



Model of Sex Education Through the Media of Snakes and Ladders and Engklek Games for Teenagers

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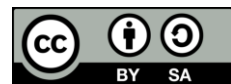
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ABSTRACT

The development of globalization tends to influence the attitude pattern of teenagers to deviate behavior, especially sexual behavior. Based on data from the BPS and the Ministry of Health (2017), it was found that 70,000 female adolescents who died due to pregnancy abortion and births reached 70,000 people. This is followed by the increasing number of HIV/AIDS. This study aims to explain the effect of health promotion through the media of snakes and ladders and engklek games on knowledge and attitudes about sex education in adolescents at the Al Imam Abi Yazid Al Bastomy Islamic boarding school in Dumai City. Methods: This research is a quasi-experimental with a one group pretest and posttest design approach. The sampling technique used in this study was a total sampling of 40 female students at the Al Imam Abi Yazid Al Bastomy Islamic boarding school, Dumai city which was divided into 2 groups, namely the snake and ladder group of 20 people and the engklek group of 20 people (Ministry of Health, 2003). Results: The results of the bivariate analysis showed that there was an increase in knowledge using snake and ladder media with $p < 0.001$, there was no increase in knowledge through engklek media with $p = 0.063$. There was an increase in attitudes about sex education using snakes and ladders media and engklek media with $p < 0.05$. There was a difference in the mean of knowledge between the snake ladder and engklek media groups with $p < 0.001$. There was no difference in the mean attitude between the snake and ladder media group and the engklek with p value = 0.429. Conclusion: Snakes and ladders game media can be used as an effective means of health education in changing knowledge and attitudes.

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1. INTRODUCTION

The development of globalization, advances in technology and information as well as shifting values and norms that exist in society tend to affect the attitude patterns of adolescents to make deviations, especially in sexual behavior. Many adolescents engage in sexually harmful behaviors and experiences that can lead to unwanted health outcomes. The rapid flow of information and wide association has a significant influence on adolescents and their health (Misrina, 2020). At this age, an adolescent has the confidence to act freely according to his desires. A adolescent is typically rather curious about matters of the sex. A adolescent's curiosity is typically demonstrated by a teenager who dares to pursue a connection with the other sex. In this instance, the term "relationship" refers to dating (Sinaga, 2019).

A survey conducted by Health Research and Development in collaboration with Unesco showed that 5.6% of teenagers in Indonesia had had free sex. The pornography addiction screening survey conducted in DKI Jakarta and Pandeglang showed that 96.7% had been exposed to pornography and 3.7% had pornography addiction. 75.1% showed that dating teenagers had held hands, 49.5% had hugged, 32.9% had kissed and the most worrying thing was that teenagers dared to touch or be touched by sensitive body parts as much as 21.5%. Complex problems and the transition period experienced by adolescents can be unwanted pregnancies, abortions, infection with sexually transmitted diseases, HIV and AIDS, and drug abuse (Afrityeni, 2018; Askhori, 2021).

Meanwhile, based on data obtained by teenage girls who died due to abortion, pregnancy and childbirth reached 70,000 people and found that 3.2 million teenage girls with an age range of 15-19 years had unsafe abortions. This is also followed by the increasing number of venereal diseases, namely HIV/AIDS. The spread of HIV/AIDS is supported by evidence from data from the Directorate General of Disease Control and Prevention (DG P2P), where the number of new HIV positive cases is 21,511 cases in 2012, 29,037 cases in 2013, 32,711 cases in 2014, 30,935 cases in 2015, 36,700 cases in 2016, 48,300 cases in 2017, 64,043 cases in 2018. In Riau Province, there is a cumulative trend in the number of reported HIV/AIDS cases from year to year, in 2019 there were 3,553 positive HIV cases and 2,491 AIDS cases.

