Research Article

Relationship status with nutrition and psychological stress on order menstrual cycles for young women

Abstract

The age of the teenager for a female is essential to generation in this period, whereas the function of body's psychologist and physiologist that develop in optimal condition. The transition period from teenager children period to period, both male and female, it could be signed with the change of psychologist and physical that named by puberty. The puberty in female signed by emerge of menstruation. The study wants to know the correlation of nutrient status and stress psychologist with menstruation cycle arrangement. The research method that used with the researcher is Correlation Descriptive. The population in this research is Simple Random Sampling with Proportionate Stratified Random Sampling. The total of the sample is 100 respondents. The research instrument that used is a Scale of weight and for nutrient status variables and used the questionnaire sheet to variable psychologist stress. The technique of the data analysis Univariate and Bivariate used. Data analysis were done by using the chi-square test with each totally P-value of 0.000: 0.001.

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Introduction

Adolescence is a period of transition between childhood and adulthood is a time of physical maturity.[1] Adolescents has special nutritional needs because at that time the case of rapid growth and maturity of physiological changes occur in connection with the onset of puberty. Growth in adolescence will influence the requirements, absorption, as well as how to use nutrients it is accompanied by enlargement of organs and tissues of the body quickly. The hormonal changes that resemble puberty also cause a lot of physiological changes that affect the nutritional needs of adolescents.[2]

Nutritional status affects menstruation mainly through the provision of materials for making more endometrial lining and its influence on female hormone levels. The young women should implement a healthy lifestyle with balanced nutrition and many mengkonsusi vitmin E. One source of vitamin E is that can help balance the body's systems and can help smooth the menstrual cycle.

Irregular menstrual cycle every month; ideally with a vulnerable time between 21-35 days. The normal cycle of physiological, reproductive organs tend to be healthy and not problematic, hormonal system both indicated an egg is produced and the cycle regularly, so that the normal menstrual cycle a woman easily get pregnancy, up routines and calculate the fertile period, menstruation regular woman after reaching the age of 18 years.[4]

Disturbances in the menstrual cycle is influenced by body weight, activity physical, stress, diet, endocrine disorders, a bleeding disorder, exposure environment.[3]

Stress is a response to physiological, psychological and behavioral of humans who try to adapt and organize both internal and external pressures (stressors). Stressors can affect every part of a person's life, causing mental stress, behavior changes, problems in interaction with others and physical complaints one menstrual cycle disorders.[3,4]

Stress is known as the factors that cause (etiology) the disruption of the menstrual cycle. Most women experience some menstrual cycle changes during reproduction. In their influence on the menstrual cycle hormonal system involving partial stress system plays a major role in female reproduction.
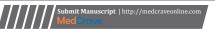
Methods

This type of research used quantitative research with descriptive correlational research plans using cross- sectional analytic method. The study involved 100 respondents. The sampling technique used is the technique *proportionate stratified* random samplingand data analysis using chi-square test. Menggukanan data collection tool weight scales and Stature (height measurement tool) for Nutritional Status variables, and to variable stress using Questionnaire Sheet (Physiology reaction, Reaction Psychological and Spiritual Reaction), Questionnaire of stress and the menstrual cycle is adopted from Maryati.[2]

Results

Table 1 characteristic of Respondents by age that of 100 respondents; Young women aged 17 years and as many as 47 respondents (47, 0%). Young women aged 18 years and as many as 53 respondents (53.0%).

Young women in the know that the weight have a BMI <18.4 (Petite) 36 respondents (36%), from 18.5 to 25.0 (normal) 47 respondents (47%), from 25.0 to 27.0 (obese) 12 respondents (12%), and <27.00

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(Obesity) 5 respondents (5%). Respondents in the know experience mild stress 49 respondents (49%), stress was 48 respondents (48%), and severe stress three respondents (3%)

Table 1 Characteristics of respondents by age

Age	total	Percentage %
17 years	47	47
18 years	53	53
Total	100	100

Respondent's picture

Table 2 respondents in the know experience irregular menstrual cycles 55 respondents (55%), and experienced Irregular menstrual cycles are 45 respondents (45%).

Table 2 Menstrual cycle

Menstrual cycle	total	Percentage%
Regular	55	55
Irregular	45	45
Total	100	100

Table 3 respondents who experienced nutritional status skinny with a regular menstrual cycle regularity as many as 28 young women (77.7%), while respondents who experienced nutritional status skinny with irregular menstrual cycle regularity as much as 8 girls (22.2%). Respondents who experienced a normal nutritional status with regular menstrual cycle regularity as many as 18 young women (38.3%), while respondents who experienced a normal nutritional status with regularity menstruation irregular cycles were 29 girls (61.7%). Respondents who experienced nutritional status of fat with regular menstrual cycle regularity as much as 8 girls (66.7%), while respondents who experienced nutritional status plump with irregular menstrual cycle regularity as many as four young women (33.3%). Respondents, who experienced nutritional status of obesity with regular menstrual cycle regularity 1 in young women (20.0%), while respondents who experienced nutritional status ketraturan obesity with irregular menstrual cycles as much as 4 girls (80.0%). Based on the chi-square test that results are achieved statistical p-value of 0.001 and the value <α (0:05). It is said that Ho refused meaning there is relationship between nutritional status and the regularity of the menstrual cycle in young girls at SMAN 24 Tangerang 2018.

