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Effectiveness of Animated Video Education in Improving Knowledge and Attitudes towards Primary Dysmenorrhea Management among Students in Surabaya

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ABSTRACT The incidence of menstruation indicates that physical maturity and the reproductive system have occurred in women. One of the disorders during menstruation is menstrual pain or primary dysmenorrhea. If primary dysmenorrhea is not treated, it will cause painful effects to reduce learning concentration which affects learning ability. Therefore, efforts that can be made to improve students' knowledge and attitudes in handling primary dysmenorrhea are by providing animated video education that is able to bring adolescents into an atmosphere of joy and joy. This study used the Pre-Experimental One Group Pretest-Posttest Design research design. The population is class X students at SMK Tri Guna Bhakti Surabaya. The research sample was 45 female students using random sampling techniques. Data collection used questionnaires and observation sheets, while data analysis used the Wilcoxon Signed Rank Test. The results of the Wilcoxon Signed Rank Test statistical test show a knowledge p value of 0.000 and an attitude of 0.001 which is less than the alpha limit determined by the researcher which is 0.05. There is an influence of animated video media on increasing the knowledge and attitudes of grade X students at SMK Tri Guna Bhakti Surabaya after being given an educational intervention for handling primary dysmenorrhea.

INDEX TERMS Animated Video Education, Knowledge, Attitudes, Primary Dysmenorrhea.

I. INTRODUCTION

Adolescence is the initial stage in the process of adapting to the changes that begin to occur in one's own body and the impulses that accompany those changes. A sign that adolescent girls experience puberty biologically is when adolescents start menstruating[1]. The occurrence of menstruation indicates that physical maturity and the reproductive system have occurred in women[2]. One of the disorders during menstruation is menstrual pain or primary dysmenorrhea[17].

There are two types of dysmenorrhea, namely primary dysmenorrhea and secondary dysmenorrhea. In primary dysmenorrhea, the pain felt is in the lower abdomen which feels like being stabbed, painful, heartburn, and radiates to the

waist[9]. According to[10] The effects of pain from primary dysmenorrhea to not being able to perform activities, reducing learning concentration which affects learning ability. Meanwhile, according to[11]. The condition of primary dysmenorrhea disturbs most women during menstruation regardless of age. This disorder is not a disease but only one of the symptoms that appear and can cause discomfort.

Many young women do not know about proper primary dysmenorrhea management behavior, this is because there is still a belief and culture that menstruation and its problems are taboo[3]. The behavior of handling primary dysmenorrhea influenced by knowledge is reinforced by the theory that states that behavior based on knowledge will be more lasting than behavior that is not based on knowledge. In addition, the

handling of dysmenorrhea is also influenced by young women's attitudes about dysmenorrhea[4]. The impact of adolescent girls who do not know how to handle dysmenorrhea is the use of wrong therapies such as taking hard drugs, namely spasminal. In addition, a traditional medicine that is commonly and commonly used in the community is sour turmeric[3].

According to the World Health Organization (WHO), dysmenorrhea affects 1,769,425 women with primary dysmenorrhea. In Indonesia, 971,237 (54.89%) women suffer from primary dysmenorrhea[5]. Based on the Central Bureau of Statistics (2022), the population of adolescent girls aged 10-24 years in East Java Province in 2022 is 4,368,876 women, while adolescent girls who experience primary dysmenorrhea are 704,560 (54.89%) women[6]. Girls aged 10-24 years in Surabaya City in 2022 are 1,456,182 women (BPS East Java Province, 2022). The results of the interview were 51 grade 10 students at SMK Tri Guna Bhakti Surabaya, of which 30 students complained of primary dysmenorrhea. Meanwhile, in class X students at SMK Tri Guna Bhakti Surabaya who experienced dysmenorrhea as many as 45 female students.

