Adolescents' Knowledge and Attitude Before and After Exposure to Media of Youth Sexual Behavior in Indonesia

Setyafanny Santoso[1], Pulung Siswantara[1]

[1]*Department of Health Promotion and Behavioral Science, Faculty of Public Health, Airlangga University, 60115 Surabaya, East Java, Indonesia;*

Abstract

The increasing number of cases regarding adolescent free sex is due to a lack understanding of reproductive health. Someone's knowledge about reproductive health is believed to be closely related to what action they take. In the context of adolescence, their knowledge of reproductive health undoubtedly influences their attitude toward premarital sex. Most of premarital sex cases occur because they are lacking of knowlegde about its impact. This quasi-experiment was consucted on a senior high school in Indonesia. Subjects were 144 nine grade students, selected using purposive random sampling from a total population of 229 students. For each control and experiment groups, 72 students each were selected. The experiment group participated in the treatment of the study. Data was analyzed using paired t-test to find the differences of control and experiment groups' knowledge and attitude. Both groups showed an increase of knowledge. However, the increase in experiment groups were more than one of the control group. There were only 10 students (14%) of experiment groups reached the category of having good understanding on the pre test and the number increased on the post to 39 students (54%).

Keywords: *Knowledge, Attitude, Video, Leaflet.*

Introduction

Health is a good condition physically, mentally, spiritually and socially, which enables everyone to live productively socially and economically. Health is among the most important thing for anyone no matter how old they are. Health is a serius matter, which is related to one person to another in the national development. Therefore, everyone must fight for the highest level of health. Everyone should promote health life style ranging from digestion, exercise to sex.

Many of teenagers exhibit behaviors that tend to lead to free sex. This is due to their ignorance about proper sex. Free sex behavior in adolescents is mostly caused by their association, which is now very alarming[1].

Corresponding author:
Pulung Siswantara,
Department of Health Promotion and Behavioral Science, Public Health Faculty, Airlangga University, Surabaya, East Java, Indonesia.
E-mail: pulung-s@fkm.unair.ac.id.
Telp. (+628563065091)

Premarital sexual behavior lead to disastrous consequences for health. It can lead to transmission of sexually transmitted diseases and unwanted pregnancies, which later can result in these teenagers dropping out of school, getting social sanctions or suffering complications during the pregnancy to the postpartum.

The increasing number of cases regarding adolescent free sex is due to a lack understanding of reproductive health. Nurhayati (2011) stated that someone's knowledge is closely related to his/her action. In the context of adolescence, their knowledge of reproductive health influences their attitude toward premarital sex[2]. As they are lacking of comprehensive knowledge about the effect of their sexual behavior, the premarital sex in adolesents depends on their how their knowledge and attitude towards it. Among numbers of effort we can take to increase their understanding is by conducting health promotion program using audio-visual media.

There are three kinds of health promotion media, namely audio, visual and audio-visual. One of visual media is a leaflet. It is good to stimulate adolescents vision sense during the promotion program. For the

audio-visual media, the common known media is video. It is widely used to increase people knowledge by stimulating their hearing and vision sense so that the knowledge can be acquire well and maximum[3].

Another research (Furqoni, 2015) about the effectivity of health promotion program using leaflet and video toward adolesents' knowledge and attitude found that there were an increase of youth knowledge, comparing before and after experiments[5]. The use of leaflet increased subjects knowledge score from 6.75 to 10.8, while the use of video increased it to 11.6 from the average score of 6.50. Another research (Pratama, 2014) also found that increasing knowledge gained by adolesents using audio-visual and leaflet. The average score of the use of leaflet increased significantly youth understanding from 33.3% doubled to 75.4%. On the other hand, the use of audio-visual media showed an increase, but not significant. from 60.6 to 63.6[6].

Research by Tindaon (2017) supports the finding above. It found that health promotion using leaflet can increase adolescent knowledge of reproductive health by 9.62%. It is because message and information conveyed in the leaflets are concise, interesting, solid and clear so that it can attract readers to learn and therefore have better understanding about the problem[7].

