

The Effectiveness of Edotok (Education Media Video TikTok) To Prevent Unsafe Sex Among Adolescents

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ABSTRACT

Promiscuous sexual behaviour among adolescents, especially high school students, has become a serious problem in Indonesia, including in Central Java. According to data from the Central Bureau of Statistics (BPS) in 2024, the number of free sex cases in Central Java ranked 3rd with 218 cases related to free sex among adolescents, including unwanted pregnancies (KTD), sexually transmitted infections (STI), and unsafe abortions. One effort to increase prevention and promote health education and attitude change is through effective education that aligns with the preferences of the younger generation. This study aims to produce educational media, namely TikTok videos, that can be used to increase prevention and promote better attitudes in high school adolescents about preventing promiscuous sex. The research method employed is a quasi-experimental study with a pretest-posttest control group design. The research sample comprised 80 high school students, divided into 2 groups: 40 in the experimental group (TikTok) and 40 in the control group (Slide). Analysis of data that is not normally distributed using the Wilcoxon and Mann-Whitney. The results indicate there was no significant difference in baseline attitude between the two groups ($p=0.110$). After the intervention, both groups experienced significant improvements in attitude ($p<0.05$); however, the video group showed a greater mean improvement than the slide group (60.50 vs 20.50). Mann-Whitney test results showed significant differences between groups ($p=0.000$). The conclusion of this research is that free sex prevention education using TikTok media has a greater effect on increasing prevention and directing to more positive things about free sex than education using Slide media.

Keywords: Attitude, sexuality, TikTok.

INTRODUCTION

Promiscuity is an act that involves elements of freedom, such as actions that are not in accordance with morality and freely engaging in sexual relations at an early age. Sexual behaviour makes adolescents very vulnerable to reproductive health risks. In fact, many sexually active adolescents, about half of whom are married, engage in irresponsible early sexual activity that puts them at risk of various reproductive health challenges. Globally, the WHO presents data showing that 40% of adolescents experience problems due to casual sex, one of which is STI cases. It is estimated that over 7,000 adolescents are infected as a result of engaging in casual sex.¹

Taken from 4,726 junior high school (Sekolah Lanjut Tingkat Pertama) and senior high school (Sekolah Lanjut Tingkat Atas) students in 17 major cities in Indonesia concluded that 97% of adolescents have watched pornographic films,

93.7% have engaged in kissing, genital stimulation, and oral sex, and 62.7% of adolescents admit to no longer being virgins, with 21.2% of them having had an abortion (Elis, Saputra and Mindasari, 2024). This study was conducted at SMA N 1 Karangnongko as the group that received the EDOTOK educational media intervention, 'Educational Video Media Tiktok,' and SMA N 1 Jogonalan as the group that received the educational media slides titled 'Cekbas, Prevent Free Sex.'² Both schools have Grade X classes. SMA N 1 Karangnongko has 32 students, while SMA N 1 Jogonalan has 32 students. SMA N 1 Karangnongko and SMA N 1 Jogonalan are accredited A-level high schools, both located in the same district in Klaten Regency. In situations like this, schools rarely provide special education on the prevention of sexual abuse to students until this research was conducted. At both schools, sexual education is typically only briefly mentioned in subjects such as Citizenship Education and Physical Education, and even then, it is only touched upon superficially. It is considered important to implement additional educational interventions that are engaging and age-appropriate to ensure students have a sufficient understanding of preventing unprotected sex and how they can protect themselves from inappropriate situations. This study was conducted by comparing two groups of tenth-grade students from two elementary schools. Before the activity began, the researchers conducted a survey to determine the respondents who met the inclusion criteria and requested permission from the health centre and the schools. Before and after the intervention, both groups filled out questionnaires (pre-test and post-test) to measure their attitudes. The results were compared to see whether the EDOTOK media was effective in increasing positive attitudes among adolescents towards preventing casual sex.³

