

RELATIONSHIP BETWEEN STRESS LEVELS AND DYSMENORRHEA PAIN IN ADOLESCENT GIRLS

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ABSTRAK : HUBUNGAN ANTARA TINGKAT STRES DAN NYERI DISMENORE PADA REMAJA PEREMPUAN

Latar Belakang: Stres dikenal sebagai salah satu faktor yang dapat memengaruhi kesehatan reproduksi wanita, termasuk nyeri dismenore dan keteraturan siklus menstruasi. Stres juga dapat memperburuk gejala dismenore, di mana wanita yang mengalami stres cenderung mengalami nyeri menstruasi yang lebih parah dan siklus menstruasi yang lebih tidak teratur. Beberapa remaja seringkali mengalami nyeri menstruasi (dismenore) yang cukup mengganggu aktivitas sehari-hari.

Tujuan: Penelitian ini dilakukan untuk mengetahui hubungan antara tingkat stres dengan nyeri dismenore pada remaja putri.

Metode: Jenis penelitian ini adalah penelitian korelasi kuantitatif dan menggunakan desain potong lintang. Desain penelitian ini adalah survei analitik deskriptif dengan pendekatan kuantitatif. Sampel penelitian ini adalah remaja putri yang telah mengalami menstruasi, pengambilan sampel menggunakan teknik total sampling. Analisis data yang digunakan dalam penelitian ini menggunakan uji chi-square. Hasil: Hasil analisis dengan pengolahan data Chi Square menunjukkan adanya hubungan antara tingkat stres dengan nyeri dismenore, hal ini dibuktikan dengan nilai sig (p -value $< 0,05$) sebesar 0,000.

Kesimpulan: Tingkat stres berhubungan dengan intensitas nyeri dismenore. Intervensi manajemen stres disarankan sebagai salah satu strategi untuk mengurangi nyeri dismenore pada remaja putri.

Saran : Disarankan agar pihak kampus dan tenaga kesehatan menyediakan program manajemen stres bagi remaja putri guna mengurangi tingkat keparahan nyeri dismenore.

Kata Kunci: Nyeri Dismenore, Remaja Putri, Tingkat Stres

ABSTRACT

Background: Stress is known as one of the factors that can affect women's reproductive health, including dysmenorrhea pain and menstrual cycle regularity. Stress can also worsen dysmenorrhea symptoms, where women who experience stress tend to experience more severe menstrual pain and more irregular menstrual cycles. Some adolescents often experience menstrual pain (dysmenorrhea) which is quite disruptive to daily activities.

Objective: This study was conducted to determine the relationship between stress levels and dysmenorrhea pain in adolescent girls.

Method: This type of research is a quantitative correlation study and uses a cross-sectional design. The design of this study is a descriptive analytical survey with a quantitative approach. The sample of this study was adolescent girls who had experienced menstruation, sampling using the total sampling technique. Data analysis used in the study used the chi-square test.

Results: The results of the analysis with Chi Square data processing showed that there was a relationship between stress levels and dysmenorrhea pain, this was evidenced by the sig value (p -value < 0.05) which was 0.000.

Conclusion: Stress levels are related to the intensity of dysmenorrhea pain. Stress management interventions are suggested as one strategy to reduce dysmenorrhea pain in adolescent girls.

Suggestion: It is recommended that campuses and health workers provide stress management programs for young women to reduce the severity of dysmenorrhea pain.

Keywords: Stress Level, Dysmenorrhea Pain, Adolescent Girls

INTRODUCTION

In adolescent girls, puberty is marked by the arrival of menstruation (menarche) which is accompanied by physical, mental, and social changes (Ilham et al., 2022). During adolescence, body hormones will change in both boys and girls which leads to developmental changes. During adolescence, especially in girls, of course, they will experience menstrual circulation where the circulation is the duration that starts from the beginning of menstruation until the next menstrual stage reappears and menstrual circulation can occur normally or abnormally (Agustin et al., 2022). In normal adolescent girls, every month they usually experience lower abdominal pain (dysmenorrhea) or discomfort in the stomach and lower back pain as well as emotional changes. Dysmenorrhea is pain (cramps) in the abdominal area that begins 24 hours before menstrual bleeding occurs and can last 24-36 hours, although it generally only lasts for the first 24 hours when menstrual bleeding occurs (Ayu, 2022). Dysmenorrhea or menstrual pain can affect the daily activities of adolescents, with symptoms that can arise such as feeling weak, losing enthusiasm, feeling lazy and decreasing concentration which will interfere with the adolescent's learning process. In addition, dysmenorrhea can also cause abnormal uterine contractions caused by increased intrauterine pressure and prostaglandin levels in the blood. If abnormal uterine contractions occur continuously, it will result in decreased blood circulation so that it will make the uterus ischemic or hypoxic and can interfere with female fertility (Paseno et al, 2022).

