

## Influence of Health Education with Audio Visual Media on Anxiety Facing Menarche with Students Elementary Schools 006 Long Iram

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### Article Information Abstract

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**Introduction:** Early puberty in girls is one of the best examples of adolescent mental health problems including anxiety. The results of Riskesdas show that based on reports of respondents who have experienced menstruation, the average age of menarche is 13 years (20%) with an earlier occurrence at the age of less than 9 years and some delaying up to 20 years. **Objective:** To determine the effect of health education with audiovisual media on anxiety facing menarche in students of Elementary Schools 006 Long Iram. **Methods:** Experimental research design with pre-experimental design one group pretest posttest. **Results and Discussion:** It was found that before the intervention providing education with audiovisual media, most of them experienced moderate anxiety as many as 21 people (61.8%), after the intervention most of the anxiety became a mild category as many as 21 people (61.8%). A total of 18 people had anxiety after the health education intervention with audio-visual media about menarche decreased compared to before the intervention. **Conclusion:** There are differences in student anxiety before and after being given health education with audio-visual media about menarche at Sekolah Dasar 006 Long Iram students.

**Keywords:** Anxiety; Health Education; Audio Visual Media; Menarche;

## **Introduction**

Major changes in biology, appearance, self-perception, behavior, and emotions combine to make puberty one of the most important phases in the life span (Nurhayati, 2016). Although puberty presents challenges for all adolescents, girls who mature in front of their peers are particularly vulnerable. Early puberty in girls is one of the best examples of adolescent mental health problems, including depression, anxiety, eating disorders, delinquency, drug use, and school failure or dropouts. (Gunatirin, 2018)

Since physical maturation is linked to alterations in roles and social relationships, this association is usually associated with natural difficulties to deal with new changes and stresses at a chronological age coupled with specific neural changes triggered by puberty that can increase susceptibility to psychopathology during adolescence (Rima Wirenviona, Riris, & ST, 2020)

Surprisingly little is known about the long-term impact of previous developments. Although hundreds of studies document the association of early puberty time with mental health through late adolescence, almost none of the researchers conducted an assessment past this point. This is possible, in part, due to the financial and logistical complexity of managing participants for a long time. A small body of research on long-term effects varies in methodology, sample size, and demographics but suggests a few points worth considering

According to WHO, more than half of the world's population is under 25 years old and 80% of them live in developing countries, the world's population between the ages of 10-24 years is 30% (Hendriani, Chifdillah, & Tamara, 2019). Riskesdas results show that based on the reports of respondents who have experienced menstruation, the average age of menarche is 13 years (20%) with an earlier occurrence at the age of less than 9 years and some slower to 20 years. As well as 7.9% did not answer or forgot. There were 7.8% who reported not having menstruation (Afriliana, Puspitaningrum, & Rahmawati, 2014)

Nationally, the average menarche of 13-14 years occurs in 37.5% of Indonesian children (Septina, Nurohmah, Nurjannah, & Kartikasari, 2021). The average age of menarche 11-12 years occurs in 30 children in Jakarta, and 12.1% in West Nusa Tenggara. The average age of menarche 17-18 years occurs in 8.9% of children in East Nusa Tenggara, and 2.0% in Bengkulu. 2.6% of children in DKI Jakarta have received their first menstruation at the age of 9-10 years, and there are 1.3% of children in Maluku and West Papua who have only received their first menstruation at the age of 19-20 years. The age of menarche 6-8 years has occurred in a small percentage of <0.5% of children in 17 provinces, while the age of menarche 19-20 years is evenly distributed throughout the province (Tamara, 2019). Based on Riskesdas in 2010, the average age of menarche in East Kalimantan province in children aged 6-8 years is 0.1%.

