Dietary Habit is Associated With Dysmenorrhea Among Adolescent

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ABSTRACT

Dysmenorrhea is pain during menstruation which is felt in the lower abdomen and back. The high incidence of dysmenorrhea in adolescents still does not get enough concern from adolescents and society, even though it can cause a person to become weak, pale, reduce concentration, disturb daily activities, become one of the causes for adolescents not doing activities, having a negative impact on quality of life and the economic status of patients and their families, as well as causing endometriosis and psychological disorders. One of the factors that can cause dysmenorrhea is poor dietary habit. This study aims to analyze the correlation between dietary habit and dysmenorrhea in female adolescents. This type of research is quantitative, the number of samples are 262 respondents who have experienced menstruation and the sampling technique was accidental sampling. Testing data using the Chi Square analysis test. This study employed two research instruments, namely a dietary habit questionnaire to measure dietary habit and the Menstrual Symptoms Questionnaire (MSQ) to assess dysmenorrhea. The respondents who experienced dysmenorrhea were 242 respondents (92.4%). As many as 137 respondents with a poor dietary habit category, 132 (96.4%) of them experienced dysmenorrhea. Respondents with adequate dietary habit category were 125 respondents, 110 (88.0%) of whom experienced dysmenorrhea. From the results of the Chi Square analysis test, it was found that the value of $p = 0.005$ with a correlation value of 0.011, which means that Ha is accepted and H0 is rejected. The study showed that there is a correlation between dietary habit with dysmenorrhea in female adolescent.

Keywords: Dysmenorrhea, Dietary habit, Adolescent

BACKGROUND

According to Potter & Perry (2009) in (Rahmah & Astuti, 2019), adolescence is a period of change from childhood to adulthood, the age range is 13 to 20 years. In general, adolescents are people who experience a transition period from childhood to adulthood (Marmi, 2015). Recorded in the World Health Organization (WHO, 2016) the number of youth groups in the world is 1.2 billion or 18% of the total world population. In the same year, the number of young people in Indonesia was 70,096,861 people and the number of young people in D.I Yogyakarta was 810,186 (Kementerian Kesehatan RI, 2017).

According to (Indriyani & Asmuji, 2014), adolescence will experience changes and physical development, one of which is menstruation experienced by young women Lowdermik (2013) in (Anjasmara, 2018) said that menstruation is periodic uterine bleeding, which occurs approximately 14 days after ovulation. Menstrual cycle length varied, but the average was 28 days. According to Ningsih (2012) in (Larasati & Alatas, 2016), Menstruation is generally the first time experienced by a young woman at the age of 14 years. Complaints that often arise during menstruation are pain in the stomach and pelvis, heartburn, nausea and heat, back pain, dizziness, pain and swelling in the breasts, increased emotional feelings, more sensitivity and irritability, difficulty sleeping and disturbances. which is related to the menstrual period in the form of dysmenorrhea (Pramita & Sari, 2019). Dysmenorrhea or painful menstruation is a common symptom, pain during menstruation that is felt in the lower abdomen and back. Dysmenorrhea occurs due to uterine muscle contractions. Factors that aggravate dysmenorrhea are lack of exercise and psychological or social stress, and iron deficiency (Irianto, 2014).

As many as 90% of adolescent women around the world experience problems during menstruation and more than 50% of menstruating women experience primary dysmenorrhea with 10-20% of them experiencing quite severe symptoms (Larasati & Alatas, 2016). Setiawan (2018) in (Della Sanday, Kusumasari, & Sari, 2019) noted that based on research in the United States, menstrual pain or dysmenorrhea is a case that often occurs in women of reproductive age, namely 45% -90%, and 60% -70% in unmarried adult women. In Indonesia, the figure is estimated at 55% of women of reproductive age who are tormented by menstrual pain (Gustina, 2015).   Based on data from Baradero (2006) in (Angelia, Sitorus, & Etrawati, 2017), The prevalence of primary dysmenorrhea in Indonesia is 15-20 years old. Primary dysmenorrhea generally occurs after 2-3 years from the age of menarche (Angelia et al., 2017). Indonesian Ministry of Health (2013) in (Angelia et al., 2017) said that rationally, the average age of menarche in Indonesia is 13-14 years. Data related to the incidence of dysmenorrhea in the city of Yogyakarta is as much as 52% (Aher & Rajole, 2016).

