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The relationship between demographic characteristics and the incidence of dysmenorrhea in women of childbearing age at Sihonongan village, Paranginan district, Humbang Hasundutan regency 2022

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ABSTRACT

Every month women will experience menstruation, most women experience dysmenorrhea or menstrual pain during menstruation, women who have an early age of menarche will have an impact on the incidence of dysmenorrhea and women must also maintain nutritional status, therefore women must maintain a good diet. This study aims to determine the relationship between demographic characteristics and the incidence of dysmenorrhea in women of childbearing age at Sihonongan Village, Paranginan District, Humbang Hasundutan Regency 2022. This type of research used a cross sectional design. The sampling technique in this study use purposive sampling, totaling 90 respondents. The instrument used is a demographic characteristics questionnaire and a dysmenorrhea questionnaire. The results showed that the family history is 65.6%, nutritional status show good category 90% and the incidence of dysmenorrhea was 86.7%. Based on the results of the Fisher exact test statistical test, age is not associated with the incidence of dysmenorrhea, the p-value is 0.867 (>0.05), family history is associated with the incidence of dysmenorrhea, the p-value is 0.006 (<0.05), nutritional status is not associated with the incidence of dysmenorrhea obtained p-value 0.343 (> 0.05). It is recommended for women of childbearing age to pay more attention to nutritional status such as consuming fruits and vegetables that are high in vitamins, protein, and carbohydrates and drinking enough water.

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1. INTRODUCTION

The first menstruation or commonly called menarche experienced by women of childbearing age (WUS) is an early sign of the entry of a woman into the reproductive period. The longest age for menarche is 16 years, but the first menstruation experienced by a fertile woman is usually <12 years old. Every month women will experience reproduction and experience physical discomfort during menstruation, namely menstrual pain or dysmenorrhea. Dysmenorrhea is lower abdominal pain (suprapubic) starting before or during menstruation accompanied by nausea, vomiting, diarrhea, sweating, dizziness, feeling tired and excessive anxiety. However, pain is not only felt in the lower

abdomen but is felt up to the waist, pelvis, thigh muscles to calves. Dysmenorrhea is caused by increased prostaglandin hormones, increased prostaglandin hormones are caused by decreased estrogen and progesterone hormones causing the endometrium to swell and die because it is not fertilized. An increase in the hormone prostaglandin causes the uterine muscles to contract (Lima & Kota, 2018). Dysmenorrhea that occurs more often in women is primary dysmenorrhea, it is likely that more than 50% of women experience it and 10-15% of women experience severe menstrual pain that interferes with daily activities (≤7 Days, 2020). Characteristics of dysmenorrhea include age, nutritional status, family history. The incidence of dysmenorrhea in the world is quite large, in the United States it was found that 60-91% of women in all regions experience dysmenorrhea, more than 50% of women in every country experience dysmenorrhea (South & South, 2020). The prevalence of dysmenorrhea in Indonesia is 64.25%, consisting of 54.89% primary dysmenorrhea and 9.36% secondary dysmenorrhea. In young women at SMA N 2 Medan there is 85.9%. In the age group 14-15 years (86.0%), menarche age <12 years (87.7%), menstrual duration <7 days (86.3), normal menstrual cycle (87.4), frequent exercise (96 .9%), over nutrition status (100%), and there is a family history (90.5%). The initial survey was conducted on women of childbearing age aged 12-23 years in Sihonongan Village, Parangnan District with 12 respondents who experienced dysmenorrhea as much as 58.3%, menarche age 12 years as many as 8.3%, menstrual duration <7 days as many as 41, 7%, with symptoms of lower abdominal pain 83.3%, low back pain 50%, nausea 8.3%, dizziness 8.3%, and emotion 33.3%, and family history 66.7% , eating pattern 3x a day as much as 75%, eating using rice, vegetables, side dishes, occasional side dishes as much as 75%, eating fruit occasionally as much as 75%. From this initial data the researchers were interested in conducting research on the relationship between demographic characteristics and the incidence of dysmenorrhea in women of childbearing age in Sihonongan Village in 2022. The aim of this study was to identify the relationship between demographic characteristics and the incidence of dysmenorrhea in women of childbearing age in Sihonongan Village in 2022.

1. RESEARCH METHOD

Research using cross sectional design. This research was conducted from 02 May to 09 May 2022. The number of samples in this study were 90 people. The sampling technique used was purposive sampling with the inclusion criteria of women who were menstruating, women of childbearing age 15-49, women with dysmenorrhea, normal and abnormal body mass index (BMI), family history. The instrument in this study was the demographic characteristics questionnaire consisting of 3 statements, which included age, nutritional status, family history and the dysmenorrhea questionnaire consisting of 17 statements. Data analysis using fisher's exact.

2. RESULTS AND DISCUSSIONS

Based on the results of the research on the frequency distribution of the demographic characteristics of the respondents including age, family history, nutritional status in Sihonongan Village in 2022 will be explained in the following table:

Table 1. Frequency distribution of the demographic characteristics

Characteristics	F	%
Age		
15-31 Years	89	98.9
32-49 Years	1	1.1
Total	90	100
Family History		
No	27	30
Yes	63	70
Total	90	100
Nutritional status		
Good	81	90

Characteristics	F	%
Not Good	9	10
Total	90	100

Based on table 1, the most age demographic characteristics are those aged 21-31 years, amounting to 89 respondents (98.9%). Based on the characteristics of family history, 63 respondents (70%) answered yes and 27 respondents (30%) did not. Good nutritional status was obtained by 81 people (90%), less nutrition by 9 people (10.0%).

