



## Correlation Between Dysmenorrhea and Learning Activities of Prima Indonesian Medical Faculty Students in 2018/2019

Jesica Vania Christin<sup>1</sup>, Juliana Lina<sup>2</sup>, Yeni Puspawani<sup>3</sup>

<sup>1</sup>Pendidikan Dokter, Fakultas Kedokteran, Universitas Prima Indonesia, Kota Medan

<sup>2</sup>Pendidikan Dokter, Fakultas Kedokteran, Universitas Prima Indonesia, Kota Medan

<sup>3</sup>Pendidikan Dokter, Fakultas Kedokteran, Universitas Prima Indonesia, Kota Medan

Jessicavania0712@gmail.com

### ABSTRAK

Masa remaja merupakan masa peralihan dari masa remaja ke masa dewasa. Pada wanita, tanda pubertas adalah terjadinya haid atau haid. Tujuan dari penelitian ini adalah untuk mengetahui apakah ada hubungan antara dismenore dengan aktivitas belajar mahasiswa kedokteran Prima Indonesia tahun ajaran 2018/2019. Penelitian ini menggunakan teknik analisis deskriptif dan metode penelitian "cross sectional". Dapat dilihat bahwa distribusi frekuensi dismenorea dengan responden sebanyak 135 responden dan didominasi oleh terbanyak adalah sedang dengan jumlah 98 orang (72,6.0%), dan untuk terendah berat sebanyak 0 orang (0.0%) sedangkan yang menjawab ringan sebanyak 37 orang (27.4%). Sementara frekuensi aktifitas belajar dengan responden sebanyak 135 responden dan didominasi oleh terbanyak adalah sedang dengan jumlah 89 orang (65,9.0%), dan untuk terendah sangat terganggu sebanyak 0 orang (0.0%) sedangkan yang terganggu sebanyak 46 orang (34.1%). Dari hasil uji Pearson Chi Square antara variabel tingkat aktivitas dengan kejadian dismenore didapatkan p-value = 0,008. Karena  $p = 0,008 < 0,05 (\alpha)$ , maka dapat disimpulkan bahwa  $H_0$  ditolak dan  $H_a$  tidak diterima yang berarti terdapat hubungan yang signifikan antara tingkat aktivitas dengan kejadian dismenore.

Kata Kunci : Aktifitas belajar, dismenorea, pubertas.

### ABSTRACT

*Adolescence is a period of transition from adolescence to adulthood. In women, the sign of puberty is the occurrence of menstruation or menstruation. The purpose of this study was to determine whether there was a relationship between dysmenorrhea and the learning activities of Prima Indonesia medical students in the 2018/2019 academic year. This study uses descriptive analysis techniques and "cross-sectional" research methods. It can be seen that the distribution of dysmenorrhea frequency with respondents as many as 135 respondents and dominated by the most is moderate with the number of 98 people (72.6.0%), and for the lowest weight as many as 0 people (0.0%) while those who answer lightly as many as 37 people (27.4%). While the frequency of learning activities with respondents as many as 135 respondents and dominated by the most is moderate with the number of 89 people (65.9.0%), and for the lowest is very disturbed as many as 0 people (0.0%) while the concerned as many as 46 people (34.1%). From the results of the Pearson Chi-Square test between the activity level variable and the incidence of dysmenorrhea, it was found that  $p\text{-value} = 0.008$ . Because  $p = 0.008 < 0.05 (\alpha)$ , it can be concluded that  $H_0$  is rejected and  $H_a$  is not accepted, which means that there is a significant relationship between the level of activity and the incidence of dysmenorrhea.*

**Keywords:** Dysmenorrhea, learning activities, puberty.

## PENDAHULUAN

Adolescence is the period between adolescence and adulthood, between the ages of 11 and 20. Individuals mature physically, psychologically, spiritually, emotionally, and socially during this transitional period. Adolescence is marked by the emergence of primary sex characteristics; it's influenced by the start of reproductive glands [1].

Physiologically, menstruation occurs due to decreased levels of the hormones estrogen and progesterone in the blood resulting in the release of a uterine prostaglandin which causes vasoconstriction of endometrial blood vessels and inhibits blood flow to the endometrium.

According to data from the American Congress of Obstetricians And Gynecologists (2016), more than 50% of women experience menstrual pain every month. There are 90% of women in Indonesia have experienced dysmenorrhea.

## METODE

### Population

The population for this study was students at Indonesia's Prima University School of Medicine. The population for this study is students enrolled in the 2018/2019 academic year at Prima University School of Medicine in Indonesia. Based on the data obtained, there are 135 female students.

