

# Overview of Students' Knowledge about The Management of Dysmenorrhea at Trunojoyo Kencong Junior High School in Jember

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## Abstract

**Background:** The increase in cases of dysmenorrhea among adolescent girls in Indonesia has become an important issue in reproductive health because it directly affects their quality of life and academic performance. However, there is still a significant gap in knowledge about how to treat dysmenorrhea, especially among junior high school students

**Aims:** This study aims to describe the level of knowledge among adolescent girls about the treatment of dysmenorrhea and the factors that influence it.

**Methods:** A quantitative descriptive approach was used, involving 61 female students in grades VII–IX at Trunojoyo Kencong Junior High School, Jember Regency, as respondents. Sampling was conducted using purposive sampling, using a structured questionnaire containing 15 questions that were analyzed univariately to display the frequency distribution.

**Results:** The results showed that almost half of the respondents had sufficient knowledge (41%) about dysmenorrhea management, while 24.6% had good knowledge and 34.4% still lacked knowledge. The majority of respondents were aged 12–13 years and experienced menarche at the age of 13–16 years. This uneven level of knowledge is thought to be influenced by variations in exposure to information, both from formal sources such as schools and non-formal sources such as digital media

**Conclusion:** Therefore, it is necessary to strengthen school-based reproductive health education through structured counseling, training for guidance counselors, and the use of digital media as an educational tool to improve adolescents' understanding of non-pharmacological management of dysmenorrhea.

**Keywords:** dysmenorrhea, adolescent girls, health knowledge, reproductive education, menstrual pain management

## INTRODUCTION

Adolescence is a period between childhood and adulthood, characterized by rapid physical, physiological, and intellectual growth (Nuzula & Oktaviana, 2022). According to the World Health Organization (WHO), adolescence spans from ages 10 to 19 (Anggari et al., 2020). Physiological changes in adolescents are marked by puberty. Puberty in girls is marked by menstruation, which occurs between the ages of 10 and 16. Some adolescents experience problems during

menstruation, such as abdominal cramps and hip pain, known as dysmenorrhea, which usually occurs before and during menstruation.

The incidence of dysmenorrhea in adolescent girls worldwide reaches 90%, with more than 10–15% of them experiencing severe and disruptive pain that hinders their activities. There is no definitive data on the prevalence of dysmenorrhea among adolescent girls in Indonesia, but the figure ranges from 60–70% (Kesehatan, 2023). In East Java,

64.25% of adolescent girls experience dysmenorrhea, consisting of 54.89% primary dysmenorrhea and 9.36% secondary dysmenorrhea (Zuhkrina & Martina, 2023).

The occurrence of dysmenorrhea in adolescent girls is caused by an imbalance of progesterone hormones in the blood, resulting in pain. Low progesterone levels cause the formation of large amounts of prostaglandins, which increase the rate of uterine muscle contractions and cause dysmenorrhea. Prostaglandins cause the uterine muscles to contract as an inflammatory reaction to the shedding of the uterine wall. High prostaglandin levels can cause severe abdominal pain and cramps (Mahfiana et al., 2019). The effects of dysmenorrhea in adolescent girls, apart from abdominal pain, include dizziness, weakness, and fatigue, which cause cold sweats, emotional instability, tension, and anxiety. Another impact of dysmenorrhea on adolescent girls is a decrease in concentration and motivation during the learning process (Prawirohardjo, 2020).

Dysmenorrhea can be treated in two ways: pharmacologically and non-pharmacologically. Pharmacological therapy involves taking nonsteroidal anti-inflammatory drugs (NSAIDs) to relieve pain. Non-pharmacological therapy can be done by applying warm compresses, relaxation techniques, massage, and herbal drinks (Betty & Ayamah, 2021).

A preliminary study conducted at Trunojoyo Kencong Junior High School in Jember Regency involved brief interviews with 10 female seventh-grade students. Four of them did not experience dysmenorrhea, while six experienced dysmenorrhea and sometimes had their activities disrupted due to the pain, which interfered with their learning activities at school. The results of interviews with female students who had experienced

menarche showed that 2 said they had experienced mild pain during menstruation without seeking treatment, while 2 others said they had experienced severe pain during menstruation, preventing them from carrying out activities and even causing them to skip school without seeking pain treatment. It can be concluded that adolescents' knowledge about the treatment of dysmenorrhea is still lacking, so it needs attention and must be handled properly. Based on these results, the researcher was interested in conducting research on students' knowledge of dysmenorrhea management. The purpose of this study was to determine students' knowledge of dysmenorrhea at Trunojoyo Kencong Junior High School in Jember Regency.

## METHOD

This study used a quantitative descriptive method, which is a study conducted with the main objective of providing an objective description of a situation. The variables in this study were knowledge about dysmenorrhea and the population in this study were female students in grades VII, VIII, and IX, with a total population of 163 students. The sample size in this study was 61 respondents, with sampling using purposive sampling according to inclusion and exclusion criteria. This study was conducted from August to September 2025.

There were two instruments used in this study, namely questionnaire A, which consisted of questions about the characteristics of the respondents, including their initials, age, age of menarche, grade, and source of information, and questionnaire B, which consisted of 15 questions about the definition, duration of menstruation, symptoms, causes, and knowledge of efforts to treat dysmenorrhea. The measurement results were as follows: very good: 85–100% (13-15 correct answers), good: 65-84% (10-12 correct answers), fair: <64% (<10 correct answers).

