


Relationship Between Menstrual Pain (Dysmenorrhea) And Quality Of Life Sleep In Adolescent Girls At SMA Negeri 1 School West Daha, Hulu Sungai Selatan Regency

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Article Info	ABSTRACT
Keywords: menstrual pain, dysmenorrhea, sleep quality	Dysmenorrhea is an imbalance of the hormones progesterone, prostaglandin and psychological factors which results in pain during menstruation, thus causing nursing problems and affecting basic human needs, one of which is sleep. This research was conducted at the SMAN 1 Daha Barat school, Hulu Sungai Selatan Regency. The aim of this study was to determine the relationship between menstrual pain (dysmenorrhea) and sleep quality in adolescent girls at SMAN 1 Daha Barat, Hulu Sungai Selatan Regency. This type of research is quantitative research with a cross sectional approach. Sampling in this study was based on a purposive sampling technique with a sample size of 50 people. Data was collected using the Numerical Rating Scale (NRS) questionnaire to measure menstrual pain and the Pittsburgh Sleep Quality Index (PSQI) to measure sleep quality. The research results from 50 respondents: 11 respondents (22.0%) experienced mild pain, 27 respondents (54.0%) had moderate pain, and 12 respondents (24.0%) experienced severe pain. A total of 16 respondents (32.0%) had a good sleep quality category, and 34 respondents (68.0%) had a poor sleep quality category. The chi square test results obtained a significance value of 0.004 (<0.005), which means there is a relationship between menstrual pain (dysmenorrhea) and sleep quality in young women at SMAN 1 Daha Barat Kab. Hulu Sungai Selatan.
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INTRODUCTION

Adolescence is a transitional period from childhood to adulthood where, in early adolescence there will be some striking changes both physically and psychologically. The age of adolescence ranges from 10 to 24 years or unmarried. A girl will enter adulthood when she experiences puberty, puberty in adolescents is characterized by menstruation. (Musmiah et al., 2019).

Menstruation is a physiological condition, namely the event of periodic discharge of blood, mucus or cell debris. the normal menstrual period lasts between 3 to less than 8 days. (Wulandari et al., 2021). The menstrual cycle from one cycle to the start of menstruation is

21-35 days (Wirenviona et al., 2021).. A long and heavy menstrual cycle (heavy menstrual bleeding) is one of the risk factors for dysmenorrhea. (Akbar et al., 2020).

According to the World Health Organization (WHO) in 2013, the incidence of dysmenorrhea was 1,769,425 (90%). A greater prevalence occurs in young women with an estimated 67%-90% aged 17-24 years. Research shows that the incidence of dysmenorrhea is around 60% in the United States, 72% in Sweden and 55% in Indonesia. The incidence of dysmenorrhea in Central Java reached 56%. (Azzulfa et al., 2019).. According to research conducted by Rahmah, (2016) in SMA Negeri 3 Banjarbaru South Kalimantan, the prevalence of dysmenorrhea was 93.2%. According to research conducted by Siska Dhewi, (2016) at Bina Banua Husada Midwifery Academy Banjarbaru South Kalimantan, the prevalence of dysmenorrhea was 64.6%.

Dysmenorrhea is an imbalance of progesterone hormones, prostaglandins and psychological factors that result in pain. (Putriarningsih et al., 2021).. Dysmenorrhea pain is abdominal pain that comes from uterine cramps and occurs during menstruation. According to Yusuf et al. (2019) According to Yusuf et al. (2019), dysmenorrhea pain is caused by an increase in prostaglandin levels, causing an increase in uterine muscle contractility, increased vasoconstriction and increased ischemia of the uterine muscles, causing pain during menstruation. When a woman suffers from dysmenorrhea, pain appears in the lower abdomen radiating to the lower back and thighs, causing nursing problems and affecting basic human needs, one of which is sleep.