Based on research conducted on female high school students Swadharma Werdhi Agung, Dumoga Tengah District, Bolaan Mongondow Regency, it shows that female students in high school have less knowledge about dysmenorrhea[19]. Lack of knowledge can affect attitudes, therefore knowledge has an impact on the behavior of handling dysmenorrhea carried out by adolescents. The impact that occurs if dysmenorrhea is not treated is to cause disruption of daily activities, menstruation that moves backwards. How to treat primary dysmenorrhea that can be done is to try to divert pain such as warm compresses in the abdomen or do light exercise. Avoid caffeine which can increase the release of prostaglandins[15].

Learning media is used to clarify the delivery of information messages. The use of video as a means of health counseling is now starting to be developed along with current technological advances. Through video media has advantages in terms of providing good visualization so as to facilitate the process of absorbing knowledge. Video is included in audio-visual media because it involves the sense of hearing as well as the sense of sight. In addition, animated videos can attract students' attention and focus which can increase student motivation and learning outcomes, have an interactive nature which has the ability to facilitate responses from students[7]. Video is included in audio-visual media because it involves the sense of hearing as well as the sense of sight. In addition, animated videos can attract students' attention and focus which can increase student motivation and learning outcomes, have an interactive nature which has the ability to facilitate responses from students[7].

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II. METHOD

This study used the Pre-Experimental One Group Pretest-Posttest Design research design by observing 2 times, namely before and after being given treatment. The group was observed before the intervention, then observed again after the intervention at a predetermined time[15][24]. The population is class X students at SMK Tri Guna Bhakti Surabaya. The research sample was 45 female students using random sampling techniques. Data collection used questionnaires and observation sheets, while data analysis used the Wilcoxon Signed Rank Test.

III. RESULTS

TABLE 1.

Knowledge Of Class X Young Women At Smk Tri Guna Bhakti Surabaya Before Being Given An Intervention In January 2024.

No.	Characteristic	Sum (f)	Percentage (%)
1.	Good	10	22%
2.	Enough	17	38%
3.	Less	18	40%
Sum		45	100%

Data was obtained that grade X girls of SMK Tri Guna Bhakti Surabaya almost all (40%) had less knowledge before education on animated videos handling primary dysmenorrhea.

TABLE 2.

Knowledge Of Class X Young Women At Smk Tri Guna Bhakti Surabaya After Being Given An Intervention In January 2024.

No.	Characteristic	Sum (f)	Percentage (%)
1.	Good	31	69%
2.	Enough	11	24%
3.	Less	3	7%
Sum		45	100%

Data was obtained that most of the grade X girls of SMK Tri Guna Bhakti Surabaya (69%) have good knowledge after education on animated videos handling primary dysmenorrhea.

TABLE 3.

The Attitude Of Class X Young Women At Smk Tri Guna Bhakti Surabaya Before Being Given An Intervention In January 2024.

No.	Characteristic	Sum (f)	Percentage (%)
1.	Positive	33	73%
2.	Negative	12	27%
Sum		45	100%

Data was obtained that most grade X girls of SMK Tri Guna Bhakti Surabaya (73%) had a positive attitude before education on animated videos handling primary dysmenorrhea.

TABLE 4.

The Attitude Of Class X Young Women At Smk Tri Guna Bhakti Surabaya After Being Given An Intervention In January 2024.

No.	Characteristic	Sum (f)	Percentage (%)
1.	Positive	33	73%
2.	Negative	12	27%

IV. DISCUSSION

This study showed that before being given counseling on animated video media handling primary dysmenorrhea, the level of knowledge of 45 female students showed that almost half (40%) with 18 female students had less knowledge. The results of the attitudes of 45 female students before being given media counseling on animated videos handling primary dysmenorrhea showed that most (73%) with a total of 33 female students had a positive attitude.

In accordance with research on the relationship between knowledge and attitudes of adolescent girls in dealing with dysmenorrhea at AMIK Imelda Medan, the results of the study concluded that lack of knowledge and attitudes before being given primary dysmenorrhea treatment[12].

