

Comic Media Improves Female Student Behavior In Facing Menarche

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Abstract

Background: Knowledge about menstruation should have been acquired since elementary school, but in reality it is still rare for elementary schools to provide additional lessons about menstruation. This results in low student behavior in approaching menarche.

Purpose: Analyze differences in female students' behavior in facing menarche before and after receiving Health Education through comic media

Methods: This research uses a quasi-experimental method, namely by providing information regarding menarche and the practice of preparing for menarche through broadcasting e-comics and distributing comics to read at home.

The target is elementary school students in class V and class VI, who have not experienced menarche, are in good health and are willing to be the target of the activity. Location of Service at SDN 26 Pemecutan, Tegal Kertha Village, West Denpasar. The Wilcoxon statistical test was used because the data was not normally distributed.

Results: The result is that health education through comic media can improve female students' knowledge, attitudes and practices regarding readiness to face menarche. The output achieved is Comic book product IPR with Number EC00202153064, dated 7 October 2021.

Conclusion: there are differences in female students' behavior in dealing with menarche before and after receiving Health Education through comic media

Keywords: **attitude, comics, knowledge, menarche, practice.**

Introduction

Puberty in girls generally occurs at the age of 9-12 years, while puberty in boys occurs at an older age, namely 9-14 years. According to the World Health Organization (WHO), the age limit for teenagers is 12 to 24 years, while according to the Ministry of

Health, those aged 10 to 19 years are unmarried. In the world, it is estimated that the number of teenagers is 1.2 billion or 18% of the world population (1). The United States Health Resources and Services Administration Guidelines states that the age range for adolescents is 11-21 years (2)

Adolescent reproductive health problems apart from having a physical impact, can also affect mental health, emotions, economic conditions and social welfare in the long term. These long-term impacts not only affect the teenagers themselves, but also their families, communities and the nation in the end. The transition from childhood to adolescence is known as puberty. Clinically, puberty is marked by the appearance of secondary genitalia and ends when the ability to reproduce is present. Important events in puberty are rapid physical growth, the emergence of secondary sexual characteristics, menarche and psychological changes (3).

Menstruation is a new event that can cause a young woman stress or other negative changes. Menarche is the first menstruation which usually occurs between the ages of 10-16 years or in early adolescence in the middle of puberty before entering the reproductive period (4). The menarche period for teenage girls in Indonesia varies between 10-16 years and the average age of menarche is 12.5 years, the age of menarche is earlier in urban areas than those living in villages and also later in women who work hard (5). Suindri's research (2021), shows that the average age of menarche for the research target is 12.08-12.17 years (6).

In general, the symptoms that arise during the first menstruation (menarche) are anxiety or fear which is reinforced by the desire to resist physiological processes. So many first menstruation events are experienced as a traumatic experience (7). Surveys report that in America, 50% of women were found to suffer from severe symptoms of pre-menstrual syndrome. A survey of women in France reported that approximately 38% of women suffered from pre-menstrual syndrome (Head, 2007 in (3)), while a study of high school students in Indonesia found that pre-menstrual syndrome was the most frequently experienced (75.8 %) of various types of menstrual disorders (8).

Based on the 2017 SDKI, as many as 29% of adolescent girls had their first menstruation when they were 13 years old, and 24% of adolescent girls had their first menstruation at the age of 14 years. Nearly half of teenage girls discuss menstruation with friends before they get their first period. Sources of information about menarche were mothers (41%), siblings (13%) and teachers (12%). The sources of knowledge about physical changes most frequently mentioned by young women were

teachers (61%) and friends (29%) as sources of knowledge about physical changes. The source of knowledge about physical changes from parents (mothers and fathers) for female adolescents is much higher (20%) compared to male adolescents (6%) (9).

Readiness to face the first menstruation (menarche) is a condition that shows that a person is ready to reach physical maturity, namely the arrival of the first menstruation (menarche). This is characterized by having in-depth knowledge and understanding of the menstrual process so that they are ready to accept and experience the first menstruation (menarche) as a normal process (10).

Knowledge can be gained anywhere. Knowledge about menstruation should have been acquired since elementary school, but in reality it is still rare for elementary schools to provide additional lessons about menstruation because it is not included in the school curriculum. The government has also not implemented a special program related to menarche or menstruation issues. Meanwhile, at home and in the environment where teenagers live, there is also not much open information regarding matters related to reproductive health properly. Most parents still think that menstruation is a taboo subject that doesn't need to be discussed with their children. This results in students' low knowledge about menstruation (4). In fact, the role of parents is very influential, as shown in Fajri & (10)'s research, namely that there is a positive relationship between mother and child communication on readiness to face menarche, which means that if the child's mother's communication is effective, teenagers will be ready to face the first menstruation (menarche).

