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RESEARCH ARTICLE

URL of this article: <http://heanoti.com/index.php/hn/article/view/hn20813>

Audio-visual Media and Flyers to Reduce the Anxiety of Elementary School Students in Dealing with Menarche

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ABSTRACT

Menarche is a special feature before maturity in a woman. The main problem that often arises when teenagers experience menarche is unpreparedness in facing these reproductive changes. This study aims to analyze the effect of the use of audio-visual and flyer media in order to reduce adolescent anxiety in dealing with menarche. The design of this experimental quasy study was a pre-test and post-test. The number of respondents involved in the study was 27 students of elementary school. The independent variables studied were the use of audio-visual media and flyers in health education about menarche; while the dependent variable was the level of anxiety in dealing with menarche. Data about the level of anxiety was collected through filling in the questionnaire, then analyzed using the T test. The results of data analysis showed a difference in the level of adolescent anxiety between before and after the intervention, with p-value = 0.000. Audio visual media could clarify a problem and its handling, through an interactive learning process, the diversity of learning activities could be improved. Media flyers could provide complete and detailed information, even about things that were not given orally. This media was designed simply in accordance with the ability of elementary school students. Educators should use audio visual and flyers, especially audio visuals, in order to provide knowledge about menarche, so that female students are better prepared to face menarche.

Keywords: Menarche, Health education, Audio-visual, Fliyer, Anxiety

INTRODUCTION

Background

The first menstruation or menarche is a development in the transition from the age of children to adulthood for women, which is a personal control in the social and biological fields, which will also be accompanied by significant changes. These changes will greatly affect the development of emotional balance for young women in the process of sexual maturity⁽¹⁾. Menarche is a special feature of maturity for a woman⁽²⁾.

At the peak of puberty marked by menarche, HPO axis control will begin which coordinates the work of the hypothalamus, which in turn triggers GnRH activity which causes increased FSH and LH secretion for ovarian maturation. In the follicular phase, there are significant fluctuations in estrogen and progesterone. Fluctuating and sudden estrogen and progesterone cycles can cause stress in young women, thus triggering anxiety in those who experience menarche⁽³⁾. Golchin (2012) also explained that menarche is an unpleasant event during puberty. Most teenagers feel worried and ashamed of changes in their bodies, there are changes in psychology, changes in sexual orientation and differences with parents⁽⁴⁾.

The arrival of the first menstruation makes some teens feel afraid, anxious and anxious because they think that menstrual blood is a disease. Many adolescents view menarche as a scary thing because menarche will cause discomfort, back pain, dizziness, and so on⁽⁵⁾. Problems that often arise at menarche are almost the same as menstruation, especially the factor of adolescent unpreparedness in dealing with menarche, which can cause more severe problems namely strong anxiety and fear due to the desire to reject the physiological process⁽⁶⁾. Teenagers who experience menarche should not feel fear, anxiety is confused, because menarche is a physiological thing that will be experienced by every woman who enters adolescence⁽⁷⁾.

Through his research, Lestyani (2015) reported that of 50 students who faced menarche, there were 36% of students who experienced mild anxiety, 12% of students experienced severe anxiety and 38% of students experienced very severe anxiety(8).

The results of a preliminary study at SDI Mlajah, Bangkalan on February 10, 2017 through filling out a questionnaire by 20 respondents, showed that 14 (70%) students stated that they had severe anxiety, 4 (20%) students had moderate anxiety, and 2 (10%) students experience mild anxiety. This is indicated by signs of anxiety, fear, shame and confusion when facing menarche.

The role of midwives in the community is expected to be able to provide health education in the form of counseling in their working area, as an effective place to provide information to adolescents about the process of menarche and their readiness to face menarche⁽⁹⁾. Minarsih (2007) states that health education using booklets and posters can increase the knowledge and attitudes of adolescents who face menarche. The same thing was stated by Suliha (2002), that health education with the lecture method, power point media and leaflet administration can increase adolescent knowledge about menarche and can reduce their anxiety level before menarche⁽¹⁰⁾. Another similar opinion stated that health education with questionnaires and leaflets can reduce the level of anxiety in young menarche⁽¹¹⁾. Based on the description of the background above, it is necessary to do research on the effectiveness of health education using audio-visual and flyer media as an effort to reduce the anxiety level of female students in facing menarche.

Purpose

This study aims to evaluate the effectiveness of the use of audio-visual media and flyers in the context of implementing health education to reduce the anxiety level of female students in dealing with menarche.

