A Case Study Of Anxiety In Adolescents Who Experience Menstrual Cycle Irregularities In The Sutopo Nursing DIII Study Program Surabaya

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ABSTRACT

Menstrual cycle irregularities in adolescents can cause anxiety that impacts psychological conditions and daily activities. Lack of knowledge and social pressure also worsen the condition. This study aims to identify the level of anxiety in adolescents who experience menstrual cycle irregularities in the Sutopo Surabaya Nursing Study Program. This study uses a case study approach with a descriptive design. The sampling technique is a total sampling of 30 teenagers. The instrument used was the Hamilton Anxiety Rating Scale (HARS) questionnaire, which measures anxiety from psychological and somatic aspects. Data collection was conducted using two questionnaires: the first to identify adolescents experiencing menstrual cycle irregularities, and the second to assess the level of adolescent anxiety based on the results of a screening questionnaire. The results showed that 17 respondents (56.7%) experienced mild anxiety, 10 respondents (33.33%) experienced moderate anxiety, and three respondents (10%) experienced severe anxiety. Mild anxiety tends to be able to cope with their anxiety independently. In the medium category, it starts to show discomfort and requires additional information. Severe anxiety shows significant emotional symptoms, experiences concentration disorders, and requires psychological support. The results of the study show that anxiety is related to the irregularity of the menstrual cycle experienced by adolescents. Reproductive health education, psychological support, and the active role of health workers in providing the correct information are needed as an effort to help adolescents manage anxiety and increase awareness of reproductive health.

Keywords: Anxiety, Menstrual Cycle Irregularities

INTRODUCTION

Menstruation is a physiological process experienced by women of reproductive age, marked by the periodic shedding of the uterine lining (endometrium) through the vagina. A normal menstrual cycle occurs every 21 to 35 days, with a bleeding duration of 3 to 7 days (Sari & Widya, 2023). However, many adolescent girls experience irregularities in their menstrual cycle, which can lead to significant anxiety related to reproductive health. This anxiety is often triggered by a lack of knowledge about menstruation and hormonal changes during puberty. In addition, adolescents may feel discomfort and distress due to social stigma and pressure from their environment (Ratna, 2022).

WHO (2020) reported that the global prevalence of menstrual cycle disorders in women is around 45%. In Indonesia, the Basic Health Research (Riskesdas, 2018) found that 13.7% of women aged 10-59 years experienced irregular menstruation in a year, with a prevalence of 13.3% in East Java. In addition, nutritional imbalances such as underweight (7%), overweight (12.8%), and obesity (4%) were identified as risk factors for menstrual irregularities. Preliminary data collected through questionnaires at the DIII Nursing Study Programme of Sutopo Surabaya showed that out of 45 adolescent respondents, 20 of them experienced irregular menstrual cycles..

Menstrual cycle disorders in adolescents can negatively impact their psychological and physical health. Several factors contribute to these disruptions, including stress, physical activity, nutritional status and age at menarche. Nurfebrianna et al. (2024) found that such disorders often occur in adolescents who have experienced menstruation for several years. Many of them lack proper education about menstruation and hormonal changes during puberty, so they feel anxious and confused when a disorder occurs. Stress is a major contributing factor, especially stress related to academic demands and social challenges (Siti et al., 2024). In addition, Sinaga et al. (2024) revealed that poor sleep quality is associated with menstrual cycle irregularities, because lack of sleep can disrupt hormonal balance.

In response to these reproductive health issues, several evidence-based interventions can be implemented. One of the main approaches is reproductive health education, which helps adolescents to better understand their menstrual cycle and reduce anxiety caused by misinformation or lack of knowledge. Psychological support, especially through cognitive

behavioural counselling, can also help adolescents in managing the emotional impact of menstrual irregularities (Putri & Dewi, 2021). In addition, relaxation techniques such as yoga, deep breathing exercises, and mindfulness have been shown to be effective in reducing stress levels (Royani et al., 2023). Support from family and peers, as well as public campaigns to reduce menstrual stigma, play an important role in building a positive and supportive environment for adolescents' physical and mental health.

METHODS

This study uses a descriptive design. The population of this study were all 30 students of the DIII Nursing Study Programme of Sutopo Surabaya, using the total sampling method. Data were collected using two questionnaires distributed through Google Form to 85 second year female students. The first questionnaire aimed to identify adolescents who experienced menstrual cycle irregularities. Of these, 30 respondents were selected to complete the second questionnaire which measured their anxiety level using the Hamilton Anxiety Rating Scale (HARS). HARS consists of 14 indicators, including anxious mood, tension, fear, insomnia, intellectual disturbance, depressed mood, somatic (muscle) symptoms, sensory symptoms, cardiovascular symptoms, respiratory symptoms, digestive symptoms, genitourinary symptoms, autonomic symptoms, and behavioural manifestations. Each item was scored from 0 to 4, and the total score indicated the level of anxiety: scores below 6 indicated no anxiety, 6-14 indicated mild anxiety, 15-27 indicated moderate anxiety, and above 27 indicated severe anxiety. Data processing included editing, coding, scoring, and tabulation. Ethical considerations included informed consent, anonymity, and confidentiality.