Sleep is a reversible physiological phenomenon where the response to stimuli decreases and can have a major impact on physiological and physical health. Factors that affect sleep quality are health conditions or diseases, environment, physical activity, emotional stress, sleep patterns, age, drugs, stimulants and alcohol. (Mubarak et al., 2015).. According to Yuniza et al., (2020) According to Yuniza et al. (2020), lack of sleep or poor sleep quality can affect the health of the body, including physiological and psychological health problems. The impact of physiological disorders includes decreased daily activities, fatigue, decreased endurance and instability of vital signs. While the psychological impact is in the form of depression, anxiety and decreased concentration so that it can interfere with the learning process.

From the observation conducted by conducting direct interviews with 10 female students at SMAN 1 Daha Barat Kab, Hulu Sungai Selatan, there were 9 female students who experienced sleep quality disturbances during dysmenorrhea, reported not sleeping well, due to dizziness, pain in the lower abdomen radiating to the lower back and legs and having to get up to change pads. Based on the above explanation, the researcher is interested in conducting a study entitled The Relationship Between Menstrual Pain (Dysmenorrhea) With Sleep Quality In Adolescent Girls At SMAN 1 Daha Barat Kab. Hulu Sungai Selatan.

METHODS

This study is a quantitative study with a *cross-sectional* approach. The research was conducted at SMAN 1 Daha Barat Kab. Hulu Sungai Selatan. The sample in this study was

50 female students. The instruments used were the *Numerical Rating Scale* (NRS) questionnaire and the *Pittsburgh Sleep Quality Index* (PSQI) questionnaire distributed via google form. Data analysis was performed using univariate and bivariate analysis using the *chi square test*

RESULTS AND DISCUSSION

Univariate Analysis

Table 1. Age Distribution of Respondents

Age	Total	
	N	%
16 Years	18	36.0%
17 Years	23	46.0%
18 Years	7	14.0%
19 Years	2	4.0%
Total	50	100%

Based on the table above, it shows that the majority of respondents are 17 years old, namely 23 respondents (46.0%).

Table 2: Frequency Distribution of Menstrual Pain Level (*Dysmenorrhea*)

Period Pain (<i>Dysmenorrhea</i>)	Total	
	N	%
Mild Pain	11	22.0%
Moderate Pain	27	54.0%
Severe Pain	12	24.0%
Total	50	100%

Based on the table above, the majority of respondents experienced moderate *dysmenorrhea pain* as many as 27 respondents (54.0%). Moderate *dysmenorrhea pain* is characterized by severe cramps in the lower abdomen, pain radiating to the waist and back, disrupted activity, and difficulty/difficulty concentrating on learning.

Table 3. Distribution of Sleep Quality Event Rates

Sleep Quality	Total	
	N	%
Good	16	32.0%
Bad	34	68.0%
Total	50	100%

Based on the table above, it shows that the majority of respondents experienced poor sleep quality as many as 34 respondents (68.0%). Poor sleep quality is characterized by insufficient sleep time, sleeping late at night, having difficulty waking up on time, experiencing sleep disturbances, and often waking up between sleep. Good sleep duration is 7-9 hours per day.

Bivariate Analysis

Bivariate analysis using chi square test by analyzing the relationship between menstrual pain (dysmenorrhea) with sleep quality.

Table 3 Relationship between menstrual pain (*dysmenorrhea*) and sleep quality

Period Pain (Dysmenorrhea)	Sleep Quality				Total		X ² (P-Value)
	Good		Bad		N	%	
	N	%	N	%			
Mild Pain	8	16.0%	3	6.0%	11	22.0%	10,868 (0,004)*
Moderate Pain	6	12.0%	21	42.0%	27	54.0%	
Severe Pain	2	4.0%	10	20.0%	12	24.0%	
Total	16	32.0%	34	68.0%	50	100%	

Table 3 shows that respondents who experienced poor sleep quality were 3 respondents (6.0%) with mild pain, 21 respondents (42.0%) with moderate pain and 10 respondents (20.0%) with severe pain. Based on the results of the *chi-square* test shows that there is a relationship between menstrual pain (*dysmenorrhea*) with sleep quality in adolescent girls at SMAN 1 Daha Barat Kab. Hulu Sungai Selatan, with a *p-value* of 0.004.