METHODS

The type of this research was a quasi experiment, by applying the pre-test and posttest design. The distance between the pre-test and post-test was 7 days. The study population was female students aged 11-13 years who had not experienced menarche in public elementary schools in the Bangkalan District. The sample size involved in this study were 27 female students.

The intervention provided was health education about menarche using audio-visual media and flyers. This intervention was also an independent variable. Before the intervention was carried out (pre-test), data was collected on the level of anxiety through filling in the questionnaire; anxiety level data after the intervention was done (post-test), collected in the same way. This level of anxiety was the dependent variable. Data about the level of anxiety is numerical data in the form of scores, so that it is presented in the form of mean and standard deviation⁽¹²⁾. After the data was presented, then continued with data analysis using the T test.

RESULTS

Based on Table 1 it could be concluded that the majority of respondents in the audio-visual group and the control group were 12 years old; while the majority of respondents in the flyer group were 11 years old. The majority of respondents in the audio-visual group and the control group received information about reproductive health from the mother; while the majority of respondents in the flyer group got information about reproductive health from friends.

Table 1. The characteristics of respondents

Characteristics	Audio-visual group		Flyer group		Control group	
	f	%	f	%	f	%
Age						
11 years	2	22.2	4	44.5	2	22.2
12 years	5	55.6	3	33.3	5	55.6
13 years	2	22.2	2	22.2	2	22.2
Information source						
Mother	5	55.6	3	33.3	4	44.5
Teacher	3	33.3	4	44.5	1	11.1
Friend	0	0	1	11.1	2	22.2
Internet	1	11.1	1	11.1	2	22.2

Based on table 2 it was known that the female students who were members of the treatment group both audio-visual and flyer experience a decrease in anxiety levels which was much greater when compared to the control group.

Table 2. Comparison of anxiety levels between treatment and control groups

Anxiety	Health education				Control	
	Audio-visual		Flyer		Pre	Post
	Pre	Post	Pre	Post		
Mean	50.00	38.44	56.89	45.33	52.56	51.44
Median	46.00	37.00	60.00	47	50.00	50.00
Mode	46	34	50	36	50	60
Standard Deviation	6.40	5.77	5.11	6.59	6.06	5.62
Minimum	45	32	50	36	45	45
Maximum	61	49	63	53	61	60

Table 3 shows that for the audio-visual group and flyer groups, there were significant differences in anxiety levels between before and after the intervention. So, health education about menarche using audio-visual media and flyers is proven to be effective in reducing teen anxiety, especially elementary school students in facing menarche.

Table 3. Effect of the use of audio-visual media and flyers on the anxiety level of female students in dealing with menarche

Health education	Anxiety		
	Pre	Post	p-value
	Mean±SD	Mean±SD	
Audio-visual	50±6.40	38.4±5.77	0.000
Flyer	56.8±5.11	45.3±6.59	0.000
Control	52.5±6.06	51.4±5.61	0.073

DISCUSSION

The results showed that health education using audio-visual media proved to influence the level of anxiety of female students in dealing with menarche. This shows that this method proved effective for use. This is because the audio-visual media can clarify a problem and its handling, so it can reduce unclear or confusing information that can trigger anxiety. This is in accordance with the statement (Arsyad, 2007) that interactive use of audio-visual and sound learning can increase the diversity of student learning activities⁽¹³⁾.

The results showed that before health education was conducted using audio-visual media, the average value of the anxiety level was still high. In this case the female students feel abdominal pain or experience indigestion when they hear the word first menstruation (menarche). This is one of the physical responses to anxiety. National Health Committee (1990) cited by Wangmuba (2009), mentions several general manifestations of anxiety that can arise including difficulty sleeping, chest palpitations, the body sweating even though it is not hot, the body feels hot or cold, headaches, muscles are tense or stiff, abdominal pain, panting or shortness of breath⁽¹⁴⁾.

This is similar to the explanation of Dariyo (2006) that the negative reaction experienced by young women to the arrival of menarche is an unfavorable view of a young woman, when she sees the emergence of menstruation. When menarche arises, an individual will feel physiological complaints (headache, back pain, nausea, vomiting) and unstable psychological conditions (confused, sad, stressed, anxious, irritable, angry, emotional). This is likely due to ignorance of teenagers about physiological changes that occur early in the life of a young woman⁽¹⁵⁾.