RESULTS

Table 1. The Age of Adolescents who experience menstrual cycle irregularities

Age	Frequency	%
12-15 years	0	0
16-18 years	0	0
19-21years	29	96,7

22-30 years	1	3,3
31-65 years	0	0
>65 years	0	0
Total	30	100

Table 2. The Frequency of Adolescents Experiencing Menstrual Cycle Irregularities

Menstrual Cycle Irregularities	**Frequency**	**%**
Polimenorrea	17	56,7
Oligomenorrea	10	33,3
amenorrea	3	10
Total	30	100

Table 3. The Steps for teenagers in dealing with menstrual cycle irregularities

Steps for teenagers in dealing with menstrual cycle irregularities	**Frequency**	**%**
Consult a doctor or medical professional	5	16,7
Changing your diet and reducing stress through exercise or other activities	20	66,6
Taking certain supplements or medications	5	16,7
Not doing anything	0	0
Total	30	100

Table 4. The Frequency of Adolescents Trying to Seek Information About Menstrual Cycle Irregularities

Try to find information about menstrual cycle irregularities	**Frequency**	**%**
Often	5	16,7
Sometimes	20	66,6
Never	5	16,7
Total	30	100

Table 5. The Frequency of Emotional Support Needs of Adolescents in Facing Menstrual Cycle Irregularities

Emotional Support Needs	Frequency	%
Yes	25	83,3
No	5	16,7
Total	30	100

Table 6. The Frequency of Anxiety in Adolescents Experiencing Menstrual Cycle Irregularities

Level of Anxiety	Frequency	%
No Anxiety	0	0
Mild Anxiety	17	56,7
Moderate Anxiety	10	33,3
Severe Anxiety	3	10
Total	30	100

DISCUSSION

The results showed that 17 adolescents (56.7%) experienced a mild level of anxiety. This level is usually characterised by occasional worry, slight difficulty concentrating, irritability, and mild restlessness that does not interfere with daily activities. Individuals in this category can still carry out academic and social responsibilities effectively. According to Yanti and Fatmasari (2022), mild anxiety often arises from non-threatening physiological changes, such as menstrual cycle irregularities. With sufficient reproductive health knowledge and support from their environment, adolescents can generally overcome these symptoms. However, if left untreated, mild anxiety can escalate to moderate or severe levels, especially when combined with academic stress, social pressure, or lack of guidance. Therefore, early monitoring and health education are essential to prevent further escalation.

10 adolescents (33.3%) experienced a moderate level of anxiety. At this level, anxiety symptoms sometimes appear and begin or have not yet affected daily activities, such as difficulty concentrating, difficulty sleeping, and feelings of restlessness, such as regarding irregular menstrual cycles. This is in line with the research of Yanti, N., & Fatmasari, D. (2022) which states that moderate anxiety occurs when perceptions narrow.

Individuals feel excessively anxious, tend to worry about the possibility of serious illness, and need more information and emotional support to understand their physical condition. Moderate anxiety is characterised by emotional fragility, where individuals are aware of changes in themselves but do not have sufficient understanding to assess whether these changes are normal or cause for concern. This leads to confusion, causing them to keep their worries to themselves. When emotional support is not available, anxiety will increase and may escalate to a more severe stage. Therefore, the role of health professionals in providing accurate education is crucial to prevent adolescents from taking inappropriate actions.

There were 3 adolescents (10%) who showed strong symptoms such as feeling restless, feeling sad, irritable, having difficulty sleeping, impaired concentration when doing activities, losing appetite or experiencing indigestion, sweating and cold hands, and frequent urination or feeling tense in the abdominal area such as abdominal pain because of thinking about the problem, these symptoms often appear which can interfere with daily activities. Extreme fear of menstrual cycle irregularities causes them to think negatively, such as feeling severe reproductive disorders, fearing that they will not be able to get pregnant in the future, or have a serious illness. Like the research of Anggraini et al. (2021) which states that severe anxiety arises when individuals are no longer able to control their emotional responses. This is shown by the results of his research involving 670 adolescents, which showed that 26.12% of adolescents experienced severe anxiety, which shows that severe anxiety in adolescents is a fairly common problem and needs special attention. Thus, the importance of psychological support and guidance from health workers so that adolescents can have a proper understanding of their body condition. Severe anxiety also has a long-term impact on the quality of life of adolescents.

Menstrual irregularities among adolescents in this study included polymenorrhoea (17 adolescents, 56.7%), oligomenorrhoea (10 adolescents, 33.3%), and amenorrhoea (3 adolescents, 10%). Polimenorrhoea, with cycles shorter than 21 days, can cause fatigue and reduced concentration. Oligomenorrhoea, with cycles longer than 35 days, can cause confusion and emotional stress due to hormonal imbalance. Amenorrhoea, the absence of menstruation for more than 90 days, often triggers anxiety related to infertility and reproductive health. It is closely linked to stress, nutritional issues, and hormonal disorders

such as PCOS and thyroid dysfunction (Sari & Widya, 2023). Adolescents with irregular menstrual cycles may feel anxious, embarrassed, or different from their peers, especially if they lack knowledge or support (Sari & Indriani, 2022).

Age is another factor that can affect anxiety levels. In this study, 29 out of 30 respondents (96.7%) were in the late adolescent stage (19-21 years). This developmental phase involves identity formation, role adjustment, and preparation for adulthood, making individuals more vulnerable to emotional stress (Desta, 2019). Wahyuni and Amelia (2020) also noted that adolescents at this age may still have immature coping mechanisms, increasing the risk of excessive anxiety. These characteristics can exacerbate emotional responses, especially when facing reproductive health problems such as menstrual irregularities.

CONCLUSION

Adolescents who experience menstrual cycle irregularities show varying levels of anxiety, with the majority being at mild levels. Types of irregularities such as polymenorrea, oligomenorrea, and amenorrea have an impact on psychological conditions, especially due to lack of knowledge, pressure from the surrounding environment, and academic stress. There are various ways to deal with this condition, such as changing diet, exercising, and consulting with medical personnel. Even so, the need for emotional support remains high. Proper education on reproductive health, as well as the active role of health workers and the surrounding environment are needed to help adolescents understand their body condition and manage anxiety in a healthy way.

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