In overcoming the problem of sexual behavior in adolescents who are increasingly worrying, it is necessary to hold an education to provide an understanding and explanation of matters related to sexuality according to their age development. One of them is by providing knowledge about sex education to teenagers. However, the problem is that until now there are still many parents or even the public who are still reluctant to provide knowledge about sexuality. They think that sex education is still a taboo and pornographic nature that should not be discussed, especially by teenagers. There are still few who understand and understand how important sex education is for teenagers. A strong factor that makes education difficult to provide both formally and informally is the thinking of the community, especially parents who have not been able to open up and do not know the importance of sex education for adolescents (Muarifah, 2019). The results of the Naja (2017) research show that respondents who have risky premarital sexual behaviour are found in the group of respondents with less knowledge, namely 67.4%.

In Islam itself, the issue of sex education has already been discussed and regulated. In Islam sexual education is included in the section of moral education, while moral education is a branch of Islamic education. Especially when viewed from the point of view according to the Qur'an, the purpose of sex education is to protect and maintain so that a person does not

fall into the valley of humiliation, namely sexual deviation in various forms. The Indonesian Ulema Council (MUI) itself has forbidden LGBT activities or sexual perversions through the MUI Fatwa Number 57 of 2014 concerning Lesbians, Gays, Sodomy, and Obscenity because of the impact it causes in the form of diseases that are dangerous to health and sources of transmission of HIV/AIDS. LGBT or sexual deviance is also contrary to the first and second precepts of Pancasila. In addition, it also violates the 1945 Constitution, especially Article 29 paragraph 1 and Article 28 as well as Law Number 1 of 1974 concerning Marriage. Sexual deviation has also been explained by Allah in several verses in the Qur'an such as in Surah Al-A'raf (7): 80-84. Where God cursed the acts of sexual perversion committed by the prophets of Lut.

In accordance with its function, health promotion has a very important role in sex education. Where the purpose of this health promotion is an effort to promote or an effort to maintain the degree of health in other words, including prevention efforts. In health promotion the role of the media is also very influential. The selection of the right media will affect the success rate of the health promotion. One of the extension media that is in accordance with the concept of easy and interesting to convey information, namely the game of snakes and ladders and engklek.

The results of research conducted Rusni (2020) show that using snakes and ladders media is an effective thing to do to increase adolescent knowledge in preventing premarital sex. Another study by Edi (2019) also stated that there was an increase in students' knowledge and attitudes regarding sexuality education after being given through the snake and ladder game media, with a p value of $0.000 < 0.05$. This study is not in line with other research conducted Irbah (2020), explaining that there is an effect of health education using the engklek game media on increasing adolescent knowledge about reproductive health.

Based on an initial survey conducted by researchers, according to information from teachers who teach at the Al Imam Abi Yazid Al Bastomy Islamic boarding school, they have never been taught to their students about sex education, even though it is still something that is taboo for a student to know about. Meanwhile, from several stories of students that the researchers got from different Islamic boarding schools, there were unusual things that arose such as excessive embracing between brothers and sisters. It can be said that this has led to cases of sexual deviation.

Therefore, based on the background of the problem above, researchers are interested in conducting research on young women who attend the Al Imam Abi Yazid Al Bastomy Islamic Boarding School in Dumai City in their knowledge and attitudes towards education about sex education through the media of snakes and ladders and engklek games. This study aims to explain the effect of health promotion through the media of snakes and ladders and engklek games on knowledge and attitudes about sex education in adolescents at the Al Imam Abi Yazid Al Bastomy Islamic boarding school in Dumai City.

