


Impact Of Dysmenorrhea Management Health Education On Adolescent Girls' Knowledge And Attitude About Dysmenorrhea Management

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Article Info	ABSTRACT
Keywords: Health education, Dysmenorrhea, Knowledge, Attitude, Adolescents.	Dysmenorrhea can cause various problems, such as disrupting their activities as students. Knowledge and attitudes can be important factors for adolescent girls in managing dysmenorrhea. The purpose of this study is to analyze the effect of health education on dysmenorrhea management on the knowledge and attitudes of adolescent girls in managing dysmenorrhea. This study employed a pre-experimental design with a one-group pre-test post-test approach. The population consisted of all female students in grades VII-IX at SMP Muhammadiyah 5 Randublatung, Blora Regency, in 2022, totaling 31 students. The sample included 31 respondents, selected through total sampling technique. The independent variable was health education on dysmenorrhea, and the dependent variables were knowledge and attitudes about dysmenorrhea and its management. Data were collected using a questionnaire. Data processing involved editing, scoring, coding, tabulating, and analyzing data using cross-tabulation. The study results showed that before the health education intervention, 16 respondents (51.6%) had moderate knowledge, and 19 respondents (61.3%) had a favorable attitude. After the health education intervention, 18 respondents (58.1%) had moderate knowledge, and 26 respondents (83.9%) had a favorable attitude. There was an effect of health education on dysmenorrhea management on the knowledge and attitudes of adolescent girls in managing dysmenorrhea.
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INTRODUCTION

Adolescence, between the ages of 10-19, is a period of maturation of the human reproductive organs, often referred to as puberty, marked by physical and physiological changes. These bodily changes are accompanied by the gradual development of primary and secondary sexual characteristics. Primary sexual characteristics include the development of reproductive organs, while secondary sexual characteristics include changes in body shape according to gender. For instance, in adolescent girls, this period is marked by menarche (the first menstruation), the growth of pubic hair, breast enlargement,

and hip widening (Rahayu et al., 2017). Dysmenorrhea is one of the common menstrual disorders among adolescent girls, usually occurring before and during menstruation. For adolescent girls, dysmenorrhea or menstrual pain can cause various problems, such as disrupting their activities as students, thereby reducing their comfort in the learning process or extracurricular activities. The impact of menstrual pain often requires adolescent girls to leave their daily activities for several hours or days (Sinaga et al., 2017). The knowledge of adolescent girls can be an important factor in dealing with dysmenorrhea as it is closely related to their activities as students, affecting their comfort during the learning process or extracurricular activities. It is also important to understand their attitudes towards managing menstrual pain or dysmenorrhea, not only in terms of acceptance but also in terms of treatment or pain relief methods. The knowledge and attitudes of adolescent girls about dysmenorrhea can influence their behavior in managing or coping with it. A phenomenon observed among adolescent girls at SMP Muhammadiyah 5 Randublatung, Blora Regency, is that many experience menstrual pain or dysmenorrhea during menstruation. Most of these adolescent girls lack understanding in managing the menstrual pain they experience.

According to the World Health Organization (WHO), the prevalence of dysmenorrhea globally is significant, with over 50% of women in every country experiencing it. In Indonesia, it is estimated that 55% of women of reproductive age suffer from menstrual pain, with the prevalence of pain ranging from 45-95%. Among these, 15% report that their activities are limited due to dysmenorrhea. In Central Java, 52% of women of reproductive age experience dysmenorrhea, with 30% of these cases occurring in adolescent girls (Sari & Hayati, 2020). A study by Fadillah Umadiyah (2020) found that among female university students experiencing menstrual pain, 36.5% managed the pain pharmacologically by taking over-the-counter analgesics, and 44.7% used mefenamic acid prescribed by a doctor. Non-pharmacological pain management was predominantly achieved through relaxation techniques, used by 85.9% of the respondents (Umadiyah, 2020). A preliminary study conducted at SMP Muhammadiyah 5 Randublatung, Blora Regency, in February 2022, involving 10 adolescent girls, revealed that all participants had experienced menstrual pain. Among them, 4 girls reported frequent pain (during every menstruation), while 6 reported occasional pain. Regarding their knowledge of menstrual pain management, 70% (7 girls) indicated that they only rested or slept to relieve the pain, while 30% (3 girls) managed their pain by resting and taking medication.