Menstrual pain or dysmenorrhea is one of the most common disorders experienced by women, especially adolescents. Primary dysmenorrhea, which occurs without any organic abnormalities in the reproductive organs, often causes disruption to daily activities, ranging from the inability to attend school to decreased academic productivity (Herlina, 2020). Primary dysmenorrhea is caused by excessive uterine contractions due to increased prostaglandin production. Prostaglandins are substances produced by the uterus during menstruation and are responsible for excessive uterine muscle contractions, which ultimately cause pain (Rahman, 2019).

According to WHO, the incidence of dysmenorrhea is quite high worldwide, the prevalence of dysmenorrhea varies between 41.7% and 89.1%. The prevalence of dysmenorrhea in Indonesia is 64.25%, consisting of primary dysmenorrhea of 54.89% and 9.36% experiencing secondary dysmenorrhea (Nurfadillah

et al. 2021). Dysmenorrhea pain can be very disruptive to daily activities, and the intensity of this pain varies between individuals. An estimated 40 to 50 adolescent girls experience dysmenorrhea, of which around 30% require treatment or pain relief. According to Winarso (2017) of all women who experience menstruation, 60% were found to complain of mild to moderate dysmenorrhea. Stress is known to be one of the factors that can affect women's reproductive health, including dysmenorrhea pain and menstrual cycle regularity. Research shows that physical and psychological stress can increase levels of stress hormones, such as cortisol, which play a role in lowering the balance of reproductive hormones in the body (Fitriani & Hapsari, 2022). Stress can also worsen symptoms of dysmenorrhea, where women who experience stress tend to experience more severe menstrual pain and more irregular menstrual cycles (Rahma et al., 2023). Therefore, it is important to further explore the relationship between stress levels and dysmenorrhea pain in adolescent girls in order to provide a deeper understanding and as a basis for preparing appropriate preventive and promotive interventions in an effort to improve the quality of life of adolescents.

RESEARCH METHODS

This type of research is a quantitative correlational study, which aims to identify whether there is a significant relationship between stress levels and dysmenorrhea pain. This study also uses a cross-sectional design that allows data collection at one point in time to see the relationship between variables. The design of this study is a descriptive analytical survey with a quantitative approach. Data analysis was carried out univariately and bivariately using the Chi-Square test, with a significance level of $p < 0.05$, using SPSS. The sample of this study was 77 female students of Midwifery at Unimus.

The population in this study consists of all undergraduate nursing students of Muhammadiyah University of Semarang, including 77 students from the first and third semesters. The sample in this study comprises 77 students from Muhammadiyah University of Semarang, which consists of students from the first and third semesters. Due to the relatively small population size (77 students), it allows the researchers to conduct total sampling, using the entire population as the sample for the study. Therefore, in this study, random sampling is not necessary, as the entire population has been used as the sample. In this study, there are no inclusion and exclusion criteria. The level of dysmenorrhea pain was measured at the beginning

of the month during the study, using the NRS scale to determine the level of pain.

RESEARCH RESULTS

Table 1
Correlation of Stress Levels with Dysmenorrhea Pain Levels

			Painful
Stress Level	Pearson	Correlation	0.392
	Sig (p-value)		0.000

In table 1 on the correlation between stress levels and dysmenorrhea pain levels in S1 Midwifery students at Muhammadiyah University of Semarang, it was found that there was a relationship between stress levels and dysmenorrhea pain levels, this was proven by the sig value (p-value <0.05) which was 0.000. Based on the research that has been conducted, the results of the study showed that the sig value (p-value <0.05) and it can be concluded that there is a relationship between stress levels and dysmenorrhea pain levels in S1 Midwifery students at Muhammadiyah University 2 Semarang, from this statement the stress level affects dysmenorrhea in students. Stress can arise not only from factors that exist in the individual, for example physical illnesses suffered, internal conflicts, etc. Therefore, it is more appropriate to view stress as a relationship between individuals and stressors, both internal and external. According to Maramis, stress can occur due to frustration, conflict, pressure and crisis (Suranata et al., 2021).

When stressed, the body will produce excessive estrogen, adrenaline, and prostaglandin hormones. Excessive production of estrogen hormones causes excessive uterine contractions. If the adrenaline hormone increases, it will cause muscle tension in the body including the uterine muscles, this condition can increase excessive contractions during menstruation, causing pain during menstruation. While an increase in the prostaglandin hormone will cause uterine muscle contractions and can cause vasospasm of the uterine arterioles so that ischemia and cramps occur in the lower abdomen and will stimulate pain (Putri et al., 2018).

CONCLUSION

The results of the study showed a significant relationship between stress levels and dysmenorrhea pain in adolescent girls, with a p-value of 0.000 (p <0.05). This indicates that the

higher the level of stress experienced by adolescent girls, the higher the intensity of their dysmenorrhea pain. Therefore, it is important to carry out effective stress management efforts to help reduce the severity of dysmenorrhea pain in adolescents.

SUGGESTION

Based on the findings of this study, it is suggested that schools and healthcare providers develop stress management programs for adolescent girls to help reduce the severity of dysmenorrhea. Future research is recommended to explore the role of coping strategies, lifestyle factors, and hormonal profiles in mediating the relationship between stress and menstrual pain.

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