

Article

Relationship of Physical Activity to Primary Dysmenorrhea

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ABSTRACT

This study aims to determine the relationship between physical activity and primary dysmenorrhea. The method used in this study is a cross sectional study. A sample of 30 Biology Education students at Raja Ali Haji Maritime University class of 2021 used a purposive sampling technique. To measure primary dysmenorrhea using the McGill's questionnaire, the IPAQ (International Physical Activity Questionnaire) questionnaire measures physical activity. Data analysis uses Chi Square. The results of the analysis of physical activity on primary dysmenorrhea showed a p value of 0.0 ($p < 0.05$). Thus it can be concluded that there is a significant relationship between physical activity and primary dysmenorrhea in female students.

I. INTRODUCTION

Menstruation or menstruation is a situation of endometrial discharge in the form of flakes and bleeding (Manuaba, 2009). Dysmenorrhea is one of the gynecological disorders that has been studied as a cause of anxiety and discomfort in young women. The prevalence of its occurrence in the world between 16-91% occurs in reproductive age, namely the age of 20 years to 24 years. The nature of pain during menstruation starts a few hours before menstruation and a few hours after menstruation takes place, and pain in someone who has primary dysmenorrhea is most felt on days 2 and 3 (Fleeson, W. 2017). From a study in Egypt, the prevalence rate of dysmenorrhea was 95% (Aziato.L 2014:11-58). The prevalence rate of dysmenorrhea in Euthopid reaches 69.5%. Meanwhile, in Palestine, out of a total sample of 956 students, 85.1% experienced dysmenorrhea (Shiferaw MT 2014). There are several factors for dysmenorrhea, including lack of physical activity. From Muluneh's research in Palestine, physical activity is one of the factors causing dysmenorrhea with AOR = 0.39. Heavy physical activity can reduce the rate of dysmenorrhea by increasing endorphin secretion, it becomes a non-specific analgesic in women with primary dysmenorrhea

(Abbaspour M. 2006). Therefore, this study aims to determine the relationship between physical activity and fatigue in female students' primary dysmenorrhea.

II. METHODS

The design of this research is a descriptive study with a cross sectional study method. The sampling technique in this study used purposive sampling, and the sample in this study was 30 Biology Education students class of 2021 at Raja Ali Haji Maritime University. The instruments used in this study were a standardized questionnaire, to measure primary dysmenorrhea using the McGill's questionnaire, and to measure the level of physical activity using the IPAQ (International Physical Activity Questionnaire). The IPAQ consists of 4 general questionnaires regarding: strenuous physical activity, moderate physical activity, walking and sitting. For analysis of physical activity data it is calculated from the number of days and hours carried out for 7 days, then expressed in MET-minutes/week MET or Metabolic to express the intensity of physical activity in low, medium and high categories (The IPAQ Group, 2002). Data analysis in this study used the chi-square test to determine the relationship between variables.

III. RESULT

Table 1. Frequency Distribution of Physical Activity Respondents

Physical Activity	Frequency (f)	Percentage (%)
Mild	12	40%
Moderate	18	60%
Total	30	100
Physical Activity	Frequency (f)	Percentage (%)

The table above shows that 40% of female students did light physical activity during the last 7 days and 60% of female students did moderate physical activity.

Table 2. Frequency Distribution of Primary Dysmenorrhea

Primary Dysmenorrhea	Frequency (f)	Percentage (%)
Before menstruation	13	43%
During menstruation	17	57%
Total	30	100
Primary Dysmenorrhea	Frequency (f)	Percentage (%)

The table above shows that 43% of female students did light physical activity during the last 7 days and 57% of female students did moderate physical activity.

Table 3. Results of the Chi Square Test of Physical Activity with Primary Dysmenorrhea

		Primary Dysmenorrhea			P value
		Before menstruation	During menstruation	Total	
Physical Activity	Ligh	10	2	12	0,00
	Currently	6	12	18	
Total		16	14	30	

The table above shows the relationship between physical activity and primary dysmenorrhea with the results of the chi square p value test of 0.00. If $p < 0.05$ (p value less than 0.05) then based on statistical tests it shows that there is a relationship between physical activity and primary dysmenorrhea. In previous studies there was also a relationship between physical activity and primary dysmenorrhea, as stated by Wati, et al (2017) that there is a relationship between physical activity and adolescent primary dysmenorrhea. So it can be concluded that there is a significant relationship between physical activity and primary dysmenorrhea in Biology Education students at Raja Ali Haji Maritime University class of 2021.

IV. DISCUSSION

The table above shows the relationship between physical activity and primary dysmenorrhea with the results of the chi square p value test of 0.00. If $p < 0.05$ (p value less than 0.05) then based on statistical tests it shows that there is a relationship between physical activity and primary dysmenorrhea. In previous studies there was also a relationship between physical activity and primary dysmenorrhea, as stated by Wati, et al (2017) that there is a relationship between physical activity and adolescent primary dysmenorrhea. So it can be concluded that there is a significant relationship between physical activity and primary dysmenorrhea in Biology Education students at Raja Ali Haji Maritime University class of 2021.

V. CONCLUSION

The results of the study concluded that there was a significant relationship between physical activity and female primary dysmenorrhea ($p < 0.00$). Further research is recommended to study further about dysmenorrhea pain on physical activities carried out by female students during menstruation.

REFERENCES

- Wati LR, Arifandi MD, Prastiwi F. Hubungan Aktifitas Fisik dengan Derajat Dysmenorrhea Primer pada Remaja. *Journal of Issues In Midwifery*. 2017;1(2):1–8
- Kusumaningrum T, Nastiti AA, Dewi LC, Lutfiani A. The Correlation Between Physical Activity and Primary Dysmenorrhea in Female Adolescents. *Indian Journal of Public Health Research and Development*. 2019;10(8):2559–
- Aziato L, Dedey F. Clegg-Lamptey JNA. The exsperiance of Dysmenorrhoea among ghanaian senor high and university student : pain characteristics and effects. *Reproduction Health*. 2014;11:58
- Shiferaw MT, Wubshet M, Tegabu D. Menstrual problem and associated facrots among student of Bahir Dar University, Amhara National Regionel State, Euthipia : A cross-sectional survey. *panAfrican Medical Journal*. 2014;17:246
- Fleeson, W. et al. No {Title}. *J. Pers. Soc. Psychol*. 1, 1188–1197 (2017).

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