Audio-visual public service advertisments are believed to be an effective tool in delivering information and messages, especially in the purpose of education. Research by Dewi (2017) found that adolescents who watch audio-visual public service advertisement showed marked increase in their knowledge by 24.9% by demonstrating 75.1% understanding of all conveyed messages[8]. Aeni (2018) also argued that audio-visual media can increase student knowledge. Her post-test result showed that there were significant improvement of student knowledge after health promotion using video[9].

Material and Method

This is a quasi-experimental study with pre-test post-test Control Group Design, which is an experiment where measurements are taken both before and after treatment to see the effect of the treatment. Samples were selected using purposive randong sampling. Data of knowledge and attitude were collected using a 30-questions questionnaire asking adolescent knowledge and attitude towards adolescent sex behavior. The treatment participated in an sex education session using video and leaflet, while the control group participated in different sex education session, which is only using a leaftlet. The post-test were given after the treatment. Data were analyzed using SPSS version 21. To find the differences, mean score before and after treatment were compared and anaylzed using paired t-test.

This study was conducted on April 2019 in one of senior high school in Indonesia. Total population was 229 students, with selected sample of 144 students using below formula. The sample were divided into two group, 72 students for each control and treatment group.

$$s = \frac{\lambda^2 N P Q}{d^2(N-1) + \lambda^2 P Q}$$

Annotation:

s = number of sampel

N = number of population

$\lambda^2 \lambda^2$ = Chi Square, with df = 1, with margin of error of 1%, 5% and 10%

P = Q = 0,5

d = 0,05

During the experiment, the treatment group watched video about the impact of premarital sex of teenagers aged 16-19 years old. After the video, they were given leaflet containing the same topic and the leaflet were read to them. Total duration for the video and leaflet reading was 15 minutes. Twenty minutes after the treatment, the group answered the questionnaire as the post-test 1 containing the same question from the pre-test questionnaire. The post-test 2 was carried out 4 days after the treatment.

Findings

Each experiment and control group consisted of 72 students. There were 28 boys and 44 girls in the experiment group and 38 boys and 34 girls in the control group. Subjects were 16 – 19 years old. The frequency of respondents in the treatment group and control group who had been exposed to health promotion media about adolescent sexual behavior was 26% and 29% respectively. Those who had never been exposed to the media about sexual sexual behavior were 74% and 71%, respectively.

The analysis results found that the average score of subject knowledge about adolescent sexual behavior before treatment for the control group was 18.21 with the lowest score of 14 and the highest score of 23, while of the treatment group was 18.74 with the lowest value of 14 and the highest value of 24. According to the results of the independent-test results, the average value of the control and the treatment group was not different, with a significant value p = 0.271 <α (0.05).

The analysis results on the value of adolescent attitudes about adolescent sexual behavior before treatment showed that the control group had an average value of 51.61 and the treatment group had an average value of 53.21, with a significant value of p = 0.105 <α (0.05). It can be interpreted that the attitude values of the two groups have no difference.

The normality test was used to test whether the data obtained was normal or not. To find it out, the Kolmogorov-Smirnov (K-S) was employed. Data is said to be normal if the significancy value is more than 0.05. This value means that there is no significant difference, which also means that the data is normally distributed. If the significancy value is less than 0.05, the data has a significant difference, which means that the data is not normally distributed.

Table 1. Normality Test

Treatment Group			
Variable	Sig.	α	Notes
Pre Test Knw.	0.053	0.05	Normal
Post Test I	0.474	0.05	Normal
Post Test II	0.055	0.05	Normal
Pre Test Att.	0.598	0.05	Normal
Post Test I	0.282	0.05	Normal
Post Test 2	0.378	0.05	Normal
Control Group			
Variable	Sig.	α	Notes
Pre Test Pengetahuan	0.189	0.05	Normal
Post Test I	0.211	0.05	Normal
Post Test II	0.063	0.05	Normal
Pre Test Att.	0.296	0.05	Normal
Post Test I	0.200	0.05	Normal
Post Test II Sikap	0.053	0.05	Normal

Table 2 shows that the average value of knowledge on post test for control and treatment group were 18, 21 and 18.74 respectively with p-value of 0.271> α (0.05). This result shows that there were no significant differences of knowledge between the two groups before the treatment. On the post test I, the average score for control group anda treatment group were 19.49 and 23.11 respectively with p-value of 0.000.