The high incidence of dysmenorrhea in adolescents receives less attention from adolescents themselves and the community, because menstrual pain is considered a natural thing. In fact, dysmenorrhea can cause a person to become weak, pale, reduce concentration, interfere with daily activities, and become one of the causes for women not doing activities (school, work, etc.). Khotimah (2014) in (Fitriana, Djufri, & Utami, 2017) said that dysmenorrhea also has a negative impact on the quality of life and economic status of sufferers and their families, and even causes endometriosis and psychological disorders. Dysmenorrhea often occurs in adolescence. Teens often experience dysmenorrhea due to several risk factors. One of the risk factors that can cause primary dysmenorrhea is diet. The diet that often causes dysmenorrhea is a diet consumption of fast food (Anisa, 2015).

Diet is a eating habit that exists in a certain community group or a family in terms of the types and amounts of food eaten every day tertentu atau suatu keluarga dalam hal macam

dan jumlah bahan makanan yang dimakan setiap hari (Masitoh & Nugraheni, 2017). In general, the diet has 3 three components, namely the type of food, the frequency of food, and the amount of food (Ramadani, 2018).

The preliminary study conducted, obtained the results from interviews with 10 female students experiencing dysmenorrhea pain from a moderate pain scale to controlled severe pain. Of the 10 teenagers, 9 of them revealed that they experienced moderate to severe controlled dysmenorrhea accompanied by lower abdominal cramps, headaches, weakness, back pain, low back pain, and pelvic pain, as well as inner thigh pain that interferes with activities. Based on the description of the problems above, the researchers are interested in conducting research on the relationship between diet and dysmenorrhea in young women.

METHODS

This research uses quantitative research methods, with a cross sectional approach design. The research was carried out. The instrument in this study was to measure the incidence of dysmenorrhea in young girls using the Menstrual Symptoms Questionnaire (MSQ) which was adopted from (Indahwati, Muftiana, & Purwaningroom, 2017). Diet in young women using a dietary questionnaire adopted from (Alaslan, 2013). which has been tested for validity and reliability, the number of questions as many as 16 questions with a reliability test coefficient value of 0.501.

RESULTS

Respondent characteristics

The number of samples in this study were 262 respondents. Analysis of the characteristics of the respondents includes age and sources of information. In this study, the age characteristics of the respondents consisted of ages 15 to 19 years. Teenagers are residents aged 10-24 years and are not married (WHO, 2015). Sources of information, can be seen in table 1 below:

Table 1
Respondent Characteristics Distribution

Respondent Characteristics	Frequency (f)	Percentage (%)
Age		
15 Year	10	3,8%
16 Year	137	52,3%
17 Year	100	38,2%
18 Year	13	5,0%
19 Year	2	0,8%
BMI		
Underweight	85	32,4%
Normal range	148	56,5%
Over weight	29	11,1%
Menarche		
< 14 Year	208	79,4%
≥ 14 Year	54	20,6%
Length of Menstruation		
< 4 days	8	3,1%
4-8 days	233	88,9%
> 8 days	21	8,0%

Sports Routines		
No	209	79,8%
Mild	47	17,9%
Weight	6	2,3%
Family Member Dysmenorrhea History		
Yes	95	36,3%
No	167	63,7%

Table 1 shows that the age characteristics of the majority of students who became respondents in the study were students aged 16 years, as many as 137 people (52.3%), while for the other respondents' ages consisted of 15 years, 17 years, 18 years to 19 years. . BMI (Body Mass Index) of the majority of students who became research respondents were students with a normal BMI, namely 148 people (56.5%).

As for the characteristics of the respondent's menarche itself, the majority of students who experienced premature menarche or menarche under the age of 14 were 208 people (79.4%). The length of menstruation for the majority of students who were respondents in the study were in the normal category (4-8 days), as many as 233 people (88.9%). The table also shows that the characteristics of the sports routine of the majority of the students who were respondents in the study were in the category of not doing sports, namely 209 people (79.8%). Regarding the data on the characteristics of the history of family members, the majority of students who were respondents in the study were in the category of having no history of family members who experienced dysmenorrhea, as many as 167 people (63.7%).

Diet for young women
This analysis is shown to see the distribution of each research variable, one of which is diet as an independent variable. Table 2 shows that most of the eating patterns, the majority of respondents were in the poor category, namely as many as 137 people (52.3%).

