

THE EFFECT OF PROVIDING HEALTH EDUCATION ABOUT MENSTRUATION ON READINESS OF STUDENTS TO FACE MENARCHE

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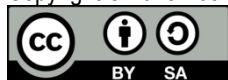
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ABSTRACT

Menarche is the onset of menstruation, typically occurring between the ages of 10 and 16. Adolescents who are unprepared to face menarche may develop feelings of rejection toward this physiological process, viewing menstruation as something harsh and threatening. Adequate education and information about menstruation are crucial for female students to be well-prepared for menarche. This study aims to assess the effect of health education on menstruation on female students' readiness to face menarche. The research employed a cross-sectional method with a pre-experimental design using a one-group pre-test and post-test approach. The sampling technique used was purposive sampling. The data analysis was conducted using the nonparametric Wilcoxon matched pairs test. The results showed a significant improvement in students' readiness after receiving health education, with a p-value of 0.000 (0.05). The study concludes that health education significantly enhances students' readiness to face menarche. It is recommended that schools collaborate with healthcare professionals to provide menstruation education, ensuring that students are better prepared for menarche.

Keywords: Health Education ; Menarche ; Readiness

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INTRODUCTION

Adolescence is one of the stages of human development, serving as a transition from childhood to adulthood and incorporating psychological, social, and biological changes. Adolescence typically begins between the ages of 10 until 13 and concludes by the ages of 18 until 22. According to the (World Health Organization, 2023), the people population in this world is around 7.2 billion people, 3 billion people are under the age of 25, and 1.2 billion people are adolescents aged 10-19 years or equivalent to 18% of the population in this world, which makes adolescents have a large population compared to other age groups.

The total population of Indonesia in 2021 amounted to 270,203,917 people, 2/3 of which are of productive age and 17% of this number or around 46 million people are adolescents aged 10 to 19 years old, of which 48% are women and 52% are men. The amount of adolescent girls aged 10-14 years in the Special Region of Yogyakarta in 2023 amounted to 126,564 people and adolescent girls aged 15-19 years amounted to 136,620 people. In

2021, there were 39,403 adolescent girls aged 10-14 years in the Sleman region and 40,783 adolescent girls aged 15 to 19 years

The first menstruation or commonly referred to as menarche, is the first menstruation that usually occurs in the age range of 10 until 16 years, or that usually occurs in early puberty and before entering the reproductive period (Mahmudah, 2023). Not all women experience menarche at the same age. Based on data from the Indonesian Ministry of Health in 2018, the average incidence of menarche occurring at the age of 12 years was 60%, at the age of 9 to 10 years it was 2.6%, at the age of 11 to 12 years it was 30.3%, and at the age of 13 years it was 30 %. The rest of the teenagers experience Menarche over the age of 13 years. According to (Agri & Salfa, 2022), menarche is a development when the female reproductive organs has matured. Every adolescent girl can experience menarche, but it usually occurs at the age of 12 to 14 years. However, nowadays it is more common at a younger age, so many elementary school students have experienced menarche.

Readiness is a situation where a person is ready to respond well to a behavior or situation. Adolescent girls' readiness to face the first menstruation is when they are ready to reach physical maturity with a good response (Narsih et al., 2021). Teenagers who are unprepared for menarche may find it intimidating and threatening, which makes adolescents have the desire to reject the physiological process. But for those who are ready to face menarche, they will feel proud and happy because they feel biologically mature. Science is one of the factors that affect the readiness of the teenager.

The unpreparedness of adolescent girls in dealing with menarche affects their behavior, therefore, families must support their daughters well. Adolescent girls are more susceptible to reproductive tract infections because of Indonesia's hot and humid climate which causes acidity to increase, making it easier for mold to grow. The main causes of female reproductive tract diseases are weak immunity 10%, unclean behavior during menstruation 30%, and unclean environment and poor use of sanitary napkins during menstruation 50%. Women with a history of reproductive tract infections are at risk of developing cervical cancer, pregnancy outside the womb, and infertility in the future (Juwita, 2019).

In Indonesia, most children often experience menstruation while playing or studying at school. This happens without preparation and even without being given any prior knowledge of menarche. Children who get their periods at school also often experience penetration, or leakage, which causes blood to seep into the school skirt and causes the child to be embarrassed, cry, anxious, to some children who feel that this is an uncomfortable condition causing the child to be reluctant to receive the period.

Based on research by (Indarsita & Purba, 2017) SD Negeri No. 064023 Medan, the results of students' knowledge about menarche with a good category of 16 people out of 82 students, 39 people with sufficient knowledge and 27 students with insufficient knowledge. It was also obtained that 46 students prepared to have menarche and 36 students unprepared for menarche were obtained. Female students gathered information about

menarche from various sources print media 24.4%, electronic media 18.3%, family 43.9%, and health professionals 13.4%. It was obtained from several students who did not know about menarche said that they were not ready to face menarche because they felt insecure, embarrassed, and afraid, this was because the teenager did not know information about the first menstruation (menarche).

