



# THE PATTERN OF LIVING HABITS OF YOUNG WOMEN TOWARDS THE INCIDENCE OF PRIMARY DYSMENORRHEA IN THE CITY OF BENGKULU

Nur Annisa Muslimah<sup>1\*</sup>, Mariati<sup>1</sup>, Lela Hartini<sup>1</sup>, Yuniarti<sup>1</sup>

*1Midwifery Department, Health Polytechnic Ministry of Health Bengkulu, Indonesia, Jl. Indragiri 3, 38224*

*\*nurannislamuslimah40@gmail.com*

## Abstract

According to the World Health Organization (WHO), 1,769,425 people (90%) were found to suffer from dysmenorrhea (WHO, 2019). In Indonesia, the prevalence of primary dysmenorrhea reaches 54.89% (Pangestu, 2020). In Bengkulu, the prevalence of Dysmenorrhea is 82% (Ministry of Education and Culture of Bengkulu City, 2022). The design used in this research is observational analytic with a cross sectional approach. The population in this study were 7th grade students at SMPN 02 Bengkulu City, totaling 186 students, the largest number of female students compared to other junior high schools. Samples were taken using total sampling for all 7th grade students who experienced dysmenorrhea, and for the rest using random sampling with clusters. This research method uses the Chi-square test and Logistic Regression. The results of the Chi-square test showed that the p-value of knowledge with primary dysmenorrhea was  $0.000 < 0.05$ , meaning there was a relationship between knowledge and primary dysmenorrhea, fast food consumption with primary dysmenorrhea  $0.000 < 0.05$ , meaning there was a relationship between fast food consumption and the incidence of primary dysmenorrhea, and exercise habits and the incidence of primary dysmenorrhea  $0.000 < 0.05$  means there is a relationship between the incidence of primary dysmenorrhea. The results of multivariate analysis show that the factor that most influences the incidence of dysmenorrhea is consumption of fast food with a value of  $p = 0.000$ ; OR: 9.518 (2.972-30.486) meaning that fast food consumption has an influence of 9 times on the incidence of primary dysmenorrhea.

**Keywords:** Fast Food, Exercise Habits, and Dysmenorrhea

## INTRODUCTION

According to the World Health Organization (WHO), 1,769,425 people (90%) were found to suffer from dysmenorrhea. This is supported by research that has been conducted in various countries, where the prevalence of primary dysmenorrhea in each country is believed to be more than 50% (Wahtini, Hidayah, & Wahyuntari, 2021). In Indonesia, the prevalence of dysmenorrhea is 54.89% of primary dysmenorrhea (Pangestu & Fatmarizka, 2022). In Bengkulu, the prevalence of primary dysmenorrhea is 82% (Kemendikbud, 2022).

Dysmenorrhea is pain in the pelvic area due to menstruation and prostaglandin production (Atikah Proverawati and Siti Misaroh, 2022). Dysmenorrhea is a complaint that women often experience in the lower abdomen (Nur Najmi Laila, 2022). Primary dysmenorrhea is pain during menstruation without any abnormalities in the reproductive organs (Atikah Proverawati and Siti Misaroh, 2022).

The impact of primary dysmenorrhoea on teenagers (Pangestu & Fatmarizka, 2022) includes pain felt in the stomach and back which causes discomfort so that learning activities at school are disrupted by 88.8% and 60-85% in teenagers, resulting in many absences. at school and office. Research (Dhilon, 2021) shows that the impact of primary dysmenorrhea is that 76.6% of female students do not go to school because of menstrual pain and 6% of students experience a decrease in academic achievement.

This study aims to determine the relationship between knowledge, fast food and exercise with the incidence of dysmenorrhea. Based on the background above, researchers are interested in conducting research with the title "Factors Associated with the Incident of Primary Dysmenorrhea in Adolescent Girls in Bengkulu City"

**METHOD**

The design used in this research was analytical observational with a cross sectional approach, the population in this research were students at SMPN 02 Kota Bengkulu Class 7, totaling 186 students, with a 1:1 sample of 74 people taken from 37 students who experienced dysmenorrhea. using total sampling and the remaining students who did not experience dysmenorrhea were taken using the Lemeshow formula with random sampling technique for each class in the cluster then taken using the lottery method and data analysis using Chi-square. Ethical Clearance No. KEPK.BKL/318/05/2023

**RESULTS AND DISCUSSION**

Table 1 Description of the frequency of primary dysmenorrhea, knowledge, fast food and exercise among young women in Bengkulu City

No	Variable	Frequency (F) N = 74	Percentage (%)
1	Dismenorhoe		
	No	37	50.0
	Of	37	50.0
2	Knowledge		
	Good	23	31.1
	Enough	21	28.4
	Less	30	40.5

3	Fast Food Consumption		
	Seldom	17	23.0
	Often	57	77.0
4	Exercise Habits		
	Often	33	44.6
	Seldom	41	55.4

Based on table 1, it is known that of the 74 young women who experienced dysmenorrhea, it was found that some young women experienced primary dysmenorrhoea (50%), most had little knowledge (40.5%), most respondents often consumed fast food. food (77.0%) and more than half of respondents rarely exercise (55.4%).