Table 2
Diet Distribution

No	Category	Frequency	%
1.	Good	0	0,0%
2.	Enough	125	47,7%
3.	Less	137	52,3%
	Total	**262**	**100%**

Dysmenorrhea in young women
This analysis is shown to see the distribution of each research variable, one of which is dysmenorrhea as the dependent variable.

Based on Table 3, it shows that most of the young women who became respondents in this study experienced dysmenorrhea, as many as 242 people (92.4%).

Table 3
Distribution of Dysmenorrhea

No	Category	Frequensy	%
1.	Yes	242	92,4%
2.	No	20	7,6%
	Total	**262**	**100%**

Corelation between Diet and Dysmenorrhea in Young Women

Based on Table 4, it shows that the results of crosstabulation between diet and the incidence of dysmenorrhea in young women, the majority in the category of eating less with more dysmenorrhea, namely 132 respondents (96.4%). So, this shows that Ha is accepted, meaning that there is a relationship between diet and the incidence of dysmenorrhea in young women.

Table 4
The Relationship between Diet and Dysmenorrhea

Diet Distribution	Dysmenorrhea						P
	Yes		No		Total		
	F	%	F	%	F	%	
Good	0	0,0	0	0,0	0	0	
Enough	110	88,0	15	12	125	100	0,011
Less	132	96,4	5	3,6	137	100	
Total	242	92,4	20	7,6	262	100	

DISCUSSION
Dietary habit

Diet is a eating habit that exists in a certain community group or a family in terms of the types and amounts of food eaten every day (Masitoh & Nugraheni, 2017). In general, the diet has 3 three components, namely the type of food, the frequency of food, and the amount of food (Ramadani, 2018). Based on Table 2, it can be seen that the majority of respondents in the poor diet category are as many as 137 people (52.3%), 125 people (47.7%) have sufficient diet, the diet is either absent or 0 (0.0%) with the number of respondents was 262 people. The results of this study are supported by research (Alvionita, 2016), which shows the results of the majority of respondents having an unhealthy diet, namely 146 respondents (79.8%).

The phenomenon of poor adolescent diet is also seen in the data from the Global School Health Survey (2015) which shows that 65.2% of adolescents do not always eat breakfast, 93.6% of adolescents consume less vegetable and fruit fiber, 75.7% of adolescents often eat food. feeling diseased, and 42.5% among the adolescents also did not do enough physical activity (Kemenkes, 2018). The frequency of eating can affect a person's nutritional status, because a balanced dietary pattern that is in accordance with the needs accompanied by the selection of the right food ingredients will result in good nutritional status (Lani, Margawati, & Fitranti, 2017).

Breakfast habits can be a factor affecting nutritional status. Being overweight can be caused by someone skipping breakfast, thereby increasing their intake of snacks, especially snacks that are high in calories, sugar, and high in fat. In addition, someone who skips breakfast can also be underweight or underweight, this is because it is not balanced with an increase in food intake (Lani et al., 2017).

The amount of food consumed also affects a person's nutritional status (Lani et al., 2017) said that food intake that exceeds the body's needs will lead to overweight due to excess nutrients. Conversely, food intake that is less than what is needed will cause the body to become thin. These two circumstances are equally unhealthy. In developing countries, factors that influence the high level of overnutrition among adolescents include a diet with a large portion or more than the body's needs (Utami, 2017). Bad eating habits and the wrong understanding of nutrition by adolescents where a slim body is a dream for young women so

that they apply the wrong dietary limit regulation to be a factor that affects the nutritional status of adolescents (Marmi, 2014).

One of the causes of the current lack of adolescent diet is lifestyle changes, especially among urban communities. An urban lifestyle with a diet high in fat, salt and sugar causes people to tend to consume food excessively, besides that instant food is currently very popular with some people, but it can lead to increased blood glucose levels (Alvionita, 2016). As we know, the sample in this study lives in the city of Yogyakarta, which is included in the big city category.