### Sample

The sampled population is the subject of the study and meets the inclusion and exclusion criteria. The author employs a technique known as total sampling in this study.

The inclusion and exclusion criteria in this study are as follows: Prima Indonesia medical faculty students for the 2018/2019 academic year, totaling 135 people,

Menstruating students, students who are currently or have experienced dysmenorrhea, willing to fill out a questionnaire were the inclusion criteria and for exclusion criteria were Students who share other health problems at the time of the study, students who were not present at the time of the study, did not fill out the questionnaire completely, not willing to participate in research.

### Methods

The data for this study came from an original questionnaire survey of students at the University of Prima Medical School in Indonesia during the 2018 and 2019 academic years.

### Variables

The variables are classified into two categories: independent variables (dysmenorrhea) and dependent variables (dysmenorrhea) (learning activities).

## HASIL

### Univariate Analysis

Conduct univariate analysis on each variable and present the findings as a frequency distribution table to determine the distribution and percentage of each research variable...

#### 1. Age

Based on table 1, it can be seen that the age frequency distribution with the respondents as many as 135 respondents and dominated by the most are those aged 20 years with a total of 79 people (58.5%) and for >20 years as many as 56 people (41.5%).

**Table 1.** Distribution by Age

Age	P	%
≤20 years	79	58,5
>20 years	56	41,5
<b>Total</b>	135	100

#### 2. Religion

According to Table 2, the frequency distribution of religion among 135 respondents is dominated by Islam, with 45 respondents (33.3 percent), and Hinduism, with 21 respondents (15.6 percent).

**Table 2.** Distribution by Religion

Religion	P	%
Moslem	45	33,3
Christian	32	23,7
Catholic	28	20,7
Hindi	9	6,7
Buddhist	21	15,6
<b>Total</b>	<b>135</b>	<b>100</b>

### 3. Ethnicity

Based on table 3, it can be seen that the tribal frequency distribution with 135 respondents and dominated by the most is the Batak tribe with a total of 58 people (43.0%), and for the lowest, India as many as four people (3.0%).

**Table 3.** Distribution by Ethnicity

Religion	P	%
Javanese	6	4,4
Baraknese	58	43
Nias	6	4,4
Malay	14	10,4
Chinese	47	34,8
India	4	3
<b>Total</b>	<b>135</b>	<b>100</b>

### 4. Dysmenorrhea and Learning Activities

Based on table 4, it can be seen that the frequency distribution of dysmenorrhea with 135 respondents and dominated by the most is moderate with a total of 98 people (72.6.0%), and for the lowest severe as many as 0 people (0.0%) while those who answered lightly were 37 people. (27.4%). While the frequency of learning activities with 135 respondents and dominated by the most is moderate with a total of 89 people (65.9.0%), and the lowest is very disturbed as many as 0 people (0.0%) while those who are disturbed are 46 people (34.1%)

**Table 4.** Distribution by Dysmenorrhea and Learning Activities

Variable	P	%
<b>Dysmenor</b>		
<b>rhea</b>		
Light	37	27,4
Medium	98	72,6
Severe	0	0
<b>Learning</b>		
<b>Activities</b>		
Rarely	89	65,9
Disturbed	46	34,1
Disturbed	0	0
Very		
Disturbed		
Nias	6	4,4
Malay	14	10,4
Chinese	47	34,8
India	4	3
<b>Total</b>	<b>135</b>	<b>100</b>

### Bivariate Analysis

The goal of a bivariate analysis is to establish a link between two independent variables. Where before testing, each test is categorized to make it easier for the hypothesis testing process later. They were testing the hypothesis of this study using the chi-square test. The requirements for the Chi-Square test are cells that have an expended value of less than 5, a maximum of 20% of the total number of cells. If these conditions are not met, then the alternative test used is Fisher's test and correlation test. From the somers'd correlation test results, it was found that  $p = 0.008$  and  $r = -0.126$ ; based on the p-value, it can be concluded that dysmenorrhea and learning activities have a statistically significant relationship.

Disminorea	Aktifitas Belajar	Total
P	R	
Tidak terganggu	Terganggu	
n	n	n
%	%	%

Ringan	21	56,8	16	43,2	37
	100	0,008	-0,126		
Sedang	68	69,4	30	30,6	98
	100				
Total	89	65,9	46	34,1	135
	100		89		

### PEMBAHASAN

#### Correlation Between Dysmenorrhea and Age

It can be seen that the age frequency distribution with respondents as many as 135 respondents and dominated by the most are those aged 20 years with a total of 79 people (58.5%) and for >20 years as many as 56 people (41.5%).