Table 2 Relationship between Knowledge, Fast Food Consumption and Sports Habits among Young Women in Bengkulu City

Variable	Dismenorhoe				Total		Double Day
	No		Of		F	%	
	F	%	F	%			
<b>Knowledge</b>							
Good	22	29.7	1	1.4	23	31.1	0,000
Enough	8	10.8	13	17.6	21	28.4	
Not enough	7	9.5	23	31.1	30	40.5	
<b>Total</b>	37	50.0	37	50.0	74	100	
<b>Fast Food Consumption</b>							
Seldom	15	20.3	2	2.7	17	23.0	0,001
Often	22	29.7	35	47.3	57	77.0	
<b>Total</b>	37	50.0	37	50.0	74	100	
<b>Exercise Habits</b>							
Often	25	16.2	8	10.8	33	44,6	0,00
Seldom	12	33.8	29	39.2	41	65,4	
<b>Total</b>	37	50.0	37	50.0	74	100	

From table 2 it is known that the 23 respondents who had good knowledge did not experience primary dysmenorrhoea (29.7%) and the 30 respondents who had less knowledge (31.1%) most experienced primary dysmenorrhea. The statistical results of the chi-square test have a p-value of  $0.000 < 0.05$ , less than 0.05, meaning there is a relationship between knowledge and primary dysmenorrhea.

The research results showed that 57 respondents who often consumed fast food (47.3%) experienced primary dysmenorrhea. From statistical test analysis, it was obtained that Chi-square p-value =  $0.001 < 0.05$ , meaning there is a relationship between fast food consumption and primary dysmenorrhea. The results showed that 41 respondents who rarely exercised (39.2%) experienced primary dysmenorrhea. From the chi-square statistical test analysis, it was obtained that the p-value

was  $0.000 < 0.05$ , meaning that there was a relationship between exercise habits and primary dysmenorrhea.

Table 3 Logistic Regression Analysis with the Biggest Influence on the Incidence of Primary Dysmenorrhea in Adolescent Girls in Bengkulu City

Variable	P-Value	Exp (B)	95% CI	
			Lower	Upper
Knowledge	0,000	5.984	2.293	15.613
Consume cupboard foods	0,050	7.152	0,998	51.263
Exercise Habits	0,001	13.634	3.016	61.621

Based on table 3, the results of multivariate analysis show that the factor that has the most influence on the incidence of primary dysmenorrhea is sports consumption habits with a value of  $p = 0.001$ ; OR: 13.634 (3.016-61.621) meaning that exercise habits have an influence of 13 times on the incidence of primary dysmenorrhea.

The results of this research analysis show that there is a relationship between knowledge, fast food consumption and exercise habits and the incidence of primary dysmenorrhea in respondents. The higher a person's knowledge about Dysmenorrhea, the better they will understand the causes of Dysmenorrhea so they are able to adapt to the pain. The lower a person's knowledge about Dysmenorrhea causes a person's behavior to ignore their health, feelings of anxiety and worry which can cause psychological pressure so that Dysmenorrhea easily arises (Simanjuntak, 2008) and results in a decrease in the pain threshold which ultimately causes Dysmenorrhea in young women. making menstrual pain worse (Siti Rohmatul Laily, 2017). The results of this research are in line with Rohma's (2016) research, there is a significant relationship between knowledge and the incidence of dysmenorrhea.

The results of this study also show that the habit of consuming fast food is related to the occurrence of dysmenorrhea. Fast food contains trans fatty acids which are free radicals that can damage cell membranes, several cell membrane components, one of which is phospholipids which function to provide arachidonic acid which will be synthesized into prostaglandins (Zahra Amany, Ampera, Emilia, & Mutiara, 2022). Prostaglandins function to help the uterus contract and expel the lining of the uterus during menstruation. In women who experience menstrual pain or dysmenorrhea, a buildup of prostaglandins causes dysmenorrhea. This is in line with research conducted by Ismalia

(2017) and research by Indahwati (2017) showing that there is a significant relationship between the habit of consuming fast food and primary dysmenorrhea.

The results of this analysis also show that exercise has a significant relationship with the incidence of dysmenorrhea. Sport is an activity that is easy to do but many people ignore it, even though sport is a source of health for the whole body (Fajryati, 2012). Physical activity or exercise is carrying out body movements that cause energy expenditure which is very important for maintaining physical and spiritual health and maintaining the quality of life so that you stay healthy and fit throughout the day (Fajaryati, 2012). The results of this study are in line with Nofrita's research (2021) and Ismalia's research (2017), showing that there is a significant relationship between exercise habits and the incidence of primary dysmenorrhea.

The results of the Logistic Regression analysis show that of the three factors (Knowledge, fast food consumption and exercise habits) which are related to Dysmenorrhea, the factor that most influences the incidence of Dysmenorrhea is Exercise habits with a value of  $p = 0.001$ ; OR: 13.634 (3.016-61.621) meaning that exercise habits have an influence of 13 times on the incidence of primary dysmenorrhea.

