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Factors Associated with the Incidence of Dysmenorrhea in Young Women at Ibnu Taimiyah Vocational School 2020

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Abstract - The incidence of primary dysmenorrhea can affect the quality of life, productivity and utilization of health services during the reproductive period of women. The incidence of primary dysmenorrhea also interferes with the daily activities of some adolescents because of the pain they feel (Sakinah, 2016). Cramps due to strong menstruation can cause endometriosis (growth of uterine tissue outside the uterus that causes pain), complaints of dysmenorrhea should always be taken seriously and efforts must be made to reduce its incidence (Corwin, 2009). One of the government's efforts to address adolescent problems is the establishment of the Youth Care Health Service Program (PKPR) (Depkes, 2009). As for the variables which are risk factors for menarche, exercise habits, menstrual length and family history.
Keywords : Dysmenorrhea Factors, Young Women

1. Introduction

Primary dysmenorrhea is abdominal pain that comes from uterine cramps and occurs during menstruation without any obvious abnormalities in the genital organs and usually occurs about 2-3 years after menarche. Symptoms can include pain in the lower abdomen, which can spread to the lower back and legs (Sukarni, 2013). The incidence of dysmenorrhea in the world is quite large, more than 50% of women in every country experience dysmenorrhea. In Indonesia, it is estimated that 55% of women of reproductive age experience dysmenorrhea (Proverawati and Misaroh 2009 in Gustina 2015).

The causes of primary dysmenorrhea can vary, namely exercise factors, age of menarche, length of menstruation. Apart from these factors, Maryam (2016) states that a family history of experiencing dysmenorrhea is also one of the most influencing factors for primary dysmenorrhea. One of the effective ways to prevent dysmenorrhoea is by doing exercise. Some physical exercises can increase the blood supply to the reproductive organs, thereby improving blood circulation. Exercise is a relaxation technique that can be used to reduce dysmenorrhoea. This is because when doing sports the body will produce endorphins. Endorphins are produced in the brain and spinal cord. This hormone can function as a natural sedative, causing a feeling of comfort (Harry, 2007).

After researchers conducted a preliminary study at SMK IBNU TAIMIYAH, it was found that 15 out of 20 respondents experienced dysmenorrhea. Based on the study, it was found that 7 respondents had menarche at a faster age, 5 respondents had abnormal menstrual periods, 3 respondents had more weight, and almost all respondents did not have sports habits and did not know any family history of dysmenorrhea. Based on the background of the study, the researcher was interested in conducting research on the factors associated with the incidence of primary dysmenorrhea at SMK Ibnu Taimiyah Pekanbaru.

2. Method

The type of research used in this research is correlation analytic with cross sectional design, which is a study in which variables including risk factors and effect factor variables are observed at the same time

(Notoatmodjo 2010). As for the variables which are risk factors for menarche, exercise habits, menstrual length and family history. And the effect factor isthe incidence of dysmenorrhea.

3. Result and Discussion

a. Univariate Analysis

Table 1.

Frequency Distribution of Respondents in the Incidence of Dysmenorrhoea in Young Women at SMK Ibnu Taimiyah Pekanbaru in 2020

No.	Category	total	%
1.	Menarche's age		
	1. Early	75	67.6
	2. Normal	36	32.4
2.	Sports Habits		
	1. Rarely	77	64.4
	2. Often	34	30.6
3.	Length of Menstruation	22	19.8
	1. Normal	89	80.2
	2. Abnormal		
4.	Family History		
	1. There is	68	61.3
	2. Nothing	43	38.7
	Total	**111**	**100**

Based on table 1, it is known that the majority of respondents with early menarche age were 75 people (67.6%), respondents who had rare exercise habits were 77 people (69.4%), respondents who had abnormal menstrual periods were 89 people (80.2 %), respondents with a family history were 68 people (61.3%).

b. Bivariate Analysis

Table 2.

The Relationship between Age of Menarche and the Incidence of Dysmenorrhea in Young Women at SMK Ibnu Taimiyah Pekanbaru The year 2020

Menarche's age	Dysmenorrhoea incidence				Total		P Value	OR (95%) CI
	Yes		Not					
	N	%	N	%	N	%		
Early	56	74.7	19	25.3	75	100		
Normal	17	47.2	19	52.8	36	100	0.005	3,294
Total	**73**	**65.8**	**38**	**34.2**	**111**	**100**		

From table 2 it can be seen that of the 75 respondents who were at the age of early menarche with the incidence of dysmenorrhoea were 56 respondents (74.7%), while of the 36 respondents with normal menarche age with the incidence of dysmenorrhoea were 17 respondents (47.2%). The results of the statistical test showed that the Pvalue value was 0.005 smaller thanα = 0.05, which means that there is a significant relationship between the age of early menarche and the incidence of dysmenorrhoea.

