



The Effect of Reproductive Health Education on the Knowledge Level of Adolescent Pre-Marriage Sex in Riau Province, Indonesia

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ABSTRACT

Adolescence is a stage of growth and development in humans that occurs after childhood and before adulthood. Adolescent will experience emotional changes and want to know new things that tend to be at risk of falling into promiscuity that leads to pre-marital sexual behavior. Lack of knowledge of adolescents about reproductive health is one of the contributing factors. Therefore, it is necessary to conduct research on the effect of reproductive health education on the level of knowledge on preventing adolescent premarital sex in students of Junior High School Dwipa Abadi Kateman. This research method uses a one group pretest-posttest design. Respondents used were students in grades 7, 8, 9 Junior High School Dwipa Abadi Kateman as many as 50 students. The intervention provided was in the form of health education in one meeting for 1 hour. The Wilcoxon Sign Rank Test was performed to analyze the data. Before being given the reproductive health education intervention, 31 people (62%) had high knowledge and after being given the reproductive health education intervention there were 44 people (88%) had high knowledge. From the results of the Wilcoxon Sign Rank test, a p-value of <0.001 was obtained, indicating that there was a difference in knowledge before and after the intervention. There was an increase in adolescent knowledge about health after being given education regarding the importance of maintaining reproductive health in adolescents at SMP Dwipa Abadi Kateman.

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1. Introduction

Adolescence is a stage of growth and development in humans that occurs after childhood and before adulthood [1]. When children enter adolescence, they will experience changes that can be seen from 3 dimensions, namely biological, social and cognitive [2]. One of the biological changes in adolescence is the onset of puberty marked by wet dreams in boys and menarche in girls [3]. In addition, adolescents experience cognitive changes, where at this stage they will experience emotional changes and want to know new things that tend to be risky without thinking carefully [4]. The behavior of wanting to try new things is often accompanied by sexual

stimulation which is channeled through conversations with peers, seeking information from pornographic sources, then practicing with oneself, boyfriends, friends, or other people [2].

Today, promiscuity that leads to pre-marital sexual behavior (dating, holding hands, kissing cheeks, hugging, kissing lips, holding breasts on top of clothes, holding breasts under clothes, holding genitals under pants, and doing sexual intercourse) intercourse) has become something normal in the lives of adolescents [5]. Adolescents who are dating tend to express their feelings through behaviors such as kissing, making out and others. According to research conducted by [6] stated that as many as 92% of adolescents holding hands while dating, 82% kissing, and 63% touching or petting. Based on data from the Ministry of Health in 2017 shows that, about 33.3% of girls and 34.5% of boys start dating when they are not yet 17 years old, so it is feared that at that age adolescents do not have adequate life skills. , so they are at risk of having unhealthy dating behavior, such as having premarital sex [7].

Sexual behavior is any behavior that is driven by sexual desire, both with the opposite sex and the same sex. The forms of this behavior can vary, ranging from feelings of attraction to behavior dating, making out and intercourse. Various sexual behaviors in adolescents who have not had the time to have sexual intercourse properly, among others, are known as masturbation or masturbation, which is a bad habit in the form of manipulation of the genitals in order to channel sexual desires for the fulfillment of pleasure which is often cause personal and emotional shocks [8].

The results of the 2018 National Population and Family Planning Agency (BKKBN) survey, show that the percentage of age at first marriage in woman aged 15-19 years is 10.5% while in men it is 5%. Meanwhile, as many as 7% of women aged 15-19 years have become mothers, 5% have given birth and 2% are pregnant with their first child [9]. Data from the BKKBN of Riau Province in 2013 showed that from 396 married people, 32 people (8.1%) were pregnant out of wedlock and 36 people (9.1%) experienced premarital sexual behavior.

Lack of knowledge of adolescents about reproductive health is one of the factors that causes adolescents to have sexual relations outside of marriage. Low knowledge accompanied by the strong influence of peers at a young age makes adolescents have unhealthy sexual attitudes and behaviors [10]. This causes various problems such as Unwanted Pregnancy, abortion, early marriage and marriage, STDs (Sexually Transmitted Diseases), HIV/AIDS and others.