According to (Mahmudah & Daryanti, 2021), people who have good knowledge are those who have good information. Getting information from various sources increases one's level of knowledge. This is in line with the idea of Mahmudah & Daryanti (2021) stating that when a person has a good level of knowledge, they have the ability to think rationally and gather new information to make better decisions. This knowledge can be gained from their experience in various situations.

Based on the (Tamba et al., 2023), shows that 9% of siblings, 29% of mothers, 38% of peers, 10% of teachers, 1% of fathers, and 14% of self-knowledge.

The Youth Care Health Service Program (PKPR) is a government program that serves adolescents aged 10 to 19 years. This initiative is implemented by the Health Office (Dinkes) at the district/city and provincial tiers, as outlined in article 28 B paragraph 2 which states, "Every child is entitled to survival, growth, and development, as well as to protection from violence and discrimination." Additionally, article 28 H paragraph 1 asserts that "Everyone has the right to live a prosperous life both physically and mentally, to reside in a healthy environment and to access health services".

The role of midwives in this case is stated in the Decree of the Minister of Health of the Republic of Indonesia Number 369/Menkes/SK/III/2007 concerning competency standards IX regarding reproductive disorders and Permenkes No.1464/Menkes/per/X/2010 article 12 concerning the role of midwives in providing women's reproductive health services. The role of midwives in this study is to provide counseling or education about menstruation for readiness to face menarche.

According to the findings from the data collection conducted at Demak Ijo 1 Elementary School in Sleman, Yogyakarta. Following the interview results, it was noted that many students lacked an understanding of menarche and menstruation, with some unprepared for the onset of menarche. It was found that 12 out of 22 students who had menstruated felt afraid and embarrassed due to their confusion and lack of knowledge about how to handle it. Additionally, 15 of the 22 students who experienced menarche reported that they only received information about menstruation after it had occurred.. The student said that at school she only got an explanation about menstruation from the religious teacher, while the material provided was about taking a shower after menstruation and the prohibition of menstruation.

METHOD

This research is a quantitative study utilizing the cross-sectional approach, which is a research technique involving simultaneous data collection, where the subjects and variables in this research are solely observed and measured concurrently. The study's design is a one group pretest-posttest, a type of pre-experimental research, where a single group undergoes a pretest before receiving treatment followed by a posttest after the treatment (Rahmianti, 2018). This research was conducted by providing treatment to fifth and sixth-grade students who have not yet experienced menarche.

The instruments utilized include questionnaires, LCD screens, laptops, and PowerPoint presentations. In this study, data collection involved administering a questionnaire that had previously undergone validity and reliability testing, which was then distributed to respondents for completion. The subjects of this research include all students in grades V-VI at the elementary school of Demak Ijo Sleman Yogyakarta. The participants included in this research were 32 students. The sampling technique employed is purposive sampling, which involves selecting samples from the population based on specific criteria. The data were analyzed using univariate and bivariate methods employing a nonparametric statistical test through the Wilcoxon Match Pairs Test Technique.

This research has been carried out ethical clearance at the ethics commission of 'Aisyiyah University Yogyakarta and has received a statement of ethical feasibility in accordance with 7 (seven) standards with ethical approval No.3783/KEP-UNISA/VI/2024.

RESULTS

The characteristics of the respondents in this study were students aged 10-12 years in classes V-VI at Demak Ijo 1 Elementary School. Characteristics of respondents by age can be seen in the table below:

Table 1. Characteristics of Respondents Based on Age at Demak Ijo 1 Elementary School in 2024

Characteristic (Usia)	Frequency (F)	Percentage (%)
10 Year	2	6,25
11 Year	20	62,5
12 Year	10	31,25
Total	32	100

Based on Table 1, it can be concluded that the majority of respondents in this study are 11 years old, with the number of respondents amounting to 20 respondents (62.5%).

Table 2. Readiness to Face Menarche Before Being Given Health Education About Menstruation At Students of Grades V-VI Demak Ijo 1 Elementary School in 2024.

Readiness Level	Frequency (F)	Percentage (%)
Good Readiness	2	6,25
Sufficient Readiness	26	81,25
Lack of Readiness	4	12,5
Total	32	100

Based on table 2, it can be concluded that before providing health education about menstruation to students in grades V-VI Demak Ijo 1 Elementary School, the majority of respondents had sufficient readiness, amounting to 26 respondents (81.25%).

Table 3. Readiness to Face Menarche After Being Given Health Education Regarding Menstruation for Grade V-VI Students of Demak Ijo 1 Elementary School in 2024

Readiness Level	Frequency (F)	Percentage (%)
Good Readiness	24	75
Sufficient Readiness	8	25
Lack of Readiness	0	0
Total	32	100

Based on table 3, it can be concluded that after providing health education about menstruation to students in grades V-VI Demak Ijo 1 Elementary School, the majority of respondents had good readiness, amounting to 24 respondents (81.25%)

Table 4. Differences in Readiness to Face Menarche Before and After Being Given Health Education About Menstruation

Readiness Category	Pretest		Posttest		Difference	
	F	%	F	%	F	%
Good Readiness	2	6,25	24	75	22	68,75
Sufficient Readiness	26	81,25	8	25	-18	-56,25
Lack of Readiness	4	12,5	0	0	-4	-12,5
Total	32	100	32	100	0	0

According to table 4, it is indicated that most students' preparedness to confront menarche prior to receiving health education on menstruation falls under the category of kesiapan cukup, totaling 26 respondents (81.35%). However, after receiving

health education about menstruation, female students' readiness shifted predominantly to the good category, with 24 respondents (75%) showing improvement compared to only 2 respondents (12.5%) in the good readiness before the education.