Managing dysmenorrhea is crucial because it can significantly disrupt daily activities for many women. The knowledge of adolescent girls plays a vital role in dealing with dysmenorrhea, as it directly impacts their comfort during school activities and extracurricular engagements. It is also important to understand their attitudes towards menstrual pain, not only in terms of acceptance but also in terms of treatment methods or pain relief strategies (Sinaga et al., 2017). Health education methods consist of two types: print media and audiovisual media. Both types aim to enhance knowledge, which is expected to lead to positive behavioral changes in health (Jatmika et al., 2019). The knowledge and attitudes of adolescent girls about dysmenorrhea can influence their behavior in managing or coping with it. Adolescent girls who receive accurate information

about dysmenorrhea are likely to accept the symptoms and complaints they experience with a positive attitude. Conversely, those with insufficient knowledge about dysmenorrhea may feel anxious and excessively stressed when facing these symptoms and complaints, or they may exhibit negative attitudes.

METHODS

The research design used is a Pre-Experimental Design (non-designs), which is not a true experimental design. This study employs a one-group pre-test post-test design, where pre-test and post-test measurements are taken. This approach allows for a more accurate assessment of the treatment effect by comparing the results before and after the intervention (Sugiyono, 2015).

This study was conducted at SMP Muhammadiyah 5 Randublatung, Blora Regency, in June 2022. The population included all female students in grades VII-IX at SMP Muhammadiyah 5 Randublatung, totaling 31 students in 2022. The sample also consisted of all 31 female students in grades VII-IX at SMP Muhammadiyah 5 Randublatung in 2022, obtained through non-probability sampling using total sampling technique.

The independent variable in this study is health education about dysmenorrhea, while the dependent variables are the knowledge and attitudes of adolescent girls regarding dysmenorrhea and its management. The instrument used for data collection was a questionnaire. The questionnaire included written questions to gather data on respondent characteristics, knowledge, and attitudes of adolescent girls in managing dysmenorrhea.

Data processing techniques included editing, scoring, coding, and tabulating. The data analysis method used to determine the effect of health education on dysmenorrhea management on the knowledge and attitudes of adolescent girls was cross-tabulation analysis. Cross-tabulation, or crosstab, is a statistical technique used to describe two or more interrelated variables by combining them. One characteristic of using crosstab data is that the input data, which are nominal or ordinal, can produce outputs that can be explained descriptively (Sarwono, 2009).

RESULTS AND DISCUSSION

Based on research conducted at SMP Muhammadiyah 5 Randublatung with a population of 31 students, to determine whether there is a difference in knowledge and attitudes of adolescents after being given health education on managing dysmenorrhea, the results is:

Table 1. The distribution of knowledge among adolescent girls in managing dysmenorrhea before receiving health education on dysmenorrhea at SMP Muhammadiyah 5

Randublatung		
Before receiving health education on dysmenorrhea	Total	Percentage (%)
Good	0	0,0
Enough	16	51,6
Not enough	15	48,4
Total	31	100,0

*) data source : primary data 2022

Based on Table 1, it can be observed that out of 31 respondents, before being provided with health education on dysmenorrhea, more than half had adequate knowledge, specifically 16 respondents (51.6%).

Table 2. The distribution of knowledge among adolescent girls in managing dysmenorrhea after receiving health education on dysmenorrhea at SMP Muhammadiyah 5

Randublatung		
After receiving health education on dysmenorrhea	Total	Percentage (%)
Good	10	32,3
Enough	18	58,1
Not enough	3	9,7
Total	31	100,0

*) data source : primary data 2022

According to Table 2, it can be observed that out of 31 respondents, after being provided with health education on dysmenorrhea, more than half had adequate knowledge, specifically 18 respondents (58.1%).

Table 3. The distribution of attitudes among adolescent girls in managing dysmenorrhea before receiving health education on dysmenorrhea at SMP Muhammadiyah 5

Randublatung		
Attitudes of adolescent girls in managing dysmenorrhea before receiving health education	Total	Percentage (%)
Positive attitudes	19	61,3
Negative attitudes	12	38,7
Total	31	100,0

*) data source : primary data 2022

Based on Table 3, it can be observed that out of 31 respondents, before being provided with health education on dysmenorrhea, more than half had a positive attitude, specifically 19 respondents (61.3%).