The average age of menarche 9-10 years was 1.3%, in children aged 11-12 years as much as 22.3%, children aged 13-14 years as much as 39.8%, children aged 15-16 years as much as 17.16%, children aged 17-18 years as much as 3.6% and 0.5% occurred in children aged 19-20 years (MARWA, 2020)

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Based on a preliminary study, the number of elementary schools in the Long Iram sub-district is around 12 elementary schools and elementary schools that have a fairly large number of students from other elementary schools, namely Long Iram 006 elementary school, namely there are 169 students and collaborate with the adolescent health program in the Technical Implementation Unit of the Community Health Center Long Iram that in Primary School 006 Long Iram has never done health education using audio-visual, especially about health education using audio-visual media against anxiety facing menarche in elementary school students, and faced the principal of 006 Primary School Long Iram for permission to ask for data on students, especially students from grades 3, 4, 5 and 6, of which there were 44 students, 10 of whom had experienced menarche and 34 other students had not experienced menarche. So, of the 34 students who have not experienced menarche, this is the total research sample in the field for the research process. Previous research on the anxiety of facing menarche in such schools has never been conducted, given the need for health education about the anxiety of facing menarche is still a problem found in schools.

## **Method**

This type of research is pre-experimental design using a one group pretest posttest design. The population in this study was the total number of students in grades 3, 4, 5 and 6 of Elementary School 006 Long Iram totaling 33 people. The total sample was 34 respondents. The sampling technique in this study is *total sampling*.

This research will be planned in April 2022. The respondent was from Long Iram 006 Elementary School.

## **Results and Discussion**

### **Result**

#### **1. Respondents' Characteristics**

##### **a. Age**

**Table 1**

Frequency Distribution of respondents' characteristics in Elementary Schools 006 Long Iram in 2022

<b>Characteristic</b>	<b>Frequency</b>	<b>Presented</b>
Age 8	3	8.9
Age 9	15	44.1
Age 10	10	29.4
Age 11	5	14.7
Age 12	1	2.9
<b>Total</b>	<b>34</b>	<b>100</b>

Based on table 1 above, the results were obtained that out of 34 respondents, most of them were 9 years old, as many as 15 people (44.1%).

b. Class

**Table 2**

Frequency Distribution of respondents' characteristics in Elementary Schools 006 Long Iram in 2022

Characteristic	Frequency	Presented
Age 3	14	41.2
Age 4	10	29.4
Age 5	9	26.5
Age 6	1	2.9
<b>Total</b>	<b>34</b>	<b>100</b>

Based on table 2 above, the results were obtained that out of 34 respondents, most of them were in class 3 as many as 14 people (41.2%).

## 2. Analyzes Univariate

**Table 3**

Anxiety Before Intervention (*Pre-test*)

Anxiety (Pretest)	Frequency	Presented
Not Anxious	0	0
Mild Anxiety	13	38.2
Moderate Anxiety	21	61.8
Severe Anxiety	0	0
<b>Total</b>	<b>34</b>	<b>100</b>

Based on table 3 above, the results were obtained that before the intervention of providing education with audiovisual media about *menarche*, most experienced moderate anxiety as many as 21 people (61.8%).

**Table 4**

Anxiety After Intervention (*Post-test*)

Anxiety (Posttest)	Frequency	Presented
Not Anxious	5	14.7
Mild Anxiety	21	61.8
Moderate Anxiety	8	23.5
Severe Anxiety	0	0
<b>Total</b>	<b>34</b>	<b>100</b>

Based on table 4 above, the results were obtained that after the intervention of providing education with audiovisual media about *menarche*, most of the anxiety became a mild category of 21 people (61.8%).

### 3. Bivariate Analysis

**Table 5**

		n	Mean Rank	Sum of Rank	z-value	p-value
Anxiety	Negative Rank	18	9.5	171		
Pretest	Positive. Rank	0	0	0	-4.243	0.000
Post						
	Ties	16				
	<b>Total</b>	<b>34</b>				

Based on table 5 above, it was found that out of 34 respondents, as many as 18 people had anxiety after the health education intervention with audio-visual media about *menarche* decreased compared to before the intervention. There were 16 people whose anxiety before and after the intervention remained or was the same. None of the respondents had anxiety after the health C education intervention with audio-visual media about *menarche* increased compared to before the intervention. Obtained from the results of the *wilcoxon* test, the value- $p=0.000$  so that  $H_a$  was accepted and  $H_o$  was rejected, which means that there is a difference in the anxiety of female students before and after being given health education with audio-visual media about *menarche*.