Data from the Riau Provincial Health Office in 2015 stated that Riau Province is one of the provinces with the largest number of HIV sufferers in Indonesia. HIV/AIDS cases in Pekanbaru are the most HIV/AIDS cases among other cities/districts in Riau Province. Based on data from the Riau Provincial Health Office in 2020, the total number of HIV/AIDS cases in Riau Province from 1997 to October 2020 was 6,797 cases. Of these, 2,240 of them were caused by free sex with the opposite sex. Meanwhile, this case was dominated by men, namely 66% and the remaining 34% were women.

In an effort to increase adolescent knowledge regarding reproductive health and prevent long-term negative impacts, it is very important for adolescents to receive education about reproductive health. However, based on data from the Riau Province Statistics Center in 2019 shows that the number of adolescents aged 15-24 years who received new reproductive health education was 321 people. Meanwhile, in Indragiri Hilir Regency, only 19 adolescents received reproductive health counseling.

Based on research conducted by [11] with the title "The Effect of Counseling on the Knowledge Level of Reproductive Health in Adolescents of Christian Junior High School Students" that counseling has a significant influence on the level of knowledge of reproductive health of adolescents of Gergaji Christian Junior High School students. In addition, research conducted by [12] with the title "The Effect of Counseling Interventions on Adolescent Knowledge and Attitudes about Reproductive Health" that there is an effect of educational intervention on knowledge and attitudes of adolescent behavior about reproductive health. Counseling on adolescent reproductive health increases the knowledge and attitudes of students.

Therefore, it is necessary to conduct research on the effect of reproductive health education on the level of knowledge on preventing adolescent premarital sex in students of Junior High School Dwipa Abadi Kateman.

2. Method

This research method uses a one group pretest-posttest design. At the beginning of the study, a pretest was given, then an intervention was given, and it ended with a posttest [13]. The population of this study using a total sampling technique, as many as 50 adolescent students consisting of 17 grade 7 students, 18 grade 8 students, and 15 grade 9 students of Junior High School Dwipa Abadi Kateman, Riau, Indonesia.

The intervention was given to the respondents in the form of health education for adolescents which contained 'why reproductive health is important in adolescents', 'how the impact of premarital sex on adolescents' and 'how to prevent the long-term negative impact'. Health education interventions and discussions are held in one meeting for 1 hour online using the Zoom Meeting application. To find out whether there was an increase in knowledge, we did a pretest before being given the intervention and a posttest after being given the intervention. The pretest and posttest consist of 15 questions with multiple choice questions regarding the importance of maintaining adolescent reproductive health, especially related to long-term negative impacts such as unwanted pregnancies, unsafe abortions, and sexually transmitted diseases (STDs). The duration of working on the pretest and posttest questions is 30 minutes and is done online using Google forms. The total score of the 15 questions in the questionnaire is 60 points. Of these, the number of points less than 30 is categorized as low and more than or equal to 30 is categorized as high.

The data analysis used is univariate analysis and bivariate analysis. Univariate test to determine the level of knowledge of the subject before and after receiving reproductive health education intervention. Bivariate test with Wilcoxon Sign Rank Test to determine the correlation between the independent variable and the dependent variable. The independent variable is health education and the dependent variable is knowledge.

3. Results and Discussion

3.1. Results

This research was conducted online through the Zoom Meeting Application with the number of respondents being 50 young students of Junior High School Dwipa Abadi Kateman. This research was conducted with the aim of knowing the effect of reproductive health education on the level of knowledge on prevention of premarital sex and to increase the knowledge of adolescent students consisting of 17 grade 7 students, 18 grade 8 students, and 15

grade 9 students at SMP Dwipa Abadi Kateman, Riau, Indonesia related to reproductive health can show by the Tabel 1.