Table 5. Results of the Wilcoxon Match Pairs Analysis Test of Student Readiness in Facing Menarche at Demak Ijo 1 Elementary School

	Mean	Minimum	Maximum	Z	p-value
Pretest	63,69	33	81		
Posttest	81,03	59	93	-5,009	0,000

Based on table 5 above, it can be seen that the Wilcoxon Match Pairs Test using the SPSS program obtained a p-value of 0.000 where $0.000 < 0.05$. This shows that the hypothesis is accepted that based on the Wilcoxon Test decision-making there is an influence between the before and after the score of health education about menstruation. So it can be concluded that there is an influence of techniques on the influence of health education on menstruation on the readiness of students to face menarche.

DISCUSSION

Research has been carried out to provide health education regarding menstruation, which was carried out in classes VB and VI A at Demak Ijo Elementary School 1 on July 16 2024. This health education provision uses LCD and Powerpoint

which contains material about Menarche and Menstruation. The delivery of this material is intended to make it easier for researchers to convey material, as well as to make it easier for respondents to receive the information provided. The material provided uses a powerpoint that contains images that are intended for attracted the attention of respondents. This is because the target of the respondents is students in grades V-VI Elementary School.

It can be concluded that the average readiness of students before being given health education about menstruation is 63.69 and the average readiness of students after being given health education is 81.03. The change in the average score of readiness in facing menarche in these students shows an increase in the average score of readiness in facing menarche before and after being given health education about

menstruation. In this study, there is no the decrease in readiness to face menarche, this can be seen from the lack of readiness of 4 respondents (12.5%) to no respondents with the category of poor readiness, from 26 respondents (81.25%) with the category of sufficient readiness to 25 respondents (25%) with sufficient readiness, and from 2 (6.25%) respondents with good readiness to 24 respondents (75%) with the category of good readiness.

Based on the results of the pretest and posttest, there are several statements with the least number of correct answers, namely in statements number 3, 22, 24, and 25. This statement is a statement regarding the definition of menarche, personal hygiene, and disorders during menstruation. This is because some respondents have not understood the importance of readiness in facing menstruation. After being given health education about menstruation, the number of respondents who answered correctly in statements number 3, 22, 24, and 25 increased.

This research is in line with Sianipar et al (2023) Health education is a method to acquire and increase the knowledge needed to change the mindset and actions to live a healthy life, therefore based on this research shows that the importance of health education to change the readiness of a student and change the mindset of students to achieve readiness to face menarche.

The results of the statistical test obtained using the wilcoxon match pair test are p-value 0.000 which means that there is an effect of providing health education about menstruation on the readiness of female students to face menarche.

this study aligns with the research carried out by (Delima et al., 2020) titled "Health Education About Menstruation on Readiness to Face Menarche in Students in Grades V and VI," which indicated differences and improvements in the average readiness value to confront menarche among respondents before and after receiving health education. The statistical tests revealed a P-value of 0.001, leading to the conclusion that health education regarding menstruation significantly affects respondents' preparedness for menarche, showing an increase in knowledge related to menarche readiness.

In Surah Al-Muzadallah: 11, Allah stated, "O you who have faith, if it is told to you, make room in the gatherings, and expand it." Certainly, Allah SWT. will provide you with room. If it is stated, "Prepare yourselves, then rise." Certainly, Allah SWT will elevate the ranks of the believers among you and those who possess varying levels of knowledge. Allah SWT. pays close attention to your actions.

The above verse explains to be enthusiastic about pursuing knowledge, open your chest, prepare opportunities to attend the assembly of knowledge, be enthusiastic about learning, prepare all resources to improve our knowledge, and always increase faith and devotion. Increasing knowledge about menstruation is

CONCLUSION

Based from the findings of the research carried out on fifth and sixth-grade students at SD Negeri Demak Ijo 1 Sleman Yogyakarta, it can be concluded that there is an influence of health education regarding menstruation on the preparedness of adolescent girls to encounter menarche. This is evident from the outcomes of the Wilcoxon matched-pairs test, which yielded a significance p value of 0.000.

Based on the previous conclusions, the researcher provides suggestions that students are expected to be able to increase their knowledge about menstruation as an effort to be ready to face menarche, then schools can add learning programs to increase knowledge related to reproductive health for female students in an effort to be ready to face menarche, and the public will be more aware of the importance of education for students about *menarche* starting from elementary school or when approaching the age of *menarche*.

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