2. RESEARCH METHODE

This type of research is a quantitative research with a Quasi-experiment design research design: One-Group Pretest -posttest Design, namely two kinds of treatment. The location of the research was carried out at the Al Imam Abi Yazid Al Bastomy Islamic boarding school in the city of Dumai. The sampling technique in this study was total sampling and based on the Ministry of Health (2003) that the extension media would be effective if it was carried out to 15-30 people, so the 40 samples were divided into 2 groups, namely the snake and ladder group as many as 20 people and the engklek group as many as 20 people. The sample in this study were 40 female students (teenagers) in grades VII and

VIII who attended the Al Imam Abi Yazid Al Bastomy Islamic Boarding School, Dumai City. The independent variable is health promotion using snakes and ladders and engklek game media. The dependent variable (dependent variable) is the knowledge and attitudes of boarding school teenagers about sex education. Aspects of measurement on the independent variables using a questionnaire in the game of snakes and ladders and engklek which contains the characteristics of a person entering adolescence, the rules of association allowed in religion, recognizing the limits of behavior during adolescence, the dangers of free sex, diseases caused by free sex, and treatment of diseases caused by free sex. Data analysis in this study used the Wilcoxon test and the Mann Whitney test.

Determination of the number of samples using the hypothetical formula for the two population means (Lemeshow, 1997) as follows:

$$n = \frac{2\sigma^2(Z_{1-\alpha} + Z_{1-\beta})^2}{(\mu_1 - \mu_2)^2}$$

3. RESULT AND ANALYSIS

Respondents in this study consisted of students in grades VII and VIII with the number of respondents being 40 female students. Characteristics of respondents were divided into age, menstruating, and early menstruation. The age of respondents in grades VII and VIII is between 12-14 years old. Characteristics of respondents using snakes and ladders game media and using engklek game media can be seen in the following table:

Table 1. Frequency Distribution of Respondents by Age, Already Menstruating and Early Menstruation

Characteristic	Category	Sex Education Media			
		Snakes and ladders		Engklek	
		N	%	N	%
Age	12 years old	0	0	5	25
	13 years old	10	50	10	50
	14 years old	10	50	5	25
Total		20	100,0	20	100,0
Already Menstruating	Already	20	100	16	80
	Not Yet	0	0	4	20
Total		20	100,00	20	100,0
Early Menstruation	Not Yet	0	0	4	20
	SD	10	50	7	35
	SMP	10	50	9	45
Total		20	100,0	20	100,0

Based on Table 1. shows that the majority of 2 groups of respondents aged 13 years, namely as many as 20 female students (50%), with respondents aged 12 years as many as 5 female students (12.5%) and respondents aged 14 years as many as 15 female students (37, 5%). The results of this study indicate that of the 40 respondents more who have experienced menstruation, as many as 36 female students (90%). In the group of

respondents who used the snake and ladder media, there were 10 female students who had menstruated since elementary school (50%) and 10 female students who had just experienced menstruation when entering MTS (50%). Meanwhile, in the group of respondents using the engklek media, there were 4 female students who had not experienced menstruation (20%), as many as 7 female students who had menstruated since elementary school (35%), and 9 female students who had just experienced menstruation when entering MTS (45%).

Table 2 Increasing the Value of Knowledge About Sex Education Using Snakes and Ladders Media and Engklek Media

The Wilcoxon test was conducted to determine the effect of health promotion before and after the intervention in the form of snakes and ladders media and engklek media on knowledge. Wilcoxon test results can be seen in the following table:

Group	Mean		Positif ranks	Ties	Z	P Value
	Pre Test	Post Test				
Snakes and Ladders	8,89	9,74	13	7	-3.358	0,001
Engklek	9,05	9,65	8	12	-2.636	0,008

Based on the results of the analysis using the Wilcoxon test, the average value of knowledge before treatment in the snake and ladder group was 8.25 and after counseling treatment with snakes and ladders game was 9.95. In addition, the mean ranks value is 9.00 with many respondents who have increased knowledge of 17 respondents and there are no elementary school students who do not experience increased knowledge (fixed knowledge before and after health promotion with snakes and ladders media). The results of the analysis using the Wilcoxon test showed that the p value > 0.001 which means that the snake and ladder media was effective in increasing the knowledge of female students about sex education.