Table 1. Participant's characteristics

Characteristics	n	Percentage (%)
Gender		
Male	19	38
Female	31	62
Age		
12	9	18
13	19	38
14	20	40
15	2	4
Class		
7	17	34
8	18	36
9	15	30

The characteristics of the 50 respondents were 19 males and 31 females. Respondents aged 12 years collected 9 people, 13 years old gathered 19 people, 14 years old collected 20 people, and 15 years old collected 2 people. Education related to reproductive health was carried out with a duration of approximately 120 minutes, followed by 50 youth representing 7th, 8th and 9th grade students at Junior High School Dwipa Abadi Kateman.

Table 2. The Question of Pretest and Posttest

No.	The Question
1.	Reproductive health is a state of perfect health in the process of human life in producing offspring naturally.
2.	Below are reasons why it is important to maintain adolescent reproductive health, EXCEPT...
3.	Based on data from the Ministry of Health (Kemenkes) in 2017, it shows that the percentage of MALE - MEN who have sexual intercourse for the first time at the age of 15-19 years is as much as...
4.	Based on data from the Ministry of Health (Kemenkes) in 2017, it shows that the percentage of WOMEN who have sexual intercourse for the first time at the age of 15-19 years is as much as...
5.	The following are the consequences of teenagers who have sexual relations under the age, EXCEPT...
6.	Here are some examples of sexually transmitted diseases (STDs), namely...
7.	Another term for syphilis is a sexually transmitted disease.
8.	Another term for the sexually transmitted disease, gonorrhea, is...
9.	The following are the consequences of teenagers having underage sexual relations on adolescent mental health, EXCEPT...
10.	How to prevent and protect yourself from Sexually Transmitted Diseases (STDs) is to,...
11.	How to prevent and protect yourself from Sexually Transmitted Diseases (STDs) such as HIV/AIDS, EXCEPT...
12.	One way to prevent and protect yourself from Sexually Transmitted Diseases (STDs) such as HIV/AIDS is to abstain, meaning that...
13.	One way to prevent and protect yourself from Sexually Transmitted Diseases (STDs) such as HIV/AIDS is through EDUCATION, which means that...
14.	Tips for maintaining adolescent reproductive health is to pay attention to underwear or panties (CD) with conditions, EXCEPT...
15.	Tips for maintaining reproductive health for adolescent boys and girls, EXCEPT...

The variables to be analyzed are the knowledge of adolescents at Junior High School Dwipa Abadi Kateman as the dependent variable and education related to reproductive health as the independent variable. Based on these variables, it can be hypothesized that H₀ means that there is no difference in the average knowledge of adolescents at Dwipa Abadi Kateman Junior High School before and after education related to reproductive health is carried out and H_a means that there is a difference in the average knowledge of adolescents in Dwipa Abadi Kateman Junior High School before and after education related to reproductive health.

Table 3. Knowledge Level of Reproductive Health Before and After Education

No	Knowledge*	Pretest		Posttest	
		Amount	Percentage (%)	Amount	Percentage (%)
1.	Low (< 30)	19	38	6	12
2.	High (≥ 30)	31	62	44	88
	Total	50	100	50	100

Table 3 shows that there is an increase in knowledge of adolescents at Junior High School Dwipa Abadi Kateman before and after being given education. Respondents had a high level of knowledge of 62% before being given the intervention, then after being given the intervention, respondents had a high level of knowledge of 88%.

Table 4. Normality Test Results Pretest and Posttest Knowledge of Reproductive Health

No	Variable	Shapiro-Wilk		
		Statistics	df	Sig.
1.	Knowledge (Pretest)	0.971	50	0.251
2.	Knowledge (Posttest)	0.897	50	0.000

Based on Table 2. Normality test results, the p-value (sig) of knowledge before (pretest) is 0.251, while the value of knowledge after (posttest) is <0.001, indicating that the data are not normally distributed.

Table 5. Wilcoxon Sign Ranks Test Results Knowledge Level of Adolescent Premarital Sex Prevention Before and After Reproductive Health Education

Variable	Mean Ranks	Negative Ranks	Positive Ranks	Ties	Sig. (2-tailed)
Knowledge (Pretest)	0.00	0 ^a	41 ^b	9 ^c	0.000
Knowledge (Posttest)	21.00				

Based on Table 3. It shows that the average value of knowledge level before (pretest) is <0.001, while the average value of knowledge level after (posttest) given intervention with reproductive health education is 21.00. This means that there is a difference in the average level of knowledge on prevention of premarital sex before and after being given an intervention with reproductive health education. There are no respondents who have a lower posttest score than the pretest score.

