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ORIGINAL RESEARCH

CORRELATION STUDY OF NUTRITIONAL STATUS OF FEMALE 16-18 YEARS OLD WITH PREMENSTRUAL SYNDROME

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ABSTRACT

Premenstrual Syndrome was an increase in emotional tension and it was a factor that usually starts one week to a few days before the onset of menstruation and disappears after menstruation comes, although sometimes it continued until menstruation stops. Premenstrual Syndrome was influenced by several factors, including nutritional status. From this observation, it was found that there are still many women who experience Premenstrual Syndrome (60%). This study aims to analyses the relationship between the nutritional status of female16-18 years with the incidence of premenstrual syndrome in Sooko Village - Mojokerto. This study used observational analytical research methods. With a population of 50 and a sample of 40 respondents using simple random sampling, data obtained from young women who experienced and did not experience Premenstrual Syndrome were processed by frequency tabulation and then analysed by contingency coefficient test using SPSS. Based on the results of the study, it was found that 23 students (57.5%) had Premenstrual Syndrome with normal nutritional status, while 11 students with underweight nutritional status, of which 9 students (27.5%) had premenstrual syndrome. Then from the results of the Contingency Coefficient Test, it is known that there is a relationship between the nutritional status of female16-18 years old with the incidence of premenstrual syndrome with a value of sig = 0.000. So it can be concluded that students who have underweight nutritional status have the most premenstrual syndrome and will reduce or disappear by improving nutritional intake in a balanced manner. Meanwhile, those who have normal nutritional status also continue to experience Premenstrual Syndrome because their age 16-18 years old is included in the age category of high risk of developing Premenstrual Syndrome. From the results of the research above, it is expected to be able to develop conceptual insight in providing Health Education to young women so that they do not experience severe premenstrual syndrome.

Keywords

Nutritional status, female 16-18 years old, Premenstrual Syndrome

INTRODUCTION

In adolescent girls, good nutritional status is needed not only to support growth and development, but also to reduce the disturbances that arise as a result of these changes. One of the disorders suffered by adolescent women is Premenstrual Syndrome, because every woman who

menstruates is a candidate for Premenstrual Syndrome (Gnanasambanthan & Datta, 2019). Premenstrual Syndrome is an increase in emotional tension and is a factor that usually starts one week to a few days before the arrival of menstruation and disappears after menstruation comes. Disorders that often occur due to Premenstrual Syndrome in general are: dizziness, back pain that interferes with students in participating in teaching and learning activities in class because they cannot concentrate until they are sometimes treated at the school UKS and also have difficulty sleeping at night so that students tend to be sleepy at school. .

According to research, Premenstrual Syndrome is experienced by 70-90% of the female population, where they experience recurring problems every month. Between 20-40% reported experiencing temporary mental and physical disorders, but between 2-5% felt it as very severe or unbearable (Abdi, Ozgoli, & Rahnemaie, 2019). Based on a preliminary survey that was conducted from October to November in a group of 2nd grade senior high school students in the Sidoarjo area using interview techniques, 20 female adolescents were obtained, 8 of whom (40%) did not have premenstrual syndrome, while 12 other female adolescents (60%) had premenstrual syndrome. From this observation it was found that there are still many women who experience premenstrual syndrome (60%).

According to (Direkvand-Moghadam, Sayehmiri, Delpisheh, & Satar, 2014), the cause of Premenstrual Syndrome is a genetic factor, while according to (Chin & Nambiar, 2017), the cause is unclear but one factor that plays a role is the imbalance between estrogen and progesterone. Also caused by a complicated rigging between hormonal imbalances, stress and malnutrition (Verkaik, Kamperman, van Westrhenen, & Schulte, 2017). If the premenstrual syndrome is ignored, the impact will be complaints that cause a sense of discomfort that interferes with daily activities during the period leading up to menstruation (Verkaik et al., 2017).