Discussion

Based on the results of the study, it show that most of the menstrual pain (*dysmenorrhea*) experienced by female students of SMAN 1 Daha Barat is moderate menstrual pain (*dysmenorrhea*), moderate menstrual pain (*dysmenorrhea*) is pain characterized by the appearance of increasingly strong pain, pain that is felt radiating to the waist and back, sufferers can still do activities but are hampered. This research is in line with Putrianingsih et al., (2021) who found that most of the respondents experienced moderate menstrual pain (*dysmenorrhea*). *Dysmenorrhea* or menstrual pain is the process of pain during menstruation that can hinder daily activities. (Putrianingsih *et al.*, 2021).. Menstrual pain (*dysmenorrhea*) is very much suffered by adolescent girls because it causes dependence on daily life. Adolescent girls who experience menstrual pain (*dysmenorrhea*) during menstruation experience limitations in activities, especially learning activities at school. (Azzulfa et al., 2019).

Based on the results of sleep quality research, it show that most of the students of SMAN 1 Daha Barat experience poor sleep quality. The results of this study are in line with previous research by Artawan et al., (2022) who found that most of the female students who were respondents experienced poor sleep quality. Sleep quality is a measure by which a person can easily initiate sleep and to maintain sleep, the quality of a person's sleep can be described by the length of sleep time, and complaints that are felt during sleep or after waking up. (Bianca *et al.*, 2021). Quality is influenced by several factors. This quality can indicate the ability of individuals to sleep and obtain the amount of rest according to their needs. Factors that affect sleep quality are illness or pain, environment, fatigue, lifestyle, emotional, *stimulant alcohol*, medication, motivation and nutrition. In addition to these factors, there are also

factors of pre-sleep habits that make poor sleep quality, including physiological factors, behavioural factors, emotional factors, sleep environment factors, sleep stability factors, daytime sleep factors, and sleep routine factors. (Bianca et al., 2021)..

The results showed that there is a relationship between menstrual pain (dysmenorrhea) with sleep quality in adolescent girls at SMAN 1 Daha Barat. It is shown that pain is related to sleep quality with the results of Chi-Square bivariate analysis obtained (p -value = 0.004 <0.05), it is stated that there is a relationship between menstrual pain (dysmenorrhea) and sleep quality. This study is in line with previous research conducted by Artawan et al., (2022) with 145 respondents with the results obtained the relationship between menstrual pain (dysmenorrhea) and sleep quality with a value of p = 0.014 which means there is a relationship between menstrual pain (dysmenorrhea) with sleep quality.

When a person experiences menstrual pain (dysmenorrhea), there will be pain that extends to the waist, lower back and thighs, resulting in disturbed sleep quality. Sleep with poor sleep quality can cause negative impacts such as a decrease in serotonin in the body. The reduction of serotonin leads to increased anxiety, depression, and increased sensitivity to pain. Conversely, if a person has good quality sleep, it will bring various positive health benefits. Apart from avoiding disease, good sleep quality can increase the capacity of short-term memory or working memory and can support while studying. (Yuniza *et al.*, 2020).

CONCLUSION

Based on the results of research conducted at SMAN 1 Daha Barat Kab. Hulu Sungai Selatan, regarding the relationship between menstrual pain and sleep quality in adolescent girls, the following conclusions can be drawn; 1). The results showed that of the 50 respondents who filled out the questionnaire, most of the 27 respondents experienced moderate menstrual pain (*dysmenorrhea*) with a percentage of 54.0%. 2) The results showed that out of 50 respondents, most of the 34 respondents experienced poor sleep quality with a percentage of 68.0%. 3) There is a relationship between menstrual pain (*dysmenorrhea*) with sleep quality in adolescent girls at SMAN 1 Daha Barat Kab. Hulu Sungai Selatan with a p -value (0.004) <0.005.

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