The results of the analysis using the Wilcoxon test obtained that the average value of knowledge before treatment with engklek media was 9.65 and after treatment with snakes and ladders media was 9.95. In addition, the mean ranks value is 2.50 with many respondents who have increased knowledge as much as 4 respondents and there are no female students who do not experience increased knowledge (fixed knowledge before and after health promotion with the engklek media). The results of the analysis using the Wilcoxon test showed that the value of $p = 0.063$ which means that the engklek media was not effective in increasing the knowledge of female students about sex education.

Table 3 Improving Attitudes About Sex Education Using Snakes and Ladders Media and Engklek Media

Group	Mean		Positif ranks	Ties	Z	P Value
	Pre Test	Post Test				
Snakes and ladders	8,25	9,95	17	3	-3.671	<0,001
Engklek	9,65	9,95	4	16	-1.857	0,063

Based on the results of the analysis using the wilcoxon test, the average value of knowledge before treatment in the snake and ladder group was 8.25 and after counseling treatment with snakes and ladders game was 9.95. In addition, the mean ranks value is 9.00 with many respondents who have increased knowledge of 17 respondents and there are no elementary school students who do not experience increased knowledge (fixed knowledge

before and after health promotion with snakes and ladders media). The results of the analysis using the Wilcoxon test showed that the p value > 0.001 which means that the snake and ladder media was effective in increasing the knowledge of female students about sex education.

The results of the analysis using the Wilcoxon test obtained that the average value of knowledge before treatment with engklek media was 9.65 and after treatment with snakes and ladders media was 9.95. In addition, the mean ranks value is 2.50 with many respondents who have increased knowledge as much as 4 respondents and there are no female students who do not experience increased knowledge (fixed knowledge before and after health promotion with the engklek media). The results of the analysis using the Wilcoxon test showed that the value of $p = 0.063$ which means that the engklek media was not effective in increasing the knowledge of female students about sex education.

4. DISCUSS

The Effect of Knowledge on Adolescents Before and After Health Promotion About Sex Education Through Snakes and Ladders Games and Knockouts

Knowledge can be interpreted as something that is known through the five senses and processing carried out by the mind. Everyone needs knowledge to live their life well. And to get knowledge, one needs to go through the process of learning, searching, observing, and analyzing (Siregar, 2021;Meutia, 2020). Knowledge can be defined as the extent to which a person can understand, interpret and explain something that is learned and experienced. Knowledge is an important variable to prevent sexual behavior, good knowledge will make adolescents prevent sexual behavior (Tambunan, 2020). Variables that positively influence adolescent sexual behaviour are exposure to information from siblings and having friends who have had sexual relations before marriage (Putri, 2017). Study Siregar (2021a) showed analysis results showed a relationship between the source for STI knowledge: health professional and sexual transmitted infections symptoms with a p-value < 0.001 .

The results of the bivariate analysis using the Wilcoxon test showed that the p value < 0.001 on the snake and ladder media and the p value = 0.063 on the ankle media there was a difference, namely the use of snake ladder media was more effective in increasing the knowledge of female students about sex education than on the ankle media. Meanwhile, the results of the Mann Whitney test showed a p-value of < 0.001 with a difference of 13.35, which means that there is a significant difference in knowledge between the snake and ladder group and the ankle group.

The results of the study Edi (2019) there is a significant difference in the knowledge of respondents before and after the intervention in the form of sexuality education through the snake and ladder game media, namely an increase in the mean score of 4.88 with a p value of 0.000 (< 0.05). This result is reinforced by research which states that the snake and ladder game has a lot of information cards regarding the material to be delivered, causing children to understand and be interested in learning and has several advantages, including: flexibility, having feedback, competitive nature, and active participation.

According to Ernawati (2018) analysis, the factors that influence adolescent reproductive health knowledge in Sidoharjo Village are gender, the number of sources of information, and the utilization of the parental role. This means that the source of information, as well as gender, must be considered. The findings of Rianto (2018) research

indicate that mass media and peer influences have a detrimental effect on adolescent sexual behavior at SMA Negeri 1 Siak Kecil.