Diets in cities have shifted from a traditional diet that is high in carbohydrates and fiber from vegetables to a diet that is westernized and has little fiber. The composition of foods that are high in fat, salt, and a little fiber in ready-to-eat food, which has recently been very popular among Indonesians (Alvionita, 2016). In addition, fast food places are now starting to exist near schools, especially favorite schools, so it is not surprising that consumption of fast food among children and adolescents continues to increase (Anisa, 2015). (Hanum & Dewi, 2015) explained that 12 out of 15 respondents consumed fast food every day with a percentage of 80%. According to the researcher, the respondents in this study belong to the community in one of the favorite schools, where the position of the school is in the middle of an urban area so that it is very easy to get fast food / junk food.

Dysmenorrhea

Dysmenorrhea is pain that is felt in the stomach that comes from uterine cramps and occurs during menstruation (Manan, 2011). The pain that occurs is due to the contraction of the uterine wall (Sibagariang, 2016).

Based on Table 3, it can be seen that most of the respondents experienced dysmenorrhea, namely 242 people (92.4%) and the remaining 20 people (7.6%) did not experience dysmenorrhea. These results are supported by research data from (Indahwati et al., 2017) Most of the 63 respondents who experienced dysmenorrhea (65.1%) or as many as 41 respondents. Data from (Andini & Hernawan, 2019) It is known that from 166 respondents, there were 88 respondents (53%) who experienced dysmenorrhea. Several risk factors that can cause primary dysmenorrhea, including: age, age of menarche, length of menstruation, family history, nutritional status, exercise habits and eating patterns of fast food / junk food (Anisa, 2015).

Researchers found that in table 1 shows that the age characteristics of the majority of students who became research respondents were students aged 16 years, namely as many as 137 people (52.3%), then followed by respondents aged 17 years, namely 100 people (38.2%)), the remaining respondents aged 15 were 10 people (3.8%), respondents aged 18 were 13 people (5.0%), and respondents aged 19 were 2 people (0.8%). The results of this study are in accordance with those stated (Angelia et al., 2017) said that the prevalence of primary dysmenorrhea in Indonesia ranges from 15-20 years. In general, primary dysmenorrhea occurs after 2-3 years from the age of menarche (Angelia et al., 2017). In this study, it was found that age affects the incidence of dysmenorrhea.

In table 1 it is found that the characteristics of the majority of students who became research respondents were students who experienced premature menarche or menarche under 14 years of age, as many as 208 people (79.4%), while the respondents experienced menarche at the age of ≥ 14 years as many as 54 people (20 , 6%). In this study, it was found that the age of menarche influenced the incidence of dysmenorrhea. As mentioned (Tristiana, 2017) that menarche at an earlier age can be a risk factor for primary dysmenorrhea because the reproductive organs are not ready to undergo changes and the cervix is still narrowing.

Menstruation is generally the first time experienced by a young woman at the age of 14 years (Larasati & Alatas, 2016).

In this study, it was found that exercise routine affects the incidence of dysmenorrhea. Table 1 above shows that the characteristics of the exercise routine of the majority of students who became research respondents in the category of not doing sports were 209 people (79.8%), while students with the category of doing light exercise were 47 people (17.9%) and students with the category did vigorous exercise as many as 6 people (2.3%).

Someone who rarely or never exercise will increase the risk of primary dysmenorrhea. Decreased circulation of blood and oxygen so that the flow of blood and oxygen to the uterus is not smooth and causes pain. Lack of exercise will also reduce the production of endorphins in the brain so that stress will increase which indirectly causes primary dysmenorrhea (Tristiana, 2017).

In this study, it was found that most girls who experience dysmenorrhea experience signs and symptoms of lower abdominal pain, low back pain, occurring on the first or second day of menstruation, and a small proportion of them feel nausea / vomiting, dizziness, and emotions. These results are supported by research data from (Diandra, 2019) explained that the pain that coincides with menstruation is often felt like cramps in the stomach and can be accompanied by pain radiating to the back, with nausea and vomiting, headaches or diarrhea.

The Relationship between Diet and Dysmenorrhea in Young Women

Dysmenorrhea can cause a person to become weak, pale, reduced concentration, interrupted daily activities, and is one of the causes of women not doing activities (school, work, etc.). Dysmenorrhea also has a negative impact on the quality of life and economic status of sufferers and their families, and even causes endometrosis and psychological disorders (Fitriana et al., 2017).

Based on Table 4 above, it can be seen that the results of crosstabulation between diet and the incidence of dysmenorrhea in female adolescents are mostly in the poor diet category with more dysmenorrhea, namely 132 respondents (96.4%) So this shows that Ha is accepted, meaning that there is a relationship between diet and the incidence of dysmenorrhea in class teenage girls.