After being given an intervention in the form of health education using audio-visual media, students' anxiety levels decreased. This happened because of increasing knowledge about menarche, as a result of health education provided. This is consistent with the statement of Ajeng (2010) that knowledge about menarche needs to be owned by young women early on, because this knowledge will later affect the readiness of young women in facing menarche. Lack of knowledge about menarche will cause anxiety in young women. Providing health education is one way to increase the knowledge of young women, who are expected to be able to reduce their anxiety in facing menarche⁽¹⁶⁾.

The female students who were respondents to this study in general in addition to studying in public schools in the morning, also studied in religious schools in the afternoon, so that information about menarche given by religious teachers also increased, so students were not too anxious in facing menarche. Parents, especially mothers, also give direction or act as a source of information about menarche to female students. The results of the study show that most of the sources of information about menarche are mothers. This happens because the mother is a close figure for young women, so communication about sensitive matters about menstruation will be relatively open. Nilawati et al. (2013) stated that maternal support through the provision of information can reduce young women's anxiety in facing menarche⁽¹⁷⁾.

The results showed that health education using flyer media proved to influence the level of anxiety of female students in dealing with menarche. This shows that this method proved effective for use. This is because the flyer media can provide complete and detailed information even those that are not given orally. Moreover, the information delivery media is designed in a simple manner according to the ability of elementary school students, making it easier for them to understand. This is in accordance with Saiful's (2008) opinion that flyer media is one of the media that provides detailed information, which is not given orally⁽¹¹⁾.

Flyers are one of the interesting media, which contains messages and images to help convey important information. According to Saiful (2008), flyers can be obtained easily and effectively used as a medium for delivering information, as well as attracting and directing the attention of the audience. Images and messages must be chosen according to the goals previously set. Pictures or photos and clear messages can arouse audience motivation and interest, which in turn can help them interpret and remember messages relating to images or photos⁽¹¹⁾.

Providing information is very important to increase students' knowledge, one of which is through health education or counseling. With information through health education, young women will understand more about menarche. This is consistent with the statement of Notoatmodjo (2012) that health education through counseling can improve people's knowledge, both individually and in groups, which aims to improve the behavior of individuals, families and communities in realizing optimal health degrees⁽¹⁸⁾.

Although audio-visual media and flyers are both effectively used in health education about menarche, audio-visual media have a higher effectiveness. This happened because the majority of female students in this study apart from studying in public schools also studied in religious schools, and were still supplemented by religious learning activities in the homes of their religious teachers. In addition, students also have to share time to learn school lessons, so that flyers about menarche are not often read, even though the flyers have been made as detailed as possible. In groups that get health education using audio-visual media, even though they can clearly see images or scenes related to menarche, the message delivered may be less detailed. Audio visual is a modern method adapted to the development of the times, in a language that is easily understood by all age groups, so that the influence produced by this group is better when compared to the group that gets the flyer. This is in line with the research conducted by Kapti et al. (2013) that audio-visual media is effective in increasing participants' knowledge and attitudes⁽¹⁹⁾. Romadi and Hamyana (2016) report that the use of audio-visual media in the implementation of counseling can be accepted more easily by the audience, so that it can support understanding the material. Megawati et al. also reported that audio-visual media can reduce the anxiety level of Trimester III pregnant women⁽²⁰⁾.

Health education is an activity to deliver health information that can be used to increase knowledge, awareness, which can then change a person's behavior, including in this case anxiety in dealing with menarche. When someone gets new information, there will be development and improvement of knowledge, attitudes and actions. This is in accordance with the statement of Setiawati (2008) that health education is an activity or effort to deliver health messages to the community, groups, or individuals; in the hope that they can gain knowledge about something good. This knowledge is ultimately expected to influence their behavior. In other words, this knowledge can have an effect on changes in a person's behavior⁽²¹⁾.

This is in accordance with the statement of Arsyard (2007) that in providing health education or counseling, the media used must be really considered, because the media has a function to clarify, simplify and make the message to be delivered by the message giver to the recipient of the message more attractive; so that there is interaction between the giver and the recipient of the message or the delivery of the message and the sender of the message. Submission of information using audio-visual learning media refers to the concept that learning media contains components in the form of visuals (sights or images or views) and audio (sound or heard). Pictures or photos are more realistic showing the subject matter compared to verbal media only, are concrete in nature, and are suitable for all ages, so that misunderstandings can be prevented⁽¹³⁾.

CONCLUSION

Based on the results of the study it can be concluded that audio-visual and flyer, both of which are effectively used as a health education media for elementary school students in Bangkalan District in order to deal with menarche. In this case, audio-visual media has a higher level of effectiveness.

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