## Discussion

### 1. Characteristics of Respondents

Based on the results of the analysis, it was obtained that of the 34 respondents, most of them were 9 years old as many as 15 people (44.1%) and most of them were in class 3 as many as 14 people (41.2%).

Teenage girls who are 9 years old belong to the age group of early adolescents. One of the signs of puberty in early adolescent girls is the occurrence of menarche. According to Hendriani, et al (201 9) menarche is the first menstruation that usually occurs in the age range of 10-16 years or in the early adolescence in the middle of puberty before entering the reproductive periodic (Hendriani et al., 2019). The age at which a girl begins to get her period varies. There is a tendency that nowadays children get their first menstruation at a younger age. Some were 12 years old when they got their first period, but there were also those who were 8 years old who had already started the cycle. If a child is 16 years old, menstruation can also occur. Therefore, age can be the basis for the reference for the occurrence of menarche in adolescent girls. Changes in menarche age that occur today can be caused by various factors, namely hormonal changes, maternal menarche age, nutritional status, socioeconomic status.

Knowledge of menstruation and reducing anxiety facing the menarche they experience. Hawari stated that the more age, the level of maturity in thinking will be more matang (Dadang, 2011). This assumption is supported by Notoatmodjo which states that age affects a person's knowledge in terms of understanding the information obtained, the older a person is, the knowledge gained will be bertambah (Notoatmodjo, 2017). According to Eni, et al, school-age children are a period that starts from the age of 6-12

years (Dianawati, Cahyaningtyas, & Rahmayanti, 2021). School-age children in that period experience stages of physiological and biological development, one of which is menarche. During this time, the child's curiosity about his physical development increases. This is based on a statement from Hawari that students in the high grade period of primary school around the age of 10-12 years are more realistic, curious and want to learn more.

## **2. Anxiety Before Intervention (*Pre-test*)**

Based on the results of the analysis, it was found that before the intervention of providing education with audiovisual media about menarche, most experienced moderate anxiety as many as 21 people (61.8%). These results are in line with Ninawati's research that found before being given health education most female students experienced moderate to severe anxiety (Ninawati, 2016) (Ninawati, 2016)

The feeling of confusion, restlessness, discomfort always envelops the feeling of a woman having menstruation for the first time. The first menstruation or menarche is a natural thing that every normal woman must have experienced and should not be worried about. However, this will get worse if adolescents' knowledge about menstruation is severely lacking and education from parents is lacking

The results of Manuaba's research show that female students with less knowledge tend to be unprepared in the face of their first menstruation. Knowledge plays a role in shaping the attitude of female students related to the readiness of students in facing menarche. Adolescents who have the right knowledge and information about menstruation will cause wrong perceptions about menstruation, even tending to associate menstruation with something negative. The child's ignorance of menstruation can make it difficult for the child to accept menarche. Insufficient or incorrect information about menarche causes young women's perceptions of menarche to be negative. They will feel ashamed to meet other people, especially friends when experiencing menarche so they tend to shut themselves in the room or in the house (Manuaba, 2009)

Girls will usually tell their mother during their first menstruation. Unfortunately, some mothers do not talk openly so they develop a negative attitude towards menarche. Parents play a role in providing information, so teenagers are not afraid of menarche. One of the factors that play an important role in the willingness or readiness (attitude) to accept / do something is knowledge. Knowledge about menstruation should have been gained by young women since elementary school, but in fact it is still rare for schools to provide additional lessons about menstruation. Whereas in their homes and neighborhoods they live there may also not be much open information about menarche correctly (Ninawati, 2016)

## **3. Anxiety After Intervention (*Post-test*)**

Based on the results of the analysis, it was found that after the intervention of providing education with audiovisual media about *menarche*, most of the anxiety became a mild category of 21 people (61.8%). These results are in line with Ninawati's research

which found that after being given health education, most female students experience mild anxiety (Ninawati, 2016)(Ninawati, 2016)

According to Nursalam, the level of anxiety of a person is influenced by education, where the higher the level of education of a person, the easier it is for a person to receive information, so that the more knowledge he has. On the contrary, a lack of education will hinder a person's attitude towards the values introduced (Nursalam, 2019)