There are no respondents who have a lower posttest score than the pretest score. There are 41 respondents who have posttest scores higher than pretest scores, and there are 9 respondents who have the same posttest and pretest scores. The p-value on Sig. (2-tailed) is <0.001 which means p-value <0.05. This means that there is an effect of reproductive health education on the level of knowledge on preventing adolescent premarital sex in students of Junior High School Dwipa Abadi Kateman

3.2. Discussion

This research was conducted with the aim of knowing the effect of reproductive health education on the level of knowledge on prevention of premarital sex and to increase the knowledge of adolescent students consisting of 17 grade 7 students, 18 grade 8 students, and 15 grade students 9 of Junior High School Dwipa Abadi Kateman, Riau, Indonesia related to reproductive health. The characteristic of 50 respondents are 19 male and 31 female. Respondents aged 12 years were 9 people, 13 years old were 19 people, 14 years old were 20 people, and 15 years old were 2 people.

Before being given education related to reproductive health, respondents had a low level of knowledge of 38% and a high level of knowledge of 62%. Then after being given education related to reproductive health, the level of knowledge of the respondents increased to a low level of knowledge of 12% and a high level of knowledge of 88%. Furthermore, the data normality test was carried out and the p-value was 0.251 so that the data was not normally distributed. So the test used is the Wilcoxon test and the results are <0.001 . It can be concluded that there is a relationship between reproductive health education in adolescents and the level of knowledge of students at SMP Dwipa Abadi Kateman, Riau.

The results of the analysis are in accordance with the results of research conducted by [11] with the title "The Effect of Counseling on the Knowledge Level of Reproductive Health in Adolescents of Christian Junior High School Students" that counseling has a significant influence on the level of knowledge of reproductive health of adolescents of Gergaji Christian Junior High School students.

This also agrees with the results of research conducted by [12] with the title "The Effect of Counseling Interventions on Adolescent Knowledge and Attitudes about Reproductive Health" that there is an effect of educational intervention on knowledge and attitudes of adolescent behavior about reproductive health. Counseling on adolescent reproductive health increases the knowledge and attitudes of both students and students as well as science and social studies groups.

The method used in educational activities is done by lecture method and question and answer related to reproductive health with a target of 50 people. according to [14] stated that, a good method to use with a target number of more than 15 people, one of which is the lecture method. Reproductive health knowledge in adolescents needs to be given correctly from trusted sources. Providing correct information can prevent adolescent reproductive health problems from occurring and also prevent adolescents from getting more health knowledge from electronic media, which is not necessarily true and accurate information [15].

The educational intervention was carried out online with the Zoom meeting application on the importance of maintaining adolescent reproductive health at Junior High School Dwipa Abadi Kateman, particularly related to premarital sex in adolescents and preventing its long-term negative impact. This is in accordance with research conducted by [16], stated that adolescents should be given reproductive health education, especially those related to sexual education properly and correctly, where health education is knowledge so that adolescents can change their sexual behavior in a more responsible direction.

In general, people think that sexuality education only contains information about the genitals and various positions in having sex [17]. This of course will make parents feel worried. For this reason, it is necessary to re-align the understanding of sexuality and reproductive

education. Sexuality education seeks to put sex in the right perspective and change negative perceptions about sex. With sex education we can tell young people that sex is something which is natural and natural for everyone, besides that young people can also be informed about various risky sexual behaviors so that they can avoid them. Young people need to know about reproductive health in order to have correct information about the reproductive process and the various factors that surround it. With correct information, it is hoped that young people will have a responsible attitude and behavior regarding the reproductive process. Sex education is part of reproductive health education so that the scope of reproductive health education is wider. Reproductive health education covers all processes related to the reproductive system and aspects that influence it, from aspects of growth and development to rights-reproductive rights [17].

