaja Putri. *Jurnal Ilmu Kesehatan Masyarakat*, 10(03), 200–207. <https://doi.org/10.33221/jikm.v10i03.953>
- Ambarita, B., & Butarbutar, D. S. (n.d.). Pravelensi Gangguan Menstruasi pada Akseptor Implan. In *Bulan Januari* (Vol. 2, Issue 1).
- Anggraeni, L., Fauziah, N., & Gustina, I. (2022). Dampak tingkat stres terhadap siklus menstruasi pada mahasiswa tingkat akhir Di Universitas Binawan. *Journal.Ipts.Ac.Id*, 10(2), 629–633. <http://journal.pts.ac.id/index.php/ED/article/view/3491>
- Baadiyah, M., Winarni, S., Mawarni, A., & Purnami, C. T. (2021). Hubungan Aktivitas Fisik Dan Tingkat Kecemasan Dengan Gangguan Siklus Menstruasi Pada Mahasiswi. *Jurnal Kesehatan Masyarakat (Undip)*, 9(3), 338–343. <https://doi.org/10.14710/jkm.v9i3.29340>
- Chasanah, I., Mubarak, M., & Hairina, Y. (2022). Kepribadian Muhsin dan Tingkat Stres Mahasiswa Psikologi Islam UIN Antasari dalam Menghadapi Covid-19. *Jurnal Al-Husna*, 2(1), 1. <https://doi.org/10.18592/jah.v2i1.4419>
- Diananda, A. (2019). Psikologi Remaja Dan Permasalahannya. *Journal ISTIGHNA*, 1(1), 116–133. <https://doi.org/10.33853/istighna.v1i1.20>
- Fitriana Puteri Zebua, C., Suherry, K., Halijah, S., & Kesehatan Masyarakat UIN Sumatera Utara Medan, F. (n.d.). *Hubungan Tingkat Stress Dengan Siklus Menstruasi Pada Remaja : Studi Literature Relationship of Stress Level with Menstrual Cycle in Adolescents: Literature Study*.
- Harzif, A. K., Silvia, M., & Wiweko, B. (2018). *Fakta-Fakta Mengenai Menstruasi pada Remaja*.
- Hidayati¹, L. N., & Harsono², D. M. (2021). Tinjauan Literatur Mengenai Stress dalam Organisasi. In *Jurnal Ilmu Manajemen* (Vol. 18).
- Lam, R. W., Michalak, E. E., & Swinson, R. P. (2005). Assessment scales in depression, mania, and anxiety. In *Clinical Neuroscience* (p. 198). 2005. <http://books.google.com/books?id=nET5M3xyiZ0C&pgis=1>
- Larasati, T. A., & Alatas, F. (2016). *Faridah Alatas dan TA Larasati/ Dismenore Primer dan Faktor Risiko Dismenore Primer pada Remaja Majority* (Vol. 5, Issue 3).
- Manggul, M. S., & Syamsudin, M. (2016). Hubungan Stres Dengan Gangguan Siklus Menstruasi Pada Siswi Kelas XII SMA Karya Ruteng. *Wawasan Kesehatan*, 1(2), 142–148.

- Muthohharoh, L., Windayanti, H., Kristiningrum, W., Kebidanan, D.-I., & Kesehatan, I. (n.d.). *Yoga Untuk Pengurangan Intenistas Nyeri Dismenorea*.
- Nathalia, V. (2019). *Hubungan tingkat stress dengan siklus menstruasi pada mahasiswi STIT Diniyah Putri Kota Padang Panjang. XIII No 5*.
- Ningrum, N. B., Dwinita Adelia, D., Kesehatan, P., Husada, W., & Malang, N. (n.d.). *Hubungan Tingkat Stress dengan Kejadian Amenorea pada Mahasiswi di Kelurahan Tlogomas Kecamatan Lowokwaru Kota Malang*.
- Notoatmodjo, S. (2018). *Metodologi Penelitian Kesehatan* (3rd ed.). Rineka Cipta .
- Novita, R. (2018). *Hubungan Status Gizi dengan Gangguan Menstruasi pada Remaja Putri di SMA Al-Azhar Surabaya Correlation between Nutritional Status and Menstrual Disorders of Female Adolescent in SMA Al-Azhar Surabaya*. 30–36. <https://doi.org/10.2473/amnt.v2i2.2018.172-181>
- Novitasari, E. W. K. E. L. N. M. S. (2023). *Fisiologi Kehamilan, Persalinan, Nifas, dan Bayi Baru Lahir* . Global Eksekutif Teknologi .
- Nursalam. (2017). *Metodologi Penelitian Ilmu Keperawatan* . Salemba Medika.
- Octavia, Y. T. (2023). *Buku Ajar Asuhan Kebidanan Pada Remaja* (Tim MCU Grub, Ed.). 6 April 2023.
- Rummy Islami Zalni. (2023). *Usia Menarche pada Siswi Sekolah dasar* . NEM .
- Senja, A. O., Widiastuti, Y. P., & Istioningsih. (2020). The Level of Knowledge Adolescent About Reproductive Health. *Jurnal Keperawatan Sekolah Tinggi Ilmu Kesehatan Kendal*, 12(1), 85–92.
- Sugiyono. (2019). *Metode Penelitian*. Alfabeta.
- Syaiful, Y., & Naftalin, S. V. (2018). Abdominal Stretching Exercise Menurunkan Intensitas Dismenorea Pada Remaja Putri. *Jurnal Ilmu Kesehatan*, 7(1).
- Yang, F.-F., Dengan, B., Menarche, K., Wulandari, P., Aini, D. N., Astuti, S. W., Studi, P., Keperawatan, I., Widya, S., & Semarang, H. (n.d.). *Factors affecting menarche among junior high schools' students in Semarang*.