

The Relationship of Stress Level With Premenstrual Syndrome on Midwifery Students at AKBID Bandung

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Abstract

The prevalence of STDs in several regions in Indonesia shows different results. In South Jakarta, it shows that 45% of vocational school students experience PMS. In Kudus, the prevalence of PMS in Midwifery Academy students was found to be 45.8%. In Padang, 51.8% of high school students experienced PMS, while in Purworejo, the prevalence of PMS was 24.6%. Differences in the incidence of premenstrual syndrome (PMS) between women are usually caused by several factors including: stress, increasing age, poor eating patterns and nutritional status. To find out the relationship between stress levels and premenstrual syndrome in midwifery students at AKBID Bandung. This type of research is analytical research using a cross sectional design. The sample in this study were all female students of AKBID Bandung, Level II Regular Bachelor of Applied Midwifery Study Program, namely 48 female students. The sampling technique in this study was total sampling with a total sample of 48 female students. Data analysis used the chi-square test with a 95% confidence level ($\alpha=0.05$). There was no association between stress levels and premenstrual syndrome (PMS) ($p\text{-value} = 0.733$). The other factors of premenstrual syndrome include family history, age, lack of exercise, lack of vitamins and minerals, too much salt consumption, drinking a lot of coffee. There was no significant association between stress levels and the incidence of premenstrual syndrome (PMS). This is because individuals who experience premenstrual syndrome are not only caused by stress factors, but also there are other supporting factors.

Keywords: stress level, premenstrual, Syndrome

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INTRODUCTION

Pre-Menstrual Syndrome (PMS) is a collection of physical, psychological and emotional symptoms associated with a woman's menstrual cycle. About 80 to 95 percent of women experience premenstrual symptoms that can interfere with several aspects of their lives. These symptoms are predictable and usually occur regularly in the two weeks before menstruation. (Sukarni & Wahyu, 2013).

According to the World Health Organization (WHO), adolescents are residents in the age range 10-19 years, according to the Republic of Indonesia Minister of Health Regulation Number 25 of 2014, adolescents are residents in the age range 10-18 years and according to the Population and Family Planning Agency (BKKBN) the range Adolescents are 10-24 years old and unmarried. The number of people aged 10-19 years in Indonesia according to the 2010 population census is 43.5 million or around 18% of the total population. Meanwhile, the number of teenagers aged 10-14 years in West Java in 2008 had reached 11,662,000 people.

Research conducted by Youth-Friendly Health Services (PKRR) under the auspices of WHO in 2005 stated that the problems of women in Indonesia revolve around problems related to menstrual disorders (38.45%), nutritional problems related to anemia (20.3%), learning disorders. (19.7%), psychological disorders (0.7%), and obesity problems (0.5%). Menstrual disorders are a major problem for women in Indonesia (Damayanti, 2013).

Factors that can cause Premenstrual Syndrome (PMS) are stress. Research conducted by Ilmi & Utari (2018), students from the Faculty of Public Health (FKM) and Dept. Architecture, Faculty of Engineering, University of Indonesia found that at least 83.3% of female students who had high levels of stress experienced Premenstrual Syndrome (PMS) with severe symptoms. Students at the Faculty of Physiotherapy, Hasanudin University found that 28% experienced mild stress, 33% experienced moderate stress and some of them experienced abnormal menstrual cycles. Research by Aldira (2014) in (Ilmi & Utari, 2018), explains that psychological influence, the sufferer's psychology can be aggravated by Premenstrual Syndrome (PMS) (Aldira, 2014).

The prevalence of PMS in several regions in Indonesia shows different results. In South Jakarta, it shows that 45% of female vocational school students experience PMS. In Kudus, the prevalence of PMS among Midwifery Academy students was 45.8%. In Padang, it was shown that 51.8% of female high school students experienced PMS, while in Purworejo, among female high school students, the prevalence of PMS was 24.6% (Pratita & Margawati, 2013) . The results of a preliminary study conducted at SMP 1 Jasinga, Bogor Regency showed that of the 10 respondents, it was found that 80% of them experienced premenstrual syndrome, a life full of stress and problematic relationships in general could be related to the severity of physical symptoms (Rahayu, 2020) .

Data obtained from a preliminary study on November 10 2022, to AKBID Bandung level II students in class A, out of 10 students, a questionnaire was distributed regarding the incidence of stress levels with premenstrual syndrome . The results obtained were that all 10 students experienced premenstrual syndrome . Symptoms vary from low back pain , dizziness, diarrhea, emotional to stress. Furthermore, the results of measuring the stress levels of 10 female students showed that 1 person had mild stress (10%), 6 people had moderate stress (60%) and 3 people had severe stress (30%).