Providing information about reproductive health is very important, because adolescents are in an active sexual potential and with high hormonal influences and the lack of sufficient information about sexual activities that will be harmful to adolescents [18]. The provision of this information aims to prevent and reduce sexual abuse at an early age and its negative impacts such as unwanted pregnancies, unsafe abortions, death and sexually transmitted diseases (STDs) [19].

An unwanted pregnancy brings young people to two choices, continue the pregnancy or abort it. Pregnancy and childbirth at a young age is one of the risk factors for pregnancy that often leads to maternal death. Bleeding in the first and third trimesters, anemia and casual delivery are complications that often occur in young pregnancies. In addition, pregnancy at a young age also has an impact on the child being conceived, the incidence of low birth weight (LBW) and perinatal death is often experienced by babies born to young mothers [17]. Unwanted pregnancies that occur in adolescent girls due to not using effective contraceptives or using them inconsistently. Pregnancy out of wedlock is a bad impact for young women who have premarital sex. Not a few young women who finally choose to abort the child in her womb, more than 700,000 students have abortions every year [20].

Sexually transmitted diseases (STDs) are infections caused by bacteria, viruses, parasites or fungi, which are transmitted through sexual contact from an infected person to their sexual partners [21]. Having sex for the first time too young will increase the risk of infection. The behavior of adolescents who are vulnerable to STDs include: having sex too early, not consistently using condoms, engaging in unprotected sex, having sex with a risky partner or having multiple partners [22]. Example sexually transmitted diseases such as HIV/AIDS, gonorrhea, syphilis, and genital herpes.

Other impacts of premarital sexual behavior are psychological consequences. The nature of pregnancy and childbirth places young women in a very cornered position in a dilemma. In society's view, pregnant young women are a family disgrace who violates norms social and religious. This social judgment often permeates and continues to be socialized within him. Feelings of confusion, anxiety, shame, and guilt experienced by students after learning about their pregnancy are mixed with feelings of depression, pessimism about the future which is sometimes accompanied by hatred and anger both towards themselves and their partners, and at the fate that makes physically healthy conditions, social, and mental related systems, functions, and the reproductive process of young people is not fulfilled [17].

Awareness of the adverse effects of premarital sexual relations has no significant meaning for adolescents who have premarital sex. Teens keep in touch with their partners because they consider the bad effects of having sexual relations irrelevant for them, so adolescent often

continue to have sexual relations with girlfriends and other people. Some factors that causes teenager having premarital sex is the lack of parental disclosure about sexual problems, the opportunity to have premarital sexual relations, sources of wrong information about sexuality, high curiosity, biological needs, sexual stimulation, and the environment of friendship [20].

In addition to providing preproductive health education in particular related with Sexual Education to adolescent, religious education also required given and instilled in children as early as possible. With a strong religious basis that has been embedded in the child, then at least it can be a filter in his life. Children can distinguish between actions that must be carried out and actions that must be avoided [17].

Role parent it's also the most important thing in prevent or treat this problem. All parents are obliged to provide guidance on the psychological development of children, pay attention to child development and provide correct information about sexual and reproductive health issues to children. Parents are obliged to provide, instilling religious and moral education from an early age and reproductive health education to children as early as possible when the child begins to grow up. This is one of the preventive measures so that children are not involved in promiscuity and its negative impacts. In addition, parents must always supervise the interaction of their children. Who they hang out with and what they do outside the home. At least there must be communication between children and parents at all times. If the child finds a problem, then the parent is obliged to help find a solution [17].

4. Conclusion

Based on this study, it shows that there is a difference in the average level of knowledge on prevention of premarital sex in adolescents at Junior High School Dwipa Abadi Kateman before and after being given an intervention with reproductive health education. So it can be concluded that education related to reproductive health has proven to be effective in increasing students' knowledge at Junior High School Dwipa Abadi Kateman. It is advisable to have reproductive health education in schools so that adolescents understand the importance of maintaining reproductive health in adolescents.

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Conflicts of Interest

The authors declare no conflict of interest.

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