This is due to several factors, one of which is that students have not received material on handling primary dysmenorrhea both from the school and health workers. In addition, students do not know how to handle primary dysmenorrhea[20]. One of the roles of nurses is the role of educators. Health education provided in this study is about education on animated videos handling primary dysmenorrhea on knowledge and attitudes in grade X adolescent girls at SMK Tri Guna Bhakti Surabaya. Based on this, ideas, ideas or perceptions are formed that can form attitudes. In addition, emotional reactions which are affective components are strongly influenced by beliefs which are cognitive components[13]. Meanwhile, the factors that affect learning concentration are the motivation obtained, desire or interest in something, pressure situations that can threaten him, physical, psychological, and emotional conditions.

This study showed that there was an increase in students' knowledge in pre-test and post-test measurements ($p = 0.000$). So there is a significant difference between the level of knowledge before and after being given animation video media counseling. The knowledge of 45 female students before being given counseling on animated video media handling primary dysmenorrhea showed that almost half (40%) with 18 female students had less knowledge and after being given counseling on animated video media handling primary dysmenorrhea showed that most (69%) with 31 female students had good knowledge.

The results of the study stated by [8][16]. That the average score of the knowledge pre-test score was 60.55 and when the post test increased to 75.63. This shows that there is a significant change in knowledge after educational activities. Increasing knowledge certainly affects attitudes, changes in attitudes in female students show that the provision of educational counseling for animated videos handling primary

Data was obtained that grade X girls of SMK Tri Guna Bhakti Surabaya almost all (98%) had a positive attitude after education on animated videos handling primary dysmenorrhea.

dysmenorrhea is very useful so that it can encourage students to behave in better health[18][21].

In addition, this study showed that there was an increase in students' attitudes in pre-test and post-test measurements ($p = 0.001$). So there is a significant difference between the attitudes of female students before and after being given counseling on animated video media. The attitude of 45 female students before being given animated video media counseling on handling primary dysmenorrhea showed that most (73%) with a total of 33 female students had a positive attitude and after being given counseling on animated video media handling primary dysmenorrhea showed that almost all (98%) with a total of 44 female students had a positive attitude. The results of this study are in accordance with the theory that says that video is one of the multimedia which is a visual aid that can be used for various forms of media, including: text, graphics, images, and others so that the teaching process is more interactive[22][23]. The increase in knowledge of female students after receiving counseling with video media is in line with research conducted by[4][14]. Showing that there is an influence of primary dysmenorrhea education using videos on knowledge in adolescent girls at SMP Negeri 3 Tanah Grogot with a value ($p = 0.000$) and there is an influence of dysmenorrhea education using video on attitudes in young women at SMP Negeri 3 Tanah Grogot with a value ($p = 0.000$).

Based on the results of research obtained on education, animated videos handling primary dysmenorrhea towards knowledge and attitudes in female students have increased significantly due to media exposure or information sources, namely media counseling, animated videos handling primary dysmenorrhea that are right on target, thus making students' knowledge increase in handling primary dysmenorrhea. The use of animated video education for handling primary dysmenorrhea has a significant effect in increasing knowledge in female students, because video is an audiovisual medium that can be seen and heard so that it is more easily accepted.

V. CONCLUSION

Before being given counseling with animated video media about the treatment of primary dysmenorrhea, almost half of them had less knowledge and most of them had a positive attitude at SMK Tri Guna Bhakti Surabaya. Young women in class X after being given counseling with animated video media about the treatment of primary dysmenorrhea, the level of knowledge is mostly good knowledge and almost all of them have a positive attitude at SMK Tri Guna Bhakti Surabaya. There is an influence of animated video media on increasing the knowledge and attitudes of grade X students at

SMK Tri Guna Bhakti Surabaya after being given an educational intervention for handling primary dysmenorrhea.

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