Table 3 Relationship of nutritional status with the regularity of the menstrual cycle in young girls at SMAN 24 Tangerang 2018

Nutritional status	The regularity of the menstrual cycle		Total	P-value
	Regular	Irregular		
Thin	28 77,8%	8 22.2%	36 100.0%	
Normal	18 38.3%	29 61.7%	47 100.0%	0,001
Fat	8 66.7%	4 33.3%	12 100.0%	
obesity	1 20.0%	4 80.0%	5 100.0%	
Total	55 55.0%	45 45.0%	100 100.0%	

Table 4 respondents, who experienced mild stress with regular menstrual cycle regularity as many as 42 young women (85.7%), while respondents who experienced mild stress with irregular regularity menstrual cycles as much as 7 girls (38.2%). Respondents who experienced moderate stress with menstrual cycle regularity as many as 11 young women (22.9%), while respondents who experienced moderate stress with irregular menstrual cycle regularity as many as 37 young women (77.1%), while respondents who experience severe stress with irregular menstrual cycle regularity as much as 2 girls (66.7%), while respondents who experience severe stress with irregular menstrual cycle regularity as much as 1 girls (33.3%). Based on the chi-square test that results are achieved statistical p-value of 0.000 and the value <α(0:05). It is said that Ho refused meaning there is relationship between psychological stresses with the regularity of the menstrual cycle in young girls at SMAN 24 Tangerang 2018.

Table 4 Psychological stress relations with the regularity of cycle's menstruation SMAN 24 Tangerang 2018

stress	Menstrual cycle		Total	p Value
	Regular	Spasmodic		
Light	42 85.7%	7 38.2%	49 100.0%	
moderate	11 22.9%	37 77.1%	48 100.0%	0,000
Weight	2 66.7%	1 33.3%	3 100.0%	
Total	55 55.0%	45 45.0%	100 100.0%	

Discussion

The relationship of nutritional status with the regularity of the menstrual cycle in young girls at SMAN 24 Tangerang district 2018

the results obtained in the nutritional status that can result is that the respondents who experienced nutritional status skinny with a regular menstrual cycle regularity as many as 28 young women (77.7%), while respondents who experienced nutritional status skinny with irregular menstrual cycle regularity as many as eight teenagers daughter (22.2%). Respondents who experienced a normal nutritional status with regular menstrual cycle regularity as many as 18 young women (38.3%), while respondents who experienced a normal nutritional status with regularity menstrual irregular cycles were 29 girls (61.7%). Respondents who experienced nutritional status of fat with regular menstrual cycle regularity as much as 8 girls (66.7%), while respondents who experienced nutritional status plump with irregular menstrual cycle regularity as many as four young women (33.3%).

Based on the test results using a bivariate Pearson Chi-square analysis was obtained statistically significant results that significant value is p=0.001 (0.001<0.05) so that there is a relationship of nutritional status with the regularity of the menstrual cycle in young girls at SMAN 24 Tangerang 2018.

The results of this study are also in accordance with penelirian Felicia Esther Hutagalo, Rina Kundre et al.[5] "Relationship of

Nutritional Status with Menstrual Cycle ON Young Women in PSIK UNSRAT SATURN" with numbered respondents 67 is based on the frequency distribution of the nutritional status of adolescent girls in PSIK FK UNSRAT Manado show that there is a thin nutritional status 9 respondents (33.3%) had irregular periods and 18 respondents (66.7%) had irregular menstruation, normal nutritional status of 23 respondents (79.3%) had irregular menstruation and 6 respondents (20, 7%) had irregular menstruation, and the nutritional status of obese 2 respondents (18.2%) had irregular menstruation and 9 respondents (81.8%) had irregular menstruation. From this result, the majority of Young Women in PSIK UNSRAT SATURN majority experience normal nutritional status and fat with the results of ρ=0.000 <0.05. Nutrition youth as reflected by its diet will determine whether they can reach the youth physical growth will be largely determined by the intake of calories and protein. By consuming enough protein in the body that involves the growth in weight and height can be achieved with either.

According Saputri 2010, in addition to status nutrition and diet, menstrual cycle regularity is also closely related to the hormone - the hormone that triggers menstruation. Based on the comparison of the results of previous studies and concluded that researchers do two researchers have proportional results. Which means that despite having differences in time, place and characteristics of respondents' independent variable nutritional status raised by researchers have a relationship with the dependent variable mensruasi cycle regularity.