Table 4. The distribution of attitudes among adolescent girls in managing dysmenorrhea after receiving health education on dysmenorrhea at SMP Muhammadiyah 5

Randublatung		
Attitudes of adolescent girls in managing dysmenorrhea after receiving health education	Total	Percentage (%)
Positive attitudes	26	83,9
Negative attitudes	5	16,1
Total	31	100,0

*) data source : primary data 2022

According to Table 4, it can be observed that out of 31 respondents, after being provided with health education on dysmenorrhea, the majority had a favorable (positive) attitude, specifically 26 respondents (83.9%).

Table 5. Cross-tabulation demonstrating the influence of health education on dysmenorrhea on the knowledge of adolescent girls in managing dysmenorrhea at SMP Muhammadiyah 5 Randublatung

No.	Health education about dysmenorrhea	Knowledge						Total	
		Good		Enough		Not enough		n	%
		n	%	n	%	n	%		
1.	Before Health Education	0	0	16	51,6	15	48,4	31	100
2.	After Health Education	10	32,3	18	58,1	3	9,7	31	100

*) data source : primary data 2022

Based on Table 5, it can be observed that after receiving health education on dysmenorrhea, the level of good knowledge increased from 0 respondents to 10 respondents (32.3%), and the level of adequate knowledge increased from 16 respondents (51.6%) to 18 respondents (58.1%). Meanwhile, the level of insufficient knowledge decreased from 15 respondents (48.8%) to 3 respondents (9.7%).

Table 6. Cross-tabulation demonstrating the influence of health education on dysmenorrhea on the attitudes of adolescent girls in managing dysmenorrhea at SMP Muhammadiyah 5 Randublatung

No.	Health education about dysmenorrhea	Attitudes				Total	
		Positive		Negative		n	%
		n	%	n	%		
1.	Before health education	19	61,3	26	83,9	31	100
2.	After health education	12	38,7	5	16,1	31	100

*) data source : primary data 2022

Based on Table 6, it can be observed that after receiving health education on dysmenorrhea, the positive attitude increased from 19 respondents (61.3%) to 26 respondents (83.9%), while the negative attitude decreased from 12 respondents (38.7%) to 5 respondents (16.1%).

Discussion

Adolescent girls knowledge about managing dysmenorrhea before and after receiving health education

The research findings indicate that among the 31 respondents, more than half had sufficient knowledge, totaling 16 respondents (51.6%), before receiving health education on dysmenorrhea. Knowledge can be defined as actionable information or information that can be acted upon, serving as the basis for decision-making and the formulation of specific strategies (Nursalam, 2019). Several factors influence knowledge, with the first being age. Age impacts an individual's ability to comprehend and their thinking patterns. Generally, maturity and cognitive abilities tend to increase with age. In terms of societal trust, older individuals are typically more trusted than younger ones. In the middle age group (31-49 years old), individuals tend to play more active roles in society and social life, and they

devote more time to preparing for successful aging. Additionally, individuals in middle age spend more time reading (Nursalam & Pariani, 2016). The second factor is education. Higher levels of education facilitate easier information absorption, resulting in broader knowledge acquisition and positive behavioral changes. Higher education levels enable individuals to embrace new information more readily and adapt to changes more easily (Lestari, 2015). The third factor is experience. Experience refers to activities or events that individuals have encountered, which contribute to informal knowledge. Experience is closely related to an individual's age and education level. Higher education levels correspond to broader experiences, and as individuals age, their experiences accumulate. Experience serves as a means of acquiring true knowledge by applying previously acquired knowledge to solve past problems (Notoatmodjo, 2017).

Based on the research findings, it is evident that before receiving health education on dysmenorrhea, more than half of the respondents had sufficient knowledge. This can be influenced by the age factor of the respondents, as less than half of them were 14 years old, comprising 11 respondents (35.5%). This age falls within the early adolescence stage, where individuals begin to transition from childhood roles and strive to develop as unique individuals, independent of their parents. The knowledge of adolescent girls can also be influenced by their educational background, as less than half of the respondents were in Grade VII, totaling 11 respondents (35.5%). In Grade VII, students are introduced to reproductive health education, which enables them to acquire sufficient understanding of menstruation and related issues such as menstrual pain. Additionally, the knowledge of adolescent girls is influenced by their experience of experiencing menstrual pain, as evidenced by the data showing that more than half of the respondents experienced menstrual pain every 2-3 menstrual cycles, totaling 19 respondents (61.3%). These experiences contribute to the respondents' adequate knowledge of menstrual pain and its management.