The TikTok app is a social media app that is currently trending. TikTok allows users to be creative by editing and sharing images or various types of videos, streak fire games, images, music, and short videos containing entertainment or information. The longest video duration that can be displayed is 10 minutes. Research findings indicate that TikTok is the most widely used app, with a usage rate of 34.7%. According to Sensor Tower's 2021 research report, TikTok is one of the social media platforms most favoured by teenagers. Users According to the head of public policy at TikTok Indonesia, TikTok in Indonesia is dominated by teenagers aged 14-24 years old.⁴

MATERIAL AND METHOD

This study is an experimental study (quasi-experiment) with a pretest and posttest with control group design. There are two research groups, namely the experimental group (TikTok) and the control group (Slide). The study was conducted from April to June 2025 at SMA N 1 Karangnongko (Experimental Group) and SMA N 1 Jogonalan (Control Group). The total number of respondents was 80 students, with 40 students in the experimental group and 40 students in the control group, aged 14–19 years, who owned smartphones and were willing to participate in the study. The exclusion criteria for respondents were students who withdrew during the study and those who did not complete the questionnaire until the end (posttest questionnaire). Data collection for this study was conducted online using Google Forms and a WhatsApp group. The study also obtained ethical approval from the Health Research Ethics Committee (KEPK) of the Yogyakarta Health Polytechnic, Ministry of Health, under number No.DP.04.03/e-KEPK.1/862/2025.

RESULTS AND DISCUSSION

This study was conducted by comparing two groups of tenth-grade students from two elementary schools. Before the activity began, the researchers conducted a survey to determine the respondents who met the inclusion criteria and requested permission from the health centre and the schools. Before and after the intervention, both groups filled out questionnaires (pre-test and post-test) to measure their attitudes. The results were compared to see whether the EDOTOK media was effective in increasing positive attitudes among adolescents towards preventing casual sex.

Table 1. Frequency Distribution of Respondents based on Characteristics of Students

No.	Characteristics	Respondent Group			
		Experiment		Control	
		N	%	N	%
1.	Age				
	14-16 th	30	93,8%	30	93,8%
	17-19 th	2	6,3%	2	6,3%
2.	Gender				
	Male	11	34,4%	12	37,5%
	Female	21	65,6%	20	62,5%

As shown in Table 1, the majority of respondents were aged 14-16 years, and most were female.

Table 2. Homogeneity Test of Age and Gender Characteristics of Respondents

Characteristics	Levence Statistic	Taraf Signifikansi
Age	0,000	1,000
Gender	0,261	0,611

From Table 2, it can be seen that the age and gender characteristics of the respondents are homogeneous, with a sig value > 0.05.

Table 3. Differences in Pretest and Posttest Results between the Experimental Group and the Control Group

Experimen	Intervensi	Min	Maks	Mean	N	P-value
	<i>Pre-test</i>	50,00	71,00	63,5000	32	0,000
	<i>Post-test</i>	50,00	69,00	63,4063	32	
Control	<i>Pre-test</i>	64,00	75,00	72,7813	32	0,044
	<i>Post-test</i>	59,00	73,00	65,7812	32	

Table 3 shows that in the experimental group, the p-value of 0.000 (< 0.05) indicates a significant difference between the pre-test and post-test scores, even though the mean value decreased slightly (from 63.50 to 63.41).

Based on the results of the univariate analysis, the majority of respondents were aged 14-16 years. According to existing theory, middle adolescence spans ages 14-16 years.⁵ Middle adolescents are in great need of their friends. During this period, adolescents tend to be more narcissistic. Adolescents at this stage are also still confused when making decisions or unstable in their behaviour. According to research, adolescents at this age become more sensitive to the judgments of their peers and social groups, which can influence their attitudes towards various things, including expected norms and behaviours.⁶

In terms of gender characteristics, the majority of students in Grade X at SMA N 1 Karangnonko are female. Research by Nurhasanah et al. (2023) shows that adolescent girls tend to be more responsive to educational and social content presented through digital media than adolescent boys.⁷ This is related to gender roles that shape patterns of interaction and information reception, where women are more open in expressing attitudes and emotions influenced by social media⁸. Additionally, gender roles within the family and social environment also contribute to the formation of attitudes. teenage girls.⁷ Girls usually receive greater emotional support from their parents, so it is easier for this group to develop a positive attitude towards educational messages conveyed through TikTok videos.⁹