Psychological stress relations with the regularity of the menstrual cycle in young girls at SMAN 24 Tangerang 2018

The results of the study respondents who experienced mild stress with regular menstrual cycle regularity as many as 42 young women (85.7%), while respondents who experienced mild stress with irregular regularity menstrual cycles as much as 7 girls (38.2%). Respondents who experienced moderate stress with menstrual cycle regularity as many as 11 young women (22.9%), while respondents who experienced moderate stress with irregular menstrual cycle regularity as many as 37 young women (77.1%), while respondents who experience severe stress with irregular menstrual cycle regularity as much as 2 girls (66.7%), while respondents who experience severe stress with irregular menstrual cycle regularity as much as 1 girls (33.3%).

Based on the test results using a bivariate Pearson Chi-square analysis was obtained statistically significant results that significant value is p = 0.000 (0.000<0.05) Psychological stress that there is a relationship with the regularity of the menstrual cycle in young girls at SMAN 24 Tangerang 2018.

Based on the research results Serly Toduho, et al.[5] "The relationship between stress Psychological with regularity Menstrual Cycle In grader 1 SMAN 3 Tedore islands" with numbered respondents 68 is based on the frequency distribution Stress Psychological on Students Class 1 in SMA 3 Tedore Islands show that there are severe stress with regular menstrual cycle regularity are 0 respondents, while experiencing severe stress with irregular menstrual cycle regularity, there are 4 respondents. While respondents who experienced mild stress there were 12 respondents with regular menstruation, while experiencing a mild stress with irregular menstrual cycle regularity, there are 3 respondents. While respondents who experienced moderate stress there were 14 respondents who have regular menstrual cycle

regularity, while respondents who experience irregular menstrual cycle regularity tedapat 35 respondents. From this result, the majority of female students in Grades 1 SMAN 3 Tedore Islands experienced mild stress and severe stress with the results obtained α=0.05 ρ=0,000 or value ρ<0.05. Stress is a response fisikologis, psychological and behavior of humans who try trying to adapt and organize both internal and external pressures (stressor). Stressors can affect every part of a person's life, causing mental stress, Interchangeability of behavior, troubleshoot problems in interaction with others and Kelihan complaint scales one menstrual cycle disorders. While respondents who experience irregular menstrual cycle regularity tedapat 35 respondents. From this result, the majority of female students in Grades 1 SMAN 3 Tedore Islands experienced mild stress and severe stress with the results obtained α=0.05 ρ=0,000 or value ρ<0.05. Stress is a response fisikologis, psychological and behavior of humans who try trying to adapt and organize both internal and external pressures (stressor). Stressors can affect every part of a person's life, causing mental stress, Interchangeability of behavior, troubleshoot problems in interaction with others and Kelihan complaint scales one menstrual cycle disorders. While respondents who experience irregular menstrual cycle regularity tedapat 35 respondents. From this result, the majority of female students in Grades 1 SMAN 3 Tedore Islands experienced mild stress and severe stress with the results obtained α=0.05 ρ=0,000 or value ρ<0.05. Stress is a response fisikologis, psychological and behavior of humans who try trying to adapt and organize both internal and external pressures (stressor). Stressors can affect every part of a person's life, causing mental stress, Interchangeability of behavior, troubleshoot problems in interaction with others and Kelihan complaint scales one menstrual cycle disorders. From this result, the majority of female students in Grades 1 SMAN 3 Tedore Islands experienced mild stress and severe stress with the results obtained α=0.05 ρ=0,000 or value ρ<0.05. Stress is a response fisikologis, psychological and behavior of humans who try trying to adapt and organize both internal and external pressures (stressor). Stressors can affect every part of a person's life, causing mental stress, Interchangeability of behavior, troubleshoot problems in interaction with others and Kelihan complaint scales one menstrual cycle disorders. From this result, the majority of female students in Grades 1 SMAN 3 Tedore Islands experienced mild stress and severe stress with the results obtained α=0.05 ρ=0,000 or value ρ<0.05. Stress is a response fisikologis, psychological and behavior of humans who try trying to adapt and organize both internal and external pressures (stressor). Stressors can affect every part of a person's life, causing mental stress, Interchangeability of behavior, troubleshoot problems in interaction with others and Kelihan complaint scales one menstrual cycle disorders. Psychological and behavior of humans who try trying to adapt and organize both internal and external pressures (stressor). Stressors can affect every part of a person's life, causing mental stress, Interchangeability of behavior, troubleshoot problems in interaction with others and Kelihan complaint scales one menstrual cycle disorders. Psychological and behavior of humans who try trying to adapt and organize both internal and external pressures (stressor). stressors can affect every part of a person's life, causing mental stress, Interchangeability of behavior, troubleshoot problems in interaction with others and Kelihan complaint scales one menstrual cycle disorders. [6–10]

Based on the comparison of the results of previous studies and concluded that researchers do two researchers have proportional results. Which means that despite having differences in time, place

and characteristics of respondents stress the independent variable raised by researchers have a relationship with the dependent variable menstrual cycle regularity.[11–29]

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Conflicts of interest

The authors declare that there is no conflict of interest.

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