Table 2 Distribution of respondents to the incidence of dysmenorrhea in women of childbearing age

Dysmenorrhea	F	%
No	12	13.3
Yes	78	86.7
Total	90	100

Based on table 2, the incidence of dysmenorrhea showed that the highest incidence of dysmenorrhea was 78 respondents (86.7%) and the lowest was no, 12 respondents (13.3%).

Tabel 3 Distribusi frekuensi berdasarkan hasil bivariat

Dysmenorrhea	p-value
Age	0.867
Family history	0.006
Nutritional status	0.343

Based on table 3, the results of statistical tests using the Fisher's exact test showed that there was no relationship between age and the incidence of dysmenorrhea with a p-value of 0.867 (> 0.05) followed by family history with a p-value of 0.006 (<0.05) that there was relationship between family history and dysmenorrhea. And the results of cross-tabulation of the relationship of demographic characteristics including nutritional status with the incidence of dysmenorrhea obtained from statistical tests using the Fisher's exact test obtained a p-value of 0.343 (> 0.05), which means there is no relationship between nutritional status and the incidence of dysmenorrhea in women of childbearing age in the village. Sihonongan Year 2022.

3. CONCLUSION

In accordance with what was obtained by researchers in Sihonongan Village that the age factor was not related to the incidence of dysmenorrhea, the results of the Fisher's exact test were 0.867, seen from the low age <15 years and the predominant number of respondents aged 15 to 22 years. Because the women of childbearing age, the respondents already have extensive knowledge, so when a woman is menstruating, the respondents already know how to prevent protracted dysmenorrhea.

However, respondents aged 15-49 among these ages still experience dysmenorrhea due to family history, or the length of menstruation. According to the results obtained from the menarche age group, the respondent is a normal age in experiencing reproduction, so when a woman is menstruating it does not cause or does not cause menstrual pain or dysmenorrhea. In line with Melliniawati's research (2021) that age has no significant relationship between age and the incidence of dysmenorrhea because at the end of 20 the function of the uterine nerves decreases due to aging. Every woman has different and unstable prostaglandin hormones, so that the older she gets, the less prostaglandin hormones that cause age not to be associated with dysmenorrhea.

Research by Dita Trimayasari (2014) said that there is no relationship between age and the incidence of dysmenorrhea, because age less than 12 years is more at risk of dysmenorrhea. Other factors that can affect dysmenorrhea are genetic factors or family history, lack or excess of nutritional status and the length of the menstrual cycle. Based on the results of the Fisher's exact statistical test of 0.006, it was found that there was a relationship between family history and dysmenorrhea. The

results of the questionnaire found that some women of childbearing age had a family history, meaning that women in Sihonongan Village had genetic factors or hereditary factors in the occurrence of menstrual pain or dysmenorrhea. Hereditary factors can affect a family, within a family will affect the health conditions in a family. The results of this study also show that respondents who do not experience dysmenorrhea are due to a healthy lifestyle which can reduce pain when menstruation occurs and there is no family history because there is no family history that can affect the occurrence of pain during menstruation. Respondents who have a family history but do not experience dysmenorrhea can be due to having a healthy lifestyle and will be able to reduce pain during menstruation.

Fatmawati & Aliyah (2020) suggested that family history could potentially lead to dysmenorrhea because it is related to genetic factors. Genetic factors can pass down the original traits to their offspring. Anatomically and physiologically, they are generally the same as their offspring or their parents, dysmenorrhea occurs in families because they have the same lifestyle or lifestyle. Mouliza's research (2020) stated that women who have a family history and experience dysmenorrhea because family health history will greatly affect the health conditions of the family, but women who do not have a family history but experience dysmenorrhea can be due to unhealthy lifestyles such as often eating junk food food or fast food, smoking, never exercising this will increase pain during menstruation.

Based on the results of the Fisher's exact test of 0.343, there was no relationship between nutritional status and the incidence of dysmenorrhea. In accordance with what was obtained, researchers used BMI or Body Mass Index to determine the nutritional status of women by describing the ideal proportion of a person's body between weight and height. Respondents have a good nutritional status, if the more nutritional status is not at risk (normal), the less the incidence of dysmenorrhea in respondents. However, respondents must maintain nutritional status in the body in order to reduce the incidence of menstrual pain or dysmenorrhea. Because if you have a poor nutritional status it can further increase the occurrence of dysmenorrhea because substances in the body decrease which can cause hormones, especially the hormone estrogen.

The results of Romlah's research (2020) conducted at Sasmita Jaya 1 Pamulang Vocational School showed that out of 60 respondents with normal nutritional status 78.9%, excess nutritional status 57.1%, the results obtained showed that there was no relationship between nutritional status and dysmenorrhea. According to the results of this study there are other factors that cause dysmenorrhea not from nutritional status but from nutrients consumed every day. For example, fast food is high in fat and high in calories. The results of Widiyanto's research (2020) show that a lack of nutrition will have an impact on reproductive function and if a woman has a good nutritional status, there will be no obstacles to the reproductive system, especially if she is menstruating. Widiyanto's research shows that the majority of women have a normal nutritional status or BMI of 18.5-24.9 as much as 63.5%.

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