According to the researchers' assumptions, video media is capable of providing more engaging and easily understood visual and audio stimulation, thereby increasing participant engagement and understanding.⁴ This is consistent with Mayer's multimedia learning theory, which states that information conveyed through a combination of visual and audio elements can strengthen cognitive processes and memory, thereby positively impacting attitude and behaviour change. Therefore, the use of video media as an educational tool is considered more effective in shaping attitudes toward preventing casual sex among adolescents compared to slide media, which tends to only present information visually without supporting audio elements.¹⁰

Before getting intervention with the EDOTOK video media in the experimental group and the slide media for the control group, students are given a pre-test to find out the initial attitude of students towards the prevention of free sex¹¹. The results of the Mann-Whitney Test showed a p-value of 0.110 (> 0.05). This means there is no significant difference between the experimental and control groups on the pre-test. Comparing the effectiveness of counselling using video and slide media on knowledge and attitude. As a result, before the intervention, the two groups had similar levels of knowledge and attitudes, so no significant differences were found on the pretests.¹² Other studies by Piranti et al. (2021) showed that prior to the intervention, groups using animated video media and groups using slide show media had similar levels of knowledge and attitudes, so no significant differences were found in pretests.¹³

The experimental group in this study received the information treatment via video media. A video medium is a medium that provides a moving image display of a set of images arranged in a regular manner, following a predetermined movement path at each time increment¹⁴. Video is a very effective medium for helping the learning process, both for mass, individual, and group learning. The video used in this intervention is an educational TikTok video that is very accessible to today's teenagers.¹⁵

Based on the analysis results, knowledge increased after respondents were exposed to video and slide media. Video media experienced an average increase in attitude value from 82.98 to 99.05, and slide media had an average attitude value of 85.90 to 87.28. The leaflet.¹⁶ The findings are in line with the use of video animation and slide show media, both of which increased participants' knowledge and attitude, with the average posttest scores of both groups increasing compared to pretests.¹⁷ In addition, also found that both video and presentation media are effective in increasing

teenagers' knowledge and attitudes, with higher post-test results than pre-tests in both groups. This strengthens the finding that interventions using digital educational media, both videos and slides, can have a positive impact on respondents' increasing attitude after being treated sitasi.¹⁸

According to the researcher's assumption, video media can provide more interesting and easier-to-understand visual and audio stimulation, thus increasing participants' involvement and understanding. This is in line with Mayer's theory of multimedia learning, which states that information conveyed through a combination of visual and audio can strengthen cognitive and memory processes, thus positively impacting changes in attitudes and behaviour.¹⁹ Thus, the use of video media as an educational tool is considered more effective in establishing a free sex prevention attitude in adolescents than slide media that tends to display information only visually without supporting audio elements.²⁰

CONCLUSION

Based on the results of the above research, the following conclusions were drawn: The respondents in this study were mostly aged 14-16 years, and the majority were female. The results of the attitude assessment in the experimental group showed an average score of 63.5 on the pre-test and 63.4 on the post-test. In the control group, the average pre-test score was 72.78, and the post-test score was 65.78. There was a significant difference between the video and slide groups on the post-test. The average post-test score of the experimental group (Mean Rank = 36.36) was higher than that of the control group (Mean Rank = 31.34), indicating that video media was more effective than slides in improving attitudes towards preventing promiscuity.

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DATA AVAILABILITY STATEMENT

Data Access: The authors are committed to supporting the scientific community and will make the data supporting this original, unpublished research available in a public repository upon acceptance for publication. Prior to that, the data can be shared with the journal for review purposes and are available from the corresponding author upon reasonable request.

DISCLOSURE STATEMENT

The views and opinions expressed in this article are solely those of the authors and do not necessarily reflect the official policy or position of any agency with which the authors are affiliated. Furthermore, the data presented herein is the result of the authors' original research and has not been published previously in any form.

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