Based on the description above, researchers are interested in conducting research with the title "The Relationship between Stress Levels and Premenstrual Syndrome in Midwifery Students at AKBID Bandung" .

RESEARCH METHODS

Research is analytical because it studies the relationship between 2 variables. This study aims to determine the relationship between stress level and pre-menstrual syndrome in Regular Midwifery Level II students at AKBID Bandung.

The research design uses a cross section (cross section) because the research data (independent variables and dependent variables) are measured at the same time or instantaneously.

Based on the data processing used, this research is classified as a quantitative type of research.

Population And Research Sample

1. Population

The population in this study were all regular AKBID Bandung midwifery level 2 students, namely 61 students who experienced premenstrual syndrome and stress.

2. Sampling technique

The sampling technique that will be used is the total sampling technique, namely the entire population is used as the research sample, namely 48 female students who experience premenstrual syndrome and stress.

a. Inclusion Criteria

- 1) Students who experience stress
- 2) Students who experience Premenstrual Syndrome
- 3) Students who are willing to become respondents

b. Exclusion Criteria

- 1) There were 10 students who were part of the preliminary study sample
- 2) There is 1 student who is on leave from college
- 3) There were 2 students who were not present during the research

Research Procedure

The Data Collection Method Uses Primary Data By Asking Respondents Questions That Have Been Prepared In The Questionnaire, Which Will Then Be Answered By The Respondent, Namely In The Form Of A Google Form.

RESULT AND DISCUSSION

Data Analysis

A. Univariate

Table 1. Distribution of respondents according to stress level among female midwifery students at AKBID Bandung

Stress Level	Frequency (n)	Percentage (%)
Normal	13	27.1
Mild Stress	6	12.5
Moderate Stress	12	25.0
Severe Stress	13	27.1
Very Heavy Stress	4	8.3
Total	48	100

The table above shows that from 48 respondents, it was found that the majority of respondents with normal stress levels were 13 respondents (27.1%) and the same was true with respondents who experienced severe stress levels, namely 13 respondents (27.1%).

Table 2. Distribution of respondents according to the incidence of premenstrual syndrome (PMS) among female midwifery students at AKBID Bandung

Premenstrual Syndrome (PMS)	Frequency (n)	Percentage (%)
No PMS	36	75
PMS	12	25

Total	48	100
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The table above shows that of the 48 respondents, 12 respondents (25%) experienced PMS, while 36 respondents (75%) did not experience PMS.

B. Bivariate

Table 3. Relationship between stress levels and the incidence of premenstrual syndrome (PMS) in female midwifery students at AKBID Bandung

Stress Level Variable	Premenstrual Syndrome (PMS)				n	ρ _{value}
	No PMS		PMS			
	N	%	n	%		
Normal	9	69.2	4	30.8	13	0.733
Mild Stress	5	83.4	1	16.6	6	
Moderate Stress	9	75	3	25	12	
Severe Stress	9	69.2	4	30.8	13	
Very Heavy Stress	4	100	0	0	4	
Total	36	75	12	25	48	

Table 1 shows that of the 48 respondents, 13 respondents with normal stress levels , 9 respondents (69.2 %) did not experience PMS and 4 respondents (30.8 %) experienced PMS, the same as respondents with severe stress levels from 13 respondents . , as many as 9 respondents (69.2 %) did not experience PMS and 4 respondents (30.8 %) experienced PMS.

Discussion

a. Stress

Stress is defined as the body's response or response to various demands and demands that exceed the limits of human ability . Stress is also a trigger, both cause and consequence of disorders or diseases. Psychosocial factors are quite important for stress to occur in a person (Rejeki, 2019).

Based on the research results, results were obtained from 48 respondents, 13 respondents (27.1%) had normal stress levels, as well as 13 respondents (27.1%) with severe stress levels.

Based on the theory and research results above, it can be concluded that most of the respondents experienced stress at a normal level and severe stress due to activities that required them to divide their time between lectures and memorizing the Al-Qur'an, but most of them were able to overcome this stress in the direction of the positive.

b. Premenstrual Syndrome (PMS)

Premenstrual syndrome (PMS) or premenstrual syndrome are symptoms experienced by women before entering menstruation. These symptoms can include physical, behavioral and emotional changes . Generally , PMS symptoms occur around 1-2 weeks before the first day of menstruation each month. (Geta, T. et al. 2020).

Based on the research results, results were obtained from 48 respondents, 12 respondents (25%) experienced PMS, while 36 respondents (75%) did not experience PMS.