The results of the Indonesian Adolescent Reproductive Health Survey show that the level of adolescent knowledge about Adolescent Reproductive Health (KRR) is low, namely that adolescent girls' knowledge about menstruation is a sign of the functioning of the female reproductive system, namely around 6.5% (11). According to (12), it is also said that knowledge of teenagers in Indonesia about KRR is still relatively low, especially regarding knowledge of puberty and the fertile period, namely 39.6%. Elementary school students' knowledge of menstruation according to research results from (13) at SDN Cemorokandang 01 and 02 Malang City is 2 people (10%) have good knowledge, 12 people (60%) have sufficient knowledge, and 6 people (30%) have poor knowledge. .

Lack of knowledge about menstruation means that teenagers will think that the arrival of menarche is a symptom of an illness, causing panic, and some teenagers also think that they feel very dirty during their first menstruation, so they feel embarrassed, this makes

young women not ready to face its arrival. menarche. According to (14), the impact of not being ready to face menarche is that there is a 4,079 times risk of bad vulva hygiene behavior compared to young women who are ready to face menarche.

Lack of knowledge about menarche will be very detrimental. Adolescents need to be given information through good and positive health education from parents, peers, school teachers and the community, because during this period adolescents experience important development, namely cognitive, emotional and sexual. Correct knowledge about menarche will make teenagers better prepared to face menarche. In line with the results of Susilawati's research in Ruspawan regarding the influence of reproductive health education on the readiness to face menarche of class VII students at SMPN 3 Tampaksiring, Gianyar Regency, the results show an increase in the readiness of female students to face menstruation (15). The research was conducted using comic media. Comics are media that are simple, clear and easy to understand, therefore comics can be informative and educational media. Apart from that, comics also have extraordinary appeal so that the message conveyed is easy to digest and understand and does not seem patronizing. Based on this, research was conducted using comic media to improve female students' behavior in facing menarche.

Method

1. Research design

This research uses a quasi-experimental method, namely by providing information related to menarche and the practice of preparing for menarche through broadcasting e-comics and distributing comics to read at home. Before and after broadcasting e-comics and distributing comics to read, a pretest and posttest were carried out by filling out questionnaires for knowledge and attitudes. Practical assessment of how to clean genitalia and apply sanitary napkins is carried out by demonstration on a phantom and evaluation using a checklist for assessing action procedures.

2. Setting and samples

The sample in this research was elementary school students. The target number for this activity is 80 class V and VI female students at SDN 26 Pemecutan, Denpasar. The target criteria are female students who have not experienced menarche, female students who are in good health, and female students who are willing to be the target of activities. Location of Service at SDN 26 Pemecutan, Tegal Kertha Village, West Denpasar.

3. Intervention (applies to experimental studies)

The activities were divided into 4 pretest activities and research implementation with a target number of 20 people, as well as 4 posttest activities. This is an effort to avoid crowds and implement health protocols. Group activities began with providing informed consent, followed by completing a pretest by distributing questionnaires regarding knowledge and attitudes regarding menarche. Then, observations of practices/skills in carrying out genetic hygiene as well as the practice of placing sanitary napkins are carried out, which are assessed using a check list/check list by the staff. Next, screening of literacy e-comics. Female students are reminded to read comics at home, and will be evaluated 1 (one) week later. Posttest activities were carried out a week after the pretest.

4. *Measurement and data collection*

The knowledge and attitude instrument uses a questionnaire and to assess the practice of caring for external genitalia during menstruation and installing sanitary napkins using a check list. The instrument was prepared by the author and tested for validity and reliability.

5. *Data analysis;*

The statistical test used is the Wilcoxon test to analyze the results of the pretest and posttest regarding knowledge, attitudes and practices in readiness for menarche.

Results

1. **Students' knowledge about Menarche**

The results of the data normality test show that knowledge, attitudes and practices are not normally distributed so the data is tested using Wilcoxon and presented in the form of minimum, maximum and median values. The results of the analysis with Wilcoxon are presented as follows:

Tabel 1. Differences in female students' knowledge before and after being given information through showing e-comics at SDN 26 Pemecutan

Knowledge	n	Min	Max	Median	P value
Pretest	80	67	87	80	0,001
Posttest	80	73	93	87	

The data in table 1 shows the lowest pretest knowledge is 67 and the highest is 87, with a median value of 80. The lowest posttest knowledge is 73, the highest is 93, and the median

value is 87. The results of the analysis show that there is a significant difference in the target's knowledge before and after being shown e-comics with a value $p = 0.001$.

2. Female students' attitudes about menarche

The results of data analysis of female students' attitudes towards menarche are as follows:

Tabel 2. Differences in Attitudes of Female Students Before and After Being Given Information through E-Comics Screening at SDN 26 Pemecutan

Attitudes	n	Min	Max	Median	p value
Pretest	80	60	73	88	0,001
Posttest	80	73	100	90	

The data in table 2 shows the lowest pretest attitude is 60 and the highest is 73, with a median value of 88. The lowest posttest attitude is 73, the highest is 100, and the median value is 90. The results of the analysis show that there is a significant difference in the target's attitude before and after being shown the e-comic with the value $p = 0.001$.