Media is essentially one component in the learning system. As a component, the media should play an integral part and must be in accordance with the overall learning process. The final end in the selection of media is the use of these media in learning activities, thus allowing students to interact with the selected media. Snakes and ladders media is effective to be used in increasing knowledge and attitudes in adolescents.

According Aritonang (2015) and Andriani (2016) show students are expected to increase their knowledge about the correct knowledge of sex education so that students are better able to anticipate sexual behaviour that is not good and can harm themselves and their social life. The provision of health information through the media game is very effective to help improve the knowledge and attitudes of children and adolescents. Because, they are not only required to think but also invite all members of their body to move which then makes learning more fun. The theory of de Porter reveals that humans can absorb a material as much as 50% of what is heard and seen. According to the pulungan that the more the five senses are used to receive something, the more and the clearer the understanding or knowledge that will be obtained.

Providing information about sex education makes teenagers know so that they can increase their level of knowledge. Providing information about sex education is a form of health promotion that can increase adolescent knowledge. In addition, the importance of information about sex education for children, especially those entering adolescence, is to avoid all forms of harm that result in their health. In Islam sex education is included in moral education where this is the most important thing to be formed, as in the hadith of the prophet that he was sent to the world to perfect human morals. One of them is like teaching a child about how to behave to their body parts which parts are allowed to be touched and seen. Through habituation of the culture of shame and the concept of privacy (ownership), children can be told that their bodies are theirs, if anyone wants to hold them, they must first ask for permission.

In Indonesia, sex education in schools has not been included in a separate curriculum. Only its nature is still integrated in other subjects such as in physical education subjects and also PAI or fiqh subjects in madrasas. In physical education there is material on reproductive health such as HIV/AIDS and venereal diseases, in PAI or fiqh there is material on menstruation, postpartum, marriage and others. At first glance, the material on sex education is still very minimal in time and content. Though children need a thorough understanding of sex. The implication is that many children find out in the wrong way. There are sexual deviations, especially among young people such as rape, sexual harassment, pregnancy out of wedlock and so on. Schools as formal educational institutions are regulated directly by the government ideally to play a full role in providing sex education to the younger generation. Because basically education does not only prepare youth to be able to adapt, but humans need to be developed in terms of their intelligence, humanity and moral responsibility individually. This means that education in addition to making children smart but also makes them moral.

Overall, the results of the research above can be concluded that there is an average increase in knowledge in the snake and ladder media group, but the greater increase occurs in the snake and ladder group. This shows that the use of snakes and ladders media is very effective in conveying health information. Snakes and ladders media can also be used as an alternative for local health units in utilizing game media as part of health programs, especially in health promotion. The health office must also consider the budget in several health promotion programs that can take advantage of the use of game media, one of which is snake and ladder media. Good collaboration with the education office as an effort to

maintain health status for adolescents through health promotion in schools using snake and ladder media.

The Influence of Attitudes on Adolescents Before and After Health Promotion About Sex Education Through Snakes and Ladders Games and Knockouts

According to New Comb, a social psychologist said that attitude is a readiness or willingness to act and not an implementation of certain motives. Attitude is not an action or activity but is a predisposition to act a behavior, the attitude is still a closed reaction, not an open reaction or open behavior, attitude is a readiness to react to objects in a certain environment as an appreciation of the object. According to Azwar (2016), which says that the structure of attitude formation is supported by three components, namely cognitive, affective, and conative components. The cognitive component contains a person's beliefs that come from what is seen or known.