Based on the theory and research results above, it can be concluded that the majority of respondents do not experience PMS, this is because respondents can deal with premenstrual symptoms well, namely by diverting them with positive activities by increasing worship and dhikr of Allah SWT as well as organizational activities on campus.

1. Bivariate Analysis

Bivariate analysis is to find out data in the form of a cross table by looking at the relationship between the independent variable and the dependent variable, using the chi-square statistical test. With a significance limit ($\alpha = 0.05$) or Confidence level (CL) = 95%, it was processed using a computer with the aim that the author wanted to find out whether there was a relationship between stress levels and premenstrual syndrome in regular level II female midwifery students at AKBID Bandung.

According to Ratikasari (2015), a woman will suffer from PMS more easily if she is more sensitive to psychological changes, especially stress. This stress actually has an interaction using the hormone progesterone. Based on research conducted by Michel and Bonnet (2014) in guinea pigs, it was found that progesterone concentrations can decrease by as much as 50.9% after stress occurs.

Stress is the most common cause of premenstrual syndrome (PMS), so coping strategies for stress are an effective treatment. The role of stress in women with premenstrual syndrome (PMS) is to exacerbate the signs of premenstrual syndrome (PMS) which has an impact on changes in mood and physical signs. If women are grouped based on reported stress complaints, then the group experiencing high stress is 3.7 times more likely to experience premenstrual syndrome (PMS) compared to women experiencing low stress after adjusting for the influence of biological, lifestyle and psychological variables (Deuster et al., 1999 in Nazihan, 2018).

A risk factor is anything that increases the possibility of somebody experiencing some symptom or disturbance of health. Factor risk PMS between others History of family members, Age, Problems health soul (Stress), Less exercise physical, lack of vitamins and minerals, especially vitamin B6, calcium And magnesium, Too Lots consumption salt, Which easy cause bloated And retention water in body and many drink coffee (Nugroho & Utama, 2014).

Based on the results of cross tabulation, it shows that of the 48 respondents, 13 respondents with normal stress levels, 9 respondents (69.2 %) did not experience PMS and 4 respondents (30.8 %) experienced PMS as well as respondents with stress levels. Of the 13 respondents, 9 respondents (69.2 %) did not experience PMS and 4 respondents (30.8 %) experienced PMS.

The results of the Chi-Square test obtained results where at the significance level $\alpha = 0.05$, value $p = 0.733$ ($0.733 > 0.05$) then H_0 is accepted and H_a is rejected, meaning there is no significant relationship between stress levels and occurrence of premenstrual syndrome.

The author believes that stress levels do not affect the incidence of premenstrual syndrome (PMS) because of the evidence obtained in The research location is different from theory, namely that respondents who experience stress should experience premenstrual syndrome (PMS) and those who are not stressed should not experience premenstrual syndrome (PMS). Even though these results show that there is no relationship between stress levels and the incidence of premenstrual syndrome, respondents who do not experience PMS tend to have normal stress levels.

This is thought to be due to other, more dominant factors such as Some theories state that premenstrual syndrome (PMS) occurs because an imbalance between the hormone estrogen can also cause premenstrual syndrome (PMS). However, premenstrual syndrome (PMS) tends to occur more frequently in women who are sensitive to the hormonal changes of the menstrual

cycle. There are other factors such as family history, age, lack of exercise, lack of vitamins and minerals, consuming too much salt, and drinking a lot of coffee (Nugroho & Utama, 2014).

The results of this study are in line with the results of research (Nazihah, 2018) showing that there is no relationship between stress levels and the incidence of premenstrual syndrome ($p_{\text{value}} = 0.156$). Incident premenstrual syndrome (PMS) type the symptoms Enough varies And the symptoms diverse on every individual, reason from Premenstrual Syndrome (PMS) up to this is not known for certain. A number of women, experiencing heavy categories, up to activities are disrupted (NIH, 2014) in (Ratikasari, 2015). One of the factors that cause premenstrual syndrome (PMS) are physical activity, stress levels, as well as sleep patterns. caused by stress factors but there are also other supporting factors.

CONCLUSION

Based on the results of research and discussion regarding the relationship between stress levels and premenstrual syndrome in Midwifery students, the researchers concluded as follows: 13 respondents who experienced normal stress (27.1 %) and 13 respondents (27.1 %) experienced severe levels of stress . There were 12 respondents (25%) who experienced PMS, while 36 respondents (75%) did not experience PMS. In the results of research that has been carried out by researchers, the results are that there is no relationship between stress levels and premenstrual syndrome (PMS) using the Chi-Square test with a pvalue of 0.733 .

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