In post test II, the average score for the control and treatment group were 19.15 and 22.08 respectively with p-value of 0.000. From these results, it is clearly seen that the p-value for both post tests were 0.000 < α (0,05), so it can be concluded that there was a difference in knowledge of the control group and treatment group after the treatment.

Table 2. Paired T-test Results for Knowledge of the Control Group and Treatment Group on Pre Test, Post Test I, and Post Test II

Test	Group	N	Mean	Sig.
Pre Test	Control	72	18.21	0.271
	Treatment	72	18.74	
Post Test 1	Control	72	19.49	0.000
	Treatment	72	23.11	
Post Test 2	Control	72	19.15	0.000
	Treatment	72	22.08	

Table 3 shows the analysis result for s'bjects' attitude during this experiment. Pre-test result shows p-value of 0.105 < α (0,05). This shows that there was no significant difference between the control and treatment group before the treatment regarding their attitude toward the topic. The result of post test I and post test 2 obtained p-value of 0.000 and 0.006 < α (0,05). So, it can be concluded that was a difference in attitude of the control group and treatment group after the treatment.

Table 3. Paired T-test Results for Attitude of the Control Group and Treatment Group on Pre Test, Post Test I, and Post Test II

Test	Group	N	Mean	Sig.
Pre Test	Control	72	51.61	0.105
	Treatment	72	53.21	
Post Test 1	Control	72	51.76	0.000
	Treatment	72	56.93	
Post Test 2	Control	72	50.85	0.006
	Treatment	72	53.35	

Discussion

Respondents knowledge of before treatment was in the category of sufficient. The control group score was in the category with an average value of 18.21. The treatment group was also in the same category with an average score of 18.74. Knowledge of respondents in the control group and treatment group is classified as sufficient because it was between the values of 18-22.

In the treatment group, there were 39 people (54%) who scored well. The increase occurred in the treatment group. Their an initial average score of 18.74 (sufficient category) increased to 23.11 (good category). It can be concluded that the two groups experienced an increase after the intervention. This is also supported by the research of Furqoni (2015) who stated that there was an increase in knowledge before and after the treatment was given[5].

The treatment group experienced a greater increase compared to the control group. This is because the treatment group received treatment in the form of video public service advertisements and leaflets, while the control group only received intervention in the form of leaflets.

This result proves that audio-visual media in the form of public service video ads and visual media in the form of leaflets can increase the knowledge of respondents as seen in both groups in this experiment. This result is also supported by Aeni (2018) who stated that video media can increase adolescent knowledge, and improve the learning system of students, especially teenagers[9].

It can be concluded that video media is able to stimulate people in improving their level of knowledge and attitude. Changes that occur are significant at the time before and after the intervention is given. So that, it can be concluded that the public service ads in form of video media created by BKKBN is effective in increasing people's knowledge and attitudes toward the topic, especially for adolescents.

Conclusion

There was a difference in knowledge after the health promotion program using videos and leaflets. The increase of knowledge for respondents was found in both groups. However, the increased in the treatment group is much better than one in the control group. In the treatment group, there were 10 people (14%) in the pre test who were in the category of good. The number increased to 39 people (54%) after the treatment.

Differences in attitudes of respondents after the experiment were clearly seen. After the treatment, the number of subjects who were in the category of good were 15 respondents (21%) and 30 respondents (42%) for the control group and treatment group respectively. However, the subject in the treatment group were more likely to have better attitude than the control group.

Based on the results of paired t-test, which obtained p-value of 0,000 <α (0,05), it is clearly seen that there are differences in the level of knowledge and values of attitudes of respondents before and after intervention. Video media about adolescent sexual behavior is proven to be effective in increasing knowledge and changing attitudes of respondents.

It is strongly recommended for the public service ads makers to increase the intensity of broadcasting the video through television stations or any other programs involving a lot of teenagers. By inserting advertisements on the such events, the messages will more likely to be easily seen and remembered by teenagers as they attend those events. Schools are strongly suggested to provide this kind information or health promotion program and education like this in a regular basis. It is due to the fact that most respondents feel more pleased to have the information conveyed through these methods.

Conflict of Interest: All authors have no conflicts of interest to declare.

Ethical Clearance: The study was approved by the instutitional Ethical Board of the Dental Medicine, Airlangga University.

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