This happens because exercise is a physical activity carried out by a person so that energy expenditure is very important for maintaining physical and mental health and can maintain a healthy and fit quality of life throughout the day (Fajaryati, 2012). On the other hand, lack of exercise can cause a decrease in blood and oxygen circulation. . In the body, it can cause the uterus to receive less blood flow and oxygen circulation, which can cause pain (Medicastore, 2014). Women who regularly exercise at least 30-60 minutes 3-5 times per week can prevent primary dysmenorrhea. Every woman only needs to do a leisurely walk, light jogging, swimming, gymnastics or cycling according to their individual conditions (Manuba, 2010).

The results of this research are in line with research by Nofrita (2021) which shows that there is a significant relationship between exercise habits and the incidence of primary dysmenorrhea in young women. The results of this statistical test are in line with research by Ismalia (2017) which shows that there is a relationship between physical activity (exercise) and the incidence of primary dysmenorrhea with a p-value of 0.012 in female students.

## CONCLUSION

Almost half of the respondents experienced primary dysmenorrhea, most had little knowledge, most respondents often consumed fast food and most rarely exercised. There is a relationship between knowledge, fast food and exercise habits and the incidence of primary dysmenorrhea. Logistic

regression analysis shows that the factor that most influences the incidence of primary dysmenorrhea is exercise habits. The habit of exercising 13 times does not pose a risk to the incidence of primary dysmenorrhea compared to rarely exercising. It is recommended that schools add extracurricular sports lessons to their study schedule.

## REFERENCE

- Atikah Proverawati and Siti Misaroh. (2022). *Menarche First Menstruation is Full of Meaning*. Ministry of Education and Culture. (2022). Dysmenorrhoea in Adolescent Girls. *Ministry of Education and Culture, Bengkulu City*.
- Nur Najmi Laila. (2022). *Menstruation Smart Book*, To install Yogyakarta.
- Palareti, G., Legnani, C., Cosmi, B., Antonucci, E., Erba, N., Poli, D., ... Tosetto, A. (2016). Comparison between different D-Dimer cutoff values for assessing the individual risk of recurrent venous thromboembolism: Analysis of the results obtained in the DULCIS study. *International Journal of Laboratory Hematology*, 38(1), 42–49. <https://doi.org/10.1111/ijlh.12426>
- Pangestu, R. T., & Fatmarizka, T. (2022). The Impact of Primary Dysmenorrhea on Academic Achievement in Adolescent Girls: Literature Review. *Proceedings of the 16th Urecol: Student Paper Series*, 735–744. Retrieved from <http://repository.urecol.org/index.php/proceeding/article/view/2378>
- Puterida, Netty, & Ilmi, M. B. (2020). The relationship between knowledge, stress level and family history with the incidence of dysmenorrhea in students of the FKIP Guidance and Counseling Study Program (BK) Uniska MAB Banjarmasin in 2020. *The Relationship between Knowledge, Stress Level and Family History with the Incidence of Dysmenorrhea in FKIP Students of the Guidance and Counseling Study Program (BK) UNISKA MAB Banjarmasin in 2020*, 1–11.
- Siti Rohmatul Laily. (2017). Relationship between patient characteristics and hypertension with the incidence of ischemic stroke. *Periodical Journal of Epidemiology*, 5(1), 48–59. <https://doi.org/10.20473/jbe.v5i1>.
- Soviyati, E., & Nurjannah, S. (2019). The Relationship between Fast Food Knowledge and the Incident of Dysmenorrhea in Class VII Female Students at SMPN 2 Jalaksana, Jalaksana District, Kuningan Regency in 2018. *Bhakti Husada Health Sciences Journal: Health Sciences Journal*, 10(1), 28–33. <https://doi.org/10.34305/jikbh.v10i1.80>
- Tsamara, G. (2019). Relationship between lifestyle and the incidence of primary dysmenorrhea in female students of the Medical Education Study Program, Faculty of Medicine, Tanjungpura University. *garuda*, 8(5), 55.
- Wahtini, S., Hidayah, F., & Wahyuntari, E. (2021). Dark Chocolate Reduces Dysmenorrhea Pain. *Biomedicine*, 13(1), 29–32. <https://doi.org/10.23917/biomedika.v13i1.10827>
- Wardani, A. K. (2017). Correlation between the frequency of consuming fast food and the incidence

of dysmenorrhea. *Indonesian Journal of Health Sciences*, 01(02), 7–13.

Zahra Amany, F., Ampera, D., Emilia, E., & Mutiara, E. (2022). The Relationship Between Nutritional Status and Fast Food Consumption Patterns and Primary Dysmenorrhea in Adolescent Girls at Al-Azhar Private Middle School, Medan. *Journal of Sports and Nutrition*, 4(2), 15–23. Taken from <https://journal.unnes.ac.id/sju/index.php/spnj/>