Table 3.
The Relationship between Sports Habits and the Incidence of Dysmenorrhea in Young Women at SMK Ibnu Taimiyah Pekanbaru The year 2020

Exercise Habits	Dysmenorrhoea incidence				Total		P Value	OR (95%) CI
	Yes		Not					
	N	%	N	%	N	%		
Rarely	58	75.3	19	24.7	77	100		
Often	15	44.1	19	55.9	34	100	0.002	3,867
Total	**73**	**65.8**	**38**	**34.2**	**111**	**100**		

From table 3 it can be seen that of the 77 respondents whose exercise habits rarely experience dysmenorrhoea as many as 58 respondents (75.3%), while of the 34 respondents who have frequent exercise habits who experience dysmenorrhea as many as 15 respondents (44.1%). The results of the statistical test showed that the Pvalue value was 0.002 smaller thanα = 0.05, which means that there is a significant relationship between exercise habits and the incidence of dysmenorrhoea

Table 4
The Old Relationship between Menstruation and the Incidence of Dysmenorrhea in Young Women at SMK Ibnu Taimiyah Pekanbaru The year 2020

Length of Menstruation	Dysmenorrhoea incidence				Total		P Value	OR (95%) CI
	Yes		Not					
	N	%	N	%	N	%		
Normal	20	90.9	2	9,1	22	100		
Abnormal	53	59.6	36	40.4	89	100	0.003	6,792
Total	**73**	**65.8**	**38**	**34.2**	**111**	**100**		

From table 4 it can be seen that of the 22 respondents with normal menstrual periods who experienced dysmenorrhoea as many as 20 respondents (90.9%), while 89 respondents with abnormal menstrual lengths who experienced dysmenorrhoea were 53 respondents (59.6%).

Table 5
Relationship between family history and the incidence of dysmenorrhoea in young women at SMK Ibnu Taimiyah Pekanbaru The year 2020

Family History	Dysmenorrhoea incidence				Total		P Value	OR (95%) CI
	Yes		Not					
	N	%	N	%	N	%		
There is	52	76.5	16	23.5	68	100		
Nothing	21	48.8	22	51.2	43	100	0.003	3,405
Total	**73**	**65.8**	**38**	**34.2**	**111**	**100**		

From table 5 it can be seen that of the 68 respondents with a family history of dysmenorrhoea as many as 52 respondents (76.5%), while 43 respondents with no family history had dysmenorrhoea as many as 21 respondents (48.8%).

3.1 Discussion

a. **Univariate Analysis**

From the research conducted, it is known that most of the respondents with early menarche age were 75 people (67.6%), respondents with infrequent exercise habits were 77 people (64.4%), respondents with abnormal menstrual periods were 22 people (19 , 8%), and respondents had a family history of 68 people (61.3%).

b. Biavariate Analysis

1) **The Relationship between Menarche Age and the Incidence of Dysmenorrhea in Young Women at SMK Ibnu Taimiyah Pekanbaru**

   The results of the statistical test showed that the Pvalue value was 0.005 smaller than α = 0.05, which means that there is a significant relationship between the age of early menarche and the incidence of dysmenorrhoea. The analysis of the closeness of the relationship between the two variables shows that the Odss Ratio (OR) value = 3.294 (95% CI: 1,428 - 7,600), which means that respondents are menarche age. Early childhood adolescent girls have three times the risk of experiencing dysmenorrhoea compared to respondents with normal menarche age. The results of this study are in line with the opinion of Dina (2011), which states that menarche age is at risk of experiencing dysmenorrhoea.

2) **Relationship between sports habits and the incidence of dysmenorrhoea in young women at SMK Ibnu Taimiyah Pekanbaru**

   Based on the data obtained from the study, it is known that Pvalue is 0.002 with a significant level of 0.05. This indicates that 0.002 <0.05, this condition indicates that there is an influence between parental education and sex education for adolescents at SMK IBNU TAIMIYAH Pekanbaru. This is supported by the fact that the majority of respondents with higher education with good sex education in adolescents are 58 people (75.3%).

3) **The Old Relationship between Menstruation and the Incidence of Dysmenorrhea in Young Women at SMK Ibnu Taimiyah Pekanbaru**

   The results of the statistical test showed that the Pvalue value was 0.003 smaller than α = 0.05, which means that there is a significant relationship between menstrual duration and the incidence of dysmenorrhoea. Analysis of the closeness of the relationship between the two variables obtained the value of Odss Ratio (OR) = 6.792 (95% CI: 1.495 - 30.869), which means that respondents with an abnormal menstrual duration had a 7 times risk of experiencing dysmenorrhoea compared to respondents with normal menstrual periods.

4) **The Relationship between Family History and the Incidence of Dysmenorrhea in Young Girls at Ibnu Taimiyah Vocational School Pekanbaru.**

   The results of the statistical test showed that the Pvalue value was 0.003 smaller than α = 0.05, which means that there is a family history of dysmenorrhoea. Analysis of the closeness of the relationship between the two variables obtained the value of Odss Ratio (OR) = 3.405 (95% CI: 1,500-7,726), which means that respondents with a family history are at 3 times risk of experiencing dysmenorrhoea compared with no family history.

4. Conclusion

Based on the results of the research and discussion that the researcher has described in the previous chapter, the researcher will make conclusions and suggestions which are described as follows

a. There is a relationship between the age of menarche and the incidence of menstruation at SMK Ibnu Taimiyah Pekanbaru in 2020 with the result of Pvalue = 0.005 <0.05.
b. There is a Relationship between Menarche Exercise Habits and Menstruation Incidence at SMK Ibnu Taimiyah Pekanbaru in 2020 with the result of Pvalue = 0.002 <0.05.
c. There is a relationship between the duration of menstruation and the incidence of menstruation at SMK Ibnu Taimiyah Pekanbaru in 2020 with the result of Pvalue = 0.003 <0.05.
d. There is a relationship between family history and menstruation at SMK Ibnu Taimiyah Pekanbaru in 2020 with the result of Pvalue = 0.003 <0.05.

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