One of the factors influencing adolescent anxiety in the face of menarche is motherhood. The role of the mother is very important in the process of growth and development of the child, especially in adolescence. Adolescents begin to recognize the various sexual processes that are happening in their body and soul first through the mother. The young woman will tell her mother during her first menstruation. Mothers who actively provide information and talk openly will reduce anxiety and even increase their beliefs menarche is something pleasant that ultimately develops a positive attitude towards the first menstruation (Juwita, 2019)

For women, menstruation is a common thing that always happens every month. Teenagers remain confident during menstruation because they can adapt problems that occur during menstruation including wearing comfortable clothes, doing light exercise, recording menstrual dates and being able to determine the right pads, so that leakage problems, to the distinctive smell during menstruation can be resolved which ultimately increases self-confidence (Novita, Purwaningsih, & Susilo, 2020)

Factors that influence anxiety in the face of menarche include family support. Family or parents can provide experience in the face of menarche. The correct information or understanding makes the child better understand the changes he will experience so that he is ready to face menarche. Emotional support also increases comfort and lowers young women's fears of facing menarche. Good family support can improve young women's readiness for menarche. Readiness in facing menarche can be in a positive form which is shown by a sense of sincerity, confidence, not fear and not anxiety. Young women who view menarche as an interesting experience, will respond or act positively in the face of it (Asriati & Aisa, 2018)

#### **4. Differences in anxiety of female students before and after being given health education with audio-visual media about *menarche***

Based on the results of the analysis, it was obtained that out of 34 respondents, as many as 18 people had anxiety after health education interventions with audio-visual media about *menarche* decreased compared to before the intervention. There were 16 people whose anxiety before and after the intervention remained or was the same. None of the respondents had anxiety after a health education intervention with audio-visual media about *menarche* increased compared to before the administration. Obtained from the results of the *Wilcoxon* test, the value- $p=0.000$  so that  $H_a$  was accepted and  $H_o$  was rejected, which means that there is a difference in the anxiety of female students before and after being given health education with audio-visual media about *menarche*.

This result is in line with the research of Dianawati, et al. who found that there was a significant influence on the level of anxiety facing menarche in female students at SD Negeri 02 Buntar. Health education is an activity or effort to convey health messages to the community to the community, groups or individuals (Dianawati et al., 2021). With the hope that with this message the community, group, or individual can gain knowledge about better health. Finally, this knowledge is expected to influence his behavior. In other words, the existence of education can have consequences on target behavior (Notoatmodjo, 2017)

The provision of health education to respondents is a means of providing information to individuals or groups about things that respondents do not yet know. This can give a more detailed and detailed understanding related to menstruation. After respondents know a lot about information that they didn't know before, respondents will look better prepared if they will experience something new that they have never felt before. Knowledge about health that a person has is very important in determining the health value of him (Purnamasari, Gantini, & Rismawati, 2018)

The health education conducted by researchers aims to help prepare young women to overcome anxiety in the face of menarche. Where in preparing themselves young women also need a process of learning to become better prepared in the face of menarche. Education is basically any planned effort to influence, provide protection and assistance so that participants have the ability to behave as expected. Education can also be said to be a process of personal maturation (Zulfuziastuti & Satriyandari, 2017). The process of change will always change because the individual or respondent can accept or reject new information that can change the assumptions of the respondent.

## **Conclusion**

The characteristics of respondents were mostly 9 years old as many as 15 people (44.1%) and most of them were in grade 3 as many as 14 people (41.2%). It was found that before the intervention of providing education with audiovisual media about *menarche*, most experienced moderate anxiety as many as 21 people (61.8%). The results showed that after the intervention of providing education with audiovisual media about *menarche*, most of the anxiety became a mild category of 21 people (61.8%). The results of the analysis obtained that out of 34 respondents, as many as 18 people had anxiety after the health education intervention with audio-visual media about *menarche* decreased compared to before the intervention. The results of *the wilcoxon* test-value- $p=0.000$  so that  $H_a$  was accepted and  $H_o$  was rejected, which means that there is a difference in the anxiety of female students before and after being given health education with audio-visual media about *menarche*.



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