Prevention of Premenstrual Syndrome can be done through the right diet, including: limiting the consumption of fat from animal ingredients and fat from fried foods, increasing the consumption of green vegetables, doing exercise and physical activity regularly, avoiding and overcoming stress. Can also supplement their diet with vitamin B6 can relieve the symptoms of Premenstrual Syndrome. One study found that the addition of vitamin B6 taken every day from the tenth day of one cycle to the third day of the next, can effectively treat Premenstrual Syndrome (Chumpalova et al., 2020). To treat Premenstrual Syndrome, doctors usually give diuretic medication to treat fluid retention or edema (swelling) in the feet and hands. Small doses of the hormone progesterone can be given for 8-10 days before menstruation to compensate for the relative excess of estrogen (Takayama et al., 2020).

The purpose of this study was to analyze the relationship between the nutritional status of female16-18 years old with the incidence of premenstrual syndrome.

METHOD

The research design used is an analytical survey research method, namely a survey or research that tries to explore how and why phenomena, both risk factors and effect factors. Meanwhile, according to time, this study uses the "cross sectional" method in which the research design is to study the dynamics of the correlation between risk factors and effects, by means of an observation approach or data collection at one time, meaning that each research subject

is only observed once and measurements are carried out on the status of the character or subject variable at the time of examination (Setia, 2016).

The total population in this study was 50 who were young women aged 16-18 years old in Sooko Village - Mojokerto. While the sampling uses Probability Sampling by means of Simple Random Sampling, that is, each element is selected randomly. The number of samples in this study was 40 respondents who met the criteria. Data obtained from young women who experienced and did not experience Premenstrual Syndrome were processed by frequency tabulation and then analyzed by contingency coefficient test using SPSS.

RESULT

Table 1.1 Tabulation Cross Nutritional Status with Incident *Premenstrual Syndrome* on female16 – 18 years old in the Village Sooko – Mojokerto 10 -16 February 2020.

Nutritional Status	*Premenstrual Syndrome* (quantity)		Amount	Percentage
	Yes	Not		
Thin	9	2	11	27.5%
Normal	20	3	23	57.5%
Fat	4	2	6	15%
Total	33	7	40	100%

Based on the table above show that femaleaged 16-18 years old who have normal nutritional status and experience *Premenstrual Syndrome* as many as 23 respondents or 57.5%.

Table 1.2 Based on positive ranks

Ranks

		N	Mean Rank	Sum of Ranks
Occurrence_Premenstrual_Syndrome - Status_Nutrition_Students	Negative Ranks	26(a)	14.65	381.00
	Positive Ranks	2(b)	12.50	25.00
	Ties	12(c)		
	Total	40		

Table 1.3 Wilcoxon Signed Ranks Test

Test Statistics

	Occurrence_Premenstrual_Syndrome - Status_Nutrition_Students
Z	-4396(a)
asymp . Sig. (2-tailed)	.000

Results calculation with using SPSS Wilcoxon test of relationship between nutritional status female16-18 years old old with incident Acquired *Premenstrual Syndrome* results sig value = 0.000 p this means sig < 0.05 so Ho rejected and H1 accepted which means there is connection between nutritional status with incident *Premenstrual Syndrome* in female16-18 years old in the Village Sooko – Mojokerto

DISCUSSION

Relationship between nutritional status and incidence of premenstrual syndrome

In the opinion of Paath,(Helm, McGinnis, & Basu, 2021) Insufficient or limited nutrition in addition to affecting growth, the function of body organs will also cause disruption of reproductive function. This will have an impact on menstrual disorders, but will improve if the nutritional intake is good." Another opinion from (Yadav & L. Masand, 2018), "A nutritional supplement program for Premenstrual Syndrome can include the addition of a balanced mineral multivitamin.

The results of the cross tabulation showed that 20 female students (50%) had Premenstrual Syndrome with normal nutritional status. While students with underweight nutritional status were 11 students, of which 33 students (82.5%) had Premenstrual Syndrome. Then from the results of the Contingency Coefficient Test, it is known that there is a relationship between the nutritional status of students aged 16-18 years with the incidence of Premenstrual Syndrome with a value of sig = 0.000.

Students who have the most underweight nutritional status experience Premenstrual Syndrome, because lack of nutrition can cause disruption of the reproductive function of adolescent girls. These disorders will be reduced if adolescent girls maintain a good nutritional status, by consuming foods that contain a balanced multivitamin and mineral.

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