3. Practices regarding Readiness for Menarche

The results of practical data analysis regarding readiness to face menarche are as follows:

Tabel 3. Differences in Practices/Skills of Female Students Before and After Being Given Information through E-Comics Screening at SDN 26 Pemecutan

Practices/Skills	n	Min	Max	Median	p value
Pretest	80	27	91	64	0,001
Posttest	80	73	100	93	

The data in table 3 shows that the lowest pretest practice/skill is 27 and the highest is 91, with a median value of 64. The lowest posttest attitude is 73, the highest is 100, and the median value is 93. The results of the analysis show that there is a significant difference in the target practice/skill before and after being given the screening. e comic with p value = 0.001.

Discussion

Based on the results of the analysis, the discussion can be structured as follows:

1. Students' knowledge about Menarche

Knowledge about menstruation greatly influences teenagers in facing menarche, which can influence attitudes and behavior during the next menstruation. Increased knowledge about menarche and menstruation can be given at an earlier age so that it can increase healthy behavior during menstruation (16). Negative views regarding menstruation are caused by not all girls receiving information about the menstrual process and health during menstruation so they cannot make sufficient preparations to recognize and welcome menstruation (17)

The results of this study show that there is a difference in knowledge before and after health education was carried out through broadcasting e-comics about readiness to face menarche. These results indicate that the research activities carried out have succeeded in increasing target knowledge. Health education according to (18) is a learning experience process that aims to influence knowledge, attitudes and behavior related to individual or group health. In this case, the health education provided is aimed in the short term at changing wrong knowledge about acceptance of menstruation, and in the long term it is aimed at changing behavior in readiness for facing menarche.

Health education in this research activity uses e-comic media and comic books which are taken home for the target to read at home. Research (19,20) shows that health education provided using audio-visual media can increase a person's knowledge and participation. Comics as a visual medium used to support learning have advantages. Comics are a very effective medium targeting children and teenagers, because apart from being able to explain the meaning of the images. Comics also have advantages in teaching and learning activities, namely increasing the reader's vocabulary, making it easier for students to grasp abstract things or formulations, and can develop children's interest in reading and other areas of study (21,22).

2. Female students' attitudes about menarche

The results of this study show that there are differences in attitudes before and after health education was carried out through broadcasting e-comics about readiness to face menarche. These results indicate that the research activities carried out have succeeded in improving the target's attitudes. Changes in attitudes for the better can be caused by increased knowledge caused by the learning process. The information received forms attitudes because with the information, the object of information in this research activity is menarche, which

can be accepted pleasantly or not. If the object is received pleasantly, it will be believed and can then encourage good behavior. A person's exposure to information will influence knowledge and attitude formation (3.23).

Health education in this research activity is supported by comics so that it can make it easier for respondents to receive the information conveyed by service providers. (24) stated that to improve knowledge and attitudes through learning, it is very effective if supported by media. Comic media has the advantage of being able to display images. Comic media provided in health education can stimulate more of the five senses used, such as the senses of sight and hearing, to actively participate in capturing the information provided. The results show an increase in attitudes towards acceptance of menarche and readiness to face menarche.

3. Practices regarding Readiness for Menarche

The results of this study show that there are differences in practices/skills before and after health education through broadcasting e-comics about readiness for menarche. These results indicate that the research activities carried out have succeeded in improving target practices/skills.

Health education in this research activity conveyed material on the practice of caring for external genitalia during menstruation and installing sanitary napkins through pictures in comics and also carried out demonstrations using a pelvic phantom and external genitalia, this was done during the post test, in order to provide a deeper understanding regarding these practices.

The objectives of health education according to (24) include behavior change, behavior coaching, and behavior development. The intended change in behavior is a change in the behavior of young women in dealing with menstruation from previously having excessive anxiety or unreal anxiety about menstruation to behavior that is in accordance with health values without being accompanied by excessive anxiety. In this case, with the existence of health education about menarche, it is hoped that the anxiety experienced by respondents in facing menarche will decrease. Apart from that, in accordance with the aim of health education regarding behavioral development, namely coaching aimed at the behavior of young women in facing menarche who are already healthy and do not experience anxiety so that it can be maintained and developed so that it becomes even better. Health education using comic media, which has many advantages, can improve female students' practice/skills

regarding how to care for their genitalia when experiencing menarche and how to apply sanitary napkins correctly and appropriately.

Conclusion

Based on the results of research activities and discussions, it can be concluded that research activities through comic media for grade V and VI elementary school students regarding readiness to face menarche can improve the knowledge, attitudes and practices/skills of female students. Knowledge is an important domain in shaping a person's attitudes and actions/practices. One effort that can be made to improve healthy behavior is health education with interesting media, namely comics.

Ethical Considerations

The ethical process carried out is informed consent and at the end of the activity giving comic book souvenirs and masks.

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Conflict of Interest

There aren't a conflict of interest among authors.

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