In testing whether there is a relationship between diet and dysmenorrhea, a statistical test is performed using the Chi Square test. The results show that the X 1 value is 6.464 at df 1 with a significance level (p) of 0.011. To prove there is a relationship or not, the significance level (p) is compared with the 5% error level (0.05). If p is greater than 0.05, there is no relationship between the two variables and if p is less than or equal to 0.05, there is a relationship between the two variables. The results of this study indicate that p is less than 0.05, so it can be stated that there is a relationship between the two variables.

In general, dysmenorrhea occurs in adolescence. Teens often experience dysmenorrhea due to several risk factors. One of the risk factors that can cause primary dysmenorrhea is diet (Anisa, 2015). Diet is a eating habit that exists in a certain community group or a family in terms of the types and amounts of food eaten every day (Masitoh & Nugraheni, 2017). In general, the diet has 3 three components, namely the type of food, the frequency of food, and the amount of food (Ramadani, 2018).

Type of food is a variety of food ingredients which when eaten, digested and absorbed will produce a healthy and balanced menu arrangement. The type of food consumed must be varied and rich in nutrients that are beneficial to the body such as carbohydrates, protein, fat and vitamins and minerals (Ramadani, 2018). One component of a diet that often causes

dysmenorrhea is a diet with the type of consumption of fast food or fast food / junk food (Anisa, 2015).

Fast food is one of the factors that cause primary dysmenorrhea because fast food has an unbalanced nutritional content, namely high calories, high fat, high sugar, and low fiber. The fatty acid content in fast food interferes with progesterone metabolism in the luteral phase of the menstrual cycle. The result is an increase in prostaglandin levels which will cause dysmenorrhea (Zalni, Harahap, & Desfita, 2019).

Myles (2014) in (Ismalia, 2017) also explained that fast food or junk food contains high saturated fatty acids and unsaturated omega-6 fatty acids, low content of omega-3 fatty acids, lots of salt content and lots of refined sugar. Hussein (2013) in (Ismalia, 2017) said that unsaturated fatty acids in the diet are the beginning of a cascade of prostaglandin release that will cause dysmenorrhea.

Prostaglandins help the uterus contract and expel the uterine lining during the menstrual period. In women with dysmenorrhea there is a buildup of prostaglandins in too much, or the uterus is extra sensitive to prostaglandins. This can cause the uterus to contract harder. So that if the body consumes more and more fast food, there will be more prostaglandins in the body which will cause dysmenorrhea (Anisa, 2015).

Prostaglandins are formed from fatty acids in the body. After ovulation there is a buildup of fatty acids in the phospholipids of the cell membrane. When progesterone levels drop before menstruation, fatty acids, namely arachidonic acid, are released and undergo a chain reaction to become prostaglandins which can cause dysmenorrhea (Ismalia, 2017). Satyanarayana (2014) dalam (Indahwati et al., 2017) said that the cell membrane has several components, one of which is phospholipids. One of the functions of phospholipids is to provide acid arachidonate which will be synthesized into prostaglandins.

Fast food places are now starting to exist near schools, especially favorite schools, so it is not surprising that consumption of fast food among children and adolescents continues to increase (Anisa, 2015). Suparman (2011) dalam (Alvionita, 2016) It is also said that the diet in cities has shifted from a traditional diet that is high in carbohydrates and fiber from vegetables to a diet that is westernized and has little fiber. The composition of foods that are high in fat, salt, and a little fiber in ready-to-eat foods, which lately is very popular among Indonesian people.

Junk food / fast food is food that has high calories but has little or no nutritional value. Junk food / fast food is in foods that are high in salt content, high in fat, contain soda, foods that are cooked too long or warmed repeatedly, contain additives (preservatives, dyes, artificial sweeteners and flavor enhancers). cans), as well as salty and sweet snacks (Sutrisno et al., 2018). If the body consumes more and more fast food, the more prostaglandins in the body will cause dysmenorrhea.