The research findings revealed that out of 31 respondents, after receiving health education on dysmenorrhea, more than half had sufficient knowledge, comprising 18 respondents (58.1%). Health education is an effort or activity aimed at creating conducive behavior for health within communities. It endeavors to make people aware of or understand how to maintain their health, avoid or prevent factors detrimental to their health and the health of others, where to seek treatment when ill, and so forth (Notoatmodjo, 2017). According to Benjamin Bloom, the goal of education is to develop or enhance three domains of behavior: cognitive, affective, and psychomotor (Notoatmodjo, 2016). Knowledge or cognitive domain is particularly crucial in shaping an individual's actions (overt behavior). Knowledge within the cognitive domain encompasses six levels: firstly, knowing (know); secondly, understanding (comprehension); thirdly, application (application); fourthly, analysis (analysis); fifthly, synthesis (synthesis); and sixthly, evaluation (evaluation) (Notoatmodjo, 2017).

The health education provided on dysmenorrhea and its management enhances the knowledge of adolescent girls, enabling them to understand and address menstrual pain properly. This aligns with the goal of health education, which is to promote healthy

behaviors within communities. The research findings indicate differences in the knowledge and attitudes of female students in responding to dysmenorrhea before and after receiving health education. Adolescents, especially in mid-adolescence, exhibit a high level of curiosity, leading them to experiment with new experiences. With access to accurate information about dysmenorrhea, adolescent knowledge can be transformed, allowing them to engage in more positive behaviors and effectively manage dysmenorrhea.

The research findings indicate that out of 31 respondents before receiving health education on dysmenorrhea, more than half displayed a favorable (positive) attitude, with 19 respondents (61.3%). Attitude refers to an evaluative or affective reaction. One's attitude toward an object reflects a supportive or unsupportive feeling toward that object (Azwar, 2016). Personal experience is one of the factors influencing attitude formation. Our past and current experiences shape and influence our perception of social stimuli. Responses serve as the basis for attitude formation. To have responses and perceptions, individuals must have relevant experiences with psychological objects. Experiences can be obtained through education, such as teaching and training, mass media (radio, newspapers, magazines, and television), and information, which includes data, text, images, sound, codes, computer programs, databases, as well as from healthcare professionals such as midwives and doctors (Azwar, 2016).

Attitude of adolescent girls in managing dysmenorrhea before and after receiving health education

The research findings indicate that before receiving health education on dysmenorrhea, more than half of the respondents displayed a favorable (positive) attitude. This is influenced by personal experiences related to experiencing menstrual pain. This is evidenced by the general data of respondents showing that more than half experienced menstrual pain every 2-3 menstrual cycles, totaling 19 respondents (61.3%). The experience of menstrual pain can encourage individuals to have a better attitude when experiencing it again in the future.

The research findings indicate that after receiving health education on dysmenorrhea, more than half of the respondents displayed sufficient knowledge, totaling 18 respondents (58.1%), and the majority exhibited a favorable (positive) attitude, totaling 26 respondents (83.9%). Health education is an effort or activity to create conducive community behavior for health. This means that health education aims to make people aware of how to maintain their health, how to avoid or prevent things that are detrimental to their health and the health of others, where to seek treatment if they are sick, and so on (Notoatmodjo, 2017). According to Benjamin Bloom, the goal of education is to develop or enhance three domains of behavior: cognitive, affective, and psychomotor (Notoatmodjo, 2016). Knowledge, or cognitive, is a domain that is very important in shaping a person's actions (overt behavior). Knowledge covered in the cognitive domain has six levels: knowing, comprehending, applying, analyzing, synthesizing, and evaluating. On the other hand, attitude is a closed response or reaction of an individual to a stimulus or object. Attitude consists of various levels: receiving, responding, valuing, and being responsible (Notoatmodjo, 2017).

The health education provided on dysmenorrhea and its management enables adolescents to adopt the correct attitude in dealing with menstrual pain they experience. This aligns with the goal of health education, which is to develop healthy behaviors in the community. In this study, the attitudes of female students in responding to dysmenorrhea incidents showed differences before and after receiving health education. Prior to receiving information, adolescents could only respond to questions negatively regarding dysmenorrhea incidents due to their lack of understanding. However, after receiving health education, there was a change in attitude among adolescents, as evidenced by their responses leaning towards positive questions in handling dysmenorrhea. Adolescents in mid-adolescence have a high level of curiosity, driving them to experiment with new things they have not encountered before. With good information about dysmenorrhea, adolescents can change their knowledge, allowing them to experiment with more positive approaches that can enhance their knowledge and change their attitudes towards effectively managing dysmenorrhea.