The data analysis used was univariate analysis to determine the frequency distribution of adolescent girls' knowledge and characteristics.

## RESULTS

The results of the age frequency distribution can be seen in Table 1 as follows:

**Table 1.** Age Frequency Distribution

Age	Frequency (n)	Percentage (%)
12-14 years	35	57,3
15-16 years	26	42,7
Total	61	100

Based on Table 1, it is known that most respondents were aged 13-14 years, totaling 35 respondents (57.3%), and respondents aged 15-16 years totaled 26 respondents (42.7%). The results of the frequency distribution of age at menarche are presented in Table 2.

**Table 2.** Frequency Distribution of Menarche Age

Menarche Age	Frequency (n)	Percentage (%)
Early menarche <12 years old	20	32,8
Normal menarche 13-16 years old	41	67,2
Late menarche >16 years old	0	0
Total	61	100

Based on Table 2, it is known that most respondents experienced menarche at the age of 13-16 years, totaling 41 respondents (67.2%), while some respondents experienced menarche at the age of over 17 years, totaling 0 respondents (0%).

The results of the frequency distribution of knowledge regarding dysmenorrhea management are presented in Table 3.

**Table 3.** Knowledge about the Management of Dysmenorrhea

Level of Knowledge	Frequency (n)	Percentage (%)
Good	15	24,6
Sufficient	25	41
Insufficient	21	34,4
Total	61	100

Based on Table 3, it is known that almost half (41%) of the respondent's sufficient knowledge, namely 25 respondents. Meanwhile, 21 respondents (34.4%) had insufficient knowledge.

## DISCUSSION

The results of the frequency distribution based on age characteristics show that most (57.2%) respondents were in the 12-14 age range. In addition, the results of the frequency based on age at menarche show that most (67.2%) respondents experienced menarche in the 13-16 age range. This is in line with research conducted by (Nelly, 2019), which states that age affects knowledge, where early adolescence is a stage of adolescence where adolescents receive information but are not yet able to apply it optimally and often try things out without considering the consequences, while middle adolescence is a stage where adolescents begin to understand themselves and are more receptive to information (Kustin & Handayani, 2024).

During this phase, adolescents undergo physical development that begins to resemble that of adults (Kustin, Handayani, et al., 2023). During this stage, adolescents highly value friendship and feel satisfied when they have many friends who share the same interests, so that adolescents' knowledge about non-pharmacological management of dysmenorrhea is also influenced to some extent by their peer environment (R. Handayani, 2021).

The results of the frequency distribution of adolescents' knowledge about dysmenorrhea show that almost half (24.6%) of respondents have sufficient knowledge. A study conducted by (Ilmiah et al., 2023) obtained similar results, where 65 female adolescents (26.6%) had sufficient knowledge. Sufficient knowledge in this study was found in aspects of dysmenorrhea characteristics, such as lower abdominal cramps, back pain, weakness, nausea, and dizziness. Adolescents are not yet able to recognize the signs and symptoms of dysmenorrhea and how to treat it. Knowledge is a determining factor in how humans think, feel, and act (R. Handayani, 2021).

Although the majority of adolescent girls in this study had sufficient knowledge about the treatment of dysmenorrhea, there were still a small number who did not fully understand these methods. Uneven knowledge may be related to a lack of exposure to information due to the absence of socialization regarding the management of dysmenorrhea among adolescents. The lack of exposure to information related to the management of dysmenorrhea among adolescents results in a lack of knowledge about how to overcome dysmenorrhea. As a result, the average adolescent, especially those who have just started menstruating and experience dysmenorrhea, tend to ignore the management of dysmenorrhea (Y. Handayani et al., 2022).

The percentage of adolescent girls who lack knowledge about the management of dysmenorrhea in this study found that almost half (34.4%), or 21 students, were unaware. This is due to the lack of awareness among adolescent girls to seek information related to dysmenorrhea, its effects, and how to manage it. The level of knowledge of an individual is influenced by several factors, including internal factors such as education, occupation, age, and external factors such as environmental and

socio-cultural factors (Wawan & Dewi, 2015). Given the problem of adolescent girls' lack of awareness and knowledge about the management of dysmenorrhea, there is a need for more equitable socialization and reproductive health education from an early age to increase adolescents' awareness and ability to cope with dysmenorrhea. Adolescent girls need to be equipped with more comprehensive knowledge about how to cope with dysmenorrhea, including effective non-pharmacological treatments, so that their daily activities are not disrupted (Kustin, Dermawan, et al., 2023).

## CONCLUSION

This study shows that almost half of the respondents have sufficient knowledge about the management of dysmenorrhea. Respondents who have sufficient knowledge about the management of dysmenorrhea are mostly aged between 12 and 13 years old and experienced menarche between the ages of 13 and 16 years old. This uneven knowledge is thought to be influenced by differences in exposure to information, both from formal sources such as schools and informal sources such as digital media. Therefore, it is recommended that schools and health workers be more active in providing health education through outreach programs, distribution of educational materials, and the use of digital media to increase awareness and knowledge among adolescent girls regarding the management of dysmenorrhea.

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