Priantika (2013) in (Ramadani, 2018) said that the meal schedule can be interpreted by the frequency of daily meals. The frequency of meals in one day consists of 3 main meals, namely breakfast (before 09.00), lunch (12.00-13.00), and dinner (18.00-19.00 hours). The duration of food in the stomach depends on the properties and type of food. If on average, the stomach is generally empty for 3-4 hours, then this eating schedule also adjusts to the empty stomach (Lani et al., 2017). The frequency of eating can affect a person's nutritional status, because a balanced dietary pattern that is in accordance with the needs accompanied by the selection of the right food ingredients will result in good nutritional status (Lani et al., 2017). Breakfast habits can be a factor affecting nutritional status. Being overweight can be caused by someone skipping breakfast, thereby increasing their intake of snacks, especially snacks that are high in calories, sugar, and high in fat. In addition, someone who skips breakfast can

also be underweight or underweight, this is because it is not balanced with an increase in food intake (Lani et al., 2017).

Apart from the frequency of eating which affects a person's nutritional status, the amount of food a person eats also affects their nutritional status. According to Pratiwi (2013) in (Ramadani, 2018), amount or portion of food is a measure or measure of food consumed at each meal. According to the Kemenkes RI (2014) in (Ramadani, 2018), each person must balance the amount of calories in with the amount of energy expended. Daily consumption must contain nutrients in the type and amount appropriate to the needs of each person or age group. Food intake that exceeds the body's needs will lead to excess weight caused by excess nutrients. Conversely, food intake that is less than what is needed will cause the body to become thin. These two circumstances are equally unhealthy (Lani et al., 2017). Depkes Indonesia (2012) in (Utami, 2017) mengatakan bahwa di negara-negara berkembang, faktor yang mempengaruhi tingginya gizi lebih pada remaja diantaranya adalah pola makan dengan porsi besar atau melebihi dari kebutuhan tubuh. Kebiasaan makan yang buruk dan pemahaman mengenai gizi yang keliru oleh remaja dimana tubuh langsing menjadi idaman bagi remaja putri sehingga mereka menerapkan pengaturan pembatasan jumlah makanan yang keliru menjadi faktor yang mempengaruhi statuz gizi pada remaja (Marmi, 2014).

Rahmadhayanti (2016) dalam (Ginting, 2020), One of the factors that influence the occurrence of dysmenorrhea is related to nutritional status. The nutritional status of adolescent women greatly affects a person's menstruation, complaints during menstruation, and the length of menstrual days. Nutritional status is also a risk factor for primary dysmenorrhea.

Supirasa (2005) in (Utari & Ambarwati, 2016) said that one of the nutritional status assessments can be measured by an anthropometric index, namely the Body Mass Index (BMI). This BMI assessment can only be done at adolescence and above. BMI is the result of the comparison between body weight in kg and height in m. BMI categories according to WHO (2006) in (Utari & Ambarwati, 2016) thin <17.0; normal 18.5-24.9; fat 25.0-29.9 and obesity equal to or> 30.0.

Pebrina (2016) in (Harmoni & Basuki, 2018), A woman who is either deficient or over-nourished will have an impact on decreasing the function of the hypothalamus which does not stimulate the anterior pituitary to produce FSH (Follicle Stimulating Hormone) and LH (Luteinizing Hormone). FSH functions to stimulate egg growth and LH functions in the process of egg maturation and ovulation, which, if not fertilized, will occur (menstruation).

Widjanarko (2012) in (Harmoni & Basuki, 2018) mengatakan bahwa seseorang dengan berat badan lebih terdapat jaringan lemak yang berlebih pula, sehingga dapat menyebabkan terdesaknya pembuluh darah oleh jaringan lemak dan organ reproduksi. Hal tersebut menyebabkan gangguan vaskularisasi pada organ reproduksi yang memicu kontraksi berlebihan dan timbul *dismenore*. Menurut Paath (2007) in (Harmoni & Basuki, 2018) Underweight can also cause dysmenorrhea due to lack of nutrition in the luteum phase and less than optimal growth of the reproductive organs.

CONCLUSION
Based on the research results, the following conclusions can be drawn:
There is a significant relationship between diet and the incidence of dysmenorrhea in adolescent girls using the Chi-Square test, the results show that p = 0.011, this indicates that the value of p <0.05.

The dietary pattern of the majority of respondents was in the poor category, namely as many as 137 people (52.3%), the remaining 125 people (47.7%) were in the adequate diet category, while for the category of good diet there was not found by the researchers.
Researchers found that 242 girls (92.4%) had dysmenorrhea.

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