Impact of Dysmenorrhea Management Health Education on Adolescent Girls' Knowledge and Attitude about Dysmenorrhea Management

Data analysis based on cross-tabulation yielded the following results: after receiving health education on dysmenorrhea, the level of good knowledge increased from 0 respondents to 10 respondents (32.3%), and the level of sufficient knowledge increased from 16 respondents (51.6%) to 18 respondents (58.1%). Meanwhile, the level of insufficient knowledge decreased from 15 respondents (48.8%) to 3 respondents (9.7%). The cross-tabulation results indicate that there is an influence of health education on dysmenorrhea on the knowledge of adolescent girls in managing dysmenorrhea at SMP Muhammadiyah 5 Randublatung, Bora Regency in 2022. Regarding the attitudes of adolescent girls, after receiving health education on dysmenorrhea, the favorable (positive) attitudes increased from 19 respondents (61.3%) to 26 respondents (83.9%), while the unfavorable (negative) attitudes decreased from 12 respondents (38.7%) to 5 respondents (16.1%). The cross-tabulation results indicate that there is an influence of health education on dysmenorrhea on the attitudes of adolescent girls in managing dysmenorrhea at SMP Muhammadiyah 5 Randublatung.

Dysmenorrhea is one of the menstrual disorders commonly encountered in adolescent girls, usually occurring before and during menstruation. In adolescent girls, dysmenorrhea or menstrual pain can cause various problems, such as disrupting their activities as students, which can reduce their comfort in the learning process or activities outside of school hours. The impact of menstrual pain often forces adolescent girls to leave their daily activities for several hours or days. Psychologically, individuals with dysmenorrhea often experience irritability, easy annoyance, difficulty concentrating, insomnia, fatigue, depression, and low self-esteem. In English, dysmenorrhea is often referred to as "painful period." Menstrual pain occurs mainly in the lower abdomen but can spread to the lower back, waist, pelvis, upper thighs, and even calves (Sinaga et al., 2017). One effort to increase knowledge about dysmenorrhea and its management is by providing health education on dysmenorrhea to adolescent girls. Health education methods consist of two types, the first being print media

and the second being audiovisual media. Health education using print media or audiovisual media has the same goal, which is to increase knowledge that is then expected to lead to positive changes in health behavior (Jatmika et al., 2019).

Based on the research results, it is known that after providing health education, there is an increase in knowledge and attitude of adolescent girls regarding dysmenorrhea and its management. This indicates that there is an influence of health education on dysmenorrhea management on the knowledge and attitude of adolescent girls in handling dysmenorrhea. This is evidenced by the significant values obtained in the curve estimation: $0.047 < \alpha$ (0.05) for knowledge and $0.001 < \alpha$ (0.05) for attitude, which means that H1 is accepted, indicating that there is an influence of health education on dysmenorrhea on the knowledge and attitude of adolescent girls in handling dysmenorrhea at SMP Muhammadiyah 5 Randublatung.

The increase in knowledge and the change in attitude from negative to positive are expected to lead to positive changes in behavior in handling dysmenorrhea. Health education can provide an experience that influences positive and beneficial attitudes, habits, and knowledge related to individual and group health. With health education, there can be improvements in terms of cognitive aspects (knowledge), attitudes, and behaviors of individuals or groups. Dysmenorrhea, which disrupts the daily activities of adolescent girls, can be relieved in several ways, such as warming the abdomen with a warm compress, engaging in light exercise like walking or cycling, massaging the lower abdomen, taking pain relievers (analgesics) such as paracetamol, practicing relaxation techniques such as yoga and meditation, and avoiding drinks containing caffeine and alcohol.

CONCLUSION

Based on the results and discussion of the study, it can be concluded that health education on dysmenorrhea management positively impacts the knowledge and attitudes of adolescent girls in handling dysmenorrhea. The level of good knowledge increased from 0 respondents to 10 respondents (32.3%), and the level of sufficient knowledge increased from 16 respondents (51.6%) to 18 respondents (58.1%). The favorable (positive) attitudes increased from 19 respondents (61.3%) to 26 respondents (83.9%). Further research needs to be carried out in more effective strategies for managing dysmenorrhea include using warm compresses, walking, and getting adequate rest. Healthcare professionals are encouraged to promote health education about dysmenorrhea and its management, particularly for seventh-grade girls, as this age group typically experiences menarche (the first menstruation).

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