This study is following the sample; the number of respondents aged under 20 years and over 20 years is almost the same but in a larger percentage of respondents aged over 20 years, namely 59.3% (Hironima N et al., 2020). Another study stated that from 117 respondents, 61 people aged 17 years with a percentage of 53%, and 56 people aged 16 years with 47% [2].

As already stated, primary dysmenorrhea is a normal process experienced during menstruation. Primary menstrual cramps are caused by intense uterine muscle contractions, which are meant to shed the uterus lining that is no longer needed. Primary dysmenorrhea is caused by natural chemicals produced by the cells lining the uterus lining called prostaglandins. Secondary dysmenorrhea is generally caused by abnormalities or disorders of the reproductive system, such as uterine fibroids, pelvic inflammation, endometriosis, or ectopic pregnancy. Secondary dysmenorrhea is usually caused by abnormalities or diseases of the reproductive system, such as uterine fibroids, pelvic inflammation, endometriosis, or ectopic pregnancy. Secondary dysmenorrhea can be overcome only by treating or treating the disease or disorder that causes it [3].

#### Correlation Between Ethnicity and Dysmenorrhea

It can be seen that the tribal frequency distribution with 135 respondents and dominated by the most is the Batak ethnic group with a total of 58 people (43.0%), and the lowest in India as many as four people (3.0%).

According to another study, according to ethnicity, 11 people (35.5%) are Batak, seven respondents (22.6%) are Javanese, seven people (20.1%) are Malay, eight people (21.8%) are Javanese tribe, and others.

#### Correlation Between Learning Activities and Dysmenorrhea

It can be seen that the distribution of the frequency of dysmenorrhea with 135 respondents and dominated by the most is moderate with a total of 98 people (72.6.0%), and for the lowest severe as many as 0 people (0.0%) while those who answered lightly were 37 people (27.4%). While the frequency of learning activities with 135 respondents and dominated by the most is moderate with a total of 89 people (65.9.0%), and the lowest is very disturbed as many as 0 people (0.0%) while those who are concerned are 46 people (34.1%).

There is a significant correlation between exercise habits and the incidence of dysmenorrhea, according to the results of the chi-square test. Ramadhani's 2014 study found a significant correlation between exercise habits and dysmenorrhea incidence based on the chi-square test ( $p$ -value = 0.00001), consistent with this finding. [4].

The results of this study indicate that female students who experience moderate and severe dysmenorrhea feel that their learning activities are disrupted and affect their achievement on campus [5]. Effective learning is defined as learning that enables self-study or independent activities. The classroom learning process is an activity that transforms students'

knowledge, attitudes, and abilities. Activities are critical tenets or principles governing the interaction of teaching and learning. When students are engaged in learning, they are able to provide feedback to the teacher. Demonstrate that learning activities are both physical and mental.

### KESIMPULAN

1. It can be seen that the age frequency distribution with 135 respondents and dominated by the most is 20 years old with a total of 79 people (58.5%) and for >20 years as many as 56 people (41.5%).

2. It can be seen that the distribution of the frequency of religion with 135 respondents and dominated by the most is Islam with 45 people (33.3%) and for Hindus as many as 21 people (15.6%).

3. It can be seen that the tribal frequency distribution with 135 respondents and dominated by the most is the Batak ethnic group with a total of 58 people (43.0%), and for the lowest, India as many as four people (3.0%).

4. It can be seen that the distribution of the frequency of dysmenorrhea with 135 respondents and dominated by the most is moderate with a total of 98 people (72.6.0%), and for the lowest severe as many as 0 people (0.0%) while those who answered lightly were 37 people (27.4 %). While the frequency of learning activities with 135 respondents and dominated by the most is moderate with a total of 89 people (65.9.0%), and the lowest is very disturbed as many as 0 people (0.0%) while those who are concerned are 46 people (34.1%).

5. From the results of the Pearson Chi-Square test between the activity level variable and the incidence of dysmenorrhea, the  $p$ -value = 0.008.

A significant correlation between activity level and dysmenorrhea incidence was found with a significance level of 0.08 0.05 ( $p = 0.008$ ), so  $H_0$  was rejected, and  $H_a$  was rejected.

### SARAN

1. Researchers suggest that respondents develop more knowledge about activity management due to the tight educational schedule, and the material being studied is comprehensive and applicable.

2. All students maintain their health to minimize the incidence of dysmenorrhea by maintaining a regular diet, balanced diet and nutrition, adequate rest, exercise, and adequate relaxation.

3. Further researchers can conduct similar research with a more extensive sample and further investigate the relationship between dysmenorrhea and student learning activities.

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