The results of the analysis using the Wilcoxon test showed that the p value = 0.001 on the snake and ladder media and the p value = 0.008 on the engklek media was effective in improving female students' attitudes about sex education. Meanwhile, the results of the Mann Whitney test showed that there was no statistically significant difference in attitude between the snake and ladder group and the crankshaft group with p-value = 0.429 with a difference of 3.00. The research conducted Edi (2019) also stated that there was an increase in student attitudes regarding sexuality education after being given counseling through the snake and ladder game media, with the result that the mean value of the attitude pretest was 34.33 and after the posttest was 66.64 with a p value $0.000 < 0.05$.

Study Rismawati (2020) show the effect of health education on the level of knowledge of adolescents about reproductive health is quite significant; the changes obtained can be seen from the increase in pre and post-tests when given snake and ladder media. According to Barus (2019) and Nasution (2019), community leaders who received treatment via media received a greater gain in knowledge and attitudes. According to Khaerani (2020) and Tarigan (2020), using the media to educate people about health issues will raise their knowledge and attitudes regarding health concerns.

Attitude is a reaction or response that is still closed from a person to a stimulus or object. This attitude cannot be directly seen, but can only be interpreted from closed behavior. Attitude is an evaluative response that can be positive or negative. Attitude has direction, meaning that the attitude is disaggregated in two directions of agreement, namely whether to agree or disagree, whether to support or not to support, whether to take sides with something or someone as an object.

According Nurbaya (2019) and Astuti (2017) stated snakes and ladders for sexual education The media is extremely helpful at enhancing children's talents. This is explained by the study's findings, which indicate that playing snakes and ladders is extremely successful at preventing sexual violence. There is non-verbal communication in addition to verbal communication. By examining the signs and images on the snake and ladder, the kid is supposed to effectively carry out the communication process, so achieving the communication goals associated with sexual violence prevention.

According Saragih (2020) to the S-O-R theory, the communicant will pay attention to the message then will receive the message and then process the message until finally the communicant will decide whether or not there will be a change in attitude that will be made by the communicant. In the S-O-R theory it is stated that even though the message has been

received by the communicant, the communicant will process the message that has been received, then the communicant will decide whether they will accept or reject the message.

The insertion of health education materials about sex education in Islamic boarding schools using snakes and ladders media will be able to improve the attitudes of female students at the Al Imam Abi Yazid Al Bastomy Islamic Boarding School in Dumai City. Health promotion with snakes and ladders media is basically a learning medium in the context of the application of a learning model that must be adapted to the aim of increasing adolescent knowledge and attitudes in sex education. Basically, to improve attitudes about something, it is necessary to have a learning media through the game of snakes and ladders and engklek in the context of the application of a learning model that must be adapted to the aim of increasing knowledge and attitudes about sex education.

5. CONCLUSION

Based on the results of this study it can be concluded that:

1. Characteristics of respondents in this study showed that most of them were 13 years old as many as 20 female students and had experienced menstruation as many as 36 female students and there were 19 female students who experienced the onset of menstruation during MTS.
2. The results of the Wilcoxon test showed that there was an increase in knowledge of female students about sex education after being given the snake ladder game media p value < 0.001 and as many as 17 female students experienced an increase in score.
3. The results of the Wilcoxon test showed that there was an increase in the attitude of female students regarding sex education after being given the snake and ladder game media with p value = 0.001 and as many as 13 female students experienced an increase in score.
4. The results of the Wilcoxon test showed that there was no increase in knowledge of female students about sex education after being given the engklek game media with p value = 0.063 but as many as 4 female students experienced an increase in score.
5. The results of the Wilcoxon test showed an increase in the attitude of female students regarding sex education after being given the engklek game media with p value = 0.008 and there were 8 female students who experienced an increase in score.
6. The results of the mann whitney test showed that there was no significant difference between giving interventions using snakes and ladders and engklek media on female students' knowledge with p-value < 0.001 the mean difference was 3.00.
7. The results of the mann whitney test showed that there was a significant difference between giving interventions using snakes and ladders and engklek media on the attitudes of female students with p-value